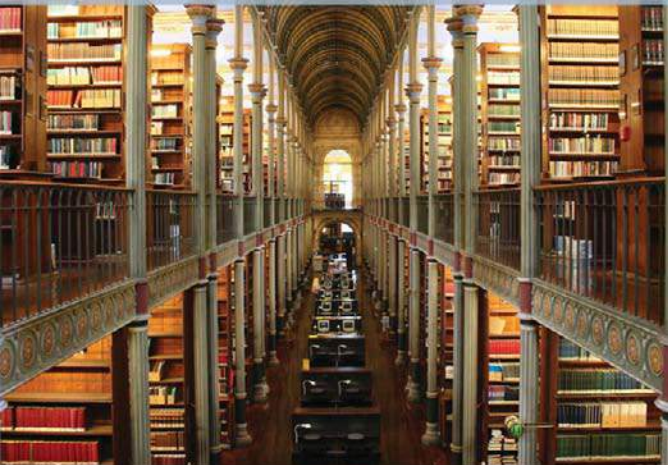


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Michael V. Wedin

# Aristotle's Theory of Substance

The Categories and Metaphysics Zeta

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# Oxford Aristotle Studies

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Michael V. Wedin

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To my mother  
*Clara Christina Ruff Wedin*  
and  
to the memory of my father  
*Vernon Elsworth Wedin*

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# Preface

More than a quarter of a century ago I first encountered book Zeta of Aristotle's *Metaphysics*. Like Coleridge's wedding guest, I was stopped in my tracks. Page after page of intricate argument sat waiting to be unraveled and in the unraveling seemed to lie the promise of enlightenment. I was hooked, and not least of all by the challenge of matching its message with that of the *Categories*. But the delights of decipherment yielded to deepening puzzlement and then to the suspicion that Zeta's message was in fact a secret, or at least a message that was insensitive to the schedule of a mere dissertation writer. So I changed course for the simpler pleasures of book Gamma. This was followed by work on Aristotle's semantics and logic and, later, by considerable attention to his psychology and philosophy of mind. Then, about a decade ago, I found myself back in the clutches of the central books of the *Metaphysics*.

Several things are responsible for such unabashed recidivism. First, I had not stopped thinking about Zeta. Indeed, the main thesis of this essay, that the theories of the *Categories* and *Metaphysics Z* are in a certain way compatible, emerged in the course of preparing undergraduate Aristotle lectures. Plus, with Alan Code at Berkeley, John Driscoll in San Francisco, and my colleague John Malcolm at Davis, there was no lack of discussion on topics friendly to Zeta. Second, this time around there was help. Since I had quit the field, other hands had taken up the cause, and with great effectiveness. Code, Michael Frede, Mary Louise Gill, Frank Lewis, and many others had produced informed and penetrating accounts of Zeta and its parts. It seemed, after all, that sense might be made of the book. Third, Gill invited me to review Frede and Patzig's two-volume commentary on *Metaphysics Z* and this led, in turn, to a series of Wednesday meetings with Malcolm that lasted for more than two years. By this time I was fully ensnared. Like any good academic, I responded by giving seminars on the topic.

It is largely in these seminars that the details of my interpretation have taken shape. So I must register my gratitude and sympathy to those who attended the sessions—gratitude for their refusal to accept the first version of anything I said and sympathy for their having to endure a second, and sometimes third, version. Although some individual acknowledgments will be found among the notes, I no longer recall the



source of a number of points I have used. So it is especially important that my indebtedness to all participants in the Aristotle seminars be a matter of public record.

Many colleagues and friends have willingly lent help and the book is better for it. But none is owed more gratitude than John Malcolm. In addition to the pleasure and profit of our weekly meetings, he provided written comments on the entire manuscript and throughout the project was an unfailing source of support. To Frank Lewis I am doubly indebted, for the wealth of insights contained in his own work and for the generosity of his response to mine. His acute and detailed comments on individual chapters and his pertinent observations on the project as a whole saved me from numerous errors and forced me to reorient the argument at more than one juncture. Thanks are due also to Henry Mendell for a detailed print-out on problems in Chapter II and to Mary Louise Gill and Rob Bolton for written comments on Chapter VIII. I have also learned much just from conversation with these friends, as well as from discussions with David Charles, John Cooper, John Driscoll, Herb Granger, and Julius Moravcsik, to name but a few. Peter Momtchiloff of Oxford University Press instantiated all the virtues of an editor and none of the vices, and retained a paradigm pair of reviewers for the manuscript. I am especially grateful for the careful, detailed, and incisive nature of the comments provided by Lindsay Judson, as well as for a like set of comments from a third reader.

There is in addition a trio of players to be mentioned: Michael Frede, Alan Code, and Myles Burnyeat. My indebtedness to Frede's published work will be evident from even a cursory glance at the book. Less obvious, but no less important, are the lessons learned over many years of coffee and conversation. Likewise over the years I have gained much from Code's pioneering writings on Zeta and perhaps even more from his rich store of thoughts on Aristotle, sometimes delivered in the form of a single, telling remark that altered my thinking. Over the past decade, my ideas on Aristotle have been tempered, and my arguments sharpened, by exposure to Burnyeat's dialectical skills. This, plus counsel of more general scope, has markedly improved the book. I am further indebted to Burnyeat for generously allowing me to comment on his unpublished map of *Metaphysics Z*.

Excepting Aristotle, the philosophical hero of the book is an abstract entity. I do not mean the concept of form or the concept of substance or even the *Categories* or *Metaphysics Z* itself, but rather a definite body of literature produced by scholars over the past two decades or so. Specifically, I have in mind work guided by the conviction that 'what *Metaphysics Z* means' can be determined only after painstaking dissection of the text and, especially, by the precept that the route to Zeta's

'meaning' runs through its arguments. There is no high road here. What one finds, rather, is an abundance of powerful and sophisticated analyses that are as exemplary in their sensitivity to detail as in their ability to illuminate Aristotle's project in philosophically interesting ways. Without this body of literature, the present book simply would not exist. When I returned to the field as something of an amateur, making sense of *Metaphysics Z* required that I make sense of what professional zetologists were saying. Hence, it seemed to me irresponsible to publish a book that did not come to grips with the chief exhibits from this scholarship. I have, therefore, devoted considerable attention to contenders. Even so, it has proven impossible to address all important work. I am keenly aware of the omissions and of the fact that they are significant omissions. This is a regrettable circumstance, but by any measure the book's size has already exceeded the mean.

Parts of the book have already entered the public domain. Chapter I was presented to the Department of Philosophy at the University of California, Berkeley, in the winter of 1997. Part of Chapter VIII debuted in 1992 at the USC–Rutgers Aristotle conference in Los Angeles. An improved rendition followed at the Oriel College *De Anima* conference in 1993, and a finished version was featured at a Pacific Division APA symposium in 1997. Chapter I has appeared in the *Archiv für Geschichte der Philosophie* 79 (1997). Chapter II can be found, in slightly different form, in *Phronesis* 38 (1993), and part of Chapter V has appeared in Christof Rapp, ed., *Aristoteles: Metaphysik, Die Substanzbücher (Z, H, Θ)*, (Berlin: Akademie Verlag, 1996). Finally, an earlier version of the second half of Chapter VIII was published in the *Pacific Philosophical Quarterly* 76 (1995) and has been reprinted in F. A. Lewis and R. Bolton, eds., *Form, Matter, and Mixture in Aristotle* (Oxford: Blackwell, 1996). These materials appear here with the kind permission of their respective publishers.

Actual writing of the book was aided by two allocations of that most valuable of professional commodities, academic leave. A sabbatical in 1991–2 produced versions of the first three chapters and in 1995–6 a University of California President's Research Fellowship in the Humanities, and a faculty research leave from Davis, gave me more than a year of unhurried time that was critical to completion of the manuscript. The Committee on Research at Davis funded two years of research assistance and final preparation of the manuscript was generously supported by the Dean of Social Sciences and the Vice-Chancellor for Research. I am extremely grateful for this support, and for the able work of my research assistant, David Freelove, who put it to such good use.

Finally, I am pleased to dedicate this book to one of the 1933 Iron

Men from Oregon State and to a teacher of biology from Pacific University. And, as always, there is my deep gratitude to JK for support on many fronts and for reminding me, more than once, that the book was already too long.

M. V. W.

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# Introduction

It was not unfashionable in the nineteenth century to dismiss Aristotle's *Categories* as the product of an alien hand. In his influential history of logic, for example, Prantl declared the author to be a peripatetic from about the time of Chrysippus,<sup>1</sup> and he was not alone in challenging the work's authenticity.<sup>2</sup> In the first half of this century worries were kept alive by no less a figure than Jaeger, who maintained that the *Categories* was “not by Aristotle himself at all.”<sup>3</sup> Despite such authority, the Aristotelian credentials of the treatise are no longer subject to serious doubt.<sup>4</sup> But this restoration, like most, has exceeded expectations. For with it has come the task of squaring the theory of the *Categories* with the standing doctrines and theories of the wider corpus, in particular, reconciling its account of substance with the theory developed in the ‘central books’ of the *Metaphysics*—Z, H, and Θ. It is this task that is taken up in the following pages.

Of course, scholars did not wait until the last half-century to voice worries about reconciliation. In 1882 Wallace could report that “Aristotle's Theory of Substance is well known to be full of apparent inconsistencies.”<sup>5</sup> This he took to be the upshot of the fact that the early treatise promotes concrete individuals as primary substances, whereas *Metaphysics Z* reserves the honorific for forms.<sup>6</sup> The appearance of contradiction was traced to Aristotle's steadfast anti-Platonism. Expressed in the challenging maxim that every real thing is either an individual

<sup>1</sup> Prantl (1855–70: i. 90, n. 5).

<sup>2</sup> Rose (1854: 232ff.), Spengel (1845: 41ff.), and Gercke (1891) maintained the view, as did Dupréel (1909) at the beginning of the new century.

<sup>3</sup> In his seminal work, Jaeger (1923/1948: 46). Where needed, different editions of a work are separated by a slash with page references following the edition cited.

<sup>4</sup> Husik (1904, 1939) effectively rebuts a number of proponents of the inauthenticity of the *Categories*. He includes Brandis (1833) in this camp, even though Brandis challenges the authenticity of chs. 10–15 only—the so-called *Postpraedicamenta*.

<sup>5</sup> Wallace (1882: xxxix).

<sup>6</sup> Wallace (1875: 67) puts the worry in more doctrinal terms: “while the teaching of the tract on *Categories* inclines to Nominalism, the doctrine of the *Metaphysics* inclines frequently toward Realism or Idealism.”



universalized or a universal individualized,<sup>7</sup> the anti-Platonist stance was also offered as a partial solution to the contradiction.

Where Wallace saw resolution, contemporary scholars will see little more than redescription of the problem. But on the fundamental task they are one. Without the convenience of decertification of the *Categories*, it is imperative to produce a credible resolution of the apparent conflict, or, failing this, an explanation of why Aristotle saddled himself with two incompatible theories. Over the past several decades this task has come to dominate discussion of Aristotle's metaphysical views. Although the central books as a whole are implicated, the chief culprit is book Z. For almost everyone finds that its theory of substance, the so-called 'mature' theory, contradicts the earlier theory of the *Categories*. This fact adds to practical worries about length a principled justification for narrowing the focus of this essay to the relation between the *Categories* and the first only of the central books. It is this relation above all that needs a credible accounting and providing such an account will serve interpretation of the central books as a whole.

Recent scholarship has shared Wallace's puzzlement over Aristotle's about-face in *Metaphysics Z* on the identity of primary substances. Reflection on this and other puzzles has generated an important body of literature as remarkable for its sophistication as for its variety. On the relation between the two treatises, accounts are about as numerous as accountants. Despite this, they remain for the most part variations on a single theme, for each holds that in some significant respect the two treatises are incompatible. Some set out to preserve in *Metaphysics Z* as much as possible of the theory of the *Categories*, while others claim that the two treatises are hopelessly, even clumsily, at odds. There are large differences here, but they are differences in degrees of incompatibility. Incompatibilism, in short, is the orthodoxy of the day.

This book offers a compatibilist account of the relation between the *Categories* and *Metaphysics Z*. The basic idea is a simple one. The incompatibilist is worried, for example, about the fact that each of these treatises makes a different proposal about the identity of primary substances. According to the first, primary substances are substance individuals—items such as Socrates, Secretariat, and Madame Curie. To avoid unwieldy tags, such as “*Categories*-primary-substances,” I shall call these items c-substances. According to the second treatise, primary substances are the forms of c-substances. Because these proposals are deemed incompatible, so are the theories containing them, and likewise for the treatises themselves. However, this line of reasoning, a staple of

<sup>7</sup> Wallace (1882: xli): “either an individual universalized by the relations in which it exists or a universal individualized through the particular conditions which determinate existence imposes on it.”

incompatibilism, assumes that Aristotle meant the theories to occupy the same explanatory space. This seems to me to be false. The theory of *Metaphysics Z* is meant, rather, to *explain* central features of the standing theory of the *Categories* and so, in effect, it presupposes the essential truth of the early theory. This is the basic idea.

If the basic idea is simple, its deployment is not. We need to say, first, what kind of theory the *Categories* contains and, second, in what sense it serves as an *explanandum* for the theory of the *Metaphysics*. Third, and most importantly, we must give a full account of the later explanatory theory. The first demand is met in the opening three chapters of the book. On the view to be advanced here, the *Categories* contains what I call a theory of underlying ontological configurations for standard categorial statements. These we may think of as the plainest kinds of statements, those predicating one thing of another—*Socrates is pale*, *Coriscus is a man*, *Pallor is a color*, and *Man is animal*. For any such statement, the theory tells us what fundamental things must exist and in what relations they must stand for the statement to be true. This semantical feature of the theory emerges most clearly in Chapter III, but the early chapters prepare for it. Thus, for me, the world of the *Categories* is fundamentally a world of individuals and so, ultimately, the truth of *Socrates is pale* involves commitment to individuals only—to Socrates and to the particular bit of pallor that is present in him. This requires us to take sides in a long-standing debate on the identity of nonsubstantial individuals, and in Chapter II it is argued that such bits of pallor are nonrecurrent particulars. This doctrine, which some see as Aristotle's bequest to modern trope theory, is Aristotle's alternative to a semantics built on Platonic forms. Together, Chapters II and III argue that all ontological relations needed for his semantics can be accommodated by appeal to individuals only. With respect to accidental properties, one need not deny that universals exist but it is enough to show that their existence requires only that an individual of one kind exists in an individual of another kind. An analogue of this extends to substance species and kinds and, thus, establishes the parsimonious proposition that the world of the *Categories* is, indeed, a world of individuals. Finally, I take seriously the idea that the *Categories* contains a theory, and a theory of technical dimensions. So I part company with scholars who view it largely as a repository of commonsense beliefs about things or who disparage it as a loose assemblage of reflections without systematic connection. Such views are combated in Chapter I by showing how the treatise submits to a precise and carefully drawn strategy that ultimately serves its theoretical ends.

One moral of the account of the first three chapters is that the *Categories* is not just a theory about substance that is to be put up for review

in light of a new theory advanced in *Metaphysics Z*. For insofar as it contains a theory of underlying ontological configurations, the early treatise appears to occupy a quite distinct region of explanatory space. This, in turn, suggests that the later explanatory theory does not aspire to the same territory and, hence, that it is meant to complement rather than replace the early theory of the *Categories*. This, of course, is just what the basic idea recommends. Here, however, we must proceed carefully. For some might urge that from the fact that a second theory explains a part or feature of a first theory it simply *follows* that the first theory is in essentials true; and from this they might draw the conclusion that the truth of the theory of the *Categories* is *entailed* by the ‘truth’ of the theory that explains it. This is incautious, for the notion of explanation is wide enough to accommodate tinkering with the *explanandum* theory. It may, of course, also turn out that the theory of the *Categories* is false on independent grounds. But none of this will affect the claim that, as the target of explanation, *Aristotle* takes the early theory to be true. So it is in this sense that the account of *Metaphysics Z* presumes the essential truth of the early theory—but not as a matter of entailment or as a matter of independent fact. The final acceptability of this proposal rests ultimately on its success in explaining the arguments and texts in question. Here, I hope to show, there is much to be said in its favor.

In what sense, then, does the early theory serve as *explanandum* for the later one? Begin with the fact that *Metaphysics Z* is dominated by the emergence of substantial form as the new claimant to the title of primary substance. With this comes something entirely foreign to the *Categories*, namely, hylomorphic analysis, or the analysis of a c-substance in terms of its form and its matter. This is not merely a methodological innovation but brings with it two ‘entities’ not even mentioned in the early treatise—form and matter. From the point of view of the *Categories*, primary substances, c-substances, are taken as unanalyzed primitives. Although some find in this evidence that Aristotle did not yet have the idea of hylomorphism, according to the basic idea of this essay the *Categories* exhibits no interest in the structure of its fundamental entities because this is irrelevant to their role in its theory of underlying ontological configurations for standard categorial statements. *Metaphysics Z*, on the other hand, is consumed by the question of structure precisely because of the specific nature of its explanatory project. In particular, it undertakes to explain the nature of those entities that are the fundamental primitives of the theory of the early treatise. It has no interest in replacing them with something better suited to perform their function.

Now the *Categories* attributes a number of salient features to its fundamental

entities. For example, they fall into species and so are things of a certain kind, and they are able to remain one and the same while taking contraries. On my view, it is precisely to explain features of this sort, and others, that Aristotle turns to hylomorphic analysis in *Metaphysics Z*. Thus, in *Z.17* the cause of a certain portion of matter constituting a man is held to be the form; and so the fact that a certain form is realized in certain matter *explains* the fact, familiar from the *Categories*, that Socrates falls into the species *man*. Likewise, the unity involved in the *Categories* claim that c-substances remain one and the same across contraries is explained by appeal to the relation between the form and the matter of the c-substance.

In effect, *Metaphysics Z* asks in virtue of what are c-substances the sorts of things they are, that is, in virtue of what do they have the central features mentioned in, but not explained by, the *Categories*? Ever the anti-Platonist, Aristotle requires that it be in virtue of an internal structural component of the object itself. So it must be the form of the c-substance, its matter, or the compound of its form and its matter. Thus, the lead question of *Metaphysics Z*, “What is substance?” is equivalent to the question “What is the substance-of c-substances?” Aristotle will answer that the substance-of a c-substance is its form. Furthermore, because he means to ask in virtue of what, *primarily*, do c-substances have the features they do, form is *primarily* the substance-of c-substances and, hence, merits claim to the title of primary substance. Thus, in *Metaphysics Z* substantial primacy, in the guise of form, has an explanatory rather than an ontological role. Indeed, primacy itself turns out to be a structural property that must be possessed by something, as it happens only form, in order for that thing to be the substance-of something. This is primacy of a different stripe from the ontological variety featured in the *Categories*. Thus, one can award ontological primacy to c-substances and structural or explanatory primacy to their forms without threat of incompatibility. Hence, the two treatises are complementary.

Of course, all this must be argued and the argument must take the form of a full account of the explanatory theory of *Metaphysics Z*. My positive account begins in Chapter V, so it is here that compatibilism enters in earnest. In developing this account, I make liberal use of results of recent scholarship. There are, however, a number of ‘stand-alone’ arguments for the incompatibility of the two treatises as well as some proposals promising quick restoration of harmony. Chapter IV collects a few of the most important of these and argues that they exclude neither the possibility of, nor the need for, a compatibilist account of the relation between the *Categories* and *Metaphysics Z*. This opens the way to Chapter V, where the work of agreement begins.

If anywhere, the program of *Metaphysics Z* is introduced in Z.1–3. Thus, Z.1 installs for investigation the framework of the *Categories* and Z.2 indicates that the framework is to be approached out of an interest in the concept of substance rather than its extension. The crucial chapter of the trio, Z.3, then begins the broad outlines of an analysis of the concept of substance that dominates the treatise. In Chapter V we argue, against some formidable opposition, that Z.3 sets the task as an account of the substance-of c-substances. After introducing four ‘logically’ suited candidates—the essence, the universal, the genus, and the subject or that which underlies—Z.3 proceeds to consider the subject under the further headings of form, matter, and the compound of form and matter. These are the internal structural components, from which the substance-of a c-substance must be drawn. Form is identified as the candidate of choice and the balance of *Metaphysics Z* consists of an analysis of what form must be like if it is to serve as the substance-of a c-substance. So at least I shall argue. Chapter V also mounts a first defense of compatibility, for most scholars take Z.3 to reject the *Categories*’ so-called subject criterion for primary substancehood. Against this, it is argued that Aristotle rejects only the claim that a first thing’s *primarily* underlying a second is sufficient for it to be the substance-of the second thing. So far from counting against the early theory, this presages a different notion of primacy, one that emerges in Z.4.

On our view Z.3 promotes form as the candidate of choice for substance and subsequent ‘canonical’ chapters of the treatise are devoted to establishing form’s fitness for this role. By the canonical chapters I mean those that originally comprised the ‘book on substance’—Z.1–3, Z.4–6, Z.10–11, Z.13–16, and Z.17. So our account tracks the fundamental inquiry into the nature of form. This is not a naive inquiry. In the background of the entire enterprise is Z.17’s charge that form must explain why a given portion of matter counts as a thing of a certain kind—a man, for example, or a horse. It does so thanks to the presence of the appropriate form in a suitable kind of matter. This bestows a causal role on form and this causal role, in turn, shapes the over-all strategy of *Metaphysics Z*. In effect, chapters subsequent to Z.3 ask what the form of a c-substance must be like, if it is to serve as the substance-of the thing. And they answer by setting down a number of constraints that form must satisfy, if it is to discharge the causal role required by Z.17.

Thus, Z.4–6 considers the natural suggestion that form could serve as the substance-of something, if it is the essence of the thing. Chapter VI shows how Z.4 and 5 pursue this suggestion by arguing that the essence of a thing must be the γένους εἶδος or or what corresponds to the formal part only (the differentiae) of the definition that applies to the thing. This item alone is deemed worthy of primacy and this, we argue, is

primacy of quite different sort from the ontological brand featured in the *Categories*, to wit a kind of structural or explanatory primacy. Because only the form is primary in this new sense, interpreters cannot be correct in taking Z.4's γένους εἶδος to be the species. This has the advantage of removing even the appearance of conflict between Z.4 and Aristotle's unmistakable preference in later chapters for form.

Central to the argument of Z.4 and 5 is the condition that the essence of a thing is to be sought among what I shall term its *per se*<sub>1</sub> attributes. This condition is reunited with the primacy condition in the Zeta 6 Thesis, the thesis that each thing that is primary and spoken of *per se*<sub>1</sub> is the same as its essence. Chapter VII turns to this thesis and argues that, so far from a detour off the main line of argument, the immediacy constraint that Z.6 recommends is a requirement of the explanatory role of form. The form of a thing (of a given kind) explains why certain matter constitutes a thing of that kind and with this, Aristotle holds, we have reached explanatory bedrock. But if the essence, which we are supposing this form to be, has itself a further, and distinct, essence, then the form can discharge its explanatory role only in virtue of this additional essence. To avoid this unacceptable dilution of explanatory power, Z.6 insists that form, as essence, satisfy the Zeta 6 Thesis.

Chapter VIII turns to Z.10 and 11, arguably the most daunting chapters of the treatise, and finds them especially crucial to the developing argument of *Metaphysics Z*. In particular, they press the point that a form can explain why certain matter constitutes a c-substance of a given kind, only if matter is not already contained in the form. In short, form's causal role presupposes its purity. To this end, Z.10 introduces the apparatus of part and whole, thereby allowing us to assess a thing's general ontological make-up in terms of the ontological make-up of its parts, and Z.11 argues that material parts are not to be included in the makeup of a form. This thesis, which I label PURITY, must contend with those who claim, partly on the basis of what I call the Young Socrates Passage, that matter must be involved at least in the definitions of natural organisms. I argue that this reading is not required and that, even if it were, matter still is not to be included in the *form* of man. So form remains resolutely pure and thus satisfies another constraint imposed by its causal role.

On my view, *Metaphysics Z* is devoted to developing a notion of form that can serve as the substance-of c-substances. In Z.11 Aristotle removes any doubt about this by explicitly equating form with primary substance. According to the basic idea, form so conceived exercises an essentially explanatory function and this function appears to require that form be general. Thus, it is unsurprising that Z.13 entertains the proposal that the substance-of a thing is universal. Chapter IX looks at

this chapter and its canonical partners, Z.14–16. Notoriously, Z.13 argues that no substance, and no part of a substance, can be universal. In thus calling into question both form's generality and its compositionality, Z.13 appears to challenge the very definability of substance and to contradict much that precedes it in the treatise. I argue, against this, that Z.13 denies only that a universal could be the substance of something it is predicated of. Weak proscription, as I call this, turns out to be a further constraint on the causal role of form. For Z.17 locates this causal role in the claim that the form of a c-substance is predicated, not of the c-substance, but of the matter of the c-substance—just as allowed by weak proscription. The worry about compositionality is also a worry about explanatory adequacy. For, surely, the form that explains how certain matter constitutes a c-substance must explain how the matter constitutes a complex thing and this seems to call for complexity on the side of the form itself. The worry is solved by allowing substances to consist, not of actual parts, but of a certain kind of potential part. This idea is then put to use in what I call Dual Complexity, according to which the complexity of a thing's form matches, in the appropriate way, the complexity of the thing itself.

With Chapter X we turn, at last, to Z.17 and the causal role itself. Here we reach explanatory bedrock, for the form alone is to explain how the material parts of a thing are united into a single whole—a single c-substance. Chapter X offers some novel remarks on Aristotle's account of unification. Its principal target, however, is the claim that the causal role of form governs much of the argumentation of *Metaphysics Z*. Hence, much of the discussion is devoted to showing that the constraints set down in previous canonical chapters are, in fact, designed to serve the explanatory role assigned to form in Z.17. This confirms my overall view that *Metaphysics Z* pursues an account of what the form of a c-substance must be like, if it is to serve as its substance. And since this account yields an appropriately different kind of theory from the theory of the *Categories*, worries about compatibility do not arise.

Finally, a few methodological remarks and some surprises. Begin with the methodology. First, not only have I restricted myself to just one of the central books but also I have devoted scant attention to Z.7–9 and Z.12. This is not merely an editorial decision, inspired by fears of interpretive regress, but reflects the view that these chapters were not part of the original course of *Metaphysics Z*, what I am calling the canonical chapters. No doubt their insertion has a solid rationale. But if they were not part of the original mix, then the canonical Zeta ought to have a coherent story to tell on its own. Providing such a story might confirm the thesis of insertion, but it remains silent on prospects for integrating the inserted chapters into our account. Our results may well prove

agreeable to integrationists. Second, if the account of the *Categories* is systematic in character, the discussion of *Metaphysics Z* takes on a narrative quality. This does not promise a disappearance of technical detail but signals a difference in the way the detail is marshaled. As I worked through the texts and arguments, it became increasingly clear that the most effective way to present my thesis was to show how the canonical chapters tell a certain story about form; or, at least, how they can be taken to tell such a story. Of course, at every turn I found myself facing well-reasoned alternatives and thoughtful objections. So to make my story as plausible as possible, I have paid a good deal of attention to what other story-tellers have had to say. It is hoped that this examination of the shape and adequacy of some of the leading contributions to the literature will prove of value in its own right. A third methodological point concerns the fact that I see *Metaphysics Z* as housing a connected line of reasoning. Various canonical chapters, or clusters of such chapters, aim to advance development of a notion of form that can serve as the substance-of-c-substances. More than one scholar will quarrel with this view of the overall structure of *Metaphysics Z*, but perhaps its most interesting counter is found in Burnyeat's unpublished "A Map of *Metaphysics Z*." There it is argued that *Metaphysics Z* breaks into four discrete sections, all of which argue for the thesis that primary substance is form but each of which proceeds by an argument that is independent of the arguments of the other parts. Here there is no room for the connected line of reasoning that we find running through the canonical chapters. The outset of Chapter IX raises some concerns about 'probative fragmentation', as I call this view, and so keeps the compatibilist account in play.

There have been some surprises along the way. Chief among these is the odd irrelevance of the particular forms controversy. I had expected to join the debate at some length, especially in connection with Z.13's rejection of the universal as a candidate for substance. Surprisingly, that part of the story can be told with scarcely a mention of the thesis that the forms of c-substances are particular to them. For explanatory purposes, weak proscription of the universal is sufficient, and although this allows the form of a c-substance to be a certain sort of universal, it does not require this. So the issue of particular forms is tangential to the worries that preoccupy Aristotle in that notoriously difficult chapter.<sup>8</sup> I had also intended to devote a full chapter to H.6's tantalizing claim that matter and form are one and the same, the one potentially and the other actually. No doubt inspired by envisioned complaints about length, I have let myself believe that the account of Zeta enjoys sufficient closure

<sup>8</sup> Of course, this is not to deny its centrality elsewhere. Readers who feel shorted may consult Wedin (1991) for extended remarks on the status of the particular forms debate.



to stand on its own. The intended chapter was first demoted to an appendix but has now become a future contingency. Finally, the possibility of a compatibilist account arose, as a serious option, out of dissatisfaction with the details of various versions of incompatibilism. But, as everyone knows, the devil is in the details and it was not at all obvious how far a compatibilist account could run. So it came as something of a surprise to see how smoothly *Metaphysics Z* submits to the story I am telling. I do not, of course, expect all parties to agree with the story. But I do hope to have established it as a serious contender and, at the very least, as an account that is worthy of Aristotle.

# I The Plan of the Categories

The *Categories* begins without fanfare. Missing is the promotional pitch customary in Aristotle's works, and even the obligatory announcement of subject matter is absent. Instead, we are given definitions of three technical notions: homonymy, synonymy, and paronymy. That is all the first chapter contains. In particular, there is no hint as to why Aristotle begins with these notions or how they fit into the *Categories* as a whole.<sup>9</sup> By most accounts little would be lost were the first fifteen lines simply omitted.<sup>10</sup> Indeed, chapter 2's discussion of τῶν ὄντων or things that are is arguably a more natural starting place for what follows.<sup>11</sup> For this reason, perhaps, most scholarly work on the three *onymies* has neglected their wider role in the *Categories*. Some would go so far as to maintain that the first four chapters are little more than a random assemblage of scraps. I shall argue, on the contrary, that the three *onymies* are part of a carefully drawn strategy that underwrites the unity of the first five chapters of the *Categories*.<sup>12</sup>

In particular, I shall propose that the three *onymies* are grouping principles, introduced to frame and so to isolate the one relation that is able to provide the foundation for the system of categories, namely, synonymy. This chapter looks at how synonymy enables Aristotle to construct a theory of the fundamental kinds of things that are—the ten categories.<sup>13</sup>

<sup>9</sup> Already in the nineteenth century Brandis (1833: 267) worried about this: “The book begins without introductory remarks that give its purpose and object.” This fact has caused no less a scholar than Ross to worry that “the doctrine of the categories is a peculiarly puzzling one, partly from the lack of any very definite information as to Aristotle's precise object in formulating it . . .” (Ross, 1924: vol. i, p. lxxxii). Hopefully, the account developed in Chs. I–III will go some distance toward alleviating these worries.

<sup>10</sup> This estimate of the status of scholarly opinion on the *Categories* is shared by Jones (1972). I do not, however, share his proposed remedy (see n. 16 below).

<sup>11</sup> Rist suggests as much (1989: 94) and Kahn (1978) takes *Categories* 2–5 to contain a systematic theory of predication, without even mentioning ch. 1.

<sup>12</sup> Compare Rist (1989: 94): “Chapter 1 of the *Categories* is only rather loosely connected with the theory of the central chapters of the book,” and Ackrill (1963: 69): “Chapters 1–3 make certain preliminary points and explanations.”

<sup>13</sup> I shall refer to these throughout as categories, without meaning to take a position on whether the fundamental kinds of the *Categories* are the true Aristotelian categories or whether, as Frede (1981) argues, the true categories are rather the ultimate kinds of predication retailed in *Topics* A.9.

There is no doubt that this project, essentially classificatory in nature, is at the heart of the *Categories*. But it would be a serious mistake to think of the treatise as serving an isolated interest in classification for its own sake, even classification of ontologically fundamental kinds of things. For its brand of classification serves semantical ends. The theory of the *Categories* is a theory of underlying ontological configurations for standard categorial statements. For every such statement, the theory tells us what fundamental things must exist and in what relations they must stand in order for the statement to be true. The semantical nature of the theory emerges in Chapter II and dominates much of the discussion in Chapter III. However, to fully appreciate this, we need to be clear on the central role of the *onymies* in the plan of the *Categories*.

## 1. Aristotle's Three Onymies

It will be useful to begin with some rough formulations. Things are homonyms, says Aristotle, when they have only a name in common and (δεξ) the definition of being corresponding to the name is different (ὁμόνυμα λέγεται ὄν ὄνομα μόνον κοινόν, ὁ δὲ κατὰ τοῦνομα λόγος τῆς οὐσίας ἕτερος). More formally,<sup>14</sup>

- H.  $x$  is a homonym of  $y \equiv$  for some term,  $F$ , (a)  $x$  and  $y$  are named  $F$  & (b)  $qua F$ ,  $x$  has definition  $D_x$  &  $qua F$ ,  $y$  has definition  $D_y$  &  $D_x \neq D_y$ .

Things are synonyms, says Aristotle, when they have a name in common and the definition of being corresponding to the name is the same (συνώνυμα δὲ λέγεται ὄν τό τε ὄνομα κοινόν καί ὁ κατὰ τοῦνομα λόγος τῆς οὐσίας ὁ αὐτός). For the more formal version, we have

- S.  $x$  is a synonym of  $y \equiv$  for some term,  $F$ , (a)  $x$  and  $y$  are named  $F$  & (b)  $x$  and  $y$  have the same definition corresponding to  $F$ .

Finally, things are paronyms when they get their name from something with change of ending (παρόνυμα δὲ λέγεται ὄσα ἀπὸ τινος). Represent this as (διαφέροντα τῆ πτώσει τὴν κατὰ τοῦνομα προσηγορίαν ἔχει).

- P.  $x$  is a paronym  $\equiv$  for some term,  $F$ , (a)  $x$  is named  $F$  & (b) for some term,  $F^*$ ,  $F$  derives from  $F^*$  with change of ending.<sup>15</sup>

<sup>14</sup> As a convenience, I shall follow Aristotle's practice of disregarding use–mention boundaries in formulating a number of his theses.

<sup>15</sup> One might also define paronymy as a two-place relation: (P)  $x$  is a paronym of  $y \equiv$  for some term,  $F$ , (a)  $x$  is named  $F$  & (b) for some term,  $F^*$ ,  $y$  is named  $F^*$  &  $F$  derives from  $F^*$  with change of ending. This difference will have no material effect on my account, so I shall not press it. It might, however, be taken to suggest that paronyms are mixed cases. To rule this out we would need to stipulate that  $y$  is named  $F$  and then add that  $F$  the name of both  $x$  and  $y$  is derived from another name with change of ending.

Ascription of an *onymy* is relative to a term. The example Aristotle uses for both homonymy and synonymy, ‘ζῷον’, can signify either an animal or a picture (whether of an animal or not). So it is natural to suppose that what Aristotle has in mind by homonyms are, for example, Socrates and a freehand sketch. The same word ζῷον applies to both but what it is for each to be a ζῷον is utterly different. On this view, which might be called strong homonymy, the definitions corresponding to the homonymously applied term have nothing in common. Suppose, on the other hand, that ‘ζῷον’ in the sense of animal applies both to Socrates and to the sketch. On this view, which might be called weak homonymy, the homonyms are taken to be Socrates and a depicted animal. In this case, the definitions of each will be different but related. What it is for a picture to be a ζῷον or animal is for it to be a depiction of something that is an animal in the proper sense, that is, a depiction of something that takes the proper definition of animal. Some might see in this a foreshadowing of the focal meaning that figures so centrally in the *Metaphysics*. Despite what attraction may attach to this possibility, there are two problems with weak homonymy. First, it requires an asymmetry where none is indicated. Formulation (H), which is a fairly neutral version of the text, suggests only that Socrates *qua* animal and the sketch *qua* animal have *different* definitions. Second, the text for (H) says that homonyms have *only* the name in common—unless, what seems unlikely, the connecting ‘δέ’ disjoins (‘or’), rather than conjoins (‘and’), the two defining conditions that correspond to (a) and (b) in (H). On the weak homonymy reading, however, the definitions themselves must have something in common.<sup>16</sup> So the strong reading of (H) seems more likely.<sup>17</sup>

Notice that homonyms and synonyms are distinguished by, in effect, asking of given items “τί ἐστί?” (“What is it?”). Having the same ὄνομα or common name does not assure having the same τί ἐστί. Having the same definition of being does. This, plus Aristotle’s examples, indicates that he understands (H) as telling us that homonyms are obtained by

<sup>16</sup> Something more in common, that is, than the mere name.

<sup>17</sup> The idea behind weak homonymy is that it allows items to count as homonyms in one of two ways. If Aristotle had this in mind, then we have every right to expect him to indicate in which of these ways a man and a picture (our example) count as homonyms. But after giving the example, he explains simply that they have only the name in common and (δέ) that the definition of being corresponding to the name is different. Now on the strong homonymy reading this makes good sense, for he is explaining that the pair satisfies both conditions for being homonyms. The weak homonymy reading, however, represents Aristotle as saying that the pair satisfy one or the other of the (now disjunctive) conditions for homonymy. On this view, Aristotle does not say why a man and a picture are homonyms; but surely that is precisely what he thinks he is doing at 1a3–5. Notice that I am *not* claiming that Aristotle nowhere countenances weak homonymy, but only that it is not the notion at work in *Categories* 1. This is because it is less useful for framing the grouping principle that will ground the categories, namely, synonymy.

mixing together items that, separated and grouped with their kind, would be synonyms. In both homonymy and synonymy we may think of the items named as named by a special kind of sortal term. Indeed, the fact that the definitions covered in (H) are definitions of the being (λόγος τῆς οὐσίας) of the homonym suggests that we are to think of homonyms, at least at what I shall later call the 0-level, as items of different essential kinds that merely happen to have the same name. This is a fairly strong claim and some will resist it. But a mark in its favor is the fact that it explains why Aristotle uses the expression ἡ λόγος τῆς οὐσίας (“definition of being”) and why it is applied both to synonymy, what one would expect, and to homonymy, what one would not have expected. This is more than a small mark in its favor. So Socrates *qua* ζῷον is a homonym with respect to the freehand sketch and a synonym with respect to the horse Secretariat. Taken singly it makes no sense to ask whether Socrates is a synonym or homonym. The question applies only to a plurality of items. In this sense, homonymy and synonymy can be thought of as grouping principles because they govern how a term collects things under it: ‘ζῷον’ collects Socrates and Secretariat synonymously and Socrates and the freehand sketch homonymously.

The case of paronymy is more complicated. Even if it is conceded to be a grouping principle, there is disagreement as to what it collects. Some might take paronymy to mark a purely grammatical relation, relying perhaps on Owen's claim that its definition is “merely grammatical” and “shows . . . how adjectives can be manufactured from abstract nouns by modifying the word-ending.”<sup>18</sup> In fact, the text can be made to support the view that paronymy relates linguistic items. If 1a12–13's ‘with change of ending’ (διαφέροντα τῇ πτώσει) is attached to ‘whatever’ (ὅσα at 1a12), then whatever is a paronym would differ in ending and, hence, be a linguistic item. At least, it is hard to see how a difference in πτώσις or inflection could be an ontological difference. But this is mixed support at best. For if anything is clear it is that, in explaining how something (the paronym) gets its name, ἔχει’ (‘gets’) introduces a semantical context. This makes no sense if paronyms are already linguistic items, for it would have Aristotle explaining how a *name* gets its name from another name. Nor should Owen be made party to the ‘grammatical view’, as one might call it.<sup>19</sup> From the fact that the definition of paronyms is merely grammatical it does not follow that paronyms themselves are grammatical entities. Given Aristotle's notorious looseness in matters of use and mention, the best policy is to take ‘with change of ending’ (διαφέροντα τῇ πτώσει) as signaling the way a first *thing* that

<sup>18</sup> Owen (1960: 175).

<sup>19</sup> *Contra* Irvin's claim (1988: 504, n. 24) that Owen regarded paronymy as “merely a grammatical relation between words.”

is a paronym gets its name from a second *thing*, namely, by a change in the ending of the name for the second thing. Thus does *x* get the name ‘brave’ from ‘bravery’.<sup>20</sup>

The account just criticized took paronyms to be linguistic items. These could be same-level items only, namely, adjectives, or mixed-level items, namely, adjectives and abstract nouns. Rejection of the linguistic interpretation does not settle whether paronyms are same-level or mixed-level items. Hintikka, for example, holds that paronyms are nonlinguistic mixed-level items: two things, *x* and *y*, are paronyms when they are called by different names one of which is derived grammatically from the other.<sup>21</sup> On this view, 1a12–15 mentions four rather than two things that are paronyms: grammar (γρᾰμματικῆ) and the grammatical (γρᾰμματικῶς) as well as bravery (ἀνδρεία) and the brave (ἀνδρεῖος). Hintikka's view avoids the anomalous result that a name is said to get its name from another name. But, with the grammatical view, it covertly assumes that the relation *being-named-from* is symmetrical. For the case at hand, this appears to have the consequence that the relata of paronymy can be mixed-level, only if the relation determining them is symmetrical. For, if nothing else, it is at least clear that a necessary and sufficient condition of something's being a paronym is that it get its name, with change of ending, from something else. And from what besides ‘brave’ could ‘bravery’ be derived in the required way?<sup>22</sup> Thus, only if ‘bravery’ gets its name from ‘brave’ could bravery count as a paronym alongside the brave. This is an unlikely condition for Aristotle to embrace. For his examples clearly indicate that, on the contrary, the *being-named-from* relation is asymmetrical.<sup>23</sup> The grammarian gets his name *from grammar* and the brave get theirs *from bravery*. There is not the slightest suggestion that Aristotle wished to take this in the other direction. So we are best off with (P), which avoids commitment to symmetry and finds only two examples of paronymy, namely, the brave and the grammatical.<sup>24</sup>

<sup>20</sup> See Ackrill (1963) for a concurring opinion.

<sup>21</sup> Hintikka (1959: 141). Hintikka's preference for the mixed-level analysis of paronymy is shared by Jones (1975) and Annas (1974: 151) who comments: “Paronymy is the relation between two items when one is referred to by a noun and the other by an adjective inflected from the noun (or cognate verb).”

<sup>22</sup> Someone might be a mixed-level theorist but not champion the symmetry of the *being-named-from* relation by finding some third thing after which both *brave* and *bravery* are named.

<sup>23</sup> And, certainly, the *being-named-from-with-change-of-ending* relation.

<sup>24</sup> Jones (1972) is a mixed-level theorist but he seems unaware that the view commits him to the symmetry of the *being-named-from* relation. This may be explained, in part, by his concentration on an overall interpretation of the *onymies* that allows us to “understand aright the three-fold distinction between homonyms, synonyms and paronyms in Chapter 1 and the inter-relation between this distinction and the remainder of the work” (117). The centerpiece of his account is the claim that “the point of paronymy . . . is to license the inference from a certain number of literate individuals to that number of literacies” (119). This assumes, what seems farfetched, that the *Categories* has an independent and standing interest in counting for its own sake and that this interest is embodied in questions such as “How many literacies are there in the room?” In calling this farfetched I do not mean to deny altogether the relevance of counting in the *Categories* but rather to relocate it. So far from being a topic of interest in its own right, it will enter only as a condition on individuating various kinds of entities spelled out in the work's ‘meta-ontology’, what I below call MO. On the point of individuation, however, Jones's account is silent. Even adopting his view of the rationale for inclusion of paronymy, we are not instructed on whether the literacies counted are simply the several instances of a single general property (namely, *objects* that are literate) or whether they are several different property particulars themselves. Jones also assumes that paronymy is an inference ticket *to* (instances of) *bravery from brave men*. But, as Annas (1974) points out, this is a wrong-way inference ticket. For, if anything is clear about paronymy, it is that men are called literate from literacy and not *vice versa*. Now, even if, as his (1975) responds, Jones does not *mean* his inference ticket to capture the *from* of the *being-named-from* relation that defines paronymy, it is still the case that the only inference linked, by the text, with paronymy is the inference from abstract noun to adjective. An interpretation of the *onymies* more constrained by the text would surely be preferable.

## 2. Some Suggestions on the Role of the Onymies

Despite the topic's relative neglect, some scholars have ventured proposals about the role of the *onymies* in the *Categories*. Most make use of chapter 2's fourfold division of τῶν ὄντων or things that are—what I shall call the meta-ontology [MO]. So it will be useful to have MO in hand. Two asymmetric relations of ontological dependence and their negations are used to demarcate four divisions of things that are:

- I.  $x$  is not in a subject &  $x$  is not said-of a subject  $\equiv x$  is a substance individual.
- II.  $x$  is not in a subject &  $x$  is said-of a subject  $\equiv x$  is a substance universal.
- III.  $x$  is in a subject &  $x$  is not said-of a subject  $\equiv x$  is a nonsubstance individual.
- IV.  $x$  is in a subject &  $x$  is said-of a subject  $\equiv x$  is a nonsubstance universal.

Type-I items are, of course, primary substances, such as Socrates and Secretariat, and type-II items are the secondary substances, such as man and horse, that are said-of them. Aristotle's examples of type-III items are a certain particular white (τὸ τὶ λευκόν) and a certain particular piece of grammar or grammatical knowledge (ἡ τις γραμματικὴ). For the moment let us simply say that these are nonsubstantial individuals<sup>25</sup>

<sup>25</sup> This skirts a much-vexed issue, namely, whether type-III items are nonrecurrent particulars or recurrent nondivisible properties. I resolve this in favor of nonrecurrent particulars in the next chapter.

and that type-IV items are the nonsubstantial universals that are said-of them.

One, fairly obvious, strategy for bringing the three *onymies* into the *Categories* as a whole is to map them onto MO. Most versions of this strategy fail and it will be instructive to see why. Ackrill<sup>26</sup> and Loux,<sup>27</sup> for example, find homonymy at work in 2a29–34,

In some cases there is nothing to prevent the name from being predicated of the subject, but it is impossible for the definition to be predicated. For example, white (τὸ λευκόν), which is in a subject (the body), is predicated of the subject; for a body is called white (λευκὸν γὰρ σῶμα λέγεται). But the definition of white will never be predicated of the body

and 3a15–17,

Further, while there is nothing to prevent the name of what is in a subject from being sometimes predicated of the subject, it is impossible for the definition to be predicated.

Although neither passage occurs in chapter 2, both are concerned to meet a difficulty facing MO's type-III items.<sup>28</sup> So homonymy's presence in the passages would be by way of safeguarding MO's fourfold division. Although this would be a respectable way for homonymy to win a widened role in the *Categories*, does it really figure in these passages? In favor of this, Ackrill suggests that the passages have in mind two different sentences and that the troublesome term occurs homonymously in them: (a) “White is a color” and (b) “Callias is white.” In (a) ‘white’ mentions the quality that in (b) is asserted to inhere in Callias. The definition of ‘white’ in (a) cannot be substituted for ‘white’ in (b). Thus, we “get a kind of homonymy or something like it” (Ackrill 1963: 72).

What is worrisome about Ackrill's account is the absence of (a) in either text. Aristotle says simply that sometimes the name of a quality can be predicated of a subject but not the definition. So we should be able to say what underlies his worry without adducing (a). The trouble must lie with (b), as it stands. Recall that when Aristotle introduces the three *onymies* he does not yet have MO's distinction between *being-in a subject* and *being said-of a subject*. In the single case, difference of ending is the only device Aristotle has to register a different way for a term to apply to its subject. From the perspective of chapter 1, then, it looks like any single case where a *name* of a feature or property applies straightforwardly, i.e., without change of ending, to a subject (whether it turns out to be said-of or present-in the subject) is a case where the

<sup>26</sup> Ackrill (1963: 72).

<sup>27</sup> Loux (1991: 19).

<sup>28</sup> Namely, that from the point of view of grammar, ‘white’ and ‘man’ appear no different and so *white* and *man* appear no different—at this stage of the account (see next paragraph).



definition applies as well. Grammatically, ‘white’ (λευκόν) appears to be no different from ‘man’, whose definition does follow it. Logically, of course, ‘λευκόν’ isn’t the same and the two passages emphatically point this out. On this interpretation there is no need to smuggle in (a).

Moreover, were homonymy to figure in the way Ackrill suggests, it would be weak homonymy, for there must be some connection between the definition of white as a quality in (a) and the definition of white as a property of Callias in (b). But, as we saw, chapter 1 calls for strong homonymy only. Besides, it is doubtful that there even is a definition of being (λόγος τῆς οὐσίαις) of the sort required by this interpretation. For it will be a definition of neither a type-III nor a type-IV item but of a relational entity, *being the white of Callias* (alternatively, *being the white of a thing*), or an accidental compound, *the white Callias* (alternatively, *the white thing*).<sup>29</sup> So homonymy does not figure in Aristotle’s caveat.<sup>30</sup> And if it plays no role here, it is unlikely that it plays a role at all in MO.<sup>31</sup>

<sup>29</sup> Both of these considerations tell against a somewhat more attractive attempt to locate homonymy in (b), namely, that which takes Callias and white to be homonyms with respect to ‘white’. The idea is that they are white in different ways—one a white thing and one a quality. Here, again, there must be some connection between the white thing and the white quality of the thing, but, says Aristotle, homonyms are to have *only* the name in common. Plus, the white thing, as distinct from the quality (whether particular or general), has no definition yet homonyms differ in their definitions and so must have them.

<sup>30</sup> Malcolm has suggested a way of highlighting the trouble with Ackrill’s view, namely, that Socrates can be both a homonym and a paronym of his color, depending on the linguistic form of the proper name of the color, ‘λευκόν’ or ‘λευκότης’. This assumes, however, that one can talk about Socrates as a paronym (on which see n. 25 below).

<sup>31</sup> Contrast this paragraph also with Jones (1972: 122). Irwin (1988: 53) accords homonymy a more central role: “He [Aristotle] begins the *Categories* by defining homonymy and synonymy, as different relations between things with the same name. Then he at once asserts that beings are spoken of in four ways; it is reasonable to infer (though he does not say so) that these four ways reflect the homonymy of beings.” This suggestion fails. First, after defining the three *onymies* Aristotle, in fact, immediately introduces the notion of an uncombined or semantically simple term. This suggests that MO will make use of such terms—in the form of what, in the next section, I call 0-level synonymy groups—to demarcate the categories themselves. Moreover, Aristotle does not introduce MO by saying that things are *spoken of* in four ways, which might encourage association with formulae typically designed to promote ambiguity, in particular, with the formula ‘being is said in many ways’. Rather, Aristotle simply *mentions* four kinds of things that are (τῶν ὄντων) and these can hardly be the kinds of being corresponding to the categories; yet the latter is taken by Irwin to give the cash value of the ‘said-in-many-ways’ formula. Moreover, even were MO’s ‘τῶν ὄντων’ taken to express the ambiguity-of-being formula, it is unclear that the ambiguity in question is homonymy. For *Categories* 1 calls for strong homonymy yet items from the various categories *are* by virtue of depending on something that *is* in an unqualified and superior way. So it is not obvious that they could be related by mere homonymy. Finally, were the ‘substance’ covering man homonymous with respect to the ‘substance’ covering Socrates, then the first could not “reveal the primary substance” (as 2b29f. says it must). Irwin’s proposal, in short, shares the flaw of trying to make the *onymies* apply globally to relations *between* substantial and nonsubstantial items in MO.

Furth agrees that homonymy has no significant place in the interpretation of 2a29–34 and 3a15–17.<sup>32</sup> When it comes to paronymy, on the other hand, the story is different. He rightly sees that (b) must be considered on its own terms. For Furth, (b) is a case of paronymy because it is a case of inherence (being-in-a-subject) and all cases of inherence are cases of paronymy by virtue of what he calls the paronymy transformation:

1.  $F^*$  inheres in  $x \equiv$  for some term,  $F$ ,  $x$  is named  $F$  &  $F$  derives from  $F^*$  with change of ending.

Obviously,  $\lambda\epsilon\upsilon\kappa\acute{\omicron}\nu$  fails to satisfy the right side of (1). Nonetheless, Furth counts (b) as paronymous predication because it is what he calls a degenerate case of paronymy. For most type-III and type-IV items neither the name nor the definition is predicated of the subject. It is, rather, the paronymously derived linguistic form that is predicated—‘brave’, ‘grammatical’, etc. Understood nominally, ‘white’ (‘white<sub>n</sub>’) names the inhering property whiteness and is not predicated of Callias. Understood adjectivally, ‘white’ (‘white<sub>a</sub>’) is predicated of Callias. Moreover, because ‘white<sub>a</sub>’ and ‘white<sub>n</sub>’ are names of different things, the first can be said to derive from the second, but because this is not indicated grammatically it is a degenerate kind of derivation.<sup>33</sup>

The problem with Furth's view is that degenerate derivation is not sufficient for paronymy. Were there merely the passages at 2a29–34 and 3a15–17 to contend with, one might argue that Aristotle is simply careless in the way he incorporates  $\lambda\epsilon\upsilon\kappa\acute{\omicron}\nu$  as a paronym but that, nonetheless, this is his intention. No doubt taking ‘white’ to be a case of degenerate paronymy would require comment on his part—but not, at least not obviously, the comment Aristotle makes. For in no case of paronymy is there a temptation to apply the definition, once it is made clear that it is a case of paronymy. So were paronymy at issue Aristotle ought to have said something about ‘white’ being named from something different even though this fails to display the customary change of ending. He might, for example, have said that the paronymous status

<sup>32</sup> Furth (1988: 15–21).

<sup>33</sup> An additional problem is raised by (1). Its right side appears to entail that  $x$  is a paronym. So Aristotle might be thought to hold (1'):  $F^*$  inheres in  $x \equiv x$  is a paronym (with respect to  $F^*$ ). But this can't be accepted as it stands because *whiteness* inheres in Socrates, for example, and not *the white thing* that somehow happens to coincide with him. Yet only the latter is the paronym. So we need an account of the relation between primary substances and paronyms. Fortunately, that account need not be given here. First, it is not required for the account of paronymy as a grouping principle (see next section) and, second, paronyms have (as we shall also see in the next section) no proper place in MO, the meta-ontology of the *Categories*. For this the only grouping principle needed turns out to be synonymy (again, see next section). Lewis (1991) has a detailed account of the relation between paronyms and primary substances.

of λευκόν is made apparent when ‘λευκότης’ (whiteness) rather than ‘λευκόν’ (white) is taken as the name of the inhering property. He shows himself capable of precisely this at 10a30–1. Even if 10a30–1 is read back into the interpretation of 2a29–34 and 3a15–17, what it shows is that Aristotle *could* have regarded λευκόν as a paronym. It does not show, *pace* Furth, that ‘λευκόν<sub>a</sub>’ is derived from ‘λευκόν<sub>n</sub>’. Were it to show anything of this sort it might be that ‘λευκόν<sub>n</sub>’ derives from ‘λευκότης’, but this would make a property, or, perhaps, property instances, the item or items that are paronyms rather than things that have the property.

Furth's insistence that λευκόν is a case of degenerate paronymy does not merely reflect his attachment to the stronger thesis. It also locates paronymy squarely in MO's distinction between substances and non-substances. However, the passage at 10a30–1 immediately goes on to point out that a subject can be qualified either because it is called from the quality paronymously or in some other way. Sometimes, as in the case of the boxer, there is no name for a quality corresponding to the paronymously applied term; sometimes, as in the case of good persons, there is a name for the quality (virtue) but they are not called paronymously from it. These are surely cases of inherence but just as surely they are not cases of degenerate paronymy.<sup>34</sup> Quite the contrary.<sup>35</sup> In short, paronymy casts too narrow a shadow to cover all type-III and type-IV items. Part of what the paronymy transformation asserts is correct, namely,

- 1a. For some term,  $F$ ,  $x$  is named  $F$  &  $F$  derives from  $F^*$  with change of ending  $\rightarrow F^*$  inheres in  $x$ .

But (1a) is simply not strong enough to give paronymy a truly systematic role in MO. So far from specifying the inherence relation, paronymy only provides typical cases of it.<sup>36</sup>

<sup>34</sup> This defeats, for example, Hetherington's (1984) proposal to define the inherence of  $y$  in  $x$  by way of the condition that either the name of  $y$  or the name of something paronymous with  $y$  is predicated of  $x$ .

<sup>35</sup> The boxing case is more complicated. Aristotle says that which inheres in Ali, say, and makes him a boxer is a certain natural capacity (κατὰ δύναμιν φωνικήν); but there is no name for this and so Ali cannot be called a boxer paronymously from it. This is a case of inherence but not of paronymy. What Ali is called a boxer *from*, paronymously, is rather a certain branch of knowledge (ἐπιστήμη), for boxing is branch of knowledge. And although this knowledge may be in Ali's soul, it is not this that makes Ali a boxer—else Angelo Dundee would be a master boxer. Nor is it clear, even, that Ali must have this knowledge in *his* soul; he may, after all, be a natural boxer.

<sup>36</sup> I note Owen (1960: 175): “Plainly the *Categories* does not and could not make use of this idea [paronymy] to explain how the subordinate categories depend on the first.” If the mentioned dependence is that of the being-in relation, then Owen appears to share our suspicion about (1). See also Ackrill (1963).

### 3. The Onymies as Grouping Principles

On the view I wish to defend, Aristotle introduces homonymy, synonymy, and paronymy as grouping principles. So taken, paronymy exhibits a striking parallel with homonymy and synonymy, for, like them, it collects items under a single term. Hintikka's view, on the contrary, provides no principle of collection or, at best, a principle for collecting pairs of items under pairs of terms. As such it obscures a primary motivation for Aristotle's introduction of the three *onymies* in the first place. For we may think of the trio as providing an alternative to egalitarian one-over-many principles, which recognize no distinctions in the ways terms collect things. So we need to explain why it is so important that Aristotle provide what, in effect, are three different one-over-many principles. This will go a considerable distance toward explaining the central role of the *onymies* in the strategy of *Categories* 1–5.<sup>37</sup>

Suppose we begin with a point of agreement. This is that the *Categories* is concerned to provide a systematic account of the fundamental kinds of things that are ( $\tau\acute{\alpha}\delta\acute{\nu}\nu\tau\alpha$ ). We may think of this project as providing a systematic answer to questions such as,

- A. When do things belong together?
- B. When do things form a natural kind?
- C. When do things fall in the same category?

Assume, for the moment, that these questions concern ordinary objects. Then one rather simple, but nonetheless plausible, answer is that things

<sup>37</sup> Appealing to the notion of sentence meaning, Barnes (1971) defines homonymy, for example, in terms of differences in the meanings of sentences " $x_1$  is  $F$ " . . . " $x_n$  is  $F$ ." Even if such formulations are equivalent to (H), they suggest that the *Categories* is primarily interested in sentences. This makes it easy to miss the point of introducing the *onymies* in the first place and obscures the strategy of the first four chapters. (I note, however, that Barnes does this partly in the interest of contrasting Aristotle's view that the three *onymies* are properties of things with the view attributed [spuriously, as Barnes shows] to Speusippus that they are properties of words.) Similar misgivings belie Matthen's confidence (1978) that there is consensus on the point that the *Categories* is intended to say something about different uses of the verb 'to be'. As for Barnes, there is an independent problem with his formulation of synonymy: " $x_1, x_2, \dots, x_n$  are synonymous if and only if there is some term  $A$  such that (i)  $x_1$  is  $A$  and  $x_2$  is  $A$  and . . . and  $x_n$  is  $A$ ; and (ii) the meaning of  $A$  is the same in each of the sentences ' $x_1$  is  $A$ , . . . , ' $x_n$  is  $A$ .'" Because the meaning of 'pale' is the same in "Socrates is pale," "Moby Dick's tail is pale," and "Sappho's complexion is pale," it follows from the definition that Socrates, Moby Dick's tail, and Sappho's complexion are synonyms. But clearly they are not. Nor, for that matter, are the pale Socrates and the pale Coriscus. All are, if anything, paronyms from pallor. Lewis (1991: 59ff.) confesses to a similar worry regarding Frede's (1978) proposal to define the *said-of* relation in terms of synonymy. But if synonymy is defined objectually in terms of *things* having the same name and the same definition *of being (of the thing)*, as called for in our (S), then synonymy and paronymy are not collapsed. (This may be equivalent to what Lewis calls strong synonymy.)

belong together whenever they are called by the same name. Where ‘ $G \rightarrow$ ’ denotes the operation of generating a group, consider the following cases:

- H1. ‘bank’  $G \rightarrow$  the [group of] banks,
- S1. ‘man’  $G \rightarrow$  the [group of] men,
- P1. ‘just’  $G \rightarrow$  the [group of] just things.

Suppose that the group described in (H1) contains both the sloping borders of rivers and places for depositing money, that the (S1) group contains Socrates, Coriscus, and their ilk, and that the (P1) group contains persons, actions, arrangements, and states. This, of course, assumes that the names in question are applied, respectively, homonymously, synonymously, and paronymously. We may catch this simply by saying that a given name, ‘F’, generates an  $\langle F \rangle$  *homonymy group*, an  $\langle F \rangle$  *synonymy group*, or an  $\langle F \rangle$  *paronymy group*. In answer to (A), it would be implausible to respond that Fs belong together when they form an  $\langle F \rangle$  *homonymy group*. For here there is only a nominal connection between certain members of the group. And although one could hold that Fs belong together when they form an  $\langle F \rangle$  *paronymy group*, this would not be a good answer to question (B). Persons, actions, arrangements, and states may all be just but they do not form a natural kind, on any reasonable reading of the phrase. Fs do, however, appear to form a natural kind when they form an  $\langle F \rangle$  *synonymy group*.

The above distinctions help us to see the point of introducing the *onymies* in chapter 1. Recall that to develop a system of categories is, at least, to develop a classification of the fundamental kinds of things that are. Ideally, (a) every fundamental thing will be in one, and only one, category and (b) nothing relevantly different will be in that category. Condition (a) is something of an idealization because at 11a37–8 Aristotle at least entertains the suggestion that an accident might by nature fit into two different nonsubstance categories.<sup>38</sup> Of course, this

<sup>38</sup> This transgression is less alarming than it appears. Aristotle says at 11a37–8 that something might be both a relative ( $\pi\rho\acute{o}\zeta\tau\iota$ ) and a quality ( $\pi\omicron\iota\acute{o}\nu$ )—two distinct accidental categories. But, as a look at his examples makes clear, it is the genera that are the relatives and not the determinate species. Thus, knowledge is *of something* and so a relative, whereas music, one of its particular cases, is not. Can this be extended to the potentially more troublesome case of *being a master*? This is potentially more troubling because it seems that *being a master of Ambracis* (a servant in Aristotle’s family) is no less a case of being of something than is *being a master*. So both would appear to be relatives. Yet the former is certainly determinate and so would appear to be a quality. Here, I believe, Aristotle is moving toward the distinction between a relation and a relational property. Nowadays, we would say that *being the master of* is a two-place relation, signified by the result of deleting ‘Ambracis’ from the expression that signifies the relational property *being the master of Ambracis*. I say that Aristotle is ‘moving towards’ this distinction because he seems to regard relatives as a kind of general property that may be present in a substance, in the case at hand, *being the master of something*. For excellent discussion of this issue, see Mignucci (1986).

does not affect the distinction between substance and the other categories, which is the primary dichotomy of the *Categories*. Nor does it affect (b)'s demand that the categories collect in a principled way only those things that intuitively fit together. How, then, are such groups to be generated? Acceptable answers to (B) are not, *ipso facto*, acceptable answers to (C). Although it is true that

2.  $x$  and  $y$  are in the same synonymy group  $\rightarrow x$  and  $y$  are in the same category,

the converse does not hold. Being in the same synonymy group does not explain what it is to be in the same category but it is the place to begin.

Suppose that one conceives of constructing a system of categories by beginning with the simplest uncombined expressions and building upwards to the category terms themselves. When Aristotle counts off the categories in chapter 4, he says that every uncombined term<sup>39</sup> signifies an item in one of the categories, and chapter 2's meta-ontology, MO, is prefaced by a similar remark. So we should expect some connection between MO and the notion of an uncombined term—more-over, a connection that is relevant to generating the categories themselves. What we need to do is find a way of relating individuals in the world to the categories they fall under without losing track of the individuals' natures. This can only be done if we begin with the notion of a 0-level synonymy group. In terms of MO, a 0-level group is a certain group of things that are not said-of anything else.<sup>40</sup> More precisely,  $x$  is in a 0-level  $\langle F \rangle$  synonymy group just in case  $x$  is not said-of anything and  $F$  is the first term said-of  $x$ . Thus, Socrates and Secretariat belong to different 0-level synonymy groups, despite the fact that both belong to the  $\langle Animal \rangle$  synonymy group. As we have seen, relative to given terms, Socrates may also belong to various paronymy and homonymy groups, but these afford no basis for building upwards to the categories. We can see this by returning to MO.

On my proposal, all individuals come in 0-level synonymy groups, both type-I and type-III individuals. This is just a brute fact about the world or, less bluntly, this is the way Aristotle conceives of the world.

<sup>39</sup> Here I disambiguate 1b25's "Of things said without any combination," which conveniently mixes use and mention.

<sup>40</sup> It might be useful to recall here that MO's four kinds of  $\tau\acute{\omicron}\nu\ \delta\upsilon\tau\omicron\nu\sigma$  are kinds of *things*. This departs from Furth's view that the *Categories* in general and MO in particular concern, primarily, the status of various kinds of *Sachverhalten*. On my view this falls out of the primary concern but is not to be identified with it. Chapter III below shows how to regard the theory of the *Categories* as a theory of the underlying ontological configurations for standard categorial statements. For every such statement, the theory tells us what things must exist and in what relations they must stand in order for the statement to be true.

This achieves two things. First, it preserves the essential nature of the rock-bottom individuals of the world. Second, and more central for the question of unity, it provides the foundation for the categories. For the term that collects individuals synonymously will be a type-II or type-IV universal, that is, a term that is said-of them. More formally,

3.  $x$  is in the 0-level  $\langle F \rangle$  *synonymy group*  $\equiv F$  is said-of  $x$  & there is no term,  $G$ , such that  $G$  is said-of  $x$  &  $F$  is said-of  $G$ .<sup>41</sup>

Statement (3) is entailed by 3a33–b9's assertion that whatever is called from a substance term, such as 'man', is called so synonymously, plus MO's requirement that 'man' is said-of individual men. On my proposal (3) is already implicit in MO. Nonetheless, MO says nothing about the categories themselves because it contains no category terms, including substance. In short, we have yet to connect individuals with their categories.

This is remedied in chapter 3 where Aristotle introduces a principle that will allow ascent upward from type-I and type-III individuals to the categories. The critical text,

Whenever one thing is predicated of another as of a subject, whatever is said of what is predicated will be predicated of the subject as well (ἐτέρου κατηγορεῖται ὡς καθ' ὑποκειμένου, ὅσα κατὰ τοῦ κατηγορουμένου) (1b10–12),  
ὅταν ἕτερον καθ' ὑποκειμένου λέγεται, πάντα καὶ κατὰ τοῦ ὑποκειμένου ῥηθήσεται

appears to contain the following principle:

TR.  $Y$  is predicated of  $X$  as of a subject &  $Z$  is said-of  $Y \rightarrow Z$  is predicated of  $X$ .

Principle TR is widely taken to assert the transitivity of the said-of relation. This assumes that 'predicated of' and 'said-of' have the same weight. And, indeed, the assumption gains some credibility from Aristotle's own example: man is predicated of (κατηγορεῖται) the individual man, and animal of man (τὸ ζῷον κατὰ τοῦ ἀνθρώπου) and, hence, animal will be predicated (κατηγορηθήσεται) of the individual man. Note, however, that although the example says explicitly that man and animal are predicated of the individual man, the relation between animal and man is left implicit. Understood with the flanking examples, 'animal of man' comes out 'animal is predicated of man' and, hence, the passage as a whole recognizes no distinction between 'predicated of' and 'said-of'. If, however, the example tracks the principle TR, then 'animal

<sup>41</sup> One might suggest adding the condition that  $F \neq G$  on the possibility that  $F$  can be said-of itself. On my view this is a constraint built into the *said-of* relation itself and so merits no special mention in (3).

of man' comes out 'animal is said-of man', and 'predicated of' may not necessarily mean the same as 'said-of'. This is not to deny that Aristotle thinks man is said-of the individual man. After all, he says exactly this in characterizing MO's type-II items. The point, rather, is that something different may be going on in TR than straightforward invocation of the transitivity of the said-of relation.

One reason to be suspicious of the simple transitivity reading is that Aristotle says that man is predicated of the individual man *as of a subject*. It is not clear why he would say this if the transitivity of *said-of* was the sole point of TR. Suppose, however, that in chapter 3 Aristotle is concerned less with the said-of relation for its own sake than with its role in moving upward to the categories. We may, then, think of TR as a ladder principle whose explicit purpose is to link individuals with their proper categories. To require that *Y* be predicated of *X as of a subject* is to require that *Y* be predicated of an individual; to use Aristotle's example, it is to require that man be predicated of the individual man.<sup>42</sup> This requirement is not in force when animal is said of man because the species *man* is not the ultimate subject to which animal applies. If TR were simply a transitivity principle for the said-of relation, then it would appear that Aristotle fails to distinguish between the relation of an individual to its species and that of a species to its genus. But if it is a ladder principle fashioned to bridge the gap between individuals and their higher-order kinds, this objection no longer applies—whatever else one thinks of the principle.<sup>43</sup>

On this reading, 'Y is predicated of X as of a subject' does not simply *mean* the same as 'Y is said-of X'. Hence, different modes of predication might be thought to be covered by it—in particular, homonymous and paronymous predication as well as synonymous predication. This, in turn, might be taken to suggest that TR itself can serve as a ladder principle for any individuals, including those in paronymy or homonymy groups. But this clearly will not work. Consider Aristotle's example, the

<sup>42</sup> This idea may be at work in ch. 5, at 2a34–5, when Aristotle remarks that all other things are said-of the primary substances as subjects or are in them as subjects—to the extent that the remark implies that being said-of or present in something as a subject is to be said-of or present in an individual.

<sup>43</sup> For the moment I take no position on whether Aristotle elsewhere systematically conflates the relation between Socrates and the species man (class membership) with the relation between the species and the genus animal (class inclusion), as Geach (1972a) claims. My reading of TR as a ladder principle gives it a kind of independent status. So it is at least a spiritual ally of Moravcsik's suggestion (1967b) that the said-of relation is a primitive in the *Categories*, without a single modern counterpart. On this view, it just is a relation that can hold between an individual and its species as well as between the species and its genera. Lewis (1991: 73–8), in what may be a friendly amendment, concedes that there is a difference in the relations but finds that they share a generic relation.



⟨Ζῶον⟩-homonymy group. Abbreviating, ⟨Z⟩ h is a 0-level *homonymy* group because ‘ζῶον’ is the first term that homonymously applies to the individuals in ⟨Z⟩ h. If we apply TR to ⟨Z⟩ h, troubles arise. For the terms said-of Z will, of course, be different definitions corresponding to the name ‘Z’. Thus, TR would yield the unacceptable result that an individual in ⟨Z⟩ h belongs in different and intuitively non-combinable species. Paronymy groups fare no better. Were we to apply TR to individuals of the ⟨Just⟩ *paronymy* group, *actions, persons, arrangements, and states would end up counting as essentially the same. But this is obviously false. There simply is no definition for all the things that are collected paronymously, under ‘just’ or any other paronymous term. Hence, there is no natural kind corresponding to the term.*<sup>44</sup>

TR assumes, therefore, that the predicating in question (i.e., in ‘Y is predicated of X as of a subject’) is of the synonymous variety only. As written, it appears to take this as a two-place relation. But we want synonymous predication to bear a natural relation to synonymy itself, and the latter was defined for synonymous *things*. Given this, we can make derivative sense of synonymous predication as a many-placed relation: Y is synonymously predicated of  $x_1$  and  $x_2$  if, and only if, the name Y and the corresponding definition are predicated of  $x_1$  and  $x_2$ .<sup>45</sup> This recommends writing TR as

TR\*. Y is predicated synonymously of  $x_1$  and  $x_2$  as of subjects & Z is said-of  $Y \rightarrow Z$  is predicated of  $x_1$  and  $x_2$ .

Thus, to use my preferred idiom, only because  $x$  is in the ⟨F⟩ *synonymy* group can whatever is said-of F be predicated of  $x$ . Because TR is a ladder principle meant to link individual such-and-suches with their appropriate categories, we can build a ‘first-rung’ feature into it:

TR\*\*.  $x_1$  and  $x_2$  are in the 0-level ⟨F⟩ *synonymy* group & G is said-of  $F \rightarrow x_1$  and  $x_2$  are in the ⟨G⟩ *synonymy* group.

Ultimately, the chain of synonymy groups will include the appropriate category term. Thus, the 0-level ⟨Man⟩ *synonymy* group leads via TR to substance and the 0-level ⟨White⟩ *synonymy* group leads to quality.

<sup>44</sup> The situation may be even worse. For if TR operates only on nominal terms, collecting terms such as ‘just’ will not even get us off ground floor. Of course, this ceases to be a difficulty when we move up a level to justice, the property introduced by ‘just’. But now the individuals collected will be *property* instances of justice and these are no more heterogeneous than property instances of white.

<sup>45</sup> Of course, Aristotle does talk about synonymous predication in 3a33–b9, where he says that what is called from a substance is said synonymously of everything it is said-of. But the idea that  $x$  is synonymously predicated of  $y$  can be read as saying:  $x$  is from a substance &  $x$  is said-of  $y$  &  $x$  is said-of  $z \rightarrow y$  and  $z$  are synonyms. So, again, the notion is to be explicated in terms of a three-place relation.

Aristotle's strategy should now be clear. The three *onymies* are grouping principles. They are introduced not because Aristotle will employ them in various ways in chapters 2 through 5 to develop the system of categories but because he needs to isolate a single grouping principle that can provide the basis for the system. Only synonymy can do the job. Notice that, in this light, the trio need not exhaust the various ways names collect things, for this is not the purpose of the trichotomy. So it is of no consequence, should the occurrence of 'λευκόν' at 2a29–34 and 3a15–17 not fit easily into chapter 1's threefold distinction. Notice, further, that the story I am promoting squares very nicely with the sequence of the text. For it makes clear why, after introducing MO in chapter 2, we are given in chapter 3 a kind of transitivity principle for the said-of relation: it is required for the ladder principle that relates members of 0-level synonymy groups to their appropriate categories. We can also do something to allay the worry, expressed by many, that the *Categories* treats differentiae both as qualities and as substances. On my account, differentiae belong in chapter 3 for the very reason that they provide the *intra-categorical* structure that is needed, if TR is to constitute an effective procedure for structuring the categories. Differentiae permit progressive replacement of generic terms, without loss of contact with individuals in the original 0-level synonymy group, until the final category term is reached.<sup>46</sup> In this way the ultimate categories are guaranteed to be categories of the rock-bottom things that are, namely, individuals, nonsubstantial as well as substantial.

## 4. Two Ways to Get the List of Categories

My interpretation takes the *Categories* to offer a standing theory about the basic kinds of things that are. As such it is not concerned with *how* Aristotle arrived at the list of categories but only with the structure of the theory of which they are a part.<sup>47</sup> Nonetheless, it will be useful to see how my interpretation squares with proposals concerning Aristotle's generation of the list itself.

Ackrill helpfully describes two ways Aristotle might have arrived at the list of categories. On Ackrill's first way we ask various questions of a given subject and get answers that fall into the categories. Thus, we ask “What is it?” and ultimately get *substance*, “How is it qualified?” and get *quality*, “How is it quantified?” and get *quantity*, “Where is it?”

<sup>46</sup> For how this works, see the final section, esp. the differentiae–genus tree.

<sup>47</sup> Including, especially, the semantical ends served by the theory—to anticipate the account of underlying ontological configurations developed in the following two chapters.

and get *place*. Here we ask fairly broad questions and get a fairly specific answer. For example, we ask of Socrates how he is qualified and get *a quality* as the answer, say, tanned or pale. Ackrill's first way thus assumes that a well-defined list of questions is available and that they are questions about substances. But how, one wonders, are (or were) these questions so neatly mapped onto the categories? Either there is a categories-independent way to generate the list or there is not. If there is, then this will be the strategy for arriving at the list of categories. If there is not, then the admissible questions are just those that generate answers corresponding to the categories. But this merely begs the question. Further, all things about which we can ask the same question fall into the same category. There is no more fine-grained way to group them, at least none that is relevant to establishing the categories. In particular, there is no interesting connection between MO and the generation of the categories themselves. For even if one said that MO's said-of relation provides a finer-grained way to group individuals, this is not reflected in Ackrill's first way.

On Ackrill's second way, the single question "What is it?" is asked of anything and everything. We ask "What is Callias?" and get *man* and press the question until it terminates in the category term *substance*. Similarly, "What is generosity?" terminates with *quality* and "What is cutting?" with *doing*. As Ackrill (1963: 79) puts it, the second way "may be said to classify subject-expressions . . . whereas . . . [the first way] classified predicate expressions . . . though, as before, the point for Aristotle is the classification of the things signified by these expressions." Of course, Ackrill is right on the last point. So what ought to be said is that Aristotle classifies things *by means of* language. Unadorned, however, the "What is it?" question allows for answers that will block rather than build the system of categories. In particular, nothing prevents answering the question homonymously or paronymously. So it is not clear that Aristotle could have arrived at the list of categories simply by asking of everything that is, "What is it?" Of course, with the proper framework in place the question can do the job, but this just shows that what matters most is the framework. The proposal I have advanced, that MO's individuals come in 0-level synonymy groups and yield the categories by virtue of the ladder principle TR, is just such a framework.

So my approach is clearly most comfortable with Ackrill's second way. Nonetheless, I prefer not to think of Aristotle as *deriving* the *list* of categories in accordance with Ackrill's second way or any other strategy for that matter.<sup>48</sup> It is simply not clear why we should assume that

<sup>48</sup> In addition to Ackrill's first and second ways, one can also imagine a mixed strategy. Thus, a modified version of the many-questions approach asks of a subject, again a substance, specific questions—not "How is it qualified?" but "How is it colored?" and so on. Here one gets an equally specific answer, for example, *white*. Then one asks of these "What is it?" and, ultimately, gets the category term *quality* for an answer. With Ackrill, I prefer the pure versions. This is partly because the *Topics* appears to come down in favor of something like Ackrill's second way, which is friendly to our view. But it also seems to be closer to Aristotle's intentions. For a thorough discussion of the general topic of the origination of the categories, see Malcolm (1981).

the *Categories* is concerned with any such derivation at all. Although my proposal provides a framework for interpreting the first five chapters of the *Categories*, it does not propose to derive the categories. This is to the good because such a derivation will assume most of what it aims to establish. I am supposing only that Aristotle is *constructing* a theory about the nature of reality, including, as we shall shortly see, a theory that provides underlying ontological configurations for standard categorial statements. As such, he is free to use whatever intuitions, arguments, and language he can muster. In this light, the demand for a theory-independent justification of the list of categories is simply misguided.<sup>49</sup> A given part of the theory is acceptable because it is essential to a theory that is acceptable. So although the theory can be assayed for its consistency, material adequacy, and explanatory power, the issue of its begging the question simply doesn't arise.

## 5. A Pair of Problems

In proposing that the strategy of the *Categories* relies on the ladder principle TR in linking individuals in 0-level synonymy groups to the categories themselves, my interpretation appears to invite a pair of problems. According to the first, due to Owen,<sup>50</sup> the *Categories* is committed to the ambiguity of 'substance', but this has a consequence that threatens to undermine TR. The second uses the fact that substance is not said-of anything to cast doubt on the finishing power of TR as a ladder principle. The first problem I shall call ASP (the Ambiguity of 'Substance' Problem) and the second SSOP (the Substance Said-of Problem).

ASP begins with the apparently innocuous point that the inference from *Socrates is a man* and *Man is an animal* to *Socrates is an animal* can be 'protected' (to use Owen's idiom) only if 'animal' bears the same sense throughout. Generalizing, the point is that

<sup>49</sup> Compare Irwin (1988: 54): "The *Categories* provides an argument for the list of categories, and not merely a description of it, in so far as it appeals to . . . common beliefs as grounds for distinguishing categories." For us the critical thing is the standing theory, however obtained; for Irwin it is the dialectical method of argument he detects in the work. Of course, a derivation of the list of categories does not clash with our project, which is to provide an account of the structure of the theory itself of the categories, however the latter are obtained.

<sup>50</sup> Owen (1968b: 109, n. 1).

4.  $s$  is  $M$  &  $M$  is  $A \rightarrow s$  is  $A$ ,

is licensed only if

4a. ' $A$ ' has the same sense in ' $s$  is  $A$ ' and ' $M$  is  $A$ '.

The trouble comes when the licensing requirement is extended to TR. Extended it must be, since TR can take individuals from their 0-level synonymy groups to their appropriate categories only if

5.  $s$  is  $M$  & . . . &  $M$  is *substance*  $\rightarrow s$  is *substance*

holds, and this inference presupposes

5a. '*Substance*' has the same sense in ' $s$  is *substance*' and ' $M$  is *substance*'.

But according to Owen, (5a) is false and, thus, TR is not entitled to the inference in (5). Hence, TR cannot be used to sort individuals into their proper categories. Owen says that (5a) is false because, speaking for Aristotle, "*substance* is predicated 'most strictly, primarily and especially' of the individual, and only on reduced terms of species and genera (2a11–19)."<sup>51</sup> In effect, Aristotle is held obligated to accord different senses to 'substance' in its two occurrences in (5). Thus, *no* ladder principle building in the transitivity of substance predications can succeed.<sup>52</sup>

Is Owen correct in rejecting (5a) on Aristotle's behalf? An initial reason to be skeptical is that the *Categories* makes no use of the "said in many ways"<sup>53</sup> idiom that usually marks Aristotle's discussion of ambiguity. This is because the *Categories as a whole* presents a theory of what in *Metaphysics*  $\Delta$ .7 comes to be called  $\kappa\alpha\theta'\alpha\upsilon\tau\acute{o}$  or *per se* being.<sup>54</sup> Sometimes the kinds of being retailed in the latter, which are as many as the categories, are counted as a case of 'being said in many ways'. So one would hardly expect the idiom to be deployed *within* the theory of the *Categories*. Moreover, although the *onymies* do cover some ambiguities, these march under the banner of homonymy. Owen, on the other hand, claims to find ambiguity squarely within the very *onymy* that is designed

<sup>51</sup> Owen (1968b: 109, n. 1).

<sup>52</sup> It should be cautioned that the ambiguity that worries Owen is not the one that troubled Berti (1975). Berti's problem was that *Categories* 2b22–4's declaration that no primary substance is any more a substance than any other primary substance clashes with the fact that *Metaphysics*  $\Lambda$ , for example, countenances different grades among what, had they appeared in the *Categories*, would be candidates for primary substance (movable and perishable, movable and nonperishable, and unmovable and nonperishable) as well as with the fact that *Metaphysics*  $Z$  allows 'substance' to cover form, matter, and the compound. None of these distinctions does Owen have in mind, for none concern a line of predication involving substance. Rather, Owen is concerned with an apparently crippling ambiguity arising within one of the senses of substance delineated by Berti, namely, the compound or the movable and perishable objects of physics.

<sup>53</sup> Here I side with Matthews (1991).

<sup>54</sup> I develop this at greater length in Ch. III.

to resist ambiguity, namely, synonymy. Indeed, he finds it within lines of predication that do not transgress any categorial boundaries. And here there is no Aristotelian provision for ambiguity, indeed, the whole system of the *Categories* presupposes its absence from such predication strings.

In finding in 2a11–19 Aristotle's rejection of (5b), Owen consigns the *Categories* not only to internal incoherence but also, possibly, to a self-consciously engineered brand of it. To reach this conclusion Owen must, I think, assume

6.  $x$  is primarily  $F$  &  $y$  is secondarily  $F \rightarrow x$  is  $F$  in a different sense of ' $F$ ' from the sense in which  $y$  is  $F$

Certainly, principle (6) is something Aristotle ought to have rejected. For if 'substance' means something different in "Socrates is a substance" and "Man is a substance," then there could be no thing such that the first is primarily what the second is secondarily. At least substance could not be such a thing; but we know that it is.

Nor does it appear that any of Aristotle's devices for enforcing difference of sense apply to (6). We have already suggested that the "things said in many ways" idiom is unavailable because it corresponds, if to anything, to the theory of the *Categories* as a whole rather than to some part of the theory. Nor can (6) be a case of homonymy. Perhaps, one might suggest that (6) is covered by an Aristotelian device, namely, focal meaning or  $\pi\rho\acute{\omicron}\varsigma \tilde{\epsilon}\nu$  equivocality. For this notion covers terms with related meanings, related by referring to ( $\pi\rho\acute{\omicron}\varsigma$ ) the same thing. But even here the terms have meanings that, severally, diverge sufficiently to exclude them from being  $\kappa\alpha\theta'\tilde{\epsilon}\nu$  or *about* the same thing.<sup>55</sup> Yet Aristotle routinely counts substance predications such as those in (6) as  $\kappa\alpha\theta'\tilde{\epsilon}\nu$ .<sup>56</sup> The grounds Aristotle advances in the *Categories* for calling animal and the like secondary substances are quite different. It is because they signify what the subject is, not because they signify  $\pi\rho\acute{\omicron}\varsigma \tilde{\epsilon}\nu$  (by reference to one thing), that secondary substances are called substances. It appears, in short, that the *Categories'* distinction between primary and secondary substance does not signal a distinction in senses of 'substance'.

In rejecting (6) we are rejecting a presupposition of ASP itself. Rohr

<sup>55</sup> *Metaphysics*  $\rightarrow$ .4 has a slightly different view of this notion. It distinguishes between signifying one thing ( $\tilde{\epsilon}\nu$ ) and signifying about one thing ( $\kappa\alpha\theta'\tilde{\epsilon}\nu$ ). But here the second is introduced explicitly to bridge across items from different categories, and this has no application in the present context.

<sup>56</sup> If anything in the *Categories* stands a chance of cashing the notion of focal meaning, it might seem to be paronymy. As formulated in (P) of the first section, however, paronymy will not do. Granted, paronymy may cover cases of focal meaning. We can, after all, say that the focally related items, diet and exercise, get the name 'healthy' by way of a change of ending from 'health'. But ambiguity is not built into paronymy—witness the perfectly unambiguous name 'red' obtained from 'redness' by change of ending.

has suggested undercutting Owen's problem in a rather different way.<sup>57</sup> Owen was wrong to suppose that (4a) ought to preserve the inference in (4) on the basis of transitivity. Rather, Rohr insists, things go the other way around: the inference in (4) plus transitivity serve to guarantee (4a). This is unlikely for two reasons. First, the natural order of presupposition surely counsels taking sameness of meaning as the presupposition for soundness of inference. Thus, we need some indication that the natural order of things is here suspended. But we get none. Indeed, and this is the second reason, so far from an interest in establishing sameness of meaning, Aristotle's chief concern is with the reliability of inferences of the type represented in (4) because such inferences are essential to the chains of predication that ultimately yield the categories. It appears, then, that Rohr's maneuver will not take the sting out of ASP.

Even had the immediate proposal worked, it would still have to deal with the substance cases in (5) and (5a)—the very cases Owen used to generate ASP. Unfortunately, Rohr is silent on how to deal with the alleged 'primary'–'secondary' ambiguity Owen registered in (6). Although we have blocked (6) itself, one might demand something more, insisting that, rebutting of alternatives notwithstanding, it will not do simply to hold out for the sameness of sense of 'substance' in "Socrates is a substance" and "Man is a substance."

If the demand is compelling, which is anything but clear, we may resort to usual tools of quantification. For surely none would find 'substance' to be ambiguous in

7.  $s$  is an  $M$  & every  $M$  is a *substance*  $\rightarrow$   $s$  is a *substance*.

Owen himself admits that (7) does not generate ASP. He also admits that the quantificational idiom employed in (7) is familiar from *De Interpretatione*. But this, Owen thinks, is precisely the problem. Although standard in *De Interpretatione*, the idiom is absent from the *Categories*. Thus, (7) is supposedly unavailable.

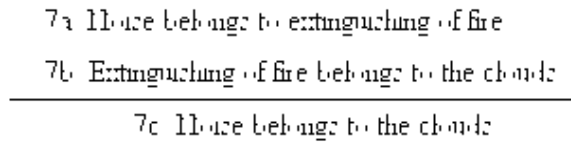
Two points counsel caution here. Recall, first, that Aristotle is interested in substance predications (particularly, in the technical *said-of* formulation) less for their own sake than as a case of synonymy and, hence, as a grouping principle that, along with TR, sorts things into categories. This does not require the quantificational structure in (7), but it is obviously consistent with it. Moreover, and this is the second point of caution, quantification does not confine its occurrence in Aristotle's early works to *De Interpretatione*. Indeed, it appears in the *Categories*, at 2a34–b6,<sup>58</sup> for example, where animal is held predicated of *some* men (τῶν τινῶν ἀνθρώπων) and color is said to be in *some* individual body (ἐν τινὶ σῶματι). These are clearly quantificational idioms. The fact that

<sup>57</sup> Rohr (1978).

<sup>58</sup> What, in Ch. III, I call the Primacy Passage.

they do not replicate those idioms from *De Interpretatione* that correspond exactly to (7) does not register a deficiency, logical or other, in the *Categories* but merely reflects the fact that quantification serves different purposes in each work. To express the ontological relations between items in MO, ‘τῶν τινῶν ἀνθρώπων’, ‘ἐν τινὶ σώματι’, and the like provide enough quantificational structure. For purposes of a theory of truth, a major aim of *De Interpretatione*, quantificational structure must be adequate for full propositional forms, including categorical propositions (e.g., πᾶς ἄνθρωπος λευκός and οὐδείς ἄνθρωπος λευκός). So far as I can see, then, it would simply be unreasonable to object to using (7) as an interpretation of (4) so as to avoid even the appearance of ASP. But, of course, this is not required in order to block ASP.<sup>59</sup>

Had ASP succeeded, doubt would have been cast on the availability of TR as a principle of transitivity and, hence, on its use as a ladder principle. The second problem, SSOP, also takes aim on TR as a ladder principle. Rather than ambiguity, however, SSOP stems from TR's focus on terms that are said-of something. Begin with the fact that TR is a principle that links individuals in 0-level synonymy groups to their categories. It is intuitive to think of this as accomplished by generating ascending trees of differentia + genus complexes. Thus, where  $M$  is a species,  $d_n$  is a differentia at level  $n$ , and  $G_n$  a genus at level  $n$ , we have the following tree:



If we replace the species  $M$  in favor of its differentia-cum-genus definition,  $d_n G_n$ , and replace each such successive genus in favor of its

<sup>59</sup> This is probably to the good, since some might balk at the suggestion that ‘τῶν τινῶν ἀνθρώπων’, ‘ἐν τινὶ σώματι’, and the like are quantificational idioms. They might, for instance, argue that 3a12 implicitly asserts that color is τῷ τινὶ ἀνθρώτῳ and that this means only that color is predicated of the individual man (i.e., men). Hence, the idioms in question serve to distinguish individuals from nonindividuals but do not introduce quantification, general or other. As I have already indicated, this point, even if correct, won't affect our derailing of ASP. Nonetheless, the point itself bears scrutiny. One thing to hold in mind is that the *Categories* prefers to bring in individuals under the headings τὸδε τι and καθ' ἕκαστον. Moreover, at 2b1–3 Aristotle says that color is in body and therefore ἐν τινὶ σώματι because were it not in some body, i.e., some of the individual bodies (ἐν τινὶ τῶν καθ' ἕκαστα), it would not be in body at all. In the parenthesized phrase ‘τινὶ’ must be read as ‘some’ and, thus, as a quantificational idiom. And because the phrase in parenthesis is meant to explain the initial phrase (‘ἐν τινὶ σώματι’), this phrase also is to be understood quantificationally, namely, as saying that color is in some (individual) body.



definition, we arrive finally at the highest genus fronted by a complete string of differentiae. In effect, this gives us a fully articulated path from the individual to its appropriate category. To take the above case, we get *s is a  $d_1, d_2, d_3 \dots d_n$  substance* and this trivially yields the categorial grouping proposition that *s is a substance*. So we are able to relate individuals in the world to their categories without losing track of the individuals' essential natures.

So far, so good. But suppose now that the categorial grouping proposition

8. *s is a substance*

entails

9a. *Substance is said[]of s*

and

9b. *Substance is synonymously predicated of s.*<sup>60</sup>

One might suppose this on the grounds that the grouping principle at work at the 0-level (i.e., *s is M*) is a synonymy[]based principle and that the ladder principle TR builds in the said[]of relation that generates increasingly broad synonymy groups all the way up to the *⟨substance⟩* synonymy group.

If, however,

10a. *X is said[]of Y* → the name and the definition of *X* are predicated of *Y*

is the case, then

11a. *9a* → *substance* has a definition

follows; and, if

10b. *X is synonymously predicated of Y* → the name and the definition of *X* are predicated of *Y*

is the case, then it follows that

11b. *9b* → *substance* has a definition.

So by two routes TR seems to require that substance be definable. This, however, is false and famously so. The problem is that any definition of substance would have to be expressed in the standard form

12. *substance is  $d^* G^*$ .*

<sup>60</sup> Proposition (9b) is shorthand and should not be thought to supersede the canonical formulation of synonymous predication used in TR\* above.

But where *substance* is the target of definition, the sole suitable candidate for the genus,  $G^*$ , would be *being* itself. But Aristotle routinely insists<sup>61</sup> and twice argues<sup>62</sup> that *being* is not a genus. Therefore, (9a) and (9b) are false and so also is (8) on the supposition that they are entailed by it. Yet (8) just is the kind of categorial grouping proposition that TR is charged with generating. Thus, because TR is a ladder principle that builds in synonymy and the said[]of relation, it appears to come up short. Simply put, it cannot make the final connection to the categories. By the same token, our attempt to provide a unified framework for the *Categories* appears to have suffered a mortal blow.

Sometimes, however, appearances are just that, and this, I submit, is such a case. Notice, to begin, that in developing the account above I said only that the 0-level  $\langle man \rangle$  synonymy group leads via TR to substance. Perhaps this can be done without the undesirable consequence registered in (11a). There are, at least initially, two ways out of SSOP, as I am calling the problem. First, we could try to keep (9a) while giving up (10a). This would permit chains of said[]of predication that terminate with categorial grouping propositions such as "*Substance* is said[]of  $x$ ." For this no longer requires that substance be defined, nor, thus, that *being* be a genus. TR would be free to operate without incurring (11a)'s damaging consequence.

There is, however, a worry about this first way out. For if Aristotle holds

13.  $X$  is said[]of  $Y \rightarrow X$  is synonymously predicated of  $Y$ ,

then (11a) will follow after all—from (13) plus (9b) and (10b).<sup>63</sup> So TR will again be disqualified as a ladder principle. Now some might see evidence for (13) in 3a33–b9's remark that whatever is called from a substance term (e.g., 'man') is called so synonymously, together with the fact that the meta[]ontology, MO, directs that *man* be said[]of Socrates. But these do not actually establish (13). For the passages are consistent with holding that 'substance' itself is not a substance term. Hence, they can allow that *substance* be said[]of something without being synonymously predicated of it. A third passage, however, counts decisively against the first way out. For at 2a19ff. Aristotle says that if something is said[]of a subject both the name and definition are necessarily predicated of the thing. This is just (10a), so relinquishing it can hardly be an option.

The second way out of SSOP involves giving up both (9a) and (9b). Begin by granting that TR is committed to (10a) and (10b). Now let  $d_s G_s$

<sup>61</sup> For example, at *Metaphysics* H.6, 1045a33–b7.

<sup>62</sup> At *Metaphysics* B.3, 998b22–7 and K.1, 1059b24–34.

<sup>63</sup> Indeed, it follows from (13) and (10b).

be the definition of  $G_n$ , the genus occurring in the immediately preceding definition (recall the tree structure given above). Then we can say that  $G_n$  is said[]of Socrates, where  $G_n$  is the penultimate genus. However, the ultimate genus,  $G_s$ , is not said[]of anything. It is simply the genus that can't be replaced in favor of a further differentia + genus complex; that is,  $G_s$  is the genus that has no definition. In the case at hand, of course, this genus is just substance.

On this second way out, nothing prevents our saying that the 0-level individuals have been sorted properly and appropriately, starting with their 0-level synonymy groups and proceeding upward via TR, precisely when we reach the ineliminable generic terms preceded by the differ- entiae that remain after the subordinate genera have been eliminated. In short, the category terms are simply the stopper terms. So we can, after all, provide for

14.  $s$  is a  $d_1, d_2, d_3 \dots d_s$  substance,

and, hence, for the categorial grouping proposition that  $s$  is a *substance*.

Moreover, on the second way out of SSOP, we can grant (13), which is what derailed the first way out, because we are free to deny (9a) and (9b) without sacrifice to groupings of the sort that (8) records. In short, (8) does not entail (9a) or (9b). Thus, TR is simply the principle that gets us to the ineliminable genera, namely, the categories. It is precisely in this sense that it is a ladder principle. In short, for TR to sort individuals into categories without losing track of their natures, it is not required that substance be said[]of Socrates but only that  $G_n$  be said[]of Socrates, where  $G_n$  in turn is a  $d_s$  substance.<sup>64</sup>

Finally, it is a mark in favor of our account that if it is correct, then Aristotle's fixed view that *being* is not a genus deeply informs the program of the *Categories*. Despite the fact that it is not an explicit topic of discussion, the strategy of the work is designed to preserve the thesis come what may. For this reason it is misleading to take the *Categories* to contain a theory of *being* as a single kind of thing. As Aristotle says in *Metaphysics*→.2, *being* falls directly into kinds (ὑπάρχει . . . εἰθὺς γένη ἔχον τὸ ὄν, 1004a4–5) and these are irreducibly different

<sup>64</sup> Some might still worry about the fact that (9a) and (9b) are false, yet "Socrates is a substance" is true. Presumably, the worry is that the latter is a strong predication, having something to do with Socrates' essence, and cannot be captured without using the said- of relation and synonymous predication. I reply, first, that Aristotle *cannot* use (9a) and (9b) for the reasons given. So "Socrates is a substance" is forthcoming as a trivial inference from "Socrates is a  $d_1, d_2, d_3, \dots d_s$  substance." But, second, because the latter is the result of successive operations of TR and because TR builds in strong predication, there is no diminution in the strength of "Socrates is a substance."

kinds.<sup>65</sup> So the theory is a theory about *what is*, more precisely, about the basic sorts of things that are; and, so, each thing that exists is of one such irreducible kind.

The theory of the *Categories* is not, however, merely a taxonomic artifact. On the contrary, its account of the basic sorts of things that exist is tailored to fit a surprisingly sophisticated semantical theory. For it yields a theory of the underlying ontological configurations for standard categorial statements. This theory tells us what things must exist and in what relations they must stand for a given such statement to be true. Moreover, the theory is foundationalist insofar as items of one basic kind, primary substance, underlie those of the other kinds. The essential ingredients of this semantical theory can be extracted from chapter 2's meta-ontology, MO, and I shall get to that in Chapter III. But first we must say something about one particularly difficult feature of MO's type-III items, those in a subject but not said of a subject, namely, whether they are nonrecurrent particulars or a kind of determinate universal. Our position here will dramatically affect what we say about the relation between primary substances and everything else. And, of course, it will have everything to do with the claim that the world of the *Categories* is fundamentally a world of individuals.

<sup>65</sup> Some might grant that Aristotle denies that *being* is a genus but insist that, in making it a problem for Aristotle, I am making too much of the point. In particular, they might deny that he means to rule out that *being* can be divided into species, arguing, perhaps, that his announcement at *Metaphysics* Γ.1, 1003a21–2 that there is a science that studies being *qua* being announces a science that studies different kinds of *being*. And, goes the objection, if there are kinds of being, there must be a genus of which they are kinds. Further, this notion of a genus would be something like a general class and thus differ from the notion involved in the proof that being is not a genus, where it is a classificatory notion. So Aristotle need not be embarrassed about saying that the category of substance is definable. This would certainly solve our problem but in too easy a way. Indeed, the proposal is odd. For one thing, the proposition that substance is definable, in (11a) and (11b), follows from propositions that mention definition in a technical sense, propositions such as (10a) and (10b). Hence, the relevant notion of a genus will also be the technical classificatory notion. Likewise, for the species. If to be a species is to be something that has one or more differentiae, then *being* most emphatically is not divisible into species. Exactly this is expressed in the *Metaphysics* Γ.2 passage that says *being* falls *directly* into kinds, i.e., into categories. Thus, there are no species of being in the technical sense of the *Categories* and so the definability of substance is, after all, an issue that needs to be addressed. Moreover, being is said in many ways. So if it constitutes a genus, it is a genus that does not provide a single signification for the term 'being'. This sort of being could not be involved in any kind of definition of *substance*. The point is further confirmed in *Metaphysics* H.6 when Aristotle asserts that being is not a genus and that it is not to be included in the definition.

## II Nonsubstantial Individuals

The rock-bottom items of the *Categories* are individuals. Those neither present-in nor said-of a subject are unproblematic. They are primary substances such as Socrates and Secretariat—what I am calling c-substances. But the identity of those that are present-in but not said-of a subject is a matter of lively debate. Roughly, two schools of thought dominate discussion. For some, type-III items, to mark their position in MO, are nonrecurrent accident particulars; for others, they are fully determinate accident properties. I begin with Ackrill's version of nonrecurrence, the progenitor of the modern debate, and then turn to Owen's attack, which established what may be called the new orthodoxy.<sup>66</sup> After assaying Owen's arguments, I consider a kindred but improved version due to Frede. Finally, I argue for a new version of the standard nonrecurrence view. This will lay the foundation for the account in Chapter III of ontological commitment and the attendant notion of an underlying ontological configuration.

### 1. The Standard Version

The terms of debate are set by 1a23–5, where Aristotle introduces the type-III items of his meta-ontology (MO):<sup>67</sup>

Some 〈things that are〉 are in a subject but not said-of a subject. By ‘in a subject’ I mean what is in something, not as a part, and cannot exist separately from what it is in (χωρίς εἶναι τοῦ ἐν ᾧ ἐστίν <sup>ἐν ὑποκειμένῳ δὲ λέγω, ὃ ἐν τινι μὴ ὡς μέρος ὑπάρχον ἀδύνατον</sup>).

Here, with subscripts added, is how Ackrill formulates the crucial parenthesized condition.<sup>68</sup>

<sup>66</sup> Owen (1965a).

<sup>67</sup> See Ch. I, where I outline the meta-ontology contained in ch. 2 of the *Categories*: type-I items are those neither said-of nor present-in a subject (substance individuals); type-II items are those said-of but not present-in a subject (substance universals); type-III items are those present-in but not said-of a subject (nonsubstantial individuals); type-IV items are those said-of and present-in a subject (nonsubstantial universals).

<sup>68</sup> Ackrill (1963: 74).

- (a) ACK.  $A$  is in<sub>1</sub> $B \equiv A$  is in<sub>2</sub> $B$  &
- (b)  $A$  is not a part of  $B$  &
- (c)  $A$  is inseparable from  $B$ .

Being-in<sub>1</sub> is a defined technical notion. In order to avoid circularity, being-in<sub>2</sub> in (a) must be a different relation. Ackrill says it catches the very general ordinary-language sense in which one would say that one thing is in another. The problem of circularity will be revisited later. For the moment, however, the focus is on (c). Because  $A$  cannot exist apart from  $B$ , ACK entails not just that a type-III individual depend for its existence on substance but that it depend on the very substance it is in. Thus, individuals in nonsubstance categories must be particular to the substance they are in.<sup>69</sup> And this has been taken to entail that they are particulars, that is, nonrecurrent individuals that fit the prescription, “once gone, always gone.” It is clear that this prescription expresses Ackrill’s intuition on the identity of type-III items, but it is less clear that the intuition is adequately captured by ACK. We get to this two sections below, after establishing the terms of debate.

## 2. Owen's New Orthodoxy

The modern debate over nonsubstantial individuals was joined in 1965 with the appearance of G. E. L. Owen’s “Inherence.” The article contains a series of arguments against Ackrill’s view and proposes an alternative to it. In particular, Owen was keen to press the view on two of its entailments,

1. ACK  $\rightarrow$  (A1)  $A$  can be identified only if  $B$  can be identified & (A2) No general property can be in  $B$ .

In particular, he directed two logical arguments against (A1) and two textual arguments against (A2). Although many have found Owen’s arguments convincing,<sup>70</sup> including some who do not endorse all details of his positive view,<sup>71</sup> and a few have argued for the nonrecurrent nature

<sup>69</sup> Although not of central concern, something should be said about condition (b). Were it absent, then the parts of a substance would satisfy the necessary and sufficient conditions for being an accident. A head, for example, is in a body, in some loose sense of the term, and cannot exist apart from it (as is clear from *Metaphysics* Z.10 and 11). And this holds in general for parts of substances. Yet, by no stretch of the imagination is the head an accident of the body. Hence the inclusion of (b). In the same vein, were only (a) and (b) in place, it would follow that the contents of a bottle count as one of its accidents. But this is hardly plausible, for the wine surely survives its journey from bottle to goblet and, hence, can hardly be an accident of the bottle. Thus, (c)’s inclusion rules out such “container/contained” counterexamples.

<sup>70</sup> For example, Furth (1988: 16).

<sup>71</sup> For example, Matthews and Cohen (1968: 40).

of nonsubstantial individuals without attempting to meet all of Owen's criticisms,<sup>72</sup> Owen's arguments can no longer be considered to have the force once granted them. In particular, the two logical arguments—the paradox of breakdown of categories (BREAK) and the paradox of implication (IMP)—have no independent force against (A1). BREAK says that because the type-III item present-in Socrates must be identified as a property *of* Socrates, all type-III items are relatives. Hence, all nonsubstantial categories reduce to relatives. IMP argues that, where a color is in Socrates' body, (A1) precludes “The color in Socrates' body is pink” as ill-formed and licenses only “The color of Socrates' body is Socrates' pink.” But the latter is completely uninformative. So ACK cannot account for straightforward predication of accidents.

However, BREAK and IMP both turn on what might be called the “what–which” equivocation. A request to identify a particular feature of something can be a request to say of what kind the particular feature is or a request to say which particular feature of the kind it is. Now suppose that  $\mathcal{A}$  is a nonrecurrent bit of pink. When queried about Socrates' color, I can very well respond that it is pink without any mention of Socrates because I can say of what kind  $\mathcal{A}$  is without mentioning Socrates. Of course, I cannot say which particular of the kind  $\mathcal{A}$  is without mentioning Socrates. But this is hardly surprising. It is only by conflating these two kinds of requests that Owen can deride ACK as a joke for entailing that “two things cannot be said to have the same particular size when they are both six feet tall.”<sup>73</sup> Two things cannot have the same particular instance of the same size but surely they can have different particulars (particular instances) of the same particular *kind* of size. Statement (A1) demands nothing more than this.

On their own, then, Owen's two logical arguments are ineffective against ACK. Although this has not gone unmentioned, the following appears to have escaped notice.<sup>74</sup> The above response to BREAK and IMP says that Socrates' color is pink in a perfectly straightforward way because the nonrecurrent item present-in Socrates is of the kind pink. Thus, it endorses the existential closure of

2. Socrates is pink  $\rightarrow$  (a)
  - $x$  is a nonrecurrent particular &
  - (b) *pink* is said-of  $x$  &
  - (c)  $x$  is present-in Socrates.

Now if to say that Socrates is pink is to say what color is in Socrates, then (2) must imply not just that pink is in Socrates but that the pink

<sup>72</sup> Heinaman (1981*b*), for example, lays out evidence for the existence of nonrecurrent nonsubstantial individuals without meeting what I am calling Owen's logical arguments.

<sup>73</sup> Owen (1965*a*: 102).

<sup>74</sup> Even by Allen (1969), who provides effective criticisms of the logical arguments. Jones (1972) also contests the logical arguments.

that is in Socrates is, or includes, the general property, *pink*. This is implicit in the claim that one can perfectly well say what color is in Socrates without mentioning him because the kind, of which the color in Socrates is an instance, can have other instances. The response, thus, assumes that general properties can be present-in MO's type-I individuals. But this is precisely what appears to be ruled out by (A2). No doubt some will take this as restoring force to Owen's logical arguments. But what it really shows is that the textual arguments are the only arguments Owen has got.

The first textual argument, meant to loosen ACK's grip, builds on the examples Aristotle himself uses in setting out MO. At 1a25–9 we get type-III items:

For example, the individual bit of grammatical knowledge (ἡ τις γραμματικῆ) is in a subject, the soul (τῆ ψυχῆ), but is not said-of any subject; and the individual bit of white (τὸ τι λευκόν) is in a subject, the body (for all color is in a body), but is not said-of any subject;

and at 1b1–3 we get type-IV items:

For example, knowledge is in a subject, the soul (τῆ ψυχῆ), and is also said-of a subject, grammatical knowledge (τῆς γραμματικῆς).

The worry is that the same thing, the soul, is made, in the first passage, the subject of an individual bit of linguistic knowledge and, in the second passage, the subject of knowledge in general. But if type-III individuals are nonrecurrent particulars, they can be in at most one soul. Thus, Aristotle ought to have said that the individual knowledge of grammar is in the particular soul. But he does not. Owen warns that it is not “open to a dogmatic [defender of ACK] to read ‘in the soul’ as either meaning or even implying ‘in a particular soul’, otherwise the second example [at 1b1–2] is a mistake.” But here it is Owen who is mistaken. For nothing prevents reading ‘in the soul’ in this way in the first example but not in the second. After all, on the traditional account, the examples fall into different divisions of a *meta*-ontology and there is no reason to demand a uniform reading of ‘in the soul’ across such divisions.

The second textual argument relies on a much more recalcitrant passage. At 2a36–b1 Aristotle says that animal is predicated of man and, therefore, also of an individual man, because were it not predicated of some individual man it would not be predicated of man at all. He immediately extends the point to color:

Again, color is in body (τὸ χρώμα ἐν σώματι), and, therefore, in an individual body (ἐν τινὶ σώματι), because were it not in some individual body (μὴ ἐν τινὶ τῶν καθ' ἑκαστα) it would not be in body at all (οὐδέ ἐν σώματι ὅλως). (2b1–3)



This appears flatly to contradict ACK because it entails that the property that is in body in general is also in the individual body. Since this property must be a general property, (A2) and, thus, ACK must be false. In the face of this, Ackrill was forced to discount the passage as “compressed and careless.” What Aristotle should have said, according to Ackrill, is that individual color is in individual body.

Notice that this is compatible with two different paraphrases of 2b1–3. The first takes the passage to affirm ACK's view that colors in general are only in body in general and that individual colors are only in individual bodies:

Again, color is in body and, therefore, ⟨individual color is in⟩ individual body because were it ⟨individual color⟩ not in an individual body, color would not be in body at all.

On the second, rather more extended paraphrase, 2b1–3 reads:

Again, color is in body and, therefore, ⟨individual color is in⟩ individual body because were it ⟨individual color⟩ not in an individual body, it ⟨individual color⟩ would not be in ⟨anything⟩ at all.

Although Ackrill appears to have the first paraphrase in mind, the second actually provides stronger ammunition for ACK. For it construes the expression “not in body at all” as saying that the individual color will not exist at all should it not be in the very body it is in. This, however, makes the logic of the passage difficult. In any case, both paraphrases depend on finding textual compression where none is indicated. 2b1–3 itself is carefully drawn and, as Owen emphasized, provides the intended parallel for the immediately preceding case of secondary substances. Nonetheless, Ackrill's maneuver would be tolerable were it beyond question that Aristotle holds ACK or something akin to it. For, otherwise, the theory of the categories would be inconsistent. It is, then, incumbent on critics of ACK to provide an alternative interpretation of type-III items. Here Owen's new orthodoxy takes the stage.

Owen took type-III individuals to be maximally determinate properties, that is, properties that are not further determinable. Thus, we may suppose that white will be determinable into, for example, chalk white and lily white. These, like Owen's made-up example *vinke*, are maximally determinate colors. Unlike white, which is said-of it, chalk white is said-of no subject. It can, nonetheless, be present in more than one subject and, hence, is a recurrent individual.<sup>75</sup> In order to sustain this view, Owen

<sup>75</sup> This is a perfectly acceptable construal of ‘individual’. As a number of scholars have argued (Code, 1984; Driscoll, 1981; Lear, 1987), because what is individual is what is not further divisible, both particulars and maximally determinate properties count as individuals.

needs to provide an alternative formulation of the crucial sentence at 1a24–5: “By ‘in a subject’ I mean what is in something, not as a part, and cannot exist separately from what it is in.” The sentence, he suggests, commits Aristotle only to the general dependence of nonsubstantial individuals on subjects. That is, a nonsubstantial individual must only be in some subject or other. We may formulate this as

OWN.  $x$  is a nonsubstantial individual  $\equiv$

- (a)  $x$  is in something,  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c)  $x$  cannot exist apart from something,  $z$ .

On OWN, a type-III individual can exist apart from what it happens to be in so long as it is in something. As Owen sees it, 1a24–5 is prompted by Aristotle's rejection of Platonic forms—those special entities that may be instantiated but need not be. In denying this at (c), OWN in effect provides an answer to Plato's separation of the universal.

It is important to be clear on exactly what Owen accomplishes. Suppose that OWN is the correct reading of 1a24–5. This shows, against Ackrill, that the text does not *establish* ACK, but it does not show that nonsubstantial individuals cannot be nonrecurrent particulars. For precisely this would result from OWN were  $y$  and  $z$  identical. What *retires* ACK is the textual argument. So ACK is, ultimately, undermined by its commitment to (A2)—the claim that no general property can be in a particular subject. It does not follow from this, however, that type-III individuals must be recurrent items, but only that Ackrill's version of nonrecurrence is unacceptable. I shall shortly urge the merits of a new revised standard version of nonrecurrence. It will, however, prove useful to set the scene by considering a more recent incarnation of the recurrence account.

### 3. The New Improved Orthodoxy

What I am calling the new improved orthodoxy is due to Frede and has been endorsed by a number of scholars, including Matthews.<sup>76</sup> Before getting to the view itself, it is important to consider Frede's arguments against nonrecurrence because they turn out to be more effective than Owen's arguments in challenging nonrecurrence, in particular, the revised version of nonrecurrence I propose below. To Owen's second textual argument, Frede adds 2b3ff. and 2b27ff. The first holds that everything, including general properties, is dependent on primary

<sup>76</sup> Frede (1987*b*) and Matthews (1989) and (1991).

substances and, hence, refutes the claim (A2) that general properties cannot be in individual subjects.<sup>77</sup> This does not, however, refute ACK's kindred entailment

A2'. Individual properties can only be in individual subjects;

and (A2') may turn out to be enough to salvage the nonrecurrent status of type-III items.<sup>78</sup>

More is claimed for the second text, 2b37ff. In explaining why species and genera of primary substances also merit the title 'substance' Aristotle says that as primary substances stand to *everything else* so species and genera stand to *all the rest*:

all the rest are predicated of them (κατὰ τούτων πάντα τὰ λοιπὰ κατηγορεῖται) because to call a certain (individual) man grammatical is to call a man and an animal grammatical (τὸν γὰρ τινα ἄνθρωπον ἔρεις γραμματικόν: οὐκοῦν καὶ ἄνθρωπον καὶ ζῷον γραμματικόν ἔρεις). And similarly in other cases.

This passage is more difficult for proponents of nonrecurrence. For in claiming that a property of an individual subject is also a property of a general subject it appears to deny (A2'). This assumes, however, that the first property is itself an individual property. But the explanation in the 'because-clause' (i.e., the enclosed γὰρ-clause) does not establish this, for we can take the property involved in my calling Socrates grammatical

<sup>77</sup> As Frede says, "general properties, too, must have individual objects [type-I items] as their subjects" (1978/1987a: 59). However, a diehard advocate of ACK could point out that the point of 2a34–b6 is to secure the conclusion that if primary substances did not exist, it would be impossible for anything else to exist. But this does not require that general properties be in primary substances *if* there is another way to establish their dependence on them. One might, for example, assert something like (a): *F* is said-of *f* & *f* is in a primary substance  $x \rightarrow F$  depends on primary substance, and dogmatically insist that (a) is compatible with (b): *F* is not present-in a primary substance. Of course, this will not salvage ACK in view of the fact that the second Owen textual argument, endorsed by Frede, contradicts (A2).

<sup>78</sup> Benson (1988) thinks (A2) is knocked out by 2b1–3 (cited in sect. 2 above) because he takes the lines to "suggest" the principle: (B1) If *x* is present-in *y* & *z* is said-of *y*, then *x* is present-in *z*. But the suggestion is not to be found in the text, which does not mention individual properties at all. He further thinks that 1b10–15 establishes the same result, only more strongly. This passage he takes simply to assert the transitivity of the *said-of* relation, as opposed to a more complex principle (such as the principle dubbed 'TR' in Ch. I). Even following his reading—(B2) If *x* is said-of *y* & *y* is said-of *z*, then *x* is said-of *z*—it is not clear how "the particular property present-in its unique primary substance" (291) is also present in its species, genus, and so on. This assumes, first, that every case of *x* being in *y* is a case of *x* being predicated of *y* and that *x* being predicated of *y* is equivalent to *x* being said-of *y*. Both are required to bring the inherence of nonsubstantial individuals under B2 yet both are in need of argument. Second, B2 is of use to Benson only on the assumption that Aristotle holds B1. So it can hardly establish the same point more strongly. And, as we have seen, B1 exceeds the constraints of Aristotle's text.

to be a general property. Although this knocks out (A2), it leaves (A2') untouched.

Against this it will be objected that the occurrence of 'all the rest' (underlined) must include everything other than primary and secondary substances, hence, general as well as individual properties. That is, the objection assumes that by 'all the rest' Aristotle means all the remaining items in MO. But when Aristotle says in the final line "similarly in other cases" he cannot mean this. Rather, he means that his point will hold for any other accident as well. And here he is concerned with divisions among the categories (which he has by now introduced) not with formal divisions within the *meta*-ontology of MO. On this view, he simply does not mention type-III individuals specifically. On the traditional view there would be a reason for such benign neglect, namely, that the canonical definition at 1a24–5 makes it obvious that they don't rate status as substance because they are strongly dependent on substance. This gains some plausibility in light of 3a36–7's rule that there is no predicate from a primary substance *because it is said-of no subject* (κατ' οὐδενὸς γὰρ ὑποκειμένου λέγεται). As type-III items nonsubstantial individuals are also not said-of anything. And this clashes with the supposition that the property that is predicated in calling an individual man grammatical is an individual property. These considerations are, I think, enough to weaken the evidential value of 2b37ff.<sup>79</sup>

In MO itself, however, there may be trouble for friends of nonrecurrence. For immediately after the definition of *being-in*, at 1a25–9, Aristotle gives an example of type-III individuals that is taken to establish their recurrent character. Owen, recall, combined this passage with 1b1–2, in arguing, against (A2), that general properties are in individual subjects. However, as we saw above, this argument is not unassailable. Frede, on the other hand, fashions from 1a25–9 alone a rather more effective argument—an argument against (A2') rather than (A2). The passage, again, reads

For example, the individual bit of grammatical knowledge (ἡ τις γραμματικὴ) is in a subject, the soul, but is not said-of any subject; and the individual bit of white (τὸ τὶ λευκόν) is in a subject, the body (τὸ σῶμα) because all color is in a body (ἕκαστον γὰρ χροῖμα ἐν σώματι) but it is not said-of any subject.

The crucial point concerns the explanation in the because-clause (enclosed γὰρ-clause). Roughly, we have

<sup>79</sup> Of course, they raise the question of the exact relation between type-III items and ordinary predications and, thus, the question of how MO's items provide the underlying ontological configurations for such predications. This is, however, not our immediate concern. Although I reserve detailed comment until Ch. III, it is worth pointing out now that the considerations of this paragraph belie Benson's confidence (1988: 292–3) that 3a1–4 shows that every *being-in* relation is itself a predication relation.

3.  $w$  is an individual bit of white  $\rightarrow$  for some subject,  $x$ ,  $x$  is a body &  $w$  is in  $x$

explained by

4.  $y$  is (a) color  $\rightarrow y$  is in (a) body.

The inference from (4) to (3) assumes

- 4a.  $w$  is an individual bit of white  $\rightarrow w$  is (a) color.

Both friends and foes of nonrecurrence can accept (4a). Divergence begins with the demands placed on (4) by a nonrecurrent reading of (3). Frede argues that were (3) read nonrecurrently, as

- 3\*.  $w$  is a nonrecurrent individual bit of white  $\rightarrow$  for some subject,  $x$ ,  $x$  is a body &  $w$  is in  $x$  &  $x$  is an individual,

then (4) would have to be read as

- 4\*.  $y$  is (a) color  $\rightarrow$  for some subject,  $x$ ,  $x$  is a body &  $y$  is in  $x$  &  $x$  is an individual.

Had Aristotle intended (4\*) he would have written “the individual bit of white is in a subject, the *individual* body (τῷ ἐν τινὶ σώματι) because all color is in an *individual* body (ἐν τινὶ σώματι).” So Frede, who correctly observes that Aristotle has available more complex pronominal expressions, such as ἡ τις γραμματικὴ (a certain bit of grammar) and τὸ τὶ λευκὸν (a certain bit of white), when he is at pains to indicate that he is talking about individuals. Therefore, (3) is not to be read nonrecurrently and, hence, individual color is in body in general. This is a powerful argument. Unlike the argument Owen found in 1a25–9 (with 1b1–2), Frede's argument strikes directly at (A2') and so appears to block any version of nonrecurrence.

There may, however, be a way to weaken the argument's force. For suppose that (4) is to be read, in an entirely general way, as asserting that color, whatever it is, is always in body, whatever it is, and that this is the reason that individual color is in individual body. Rather than (4\*), we have something like

- 4\*\*.  $y$  is (a) color  $\rightarrow$  for some subject,  $x$ ,  $x$  is a body &  $y$  is in  $x$  &  $x$  is individual  $\vee x$  is non-individual.

Statement (4\*\*) is weaker than (4\*) but strong enough for (3). Moreover, nonrecurrentists may argue that precisely because Aristotle assumes (and assumes that his audience assumes) that τὸ τὶ λευκὸν (a certain bit of white) is a nonrecurrent individual, he does not make explicit the fact that the subject is particular. Besides, he has just said, in defining type-II items, that the subject, of which *man* is said, is the

*individual* man (ὁ τις ἄνθρωπος). Hence, we may fairly presume that this characterization continues to hold for the subjects of type-III items.

I do not presume that the above considerations are entirely decisive against Frede but only that they blunt the argument sufficiently to allow us to go forth in developing an alternative to his positive view. The new improved orthodoxy, as I am characterizing his view, takes 1a24–5 to define the class of entities that are in something as its subject—unlike ACK which takes the lines to define the relation  $x$  *being-in*  $y$ . Accordingly, Frede offers the following formulation of the crucial sentence:

F.  $x$  is in something as its subject, if there is a subject  $y$  such that

- (a)  $x$  is not a part of  $y$  &
- (b)  $x$  cannot exist independently of  $y$ .

F is Frede's view, but it won't do because its conditions are only sufficient. So let us replace it with

F\*.  $x$  is in something,  $z$ , as its subject  $\equiv$  there is a subject  $y$  such that

- (a)  $x$  is not a part of  $y$  &
- (b)  $x$  cannot exist independently of  $y$ .<sup>80</sup>

An advantage claimed for F\*, along with F, is that it avoids the problem of definitional circularity. But it does so at a price. For suppose that  $x$  is Socrates and  $y$  is the unmoved mover or that  $x$  is the αἴσθημα (perception) of  $y$  and  $y$  is a billiard ball. According to F\* it follows that Socrates is present-in the unmoved mover and that the αἴσθημα of a billiard ball is present-in the billiard ball. Both claims are farfetched at best. One might, of course, quibble with the way that Socrates and the αἴσθημα (perception) depend on, respectively, the unmoved mover and the billiard ball—arguing, perhaps, that this is causal rather than ontological dependence. But, arguably, both depend at every moment of their existence on the subjects in question (the unmoved mover and the billiard ball). Moreover, to take the second case, presence of the billiard ball just is part of what is involved in perceiving it.<sup>81</sup> So it will not do to say that they are merely necessary for Socrates and the αἴσθημα to have been *produced*. And to insist simply that the dependence of a property individual on its subject is of a different type is simply to beg the question. Of course, these counterexamples work only because F\* is formulated as an equivalence. Perhaps for this reason Frede

<sup>80</sup> F\* differs also in containing the variable ' $z$ ', a point I shall return to at the end of the chapter.

<sup>81</sup> So at *Physics* Z.2, 245a4–5, Aristotle says that the final thing that causes alteration and the first thing that is altered must be together (ἕνα ἐστὶ τὸ ἔσχατον ἀλλοιοῦν καὶ τὸ πρῶτον ἀλλοιούμενον). Even if the final thing that causes alteration (τὸ ἔσχατον ἀλλοιοῦν) is not the billiard ball but the air, or a movement in the air, F\* is still no better off. For now the perception (αἴσθημα) will have to be present-in the air.

formulated the new improved orthodoxy in terms of sufficient conditions only (i.e., F). But in this case we have no definition at all of the class of items that are present-in something as its subject.<sup>82</sup>

The counterexamples consisted of pairs of items that simply are not appropriately linked. This suggests that we need, after all, to include what Ackrill took to be the first necessary condition. So let us try

F\*\*.  $x$  is in something,  $z$  as its subject  $\equiv$  there is a subject  $y$  such that

- (a)  $x$  is in  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c)  $x$  cannot exist independently of  $y$ .

Here (a) appeals to a different and, presumably, nontechnical sense of 'in'. Although Ackrill has tried to articulate this, I do not think that it is particularly important to identify it. The main thing is that the definition is saved from circularity and in a way that is consistent with what we know of Aristotle. On the latter point, it might be useful to recall that his proof in *Metaphysics*  $\Gamma$  that one can't believe  $p$  &  $\neg p$  uses the principle of noncontradiction and that the *Posterior Analytics* defines demonstrative knowledge in terms of a more general notion of knowledge that applies to the premises of the demonstration. In neither case is circularity involved.

Matthews, a recent convert to the new improved orthodoxy, gives something like F\*\* as Frede's position.<sup>83</sup> For Owen's version he gives us

MOWN.  $x$  is in something,  $z$  as its subject  $\equiv$  there is a subject  $y$  such that

- (a)  $x$  is in  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c) it is not possible that  $x$  exists and that there be nothing  $x$  is in;

and for Ackrill's version we get

MACK.  $x$  is in something,  $z$  as its subject  $\equiv$  there is a subject  $y$  such that

- (a)  $x$  is in  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c) for anything  $u$ , if  $x$  is in  $u$ , then  $x$  cannot exist separately from  $u$ .

<sup>82</sup> Lewis (1991: 58, n. 15) suggests that circularity could have been avoided from the outset had Aristotle defined not the relational meta-property, *in a subject*, but the two-place relation  $x$  is in  $y$  :  $x$  is in  $y$   $\equiv$   $x$  is not a part of  $y$  and  $x$  cannot exist apart from  $y$ . Waiving Lewis's worry that this embraces Ackrill's strong reading of dependence, the reading is open to the same sorts of counterexamples we put before F\*.

<sup>83</sup> This is not quite accurate. Matthews (1989) is presenting various 'Ammonian' versions of 1a24–5. With Frede (1978/1987a), Ammonius takes the lines to define the class of things that are in a subject rather than the two-place relation,  $x$  is in  $y$ . Because these are accidents, his versions are formulated as definitions of accidents.

MOWN appears to be a fair rendition of what Owen intended. As it stands, however, MACK does not capture Ackrill's view because it does not entail the dependence of  $x$  on one *and only one* subject. All it says is that if  $x$  is in a subject, it must remain there—on pain of its destruction. To get dependence on one and only one thing we need to assume<sup>84</sup>

M1.  $x$  is in  $u$  &  $x$  is in  $w$  &  $u \neq w \rightarrow \diamond (x \text{ exists separately from } u \vee x \text{ exists separately from } w)$ .

We also need to assume that there are no weird distributed properties such as *the white in Socrates' nose and Callias' ear*. With these provisos in mind, we can, perhaps, upgrade MACK to

- (a) MACK\*.  $x$  is in something,  $z$ , as its subject  $\equiv$  there is a subject  $y$  such that  $x$  is in  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c) for anything  $u$ , if  $x$  is in  $u$ , then  $x$  cannot exist separately from  $u$  &
- (d)  $u = y$ .

MACK\* is, I submit, the gospel according to ACK. It does not, however, completely capture Ackrill's intuitive idea that what is present in something must fit the 'once gone, always gone' prescription.<sup>85</sup> Here it is important to be clear on the point that there are two parts to Ackrill's view—the particularity part (the nonrecurrence) and the dependence part. The idea is that an individual bit of white in Socrates' nose couldn't exist were it not in the very nose it is in and that, once gone, it can't recur. But these are separate notions: Substances are nonrecurrent particulars yet they are independent, and an individual color, say, Socratic white, might be dependent (in an odd, qualitatively subject-sensitive way) for being what it is on the one and only one thing it is in and yet still recur *in that thing*. Ironically, Ackrill's own formulation, ACK, as well as MACK\*, allows that values of  $x$  be universals so long as they are qualitatively subject-sensitive universals. For nothing prevents repeated instantiation of such a universal so long as it is instantiated in the same subject only. Socratic white would cease to exist when no longer in *Socrates* and resume existence upon revisiting him. Hence, it is a recurrent individual but not a particular. As we saw above, Owen wrongly thought that nonrecurrence entailed qualitative subject-sensitivity.<sup>86</sup> And now we see that subject-sensitivity does

<sup>84</sup> Frede (1978/1987a: 58) explicitly mentions the assumption.

<sup>85</sup> We could also get what ACK wants by stipulating that  $z$  and  $y$  are identical. This is forthcoming trivially from MACK\*, as is clear when the matter is put canonically:  $(x)(\exists z)((x \text{ is in } z \text{ as its subject} \equiv (\exists y)(x \text{ is in } y \text{ \& } x \text{ is no part of } y \text{ \& } (u)(x \text{ is in } u \rightarrow x \text{ cannot exist apart from } u \text{ \& } u = y))) \rightarrow y = z)$ .

<sup>86</sup> It is a point of some irony that Owen, so keen to nail ACK, offers, as a formulation of the view, something that in fact characterizes one of ACK's major competitors. His "if  $Z$  is in some subject, in the prescribed sense of 'in', then there is an  $x$  such that  $Z$  is in  $x$  and  $Z$  is no part of  $x$  and  $Z$  cannot exist *apart from*  $x$ " (Owen, 1965a: 104) matches, emphasis notwithstanding, not ACK but something like F\*\*. So Owen's canonical formulation articulates not the fugitive dogma but rather a view closer to his own.



not entail nonrecurrence. For Socratic white, Coriscan white, and their kind are universals. To finally catch Ackrill's nonrecurrent particulars, then, MACK\* needs to be appropriately fortified with temporal indices that give canonical force to the refrain 'once gone, always gone'.<sup>87</sup>

To enhance the attraction of the new improved orthodoxy, Matthews turns to the Greek commentators. He argues against MOWN and MACK and for F\*\* by considering two counterexamples proposed by Ammonius.<sup>88</sup> The first concerns Socrates' place and is directed against MOWN. Where  $x$  is Socrates and  $y$  is a place, Matthews suggests that (a), (b), and (c) of MOWN are satisfied and, hence, that Socrates is an accident because he is in a place. If Ammonius's place example counts against MOWN, it has no force against MACK\*. For if the place Socrates occupies is individuated by *his* occupation of it, it will surely be dependent on him.

However, MACK\* implies, as did ACK, that no general property can be in an individual subject. Ammonius's second counterexample is directed at this strengthened version of MACK. Inheriting the example from Porphyry, he asks us to consider the fragrance of an apple. It is, he says, separate from the apple and travels to us from the apple despite the fact that it is an accident.<sup>89</sup> The fragrance,  $f$ , is now in  $x$  and later in  $y$ . Hence,  $f$  cannot depend for its existence on  $x$  alone and so  $f$  is a counterexample to Ackrill. Matthews takes it to be a successful counterexample: "The fragrance-in-the-apple example counts, I think, against (iii) [i.e., MACK], assuming, as is plausible, that Aristotle supposes fragrance is an accident that can first be in the apple and later linger in the air" (102). This is a slightly odd remark because Matthews has just given his

<sup>87</sup> Lewis may overlook the distinction between nonrecurrence and subject-sensitivity in attributing to Ackrill (\*A3)  $x$  is in  $y$  and  $x$  is in  $z$ , only if  $y = z$  "because what is in a subject is an Ackrillian individual, or an individual instance of a property" (1991: 79). This is a case of saying the right thing for the wrong reason. For (\*A3) is made true when  $x$  is a subject-sensitive universal as well as when it is a nonrecurrent particular. Thus, *pace* Lewis, it is not true that no universal can stand in the (\*A3) relation to its subject. The mentioned insertion of temporal indices takes care of the problem. Scaltsas (1980 -1: 330-1) also appears insensitive to the distinction between nonrecurrence and subject-sensitivity, when he characterizes Ackrill's type-III items as, for example, "the colour whose life span is restricted by the life span of the particular substance in which it is found to be."

<sup>88</sup> See Ammonius (1991).

<sup>89</sup> A. A. Long first brought these cases to my attention. They have subsequently been discussed by Matthews (1989) and (1991) and now Ellis (1992), who discusses the history of the problem among Aristotle's commentators.

qualified approval to one Ammonian solution to the counterexample, namely, that the fragrance is an accident of the air brought about by the presence of the apple. This is not worth pressing because our chief concern is with Aristotle's *attitude* toward type-III individuals.<sup>90</sup> Even if, as Matthews holds, F\*\* is the most defensible position for Aristotle to have taken, it is not the position Aristotle took. This, at least, is what the evidence suggests. For Ammonius, and Porphyry before him, must have read Aristotle as holding something like MACK\*. This is because fragrance works as a counterexample *only* on the assumption that it is a *particular*. Were the apple's specimen fragrance a universal, even a maximally determinate universal, its presence in different subjects would raise no philosophical eyebrows.

We pointed out above that the dependence of nonsubstantial individuals, even in the strong sense required by Ackrill, must be kept separate from their status as nonrecurrent particulars. The case of fragrance fails to rule out the possibility that nonsubstantial individuals are nonrecurrent particulars. When the migrating fragrance, *f*!, finally does go out of existence, friends of nonrecurrence can simply insist that *f*! cannot recur. At most, the case can show that certain nonsubstantial individuals do not depend on a single subject in the strong sense required by Ackrill.<sup>91</sup> So from this point of view, also, it remains open that type-III items are nonrecurrent particulars.

## 4. The Revised Standard Version

In the previous several sections I have attempted to weaken a number of objections to interpreting nonsubstantial individuals as nonrecurrent particulars. In part, this was achieved by distinguishing between a type-III item's nonrecurrent status and its dependence on a single subject. The failure of the Ammonian-fragrance case against the first but not the second means that somethings's being nonrecurrent is not sufficient for its being strongly dependent. That is,

5.  $x$  is nonrecurrent &  $x$  is in  $y \rightarrow x$  cannot exist apart from  $y$

<sup>90</sup> Ammonius himself appears to have favored a second solution, on which the fragrance comes with a bit of the substance of the apple. Matthews (1989) remarks that on the favored solution fragrance does succeed as a counterexample to ACK/MACK\*. Again, it is hard to see how this could count against taking MACK\* as Aristotle's favored view.

<sup>91</sup> Thus, Matthews (1989: 100) seems wrong to insist that the second Ammonian solution presupposes MOWN or F\*\*. Even assuming that *f*, now in apple-bit *b*, was once in apple *a*, it does not follow that *f* is recurrent. So if MOWN and F\*\* entail that accidents are recurrent, then they are not presupposed by Ammonius's favored story.

must be false. This is of some importance for the debate over nonsubstantial individuals because virtually all parties have assumed that proponents of nonrecurrence must take 1a24–5 to assert the following equivalence

6.  $x$  is nonrecurrent &  $x$  is in  $y \equiv x$  cannot exist apart from  $y$ .

But, as we saw a few paragraphs back, subject-sensitive universals may satisfy the right side of (6) only and, as we have just seen, migrating accidents may satisfy the left side only. There is no doubt, I think, that Aristotle would regard these cases as exceedingly odd—much as he would regard conjunctive accidents such as *the white in Socrates' nose and Callias's ear*. So, although these cases might call for reformulation of 1a24–5, the target of preservation will remain the standard view. So at least will friends of nonrecurrence urge.

Such maneuvering will be in vain, however, if proponents of the new orthodoxy can produce a new and non-standard interpretation of 1a24–5 *as it stands*. Frede appears to have accomplished just this. Slightly modified, Frede's version was given as

F\*\*.  $x$  is in something,  $x$ , as its subject  $\equiv$  there is a subject  $y$  such that

- (a)  $x$  is in  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c)  $x$  cannot exist independently of  $y$ .

Frede is quite right to observe that the standard version of nonsubstantial individuals relies on interpreting 1a24–5 in accordance with ACK. As such it falls victim to the incontrovertible fact that the *Categories* explicitly allows that general, as well as individual, properties are in individual subjects. But, as we have suggested, it would be a mistake to conclude too much from this. First, from the fact that ACK has been replaced by F\*\* we cannot automatically conclude that type-III individuals are recurrent properties. Second, from the fact that ACK/MACK\* is objectionable and so cannot be taken to establish the nonrecurrent status of nonsubstantial individuals, it does not follow that such individuals are not, nonetheless, nonrecurrent. Indeed, the next section will argue just this. Before that, however, something should be said concerning the first point.

Why, then, is adoption of F\*\* not sufficient for rejection of nonrecurrence? Begin by noting that F\*\* shares something critical with ACK/MACK\*, namely, the intuition that accidents are the sorts of things that are strongly dependent on something. But whereas ACK takes this to be an individual subject, F\*\* takes it to be a general subject. In terms of MO, what goes for 'y' in F\*\* will be a type-II rather than a type-I item. The individual white in Socrates can exist apart from him

and apart from any given individual body but it cannot exist apart from body in general. Thus, F\*\* combines commitment to strong dependence, usually associated with Ackrill, with rejection of nonrecurrence, standardly associated with Owen. It is, however, not quite right to suggest that F\*\* makes it “clear that individual properties also *are not* peculiar to the individuals whose properties they are” (Frede, 1978/1987a: 62, my emphasis). What F\*\* establishes is that nonsubstantial individuals *need not* be peculiar.<sup>92</sup>

With F\*\*, I take it that at the heart of the notion of a nonsubstantial property is the idea that there is *a* subject apart from which it cannot exist. This much is common to F\*\* and ACK/MACK\*. ACK/MACK\* went wrong because of the requirement, registered in (A2), that general properties cannot be in individual subjects. A solution to this problem would keep the spirit of ACK/MACK\* alive, even if the letter of the view is dropped. The revised standard version proposed in this section might be called the two-case interpretation because it recognizes, at least initially, two cases of strong dependence. Moreover, it achieves this with minimal adjustment to Frede's version. To F\*\*, we conjoin a condition that spells out two cases of strong dependence:

- (d)  $F+. y = z \rightarrow x$  is an individual  $\equiv y$  is an individual  $\vee$
- (e)  $x$  is general  $\equiv y$  is general.

For Frede, all nonsubstantial items, individual as well as general, are strongly dependent on general subjects. No more than color or white can the nonsubstantial individual, chalk white, exist apart from body in general. On our view, however, all such colors are universals and so only case (e) corresponds to the strong dependence that Frede takes to be the hallmark of 1a24–5's formulation of *being-in*. Case (d), on the other hand, registers the strong dependence of nonsubstantial particulars on the individual subjects they are in.<sup>93</sup> So it might appear that F+(d) yields ACK/MACK\* and, hence, is to be faulted for entailing (A2). But this is mistaken. For F+ distinguishes two cases on the assumption that  $y$  and  $z$  are the same. It says nothing about the case where  $y$  and  $z$  are different; and the inherence of a general property in an individual subject is just such a case. So F+ does not have the consequence that no general properties can be in an individual subject. Just as the strong dependence of nonsubstantial individuals on their subjects is compatible with their subjects' having general properties, so also the strong dependence of general properties on general subjects is compatible with their presence

<sup>92</sup> The stronger claim requires, as Frede is aware, that individual properties also be properties of the genera and species. But the sole passage summoned in support of this, 1a25–6, is a passage whose evidential value I have neutralized in sect. 3 above.

<sup>93</sup> Subject, of course, to the kinds of provisos we have discussed above.

in individual subjects. We could, then, with Frede, take 1a24–5 to define a notion of strong dependence, but, unlike Frede, allow that there are two sorts of strong dependence. Most importantly, F+ does not rule out the possibility that general properties are in individual subjects and, hence, the two-case interpretation is not committed to (A2).<sup>94</sup> It, thus, avoids the fate that befell ACK/MACK\*. In short, we are free to maintain both that nonsubstantial individuals are nonrecurrent particulars and that general properties can be in individual subjects.<sup>95</sup>

## 5. Independent Evidence in the Categories

With F+ we can give 1a24–5 a two-case reading. Now one might object that had Aristotle intended any such thing he would surely have been more explicit on the point. However, this just amounts to holding that 1a24–5 is not sufficiently fine-grained to determine either interpretation. Formulations notwithstanding, it remains neutral on the nature of nonsubstantial individuals. This, I submit, is close to the truth. Of course, it does not follow that the *Categories* does not construe nonsubstantial individuals as nonrecurrent particulars. For there may be other signs of such commitment.

A number of passages in the first five chapters of the *Categories* shift the argument in favor of nonrecurrence. Although no one passage asserts this singly, together they entail that nonsubstantial individuals are nonrecurrent particulars.<sup>96</sup> We may begin with 1b6–7:

Things that are strictly individual and numerically one are, without exception, not said of any subject  
(ἀπλῶς δὲ τὰ ἄτομα καὶ ἐν ἀριθμῷ κατ' οὐδενὸς ὑποκειμένοι),

<sup>94</sup> One might object that on the two-case interpretation, 1a24–5 fails to cover the case of a general property being in an individual subject. But this assumes that the lines intend to define a completely general *relation*. On this assumption, of course, F\*\* is no better off. If, however, Frede is correct in taking 1a24–5 to define the class of items that are in a subject, then the two-case interpretation is materially adequate. For it includes in the class both individual and general nonsubstantial properties.

<sup>95</sup> This also answers Matthews's (1991) worry that classing type-III items as nonrecurrent particulars would ruin the *Categories*' bold "this-worldly" thesis that primary substances are literally subjects for everything else. For the alleged problem, namely, that "color can exist . . . simply by virtue of being in body—not in this particular body or that particular body, but just body," is a problem for Ackrill's *account* of nonrecurrent nonsubstantial individuals, but not for the nonrecurrent individuals themselves.

<sup>96</sup> This is the sort of evidence that tells against, for example, Matthen's (1978) view that the *Categories* contains no textual grounds for raising, let alone adjudicating, disputes over matters such as the status of nonsubstantial individuals.

and 3a36–7:

For from a primary substance there is no predicate, since it is said-of no subject  
(ἀπὸ μὲν γὰρ τῆς πρώτης οὐσίας οὐδεμία ἐστὶ κατηγορία κατ' οὐδενὸς γάρ).  
(ὑποκειμένου λέγεται).

These passages assert two important theses, the first explicitly:

7.  $x$  is individual &  $x$  is numerically one  $\rightarrow$   $x$  is not said-of any subject,

and the second implicitly:

8.  $x$  is said-of no subject  $\rightarrow$  there is no predicate from  $x$ .

It follows immediately that

9.  $x$  is individual &  $x$  is numerically one  $\rightarrow$  there is no predicate from  $x$ .

Aristotle clearly means (7) to cover nonsubstantial individuals. For he goes on to say that some things that are individual and numerically one can be in a subject and the example he gives is ἡ τις γραμματικὴ—the particular bit of grammatical knowledge. So it is quite clear that type-III items are individual and numerically one. From this, however, it may not automatically follow that they are particulars. Owen, for example, insists that nonsubstantial individuals may be in several subjects without being predicated of them. Although he refuses to use the term, his nonsubstantial individuals are, in fact, a strange sort of nonpredicable universal. Only so is his view able to accommodate (9).

This is a case where Owen's new orthodoxy overextends itself. For Aristotle says explicitly, at *Metaphysics Z*, 1035b28, that what holds of a plurality of particular subjects (what is ἐπὶ τῶν καθ' ἕκαστα) is universal (καθόλου), and surely Owen's specimen *vinke* will be ἐπὶ τῶν καθ' ἕκαστα. Even granting that occasionally Aristotle allows nonparticulars to count as τὰ καθ' ἕκαστα,<sup>97</sup> the context of 1035b28 excludes this. For Aristotle exemplifies τὰ καθ' ἕκαστα with Socrates. Lest there be any misunderstanding, 1038b11–12 puts the same point in slightly different language: The universal is common because that which by nature belongs to many things is called universal (γὰρ λέγεται καθόλου ὃ πλείοσιν ὑπάρχειν πέφυκεν τὸ δὲ καθόλου κοινόν τούτοις). Again, surely, Owen's *vinke* is by nature such as to belong to many things.

No doubt some will object that passages from the central books of the *Metaphysics* have no probative value in interpreting an early work such as the *Categories*. However, this assumes some kind of developmental hypothesis that needs to be spelled out and defended. For the

<sup>97</sup> As Cooper (1975) argues.

response surely will fail to impress those for whom such hypotheses are the explanatory court of last resort. And, in any case, we can make do with a passage much closer to home. At *De Interpretatione* 17a39–40 Aristotle says

I call universal that which is by its nature predicable of many things and particular what is not  
(κατηγορεῖσθαι, καθ' ἕκαστον δὲ ὁ μὴ λέγω δὲ καθόλου μὲν ὁ ἐπὶ πλείονων πέφυκεν),

and he gives animal and Callias as examples.<sup>98</sup> This passage, from an early work,<sup>99</sup> contains the following equivalence:

10.  $x$  is not predicable of many things  $\equiv x$  is a particular.

If we assume

10a. There is no predicate from  $x \rightarrow x$  is not predicated of a number of things,

then (9) and (10) yield

11.  $x$  is individual &  $x$  is numerically one  $\rightarrow x$  is a particular.

Proposition (11) is derived from entirely general premises and its antecedent explicitly covers type-III items. So it appears to commit Aristotle to the claim that nonsubstantial individuals are nonrecurrent particulars.

There are other indications as well. At 3b10–18 Aristotle contrasts primary substance, which is a this (τὸδε τι),<sup>100</sup> with secondary substance, which only appears to be. In fact, the latter is a certain qualification (ποιοῦν τι) of substance. His explanation of this,

Rather, it [man or animal] signifies a certain qualification, for the subject is not one (οὐ γὰρ ἓν ἐστὶ τὸ ὑποκείμενον),  
 in the way that the primary substance is, but man and animal are said-of many things (κατὰ πολλῶν λέγεται),

contains two theses of relevance:

12.  $x$  is not one  $\rightarrow x$  is a certain qualification

and

13.  $x$  is not one  $\equiv x$  is said-of many things.

<sup>98</sup> This passage combines with *Metaphysics* Z, 1035b28 and 1038b11–12, cited in the previous paragraph, to establish that what is present in many things is a universal and, hence, predicable of them. This effectively knocks out Owen's view that *vinke* may belong to many subjects yet not be predicable of them.

<sup>99</sup> Against Rist (1989) I follow the standard dating of *De Interpretatione* as an early work.

<sup>100</sup> The text has &τὸδε τι σημαίνειν ("signifies a this") but clearly this is merely a harmless conflation of use and mention.

It is pretty clear that (12) covers both substantial and accidental qualifications, for 3b18 points out that white ( $\tau\acute{\omicron}\lambda\epsilon\upsilon\kappa\acute{\omicron}\nu$ ) is simply ( $\acute{\alpha}\pi\lambda\acute{\omicron}\nu\epsilon$ ) a qualification. Furthermore, we know that (12) concerns numerical oneness. Therefore, the white mentioned at 3b18 is not numerically one. It is  $\tau\acute{\omicron}\lambda\epsilon\upsilon\kappa\acute{\omicron}\nu$  rather than  $\tau\acute{\omicron}\tau\iota\lambda\epsilon\upsilon\kappa\acute{\omicron}\nu$ . From 1b6–8, reflected in (7) above, we know that the latter is numerically one. Hence, it is a plausible inference that, like primary substances, type-III items are numerically one *and particular*. This gains force from (13) because the passage treats ‘animal’ and ‘white’ on a par for purposes of distinguishing particular and general. So (13), in effect, says that nothing, including an accident, is to count as predicable that cannot be said-of many things. This confirms what I earlier embraced, that (8) is meant to be completely general. Hence, we may assume

14.  $x$  is not said-of many things  $\equiv x$  is not predicated of many things,

and, thus, from (13) get

15.  $x$  is numerically one  $\rightarrow x$  is not predicated of many things.

Proposition (15) can now be taken with (10) to get

16.  $x$  is numerically one  $\rightarrow x$  is a particular.<sup>101</sup>

We have seen that in developing MO itself Aristotle allows that nonsubstantial individuals satisfy the antecedent of (16). One could, of course, grant this and still insist that not all type-III items are

<sup>101</sup> We have arrived at (16) on the basis of 3b10–18. Devereux (1992), who shares my view that nonsubstantial individuals are particulars, thinks something stronger can be derived from this passage, namely, (16a):  $x$  is (individual) and numerically one  $\rightarrow x$  is a  $\tau\acute{\omicron}\delta\epsilon\tau$ . This would have the consequence that nonsubstantial individuals are *thises* just as much as substance individuals. But Devereux’s argument is flawed: “The reason he [Aristotle] gives [for secondary substance not being *thises*] is that they are not one in number, being predicable of a number of subjects. It seems, then, that being one in number (and individual) is a sufficient condition of being a *this* [i.e., (16a)]; and since non-substantial particulars are individual and one in number, they should apparently qualify as *thises*” (Devereux, 1992: 117). But clearly secondary substances can be *excluded* only because they fail to satisfy a *necessary* condition on being a *this*. And this condition is just (16b):  $x$  is a  $\tau\acute{\omicron}\delta\epsilon\tau \rightarrow x$  is (individual) and numerically one. Because (16b) does not entail (16a), it is a mistake to take it as supporting the claim that something other than substance individuals can be *thises*. Substance individuals satisfy this necessary condition and so pass muster as *thises*. Just this is reported in the opening lines of 3b10–18, when Aristotle remarks that of substances, all of which are thought to be *thises*, the primary substances are clearly *thises* because they are individual and numerically one. That is, there is an initial presumption that substances are *thises* but this presumption is reigned in by requiring that only those *substances* that are individual and numerically one can be counted as *thises*. The condition that secondary substances fail to satisfy is the same condition that primary substances manage to satisfy and offers no evidence for the *thisness* of nonsubstantial individuals.



nonrecurrent particulars. Although this would still defeat OWN and F\*\*, it mars the claim that the rock-bottom entities of the *Categories* are individuals because nonsubstantial individuals will now be a mixed bag containing both particulars and universals. In light of (13), however, it is arguable that Aristotle would reject this mixed interpretation of type-III items. For all agree that they are not said-of any subject and, by (8) this means that there is no predicate from them. Hence, they are not predicated and so, by (10), they are particulars.

We turn, finally, to 4a10ff. where Aristotle announces that, of those things that are numerically one and the same, primary substance alone can remain so while taking contraries. So substance alone satisfies what I shall call the continuity condition (CC). The point is worked out over three cases:

- A. a substance that is numerically one and the same (ἡ οὐσία ἓν καὶ ταὐτὸν ἀριθμῶ),
- B. a color that is numerically one and the same (τὸ χρῶμα ὃ ἔστιν ἓν καὶ ταὐτὸν ἀριθμῶ),
- C. an action that is numerically one and the same (ἡ αὐτὴ πράξις καὶ μία τῶ ἀριθμῶ).

Case (A) satisfies CC, cases (B) and (C) do not. Thus, we get

17.  $x$  is numerically one and the same &  $x$  receives contraries  $\equiv x$  is a primary substance

as the distinguishing mark of a primary substance. It is important to notice that the cases concern substantial and nonsubstantial individuals only and that they are described in precisely the same language. Moreover, when Aristotle provides an example for case (A), he uses the technical formula employed in MO to indicate that he is speaking of individuals. A certain particular man (ὁ τις ἄνθρωπος), says Aristotle, remains one and the same despite becoming pale at one time and dark at another. He gives no examples for the other cases. But, given the striking parallel between the cases, it is not hard to guess what they would look like. A perfect example of case (B) is provided by chapter 2's certain bit of white (τὸ τι λευκόν). So when he says that in no other case is CC satisfied, he means that no other *individuals* besides substance individuals satisfy it. Given the parallel descriptions of the cases and the technical formula used for the examples, it is clear that 4a10ff. is concerned to contrast two kinds of individuals.<sup>102</sup> By the above argument it would follow that the passage contrasts two kinds of nonrecurrent particulars.

<sup>102</sup> Here I am in agreement with Ackrill (1963: 89–90), who remarks that species and genera of color satisfy CC in some sense. Color, for example, may be white or black while remaining one and the same *kind of thing*. I revisit this topic in Ch. III.

Moreover, one of the examples suggests, on its own, the same result. For, as a number of scholars have noted, when the *Physics* explains what it is for a process to be one in number, it is concerned with the identity of process tokens rather than indivisible process types.<sup>103</sup> Precisely the same holds for 4a10ff.'s actions that are numerically one. Rather than indivisible action types, they are action tokens. So the balance of evidence appears to favor the claim that in the *Categories*, nonsubstantial individuals are particulars.<sup>104</sup>

## 6. The Testimony of *Metaphysics Z.1*

It would be hasty to view the debate over nonsubstantial individuals as a mere scholastic quibble. Decision on the nature of type-III items will affect how we view the relation between substance and everything else. In particular, it bears on the ontological status of nonindividuals and on the priority of substance to nonsubstantial items. For how one conceives the priority of primary substances turns on how one conceives of nonsubstantial individuals.<sup>105</sup> Of particular interest in this regard are some remarks in *Metaphysics Z.1* on the priority of substance. These remarks also command our attention as a kind of test case. For they appear to support the nonrecurrent status of type-III items.

By 1028a31 Aristotle feels entitled to reiterate a central claim of the *Categories*, namely, that which is primarily (τὸ πρῶτως ὄν) is substance.<sup>106</sup> He immediately proceeds to explain that there are three ways in which something can be first and that substance is first in every way:

<sup>103</sup> See, for example, Heinaman (1981*b*: 298–9) and Charles (1984).

<sup>104</sup> It will not go unnoticed that I have defended a certain interpretation of nonsubstantial individuals in the *Categories* by appealing, in particular, to a passage from *De Interpretatione*. But surely it counts in favor of an interpretation that it squares with kindred passages in related works, and there is hardly a work more closely aligned with the *Categories* than *De Interpretatione*. This seems to me particularly appropriate when the alien text is brought to the support of an interpretation that gives Aristotle a coherent and interesting doctrine. My interpretation of the *Categories* attempts to do just that.

<sup>105</sup> For detailed remarks on how this works, see Ch. III.

<sup>106</sup> In the *Categories*, Aristotle does not actually *assert* that substance (ἡ οὐσία) is that which is primarily (τὸ πρῶτως ὄν). The only thing explicitly said to be primary is primary substance. But this is primacy of one kind of item that populates the meta-ontology, MO, and MO is explicitly a division of things that *are* (τῶν ὄντων). So implicitly the assertion is there. As I argue in Chapter V, the first two chapters of *Metaphysics Z*, in effect, present for investigation the framework of the *Categories*, and subsequent chapters are intended to provide an explanation of this framework. In particular, they are designed to explain what it is, primarily, about *Categories* primary substances that makes them the sorts of things they are. So far from the incompatibility that many find, the investigation of *Metaphysics Z* presupposes a commitment to the doctrine of the *Categories*.

(T1) in formula (λόγῳ), (T2) in knowledge (γνώσει), and (T3) in time (χρόνῳ). Then Aristotle says:

For [A3] of the other categories none is separate, rather substance alone is; and this is also first in formula because [A1] in the formula of each thing (ἐν τῷ ἐκάστου λόγῳ) the formula of substance must be contained; and [A2] we think [α] we know each thing most fully when we know what it is (τί ἔσται), when we know what, for example, man (ὁ ἄνθρωπος) is or what fire is, rather than its quality (τὸ ποιόν) or quantity (τὸ ποσόν) or place, since [β] we know each of these when we know what the quantity (τὸ ποσόν) or quality (τὸ ποιόν) is. (1028a33–b2)

On the received interpretation, this passage contains a trio of arguments for the three-way priority of substance: (A1) supports (T1), (A2) supports (T2), and (A3) supports (T3).<sup>107</sup> This neat picture faces major difficulties. One problem concerns the obscurity surrounding the supposed entailment from (A3) to (T3). Indeed, there appears to be no connection between the separateness of substance and its priority in time. Further difficulties are presented by (A2). On the traditional reading of (A2), one can know the ‘what’ (τί ἔσται) of quantity or quality, yet the chapter otherwise restricts τί ἔσται to substance, and there is no argument for the *priority* of substance.

Argument (A2) breaks into two parts, (α) and (β). Part (α) says that we know a thing most fully when we know its τί ἔσται (what it is), not when we know its quality or quantity. So part (α) asserts that knowing a thing's τί ἔσται (knowing what it is) is necessary and sufficient for knowing it most fully. Thus, it appears to support something like:

18.  $x$  is known most fully  $\equiv x$ 's τί ἔσται is known.

As already mentioned, the trouble with (18) is that it appears to have no bearing at all on the priority in knowledge of substance. It says simply that one fully knows something when one knows what a thing is. On the traditional reading, part (β) appears to give a reason for (18), namely, that we also know each of the “other” things, that is, not man or fire but their qualities or quantities, when we know their τί ἔσται (what they are). This appears to support a fully general interpretation of (18) and so contributes to the impression that (A2) is irrelevant to the priority in knowledge of substance.

The fact that (A2), as it stands, does not give an argument for the priority in knowledge of substance is not a difficulty for those such as Frede and Patzig (1988), who take this priority to be established by (A3).<sup>108</sup> But

<sup>107</sup> So Ross (1924: ii. 160–1), who follows Alexander.

<sup>108</sup> So Frede and Patzig (1988) reinterpret the structure of the passage. Rather than supporting (T3) only, (A3) is meant to support the priority of substance in all senses (T1, T2, and T3 above). This appears to save Aristotle from a bad argument for the priority in time of substance. Also, on this reading, (A1) and (A2) need not be construed as direct arguments for (T1) and (T2), respectively. Thus, they may play a different role in the passage, for example, they may be consequences of (A3) and only in this way support (T1) and (T2). All this occasions some adroit maneuvering on the part of Frede and Patzig (1988). For detailed criticisms see Wedin (1993b: 157–60).

if (A3) alone is meant to establish (T2), then (A2) is irrelevant to the discussion. And, on this point, traditionalists will insist that the text represents (A2) as a stand-alone argument for the priority in knowledge of substance. So it appears that we must choose between fidelity to the text and cogency in interpretation.

There may, however, be a way to secure (A2)'s role in the argument with minimal adjustment to the traditional view. Thus, assume that (18) is completely general. Assume, that is, that (A2) asserts just what the traditionalists say it asserts. The difficulty with the traditional view is not this but rather the further assumption that (A2), *on its own*, is supposed to establish (T2). Suppose, however, that (A2) is combined with (A1), where (A1) reads, roughly,

A1\*.  $D$  gives the logos of  $y \rightarrow D$  contains the logos of  $x$ ,

and where  $y$  is an accident,  $x$  is a substance, and  $y$  is in  $x$ .

Now (A1\*) clearly establishes the priority in definition ( $\lambda\acute{o}\gamma\omicron\varsigma$ ) of substance (i.e., [T1]). So when Aristotle continues in (A2) we may assume that he feels entitled to this result in arguing the priority in knowledge of substance. On this suggestion, it is not (18) alone but (18) together with (A1\*) that yields the result that substance is prior in knowledge. By (18), fully knowing  $x$  entails knowing what it is (its  $\tau\acute{\iota} \acute{\epsilon}\sigma\tau\iota$ ). Let  $x$  be a nonsubstance. If we suppose that knowing  $x$ 's  $\tau\acute{\iota} \acute{\epsilon}\sigma\tau\iota$  entails knowing its definition, then, by (A1\*), knowledge of the  $\tau\acute{\iota} \acute{\epsilon}\sigma\tau\iota$  of a nonsubstantial item will involve some kind of knowledge of the substance the item is in. So (A1) and (A2) can, after all, be made to yield arguments for (T1) and (T2), the priority of substance in definition or formula and in knowledge, respectively.<sup>109</sup> So far, then, the traditional reading of the passage holds up.

However, we are still left with the troublesome case of priority in time. Suppose, however, we read (A3) as asserting that at any given

<sup>109</sup> Contrast Irwin (1988: 202 and 554, n.10), who leaves Aristotle with the bad argument for the priority in knowledge of substance. Not only does Irwin miss the argument we are able to provide but also he is forced to delete the reference to priority in time. This is because, with Asclepius, he reads 1028a32's  $\acute{\kappa}\alpha\iota \lambda\omicron\gamma\omega\psi$  as  $\acute{\kappa}\alpha\iota \psi\acute{\upsilon}\sigma\epsilon\iota \kappa\alpha\iota \lambda\omicron\gamma\omega\psi$  (1988: 554, n. 8). This gives us priority in nature, in definition, in knowledge, and in time. So he simply eliminates the final case with the remark that it is an "inexact gloss" on priority in nature. But he nowhere shows how this gloss, inexact or other, works. Moreover, if one can provide a precise sense for the last sort of priority, then there is no need in the first place to ring in Asclepius's reading. We do this immediately below.

moment a substance can exist independently of its accidents but not conversely. That is, suppose we read the asymmetric separateness of a substance,  $x$ , from one of its accidents,  $y$ , as

A3\*.  $x$ 's existence at  $t$  does not depend on  $y$ 's existence at  $t$  &  $y$ 's existence at  $t$  does depend on  $x$ 's existence at  $t$ .

Then the (A3)  $\rightarrow$  (T3) entailment is forthcoming, as follows:

A3\*\*.  $x$ 's existence at  $t$  does not depend on  $y$ 's existence at  $t$  &  $y$ 's existence at  $t$  does depend on  $x$ 's existence at  $t \rightarrow$   
 $x$  is prior in time to  $y$ .

Now it seems to me that (A3\*\*) proposes a plausible way of getting to the temporal priority of substance from the one-way separateness of a substance with respect to its accidents.<sup>110</sup> Of course, this requires a quite specific interpretation of (A3), namely, that provided in (A3\*<sup>\*</sup>).<sup>111</sup>

Frede and Patzig would reject (A3\*) in favor of the view that an accident,  $y$ , is dependent, not on the particular substance,  $x$ , that it is in at a given time, but rather on the *kind* of substance  $x$  is. This, in effect, is just F\*\*. The dependence on kind that F\*\* promotes is defended by cases and by appeal to the principle that every property is defined over a specific range of objects that can serve as subjects for it. (I shall call this the range principle.) The general dependence of accidents on their subjects is motivated, in part, by the fact that Frede and Patzig want (A3) to support each of (T1), (T2), and (T3). But the range principle, sometimes taken as an article of faith, is, in fact, an assumption in need of support. The cases are meant to provide this. Thus, Frede rightly observes that “only living things are healthy or ill . . . male or female, only human beings are foolish” (Frede, 1978/1987*a*: 61). Frede and Patzig use such cases to bring the range principle to the support of (19)'s brand of general dependence. They say, for instance, that one knows what the clever is only when one knows that this (the clever) has to do with a person.

<sup>110</sup> Proposition (A3\*\*) does not, of course, define a notion of priority in time. Nonetheless, one might wonder what notion of priority would make (A3\*\*) plausible. Here we might suggest the following idea. If a substance,  $a$ , and one of its accidents,  $f$ , satisfy the antecedent of (A3\*\*), then, at  $t$ ,  $a$  exists prior in time to  $f$  in the sense that  $a$  could exist prior to  $t$  without  $f$ 's existence, but  $f$  could not exist prior to  $t$  without  $a$ 's existence. This, of course, takes  $f$  to be a nonrecurrent particular. On this see the penultimate paragraph of this section.

<sup>111</sup> Proposition (A3\*) is to be distinguished from Ross's (1924: ii. 161) suggestion: “That which can exist without other things while they cannot exist without it may naturally be said to exist before other things.” This allows cases that are not accident–substance dependencies, such as Alexander on Philip of Macedonia, and fails to catch cases of such dependence, such as the dependence *now* of an accident on its substance (even if a subject were always, say, white, the accident would still be dependent on the substance).

But the cases are not so straightforward. Recall that what needs to be established is the general dependence of *accidents* on subjects. In terms of chapter 2 of the *Categories*, the idea is that color properties are dependent on body in general. This is supposed to mean that bodies constitute the subject range for color predicates. However, some of the cases introduced as support appear to concern a subject and a proprium. Just as all and only persons can be risible (Aristotle's specimen proprium), so also all and only persons can be foolish or clever. And there is surely no dependence of *this* kind for cases such as white or hot or red or three cubits in length, and these are the kinds of cases Aristotle mentions in *Metaphysics* Z.1 and *Categories* 2. Moreover, if there is an object range for color properties, it would appear to be constituted by surfaces rather than bodies. Yet, as *Metaphysics* Z.4 points out, white is a *per se* attribute of surface, and in MO bodies, not surfaces, are the subjects of colors. Nor can it be that the *Categories* uses 'body' and 'surface' interchangeably. For they are clearly distinguished in chapter 6, which lists both—along with line, time, and place—as owners of continuous quantities. Bodies can be used as subjects in chapter 2's MO precisely because they stand alone in the manner suited for substances. Surfaces, on the other hand, are ill-suited to deputize as substances. For even if they are parts of substances, they are not the sorts of things that can stand alone. So a proper range principle would appear to tie color to surfaces rather than to bodies. As for the other examples, very probably Aristotle would count male also as a *per se* attribute of animal.<sup>112</sup> So the range principle would appear to hold, if at all, mainly for propria and *per se* attributes.<sup>113</sup> It is hard to see how the summoned cases can show more than this. In particular, they remain silent on the general dependence of accidents on subjects. So it is not obvious that the range principle establishes the general dependence of accidents on substances; yet this was required to prove the dependence of an accident on a *kind* of substances.

But even were the range principle extended to accidents, what plausibly follows is only dependence on kind for definitional and epistemic dependence, that is, (T1) and (T2). Frede and Patzig are, thus, forced to deny that the temporal priority of time is discussed at all, let alone argued for in *Metaphysics* Z.1. The omission is laid to the fact that this sort of priority plays no central role in the *Gedankengang* of Z. In light of (A3\*), however, this somewhat *ad hoc* maneuver is not needed. For

<sup>112</sup> In this connection, I note that *Metaphysics* Z.5, 1030b24–6, reports that white can be explained apart from man and that this distinguishes it from female. This is plausibly taken as a recommendation against subjecting white and its ilk to a range principle.

<sup>113</sup> Strictly, we ought to write '*per se*<sub>2</sub>', for we are talking about the second kind of *per se* attribute spelled out in *Posterior Analytics* A.4. See Wedin (1973) for more on this.

(A3\*) does succeed in providing an argument for the priority in time of a substance with respect to its accidents. The real objection to (A3\*) and (A3\*\*), I believe, is its apparent warmth to the thesis that nonsubstantial individuals are nonrecurrent particulars. Recall that in section 3 I pointed out that complete formulation of the doctrine of nonrecurrent accident particulars would involve appropriate temporal indices that capture the adage, 'once gone, always gone'. Arguments (A3\*) and (A3\*\*) do precisely this. For where  $x$  is a substance and  $y$  is one of its accidents, (A3\*) is satisfied only if  $y$  is not a repeatable item. Were  $y$  universal, its existence at  $t$  would not depend on the existence at  $t$  of  $x$  because  $y$  would perfectly well exist were it to inhere in some other substance.<sup>114</sup> So other theoretical commitments, in particular, some inherited from quite specific interpretations of the *Categories*, inform the case against (A3\*\*).<sup>115</sup> Thus, to the extent that earlier sections have restored the nonrecurrence of nonsubstantial individuals, (A3\*) and (A3\*\*) may be taken to strengthen Aristotle's overall commitment to them. This, plus the fact that on our interpretation (A2) does not depend on (A3), further enhances the claims of (A3\*) and (A3\*\*).

This interpretation does, however, incur a nontrivial ambiguity in (A1\*). In order for (A2) and (A1) to yield the priority in knowledge of substance, we need (A1\*) to say that in the account ( $\lambda\acute{\omicron}\gamma\omicron\varsigma$ ) of a nonsubstance,  $y$ , there must occur a linguistic expression ( $\lambda\acute{\omicron}\gamma\omicron\varsigma$ ) for the particular substance,  $x$ , underlying  $y$ . Here the first occurrence of  $\lambda\acute{\omicron}\gamma\omicron\varsigma$  is clearly propositional, whereas the second is not. In effect, then, we take (A1\*) to say that the  $\lambda\acute{\omicron}\gamma\omicron\varsigma$  of an accident must only *mention* the substance in which it (the accident) occurs.<sup>116</sup>

<sup>114</sup> Burnyeat *et al.* (1979) find difficulties with other readings of (T3) but shy away from (A3\*)/(A3\*\*) because "it is controversial whether Aristotle believed in particularized qualities." One senses here the hand of Owen; but we are now in a position to see that there simply is no good reason not to take the passage at face value—as confirming the nonrecurrence reading of nonsubstantial individuals.

<sup>115</sup> I note that Patzig (1979: 43) entertains something like (A3\*\*) without, however, endorsing it.

<sup>116</sup> On the other hand, I am not persuaded that alternative interpretations are any better off on this point. It is, for example, consistent with this that the accident be epistemically dependent either on the kind of substance that  $x$  is, Frede and Patzig's choice, or on  $x$  itself. That is, one might insist that the definition of the accident need only mention the kind of substance. Moreover, proscribing ambiguity in (A1\*) does not obviously change the situation. For it does not follow from the fact that the  $\lambda\acute{\omicron}\gamma\omicron\varsigma$  (= definition) of an accident contains the  $\lambda\acute{\omicron}\gamma\omicron\varsigma$  (= definition) of its substance, that the latter is only a *kind of substance*. For there may well be a sense in which  $\lambda\acute{\omicron}\gamma\omicron\varsigma$ , in the sense of definition, applies to a particular substance. Indeed, this is crucial to Frede and Patzig's thesis that primary substance is a definable, yet particular, form. So the dependence in  $\lambda\acute{\omicron}\gamma\omicron\varsigma$  and, thus, in knowledge, of an accident may still be dependence on the particular substance it is in.

## 7. The New Revised Standard Version

Finally, if one is persuaded that the range principle simply does not apply across the board to accidental qualities and their subjects, then there is no reason to keep the second case under F+ in section 4, namely, case (ε), where  $y = z$  and  $x$  and  $y$  are general. Some might balk at this, reminding us that Frede's original formulation was explicitly meant to capture the class of items that are *in something as a subject*:

F.  $x$  is in something as its subject, if there is a subject  $y$  such that

- (a)  $x$  is not a part of  $y$  &
- (b)  $x$  cannot exist independently of  $y$ .

In effect, F proposed to capture this class of entities by defining the one-place predicate, “\_ is in something as its subject.” On the other hand, F\*, which we substituted for F, defines the *relational predicate*, “\_ is in \_ as its subject.” It might further be thought that this reparsing is what allows us to jettison the second case under F+. Even were this so, however, and I believe that it is not, the reparsing is called for on logical grounds. For suppose that Aristotle meant only to define the predicate, “\_ is in something as its subject.” Then Aristotle will have provided a *definition* that fails flatly to apply to the cases he wants it to cover. His favorite (and absolutely standard) cases are those such as the *white* being in *Socrates* and the *white* being in *man*. As specific two-place *relational* propositions, these are captured by the general relational schema given in F\*. But they elude, entirely, the reach of F because F does not characterize a relation at all.

The two-case interpretation can, then, be jettisoned in favor of a leaner revised standard version:

F++.  $x$  is in something,  $z$ , as its subject  $\equiv$  there is a subject  $y$  such that

- (a)  $x$  is in  $y$  &
- (b)  $x$  is not a part of  $y$  &
- (c)  $x$  cannot exist independently of something  $u$  &
- (d)  $y = u \equiv x$  is nonrecurrent &  $z$  is particular.

F++ allows general properties to be in individual subjects and so sidesteps the entailment, (A2), that crippled ACK and its cohorts.<sup>117</sup>

<sup>117</sup> Our view that nonsubstantial individuals are nonrecurrent because they are particulars is committed to holding that particulars are the sorts of things that are neither present in nor predicable of many things. Benson (1988) makes heavy use of outside texts in claiming that type-III individuals are particulars that are predicable of many subjects. At the center of this challenging view is the claim that in the *Categories*, Aristotle holds ( $a$ )  $x$  is a universal  $\equiv (\exists y)(x$  is said-of  $y$ ). Statement ( $a$ ), however, is compatible with F++'s openness to nonrecurrence. Only by assuming that type-III individuals cannot be non-recurrent but, nonetheless, must be particular do we get his view that they are particulars “predicable of a plurality of entities” (282). For, were they universal, they would, by ( $a$ ), be said-of something. But, by definition, type-III items are not. But this assumption cannot be taken as a given. Besides, it is hard to know what these particulars would look like. In particular, it is hard to see how they could be “scattered particulars” as Benson suggests. For *qua* particular, the scattered object constituted by the extant white (things) in the universe goes out of existence with change in any of its constituents. So it would appear to be nonrecurrent. Also, it is not clear that it makes much sense to predicate such a thing in the first place. Finally, the texts Benson uses to establish what he calls the sortal analysis of the universal are principally from *Posterior Analytics* A.4 and *Metaphysics* Γ.9. But the first passage is admittedly preoccupied with a special kind of universal, namely, those fit to serve as premises in demonstrative science, and the second passage is notoriously odd and, very likely, unique in the corpus. In any case, once the objections to nonrecurrence are neutralized, there is little motivation for Benson's embellishment on the new orthodoxy.



Moreover, it preserves the nonrecurrent status of nonsubstantial individuals because we are now free to assume that  $y = z$  just in case  $x$  is a type-III item. On F++, then,  $z$  is particular and  $x$  is nonrecurrent. The case where  $z$  is particular and  $x$  recurrent is simply left open. We could cover this by adding that  $u \neq y \equiv (x \text{ is recurrent} \ \& \ z \text{ is particular}) \vee (x \text{ is recurrent} \ \& \ z \text{ is nonparticular})$ .<sup>118</sup>

F++ accommodates, but does not tell us anything about, the relation that holds between accident universals and primary substances. In particular, it says virtually nothing about the fact that substance individuals are ontologically prior to accidents generally. Nor have we so far said anything about the ontological priority of substance individuals to substance universals. These priorities are taken up in the next chapter, which considers the general topic of ontological commitment in the *Categories* and its connection with the treatise's theory of underlying ontological configurations for standard categorial statements. It is here that the semantical flavor of the *Categories* is most evident.

<sup>118</sup> Those who follow such intrigues will note that F++ differs from a principle of the same label that appears in Wedin (1993*b*). What appears there under the label 'F++' does so entirely because of editorial error and is nothing one would wish to be committed to. If the formulation was unintended, the labeling was not. So I have kept it.

# III Commitment and Configuration in the Categories

Since the mid-1950s it has become common to approach questions of existence as questions of ontological commitment. Canonized in Quine's dictum, "To be is to be the value of a bound variable," the idea is that our various pronouncements, beliefs, and assertions harbor presumptions about what must exist, if they are to be true. The dictum, itself neutral about what specific things do or do not exist, is held to provide a general criterion for deciding the commitments of something else—a certain bit of discourse or theory in the broadest sense of the term. Determining the ontological commitments of a given theory, in turn, invites interpretation. A certain portion of mathematics, for example, may be committed to the existence of numbers but what this commitment amounts to depends on what numbers are. On one interpretation, they may be certain kinds of sets, on another, certain kinds of properties. In the dictum's idiom, the first involves quantification over sets, the second quantification over properties.

Not entirely unlike Quine, Aristotle locates ontological commitment, at least in the *Categories*, in the relation between theory and the world. In particular, he wants an account of what things must exist and in what relations they must stand, if standard categorial statements are to be true. This is just what we are calling the theory of underlying ontological configurations. As we shall soon see, when it comes to the details of the theory, however, we get something considerably less streamlined than Quine's dictum. Much the same can be said for his general approach to ontological commitment.

## 1. The Meta-Ontology of the Categories as a Theory of per se Being

*Metaphysics* Δ.7, in Aristotle's philosophical lexicon, lists four kinds of being or τὸ ὄν: incidental (κατὰ συμβεβηχός) being, *per se* (καθ' ἑαυτό) being, potential and actual being, and being as truth. This is not to say that he is loath to paint with a broad brush. He is fond of reminding us,

for example, that being is said in many ways. Owen's gloss on this, "to be [is] to be something or other,"<sup>119</sup> gives Aristotle's reminder the look of an early version of Quine's dictum. But, as Owen was doubtless aware, this would be mistaken. If anything approximates Quine's dictum, it might be Aristotle's rule that all (and only) affirmative statements *entail* the existence of something falling under their subject terms.<sup>120</sup> At least this appears to enjoy the requisite generality and theoretical neutrality.<sup>121</sup> But Aristotle's reminder sometimes covers only the second kind of being retained in Δ.7's philosophical lexicon.<sup>122</sup> And here, Aristotle reports, there are as many kinds of *per se* being as there are categories (καθ' αὐτὰ δὲ εἶναι λέγεται ὅσπερ σημαίνει τὰ σχήματα τῆς κατηγορίας, 1017a23–4). So Owen's gloss would come out, "to be is to be a substance or a quality or a quantity . . .," that is, to be is to be an item in one of the categories. The '*per se* scheme', as we might call it, is hardly a neutral criterion in the style of Quine. For by throwing in with the system of categories, it benefits from that system's considerable ontological house cleaning—most notably, of course, from the junking of Platonic forms. More importantly, the *per se* scheme also maps onto MO, the meta-ontology of the *Categories*. Thus, MO's fourfold division among τῶν ὄντων is a division among things that are καθ' αὐτό. So, properly speaking, MO is a theory not about things in general but about *per se* things.<sup>123</sup> These will be the fundamental things that are. More particularly, MO provides the logical framework for the theory of underlying ontological configurations and, so, these will be configurations involving the fundamental things.

What it is for something to be *per se*, however, is not completely clear. The lexicon tells us only that those things are *per se* which "signify the figures of predication." Among things that are predicated (τῶν κατηγορουμένων), he explains, some signify what something is, some a

<sup>119</sup> Owen (1960: 165).

<sup>120</sup> Attribution of the rule to Aristotle, especially the parenthesized condition, is a matter of some debate. I say more about this in Wedin (1978) and (1990).

<sup>121</sup> In fact, Quine's dictum is neither as streamlined nor as neutral as it appears. For a useful introduction to the complexities involved, see Jubien (1998).

<sup>122</sup> This appears to be the situation in *Metaphysics* Z.1, but in *Metaphysics* Γ 2 the notion of being said in many ways has considerably wider scope.

<sup>123</sup> Some have been confused by the fact that, in arguing that *being* signifies in as many ways as there are categories, Aristotle says in *Metaphysics* Z.1, "For there is no difference between 'A man is one who walks' (ἄνθρωπος βαδίζων ἐστίν) and 'A man walks' (ἄνθρωπος βαδίζει)." These examples of accidental predication might be thought to promote *the walking man* and its kind as a *per se* entity. But this mistakes the point of the example. What is of interest to Aristotle are the verb phrases, in particular, the fact that constructions with the finite verb are equivalent to constructions with the copula: ' \_ is  $\Phi$ ing', or ' \_ is one who  $\Phi$ s', or ' \_ is a  $\Phi$ er'. Thus, in signifying a quality there is implicit reference to a kind of being.

quality, and so on. This can be read in a number of ways, not all of which are able to support linkage with MO. Taking *white* as a standard categorial predicate, the notion of signifying in the category of quality has at least the following readings:

- A. What is signified by *white* is *a white thing*,
- B. What is signified by *white* is the *quality white*,
- C. What is signified by *white* is *being a white color*.

Option (A) does not serve the cause of linkage for two reasons. First, it makes paronyms *per se* items but when the lexicon considers incidental (κατὰ συμβεβηκός) being it enlists a paronym as a star example—the musical man.<sup>124</sup> Second, paronyms have no place in MO, yet MO ranges over *per se* beings.<sup>125</sup> Options (B) and (C), on the other hand, do concern being *per se*, the first as a one-place and the second as a two-place predicate. Either option preserves the mapping onto MO. On (B) *per se* items could be individuals in MO's 0-level synonymy groups or a higher-level item in the hierarchies generated by TR. On (C), *per se* items are 'propositional' in nature—something like *white's being a color*—and, hence, they would correspond to instances of MO's *said-of* relation. However, only option (B) gives an exact correspondence between the *items* partitioned by MO's fourfold division of things that are (τῶν ὄντων) and those contained in *Metaphysics* Δ.7's *per se* scheme. For only on (B) do we have that  $x$  is καθ' αὐτό  $\equiv x$  is a type-I item  $\vee x$  is a type-II item  $\vee x$  is a type-III item  $\vee x$  is a type-IV item. So (B) is clearly the option of choice.

Given that *Metaphysics* Δ.7 explicitly includes much else under being (τὸ ὄν), the range of τὸ ὄν in the *Categories* is deliberately narrowed. Whether this simply reflects the special interests of a system of categories, or registers ontological commitments that extend throughout the corpus, will occupy much of what follows in the book. But for the moment, it is enough to concentrate on the exact nature of the *Categories* commitments to *per se* entities.

Despite its theory-ladenness, Aristotle's notion of *per se* being, even as formulated by Owen, remains underdetermined. It leaves open, for example, the following questions: (a) What is it to be an item in one of the categories? (b) What is the relation between items from different categories? (c) Are items from certain categories more fundamental

<sup>124</sup> This counts as a paronym insofar as what the man is called, 'musical', derives from the name of something, 'musicality', with change of ending.

<sup>125</sup> In addition to the accounts discussed in Ch. II, Dancy (1975) finds that MO embraces paronyms. In fact, on his view type-III items just are paronyms; hence, he would, presumably, contest the suggestion that MO partitions the field of *per se* entities. For how to deal with Dancy's arguments, see Wedin (1979).

than items from others? (d) Are certain items within a category more fundamental than others? Answering such questions calls for a return to the *Categories*, in particular, to chapter 2's meta-ontology (MO) and its deployment in chapter 5. What sorts of entities Aristotle is committed to and what sort of existence they are accorded cannot be decided by an algorithm. Much as in the case of Quine's dictum, what we say here is necessarily a function of interpretation.

We have already given, in the previous chapter, a partial answer to (a) by arguing that items in nonsubstantial categories will include, at the 0-level, nonrecurrent particulars. A continuing thesis of this chapter is that the rock-bottom entities of the *Categories* are individuals. Thus, to be an item in a category is, in the first instance, to be an individual. Hence, in the *Categories* to be is, fundamentally, to be a nonrecurrent particular, whether substantial or nonsubstantial. What status is to be granted the type-II and type-IV items that are said of these is a much vexed question. I shall presently argue that they are not to be granted a robust ontological status because they are reducible to, and possibly eliminable in favor of, type-I and type-III individuals. It is in this sense that individuals remain the rock-bottom entities of the *Categories*.

The general picture I wish to promote is this. MO does not properly partition states of affairs or kinds of predication. Therefore, *pace* Furth (1988), it does not properly contain a theory of *Sachverhalten*. By the same token MO is not, *pace* Kahn (1978: 247ff.), and others, a theory of kinds of predications corresponding to these. Rather, it functions, firstly, as a framework for collecting individual entities in a way suitable for generating the categories. More precisely, MO collects individuals insofar as they are what they are *per se* and this amounts to collecting individuals insofar as they are members of 0-level synonymy groups. This is familiar from Chapter I. Secondly, MO delineates various relations between these entities. Although these relations *yield* various kinds of states of affairs and correspond to various kinds of predications, it would be a mistake to make too much of this. For the major goal of MO's second function is to ensure the foundational status of primary substances, such as Socrates, and not states of affairs, such as *being Socrates*. For the latter can hardly serve as a subject for *white* or any other accident that happens to be in Socrates. Thirdly, as for a theory of predication, the existence of an even correspondence between basic kinds of predication and the relations delineated in MO does not *entail* that MO is a theory of predication proper—as opposed to a theory of the ontological configurations underlying such proper predications. This, I am urging, is a chief ambition of the *Categories*.

With respect to the last point, note that one cannot simply *assume* that MO is a theory of predication. For this amounts to a cavalier dismissal

of one of the central ontological questions of the *Categories*, namely, the status of type-III items. If MO *just is* a theory of predication, then type-III items cannot be nonrecurrent for the simple reason that nonrecurrent items cannot be predicated. Here it is sufficient to recall (14) of Chapter II, which records Aristotle's reminder that nothing is to count as predicable that cannot be said-of many things, and no particular can be so said.<sup>126</sup> But nothing blocks MO's inclusion of nonsubstantial particulars so long as MO only frames the ontology underlying the basic kinds of predication. In this light, MO will provide an account of what we are *committed to* in asserting something or holding something to be the case. That is, it will provide an account of the truth conditions for basic predications.

So construed, we need to recast the relation between MO and predication generally. The truth of "Socrates is pink," for example, cannot involve predication of the nonsubstantial particular whose presence in Socrates makes the sentence true. Rather, what is predicated of Socrates is the general property *pink*. There is, thus, a gap between predication and MO's ontological relations. It is filled by a theory of underlying ontological configurations. For every basic predication we associate necessary and sufficient conditions framed in terms of MO's relations. For the example at hand, we have

1. Socrates is pink  $\equiv (\exists y)(y \text{ is a nonsubstantial particular} \ \& \ y \text{ is in Socrates} \ \& \ \textit{pink} \text{ is said-of } y)$ ,

Notice that (1) countenances, but does not call for *predicating*, nonsubstantial individuals.

Those who want the ontological relations set out in MO to correspond evenly to basic kinds of predication might be drawn to something like

2. Socrates is pink  $\equiv (\exists y)(y \text{ is a nonsubstantial individual} \ \& \ y \text{ is in Socrates} \ \& \ y \text{ is pink} \ \& \ y \text{ is predicated of Socrates})$ ,

where '*y* is pink' means that *y* is identical to the property *pink* or that it is essentially pink. But not all friends of the new orthodoxy are comfortable with (2). Owen, for example, has a mixed attitude toward it. Sticking with his example of a nonsubstantial individual, he admits that

<sup>126</sup> Frede (1985: 73) claims that in the *Categories* one thing has another thing as its subject, if the first is predicated of the second. This sufficient condition, with which we can agree, is, however, immediately strengthened by the additional claim that if a first thing is in or said-of a second thing, the first is predicated of the second. This makes nonsubstantial individuals items that are predicated, contrary to our view. See Heinaman (1981*a*), who argues that in the *Categories*, and elsewhere, no nonsubstantial individuals are predicated. Benson (1988) denies that Aristotle proscribes predication of property particulars. But this rests on the further, somewhat exotic, claim that in the *Categories* universals are sortals only. See Ch. II, n. 52, for problems with Benson's view.

‘vink’, as a color adjective, can be predicated—of Socrates and anything else that happens to *be* vink—and so he appears to endorse (2). Yet he denies that the particular *color vink* or its name can be predicated and this clearly contradicts (2). So Owen admits linguistic predication of the adjective ‘vink’ but denies linguistic predication of the name ‘vink’ as well as metaphysical predication of the property *vink*. This division of labor, however, is entirely *ad hoc*. One could as well couple (metaphysical) predication of the property *vink* with linguistic predication of the adjective.

Indeed, on Owen's account it is not obvious how we are to state the truth conditions for “Socrates is vink.” Taking *vink* to be a specimen shade of pink, Owen can allow it to be the value of bound ‘y’ in (2) (waiving the last condition in [2]). But this only covers linguistic predication of the adjective ‘pink’. For linguistic predication of the adjective ‘vink’, we need an analog to (2), with ‘y is pink’ replaced by a condition mentioning *vink*. If this is ‘y = *vink*’, then the linguistic predication of ‘vink’ is backed after all by the metaphysical predication of *vink*. If the replacement is ‘y is vink’, then we are committed to something of which *vink* can be metaphysically predicated, and what will this be, if not a nonrecurrent *vink* particular? One might suggest leaving the condition as it stands and simply stipulating that *vink* is the value of bound ‘y’, whenever Socrates is pink. But now there is no expressible difference between the truth conditions for “Socrates is vink” and those for “Socrates is pink.” Moreover, Owen is forced to embrace a class of entities as bizarre as anything countenanced by ACK, the doctrine he means to rebut, namely, the class of nonpredicable universals, for this is exactly what *vink* and its ilk are.<sup>127</sup> Certainly, Owen cannot object to the very notion of metaphysical predication. He allows it for *pink*, the type-IV item that is said-of *vink*. Nor can the worry be that we end up classifying Socrates as a particular color. For we make no such mistake in predicating *pink* of him, yet in all relevant respects the cases are parallel. The prohibition against predicating *vink* and the like serves, it seems, simply to preserve Owen's view. Likewise for his insistence that *vink* is not a universal.

As maximally specific universals, we are justified in expecting Owen's nonsubstantial individuals to be predicable of whatever they are in. But if, as we hold, they are nonrecurrent *particulars*, no such expectation is at hand. Thus, the truth conditions given in (1) make no room for the predication of the nonrecurrent bit of pink present in Socrates. Nor, it will be noticed, does (1) say anything explicit about predicating the general property *pink* (*pink*<sub>g</sub>). Because “Socrates is pink” involves

<sup>127</sup> See the discussion of this point in sect. 5 of the previous chapter.

predication of the general property more needs to be said. To fill the gap, we assume

- 1a.  $(y)(y \text{ is a nonsubstantial particular} \ \& \ y \text{ is in Socrates} \ \& \ pink_g \text{ is said-of } y \rightarrow pink_g \text{ is predicated of Socrates}).$

Since F++, the revised standard version (of type-III items), allows general properties to be in individual subjects, there is an even correspondence between *these* cases and predication of accidents. Thus, on my view, (1a) is equivalent to

- 1b.  $(y)(y \text{ is a nonsubstantial particular} \ \& \ y \text{ is in Socrates} \ \& \ pink_g \text{ is said-of } y \rightarrow pink_g \text{ is in Socrates}).$

Propositions (1a) and (1b) underwrite the equivalence, (1). In effect, they require

- 1c.  $(x)(y)((x \text{ is in } y \equiv x \text{ is predicated of } y) \rightarrow x \text{ is general}).$

Here being something general amounts to being a nonsubstantial nonindividual or type-IV item.

## 2. Two-Step Dependence

We introduced in (1) above the notion of an underlying ontological configuration for standard predications such as “Socrates is pink” and suggested in (1a) how to link its exclusive commitment to nonrecurrent individuals with the requirement that only what is general can be predicated. In effect, (1) and (1a) suggest

3.  $Pink_g \text{ is in Socrates} \equiv (\exists y)(y \text{ is a nonsubstantial particular} \ \& \ y \text{ is in Socrates} \ \& \ pink_g \text{ is said-of } y).$

Now Aristotle does not state (3) in quite that form. But, of course, he does say that color is in individual body, for example, at 2b1–3. So (3) is to be taken as the nonrecurrentists' explanation of how color in general, e.g.,  $pink_g$ , can be in an individual body. A general property is in an individual subject by dint of being said-of something non-general that is in the subject directly, namely, a nonrecurrent property individual.

Some have disparaged this version of the inherence of general properties in individual subjects. Lewis (1991), perhaps the clearest and most systematic critic, presents the issue by asking whether general properties are directly dependent on substance individuals or whether such dependencies are mediated by nonrecurrent property individuals. On the first option, all nonsubstantial items, type-III as well as type-IV, are



universals and so one might expect them to exhibit the same sort of ontological dependence on substance individuals. Since nothing additional is required to explain this sort of dependence, Lewis calls it “one-step ontological dependence.” On the second option, a general property, a type-IV item, depends on substance individuals because, and only because, it is said-of some nonrecurrent property individual that, in turn, is present in a substance individual. General properties depend on substance individuals, not directly, but by being said-of other items that are directly so dependent. This Lewis calls “two-step ontological dependence.”

The ‘other’ items are, of course, nonrecurrent nonsubstantial individuals, and this lies at the heart of Lewis's objections to two-step dependence. He develops the objection by focusing on Ackrill's version of nonrecurrence. Of course, that version does not allow general properties to be in primary substances. Nonetheless, Lewis formulates an ‘Ackrillian’ relation between general properties and individual substances:

L\*Do. $x$  is *in*'  $y$  if and only if (i)  $x$  is a universal in some nonsubstance category and  $y$  is a primary substance & (ii) for some (Ackrillian) instance  $z$  of  $x$ ,  $z$  is in  $y$ .

On (L\*Do)<sup>128</sup> the ontological dependence of nonsubstantial universals on individual substances is not direct but mediated by the existence of a nonrecurrent nonsubstantial individual. So it embraces two-step ontological dependence. Because for  $z$  to be an Ackrillian instance of  $x$  is for  $x$  to be said-of  $z$ , (L\*Do) looks very much like our (3). So we had better get clear on what Lewis dislikes about the (L\*Do)'s commitment to two-step dependence.

Suppose we begin with the general environment in which (L\*Do) is designed to operate. Standing between the notion of a 0-level synonymy group and the ladder principle TR, MO organized the field of *per se* things in a way suitable for generating the categories. Its two relations, *being-in* and *being said-of*, also provide the tools for specifying various formal ontological relations among the four kinds of things that are (*τῶν ὄντων*). A chief aim here is to establish the ontological primacy of substance individuals, type-I items, to everything else, that is, to the items constituting MO's other three types. In *Categories* 5, in what I call the Primacy Passage, Aristotle enlists MO explicitly to this end:

All the other things are either said of the primary substances as subjects or are in them as subjects. This is clear from an examination of cases. For example, animal is predicated of man and therefore also of the individual man; for were

<sup>128</sup> I prefix ‘L’ to Lewis's own headings, when discussing his formulations. Thus, I write ‘L\*Do’ where he writes ‘\*Do’.

it predicated of none of the individual men it would not be predicated of man at all. Again, color is in body and therefore also in an individual body; for were it not in some individual body it would not be in body at all. Thus all the other things are either said of the primary substances as subjects or are in them as subjects. So if the primary substances did not exist it would be impossible for any of the other things to exist. (2a34–b6, Ackrill translation)

Type-II items, universals or species and genera in the category of substance, are said-of substance individuals. Accept for the moment, which most parties agree on but which needs further analysis, that this establishes some kind of ontological dependence of type-II items on substance individuals.<sup>129</sup> Advocates of the new orthodoxy<sup>130</sup> hold that all nonsubstantial items, type-IV as well as type-III, are in substance individuals. This affirms the ontological dependence of nonsubstantial items on substance individuals. Moreover, there is a single relation that everything nonsubstantial bears to substantial individuals. Lewis (1991: 74) refers to it as the core relation of *being-in* and formulates it as

LA2.  $x$  is in  $y$ , only if  $x$  and  $y$  belong to different categories and  $y$  is a primary substance.

Here  $x$  can be a nonsubstance individual or universal. Therefore, everything other than substance individuals is dependent on them in one step, type-II items by the *said-of* relation and type-III and type-IV items by the *being-in* relation. ACK, on the other hand, denies that general properties can be in individual subjects and so it is inconsistent with (LA2)—recall ACK's troublesome entailment (A2).<sup>131</sup> Therefore, when Lewis offers (L\*Do) as a formulation of ACK, we must understand him to be capturing a loose sense only in which nonsubstantial universals are in substance individuals. Formulation (L\*Do) is, as it were, the best Ackrill can do for general properties. Nonetheless, strictly speaking, ACK has no account of their dependence on substance individuals.

Given his willingness to offer the two-step to the Ackrillites, why does Lewis refuse to dance with them? A first reason concerns his account of Aristotle's diagnosis of an argument that bedeviled Plato's theory of forms—the notorious third man argument (TMA). Aristotle, says Lewis, cuts off the TMA by the following principle:

L\*.  $x$  is ontologically dependent on  $y$ , only if  $y$  is a this and  $x$  is a such.

What is more, without (L\*) Lewis thinks we are committed to a principle of two-step ontological dependence:

2ST.  $x$  is ontologically dependent on some  $y$  &  $y$  is ontologically dependent on  $z \rightarrow x$  is ontologically dependent on  $z$

<sup>129</sup> Exactly what this looks like is rather complicated. See below.

<sup>130</sup> See sects. 2 and 3 of Ch. II.

<sup>131</sup> Ch. II, at the beginning of sect. 2.

The idea is that in (2ST) what goes for ‘ $z$ ’ can be something that is not a this, and so, according to Lewis, (2ST) invites the TMA.

To see how this is supposed to work, start with standard Platonic assignments:  $x = \text{Socrates}$  and  $y = \text{Man}$ . By the TMA, the dependence of the second man (the form Man) on a third man (the form Man<sub>1</sub>) generates the additional assignment,  $z = \text{Man}_1$ . With this, of course, the regress is well underway. Lewis, however, focuses less on the regress than on the idea that the TMA allows the ontological dependence of Socrates on one form (Man<sub>1</sub>) only because Socrates depends on another form (Man) that depends on the first. That is, the TMA embraces two-step ontological dependencies. But these violate (L\*). Man<sub>1</sub> is not a this; hence, Man cannot depend on it. Nor is Man a this; hence, Socrates cannot depend on it. Thus, Lewis's Aristotle adopts as a solution to the TMA, and as his own doctrine, the principle that all ontological dependencies come in one step:

1ST.  $x$  is ontologically dependent on  $y$  in one step  $\rightarrow$  there is no  $z$  such that  $x$  is ontologically dependent on  $z$  &  $z$  is ontologically dependent on  $y$ .

For Lewis, then, what is “at bottom” troubling about the TMA is its violation of one-step ontological dependence and this suggests that Aristotle would welcome a theory that observes (1ST). More firmly, he claims,

if Aristotle accepts a tie between ontological dependency and the *this-such* distinction along the lines of (\*) [i.e., (L\*)], this by itself will commit him to the view that all ontological dependencies must be in one step. (53)

Now (L\*) and (1ST) give only necessary conditions for  $x$  being ontologically dependent on  $y$ . Nonetheless, the immediate claim appears to assume that the conditions are equivalent. So we get:

1ST\*.  $x$  is dependent on  $y$  & there is no  $z$  such that  $x$  is ontologically dependent on  $z$  &  $z$  is ontologically dependent on  $y \equiv y$  is a this and  $x$  is a such.

Condition (1ST\*) ought to make it clear that one-step dependence is strong medicine for the TMA. For not only does it block the onset of the regress but it excludes (L\*Do) and, therewith, the possibility that type-III items are Ackrill-type nonrecurrent particulars. The medicine may, however, prove too strong. For starters there is the evidence, discussed in the previous chapter, that weighs decidedly in favor of the particularity of nonsubstantial individuals. Moreover, the *Categories* does not simply equate particularity and thisness, as (1ST\*) seems to assume. All things indivisible and numerically one are particulars, nonsubstantial

as well as substantial, but only the substantial ones are also thises.<sup>132</sup> Nor would it help to make the *Categories* link particularity with thisness by insisting that 3b10's remark that each primary substance is an individual (τόδι τι) because it is indivisible and numerically one (ἄτομον καὶ ἓν ἀριθμῶς) rests on a completely general principle licensing the entailment from particularity, i.e., what is indivisible and numerically one, to individuality.<sup>133</sup> For this makes (L\*) false for accident particulars because these would be individuals (thises) that are ontologically dependent on other individuals, namely, primary substances.

It is, then, not obvious that Aristotle accepts the parallel, registered in (1ST\*), between ontological dependency and the *this-such* distinction. Note further that even if giving up (L\*) commits us to (2ST), as Lewis claims, (2ST) itself does not require, but merely sanctions, two-step dependencies. In particular, it does not require the dependencies that spawn the TMA. Thus, type-III items may be particulars and yet depend for their existence on primary substances without inviting the TMA. For one thing, this sort of dependence is not subject to the following equivalence:  $x$  depends on  $y \equiv x$  is predicated of  $y$ . Rather, an entailment holds only from right to left:  $x$  is predicated of  $y \rightarrow x$  depends on  $y$ . Moreover, in the *Categories* the general relation of predication is not transitive.<sup>134</sup> The *said-of* relation, of course, is. The fact that  $x$  is said-of  $y$  &  $y$  is said-of  $z$  entails that  $x$  is said-of  $z$  is essential to the upward chains of predication required for the ladder principle TR. But these chains need not embroil Aristotle in a TMA-style regress because of straightforward constraints on the terms of the *said-of* relation, namely, the constraint that  $x$  is said-of  $y$  only if  $x$  occurs at a higher level than  $y$  in the hierarchy generated by TR. So far from being *ad hoc*, considerations of parity require the constraint. Otherwise, absurdly, Socrates would be said-of Socrates.<sup>135</sup> Finally, *Aristotle's* remedy for the TMA does not call for (1ST\*). The TMA gets underway because certain suches are treated as thises and so Aristotle enforces the rule that no such is a this. But this does not entail that there cannot be different kinds of 'thises'. Nor does their existence flout Aristotle's rule, for the nonsubstantial thises (particulars) are not predicated of the substantial thises (particulars)—something that would have flouted the rule. So the strong medicine prescribed by (1ST\*) is not required to avoid that argument's regress.

Although Lewis (1991: 72) promotes one-step ontological dependence on the grounds that it provides Aristotle with a powerful

<sup>132</sup> See Ch. II, n. 36.

<sup>133</sup> Contrary to my argument in Ch. II (see n. 36).

<sup>134</sup> Take the general relation to be:  $x$  is said-of  $y \vee x$  is in  $y$ . Then from "Socrates is red" and "Red is a color" we would get by transitivity, "Socrates is a color"—assuming each contains the general relation of predication.

<sup>135</sup> Lewis himself appreciates this point (1991: 74, n. 56).

alternative to Plato, he stops short of saying that it provides the only exit from the TMA. There are, however, other reasons Lewis finds to favor one-step over two-step dependence. He says, for example, that one-step ontological dependence “gives a quite strict sense to Aristotle’s conclusions about the primacy of primary substance” (Lewis, 1991: 49) and that it “supports an especially strong notion of primacy” (Lewis, 1991: 73). What notion of primacy is at issue here and how it is diminished by two-step ontological dependence?

*Categories* 5 begins with the assertion that what are called substances most strictly, primarily, and most of all (κυριώτατα τε καὶ πρώτως καὶ μάλιστα) are type-I items, namely, those things that are neither said-of something as a subject nor in something as a subject:

4.  $(x)(x \text{ is a substance primarily} \equiv \neg (\exists y)(x \text{ is said-of } y \text{ as a subject} \vee x \text{ is in } y \text{ as a subject}))$ .

Strictly, the pair of conditions only *picks out* the class of primary substances; Aristotle does not say that type-I individuals are primary *because* they satisfy the conditions. Their claim to primacy appears to rest more on the fact that everything else is either said-of them as subjects or is in them as subjects. This condition, which we might formulate as

5.  $(y)(y \text{ is not a primary substance} \equiv (\exists x)(x \text{ is a primary substance} \ \& \ y \text{ is said-of } x \text{ as a subject} \vee y \text{ is in } x \text{ as a subject}))$ ,

on the basis of its occurrence at 2a34–b6 in the Primacy Passage, is elevated to the status of an explanatory ground at 2b15–17:

Further, it is *because* the primary substances are subjects for all the other things and all the other things are predicated of them or are in them, that they are called substances most of all.

So (5) captures the sought notion of primacy. Primary substances are primary *if, and only if, and because* they are subjects for everything else. Lewis refers to this as the monolithic view of the subject of predication. On this view, “the only real subjects of predication are primary substances” (Lewis, 1991: 11). Predications ostensibly involving something else as subjects are to be reduced to predications with primary substances as subjects. At the moment we need not address this reductionist side of the proposal.<sup>136</sup> What is of concern, rather, is the claim that two-step ontological dependence violates the monolithic conception of the subject of predication and, hence, undercuts the primacy of primary substances.

Suppose we approach this by considering Ackrill’s view directly. Because of its entailment (A2),<sup>137</sup> which proscribes the inherence of a

<sup>136</sup> See below for more on this.

<sup>137</sup> See sect. 2 of Ch. II

general property in an individual subject, ACK appears to run afoul of (5). For by (A2) *pink<sub>s</sub>*, the general property, cannot be in an individual substance; and by (1c) of the previous section,<sup>138</sup> neither can it be predicated of such a subject. Rather, it is predicable of (said-of) nonrecurrent pink color particulars. Thus, nonrecurrent color particulars turn out to be what might be called ‘terminal’ subjects for general color properties. The fact that these terminal subjects are themselves present in, and so dependent on, primary substances does nothing to alter this fact. Thus, on Ackrill's view general properties have no expressible relation to primary substances. Hence, the monolithic conception of the subject is lost.

Grant that the monolithic conception of the subject is lost once Ackrillian nonsubstantial particulars enter the picture. Does it follow that the monolithic conception is lost due to two-step ontological dependence? This is much less clear because two-step dependence concerns the dependence of general properties on substance individuals and Ackrill cannot account for this relation. To be sure, Lewis provides an Ackrillian version of this relation in the form of (L\*Do). But he recognizes that it captures a relation, namely *in*, that is not a recognized *in* of the *Categories*.

The truth remains that Ackrill's version of nonrecurrence bars general properties from being in substance individuals. The situation changes dramatically, however, when (3) is adopted rather than (L\*Do). For (3) we interpret in light of the previous chapter's results. Crystallized in F++ at the chapter's end, this includes the argument that the nonrecurrent status of nonsubstantial particulars is fully consistent with the presence of nonsubstantial universals in primary substances. Moreover, this is an *in* that Aristotle in fact countenances. So at least I argued in the last chapter. In short, freed of commitment to Ackrill's version of nonrecurrence, Aristotle need not claim that nonsubstantial particulars are *terminal* subjects, that is, subjects that block anything else, including primary substances, from serving as subjects for general properties.

But (3) is still a version of two-step ontological dependence, even as it claims to catch a genuine Aristotelian *in*. So the remaining question is whether (3) undermines the primacy of primary substances? I do not see that it does. Primacy, at least as spelled out in the Primacy Passage, requires that everything other than primary substances be in them as subjects or said-of them as subjects. The two-step ontological dependence evident in (3) heeds this requirement. For a general

<sup>138</sup> More exactly by an unexceptionable strengthening of (1c), namely, 1c':  $(x)(y)((x \text{ is in } y \equiv x \text{ is predicated of } y) \equiv y \text{ is general})$ .

property will depend on a primary substance because (in step one) it is said-of a nonrecurrent particular that (in step two) is present in the primary substance. Because this gives type-III items an explanatory role at the level of the underlying ontology, (3) needs to be replaced by

3\*.  $Pink_g$  is in Socrates *iff and because*  $(\exists y)(y$  is a nonsubstantial particular &  $y$  is in Socrates &  $pink_g$  is said-of  $y)$ .

In short, it is *because* the underlying ontology has a configuration involving nonrecurrent property particulars that a general property is predicable, not the other way around.<sup>139</sup> So in this sense nonrecurrent nonsubstantial individuals cannot be eliminated.

Does this undermine primacy? Again, I think not. For unlike in Ackrill, the ineliminability of such individuals is no longer linked to their being terminal subjects. On the contrary, they are the sorts of subjects that transfer the property said-of them to the subject they themselves are in. Now we have two choices. Either we can say that primary substances are, after all, monolithic subjects of predication (adopting a liberal policy on what qualifies them as such) or we can say that they are not (disqualifying them in light of the ineliminable role of nonsubstantial individuals as ‘transfer’ subjects). If the first, then two-step ontological dependence is consistent with viewing primary substances as monolithic subjects of predication; if the second, then subject monolithicity is not required for primacy. In any case, the main point is that the nonrecurrence of nonsubstantial individuals, whether or not it involves two-step ontological dependence, is fully consistent with the primacy of primary substance.<sup>140</sup>

<sup>139</sup> Notice, by contrast, that (L\*Do) does not explain how  $pink_g$  depends in two steps on Socrates. For it says simply that there must also be an ‘Ackrillian’ instance of  $pink_g$  that is in Socrates. It is consistent with this that the general property and its instance depend in one step on the primacy substance.

<sup>140</sup> The discussion of the past several paragraphs can be given a somewhat more precise cast. Some subjects, such as *man*, can also be predicates. Suppose, then, we call something a *strict subject* just in case it can only be a subject:  $x$  is a strict subject  $\equiv x$  is a subject &  $x$  is not a predicate. Strict subjects need not be monolithic subjects, however, for there are two ways to interpret this condition. For one we have:  $(a)$   $x$  is a subject &  $x$  is not a predicate  $\equiv x$  is a substance particular  $\vee x$  is a nonsubstantial particular; for the other:  $(b)$   $x$  is a subject &  $x$  is not a predicate  $\equiv x$  is a substance particular. On  $(a)$  we have two kinds of strict subjects. So it is only on  $(b)$  that subject monolithicity and subject strictness coincide. But to insist on  $(b)$  is to assume something like  $(c)$ :  $(x)(y)(x$  is a subject &  $x$  is not a predicate &  $y \neq x \rightarrow (\exists z)(z$  is a subject &  $z$  is not a predicate &  $y$  is predicated of  $z)$ ). However, in the previous chapter we rejected  $(c)$  in arguing that type-III items are nonrecurrent particulars. Here there are two options. Where  $x$  's being a nonsubstantial particular entails its being a terminal subject, we get ACK or Ackrill's view; where  $x$  's being a nonsubstantial particular entails its being a transfer subject, we get my own preferred view, F++.

### 3. Asymmetry

The primacy of primary substances (c-substances) resides in the fact that they are subjects for everything else and do not themselves stand in need of subjects. The apparatus of primacy serves a very specific end. Recorded in the ultimate sentence of the Primacy Passage, it is the grand finale of the *Categories*: “So if primary substances did not exist it would be impossible for any of the other things to exist.” The sentence, which we may write as

$$6. \quad (y)(y \text{ is not a primary substance} \ \& \ y \text{ exists} \rightarrow (\exists x)(x \text{ is a primary substance})),$$

follows from (5) of the above section. The inference depends on something like

$$7a. \quad (y)(y \text{ is not a primary substance} \ \& \ y \text{ exists} \rightarrow (\exists x)(x \text{ is a primary substance} \ \& \ y \text{ is said-of } x \text{ as a subject} \ \forall y \text{ is in } x \text{ as a subject}))$$

and

$$7b. \quad (y)(y \text{ is not a primary substance} \ \& \ y \text{ exists} \ \& \ (\exists x)(x \text{ is a primary substance} \ \& \ y \text{ is said-of } x \text{ as a subject} \ \forall y \text{ is in } x \text{ as a subject}) \rightarrow (\exists z)(z \text{ is primary substance})).$$

So it is clear that both *being-in* and *being said-of* are relations of ontological dependence.

Despite cloaking (6) in the language of necessity, nothing in the Primacy Passage excludes the possibility that the relation between primary substance and everything else is one of mutual ontological dependence. One who wished to press this might hold that Aristotle merely wants to guarantee that there is nothing *more fundamental than* primary substances. But clearly he is mainly concerned to establish the stronger claim that nothing else is *as fundamental as* primary substances. The weaker claim rests heavily on the Primacy Passage's failure explicitly to exclude the possibility of mutual dependence. But arguments from silence are notoriously unreliable in reading Aristotle, who typically deploys just the amount of ordinance needed to get the job done. Besides, the weaker claim would render mysterious much of the language of the *Categories*, in particular, the point of calling substance individuals “primary” and substance nonindividuals “secondary.”

So we assume, with virtually all commentators, that the *Categories* brand of ontological dependence is asymmetric. Despite this virtual unanimity, the exact nature of the asymmetry is considerably less clear. In particular, we cannot say simply that everything else depends for its existence on the existence of primary substances but primary substances depend on nothing else for their existence. After all, Aristotle himself



appears to allow that a given substance individual must have some color and be in some place; hence, primary substances would seem to require the existence of something nonsubstantial. And because substance individuals by nature come in specific natural kinds, primary substances appear to depend for their existence on the existence of species.<sup>141</sup>

One way to address these concerns would be to grant some kind of mutual dependence but deny that this is the whole story. In particular, we might affirm something like

8. Primary substances exist *iff* nonsubstances and nonindividual substances exist,

but deny that (8) gives the reason for, or the ground of, the existence of those things other than primary substances. On this suggestion, (8) is compatible with

8\*. Nonsubstances and nonindividual substances exist *iff and because* primary substances exist & primary substances do not exist *iff and because* nonsubstances and nonindividual substances exist.

The idea is clear enough. Even if, extensionally, there is a mutual dependence between primary substances and everything else, the latter exist *only because* their existence is grounded in that of primary substances. Promising as this maneuver appears,<sup>142</sup> it is, it seems to me, simply too easy. For it amounts to little more than granting mutual dependence and, then, proceeding to declare that, nonetheless, substance individuals are ontologically prior and, hence, that they are the things that *really* exist. What is needed is an account that formulates the asymmetry in terms of differences in the existence conditions for primary substances and for other items. Failing such an account, the ontological priority of primary substances will remain a matter of decree. So, in the balance of this chapter, I consider, first, the case of nonsubstances (type-III and type-IV items) and, then, the case of nonindividual substances (type-II items).

## 4. Asymmetry and the Nonsubstantial

When it comes to the ontological dependence of the nonsubstantial on the substantial, there are four formal possibilities: (a) type-III on type-I; (b) type-III on type-II; (c) type-IV on type-I; and (d) type-IV on type

<sup>141</sup> See also Jones (1975) and Loux (1991), who voice this concern. I address the point more fully in the penultimate section of this chapter.

<sup>142</sup> Lewis (1991), for example, employs it in his account of the primacy of primary substances (see, especially, 63–73).

II. We can eliminate (b) on the basis of the previous chapter, where it was argued that no nonsubstantial individual is in a substance universal. Although it focused mainly on (a), Chapter II also made room for style-(c) dependencies. For the moment, I shall have little more to say about (c). The neglect is reasoned. For because *said-of* marks a relation of ontological dependence, the dependence of a nonsubstance universal on substance can be explained by two other relations—that of the universal being *said-of* a nonsubstance particular(s) and that of the nonrecurrent particular(s) *being-in* a primary substance(s). The first of these relations will behave analogously to the *said-of* relation holding between substance universals and substance individuals. So discussion of this ontological dependency can wait for discussion of the dependency of substance universals on primary substances.

Chapter II left dependency (d) without comment and I shall do only a little here to break that silence (reserving extended comment for the next section). In part, this is because style-(d) dependency is not the appropriate place to locate asymmetry. At least this is so when such dependencies are cast at a sufficiently general level. Suppose, as a case of (d), that we have: *quality is in substance*. Ontological dependency at this level appears to be mutual, for just as any quality must be in a substance so also must any substance have some quality. If much the same can be said for every category,<sup>143</sup> then style-(d) dependencies will yield no asymmetries of the desired kind at the categorial level. Moreover, the problem remains at a less general level for any properties and subjects that are, as it were, counterpredicable—for example, color and body. So (d) is not a good place to locate asymmetry.

The asymmetry between the substantial and the nonsubstantial is, in effect, an asymmetry between primary substance and the nonsubstantial items as a whole. And this, in turn, is to be explicated in terms of style-(a) dependencies. So at bottom the foundational status or, more dramatically, the primacy of primary substances will rest on their relation to nonsubstance individuals. It is partly for this reason that nonsubstantial individuals received extended treatment in Chapter II. My contention is that if these individuals are recurrent properties, as friends of the new orthodoxy hold, then the asymmetry fundamental to the system of the categories cannot be sustained and, hence, the primacy of primary substances amounts to little more than primacy by decree. In short, asymmetry requires nonrecurrence.

Suppose we start with the view we oppose. Where ‘F’ and ‘a’ are names, we have the following partial existence conditions:

<sup>143</sup> As Moravcsik (1967c) argues.

9.  $F$  is a maximally determinate universal  $\rightarrow (\exists x)(x \text{ is a primary substance} \ \& \ F \text{ is in } x)$

and

9\*.  $a$  is a primary substance  $\rightarrow (\exists x)(x \text{ is a maximally determinate universal} \ \& \ x \text{ is in } a)$ .

Both (9) and (9\*) display specific to general dependencies. A specific primary substance, namely,  $a$ , depends on the existence of some, but not any specific, maximally determinate universal. Likewise, a specific maximally determinate universal, namely,  $F$ , depends on the existence of some, but not any specific, primary substance. In terms of their existence conditions, then, primary substances are no better off than maximally determinate accident universals. Each is dependent, in formally the same way, on the other. Notice that this argument does not turn on calling  $F$  a universal but simply on the fact that  $F$  is in some primary substance(s) or other. Thus, the point applies to Owen's *vinke*, even if we allow him the claim that it is not a universal.<sup>144</sup>

On the view I favor, F++ of the preceding chapter, type-III items are nonrecurrent particulars. Where ' $\mathcal{A}$ ' and ' $a$ ' are names, we have for this case, as analogs to (9) and (9\*),

10.  $\mathcal{A}$  is a nonsubstantial particular  $\rightarrow (\exists x)((x \text{ is a primary substance} \ \& \ \mathcal{A} \text{ is in } x \ \& \ (\exists z)(\mathcal{A} \text{ is in } z \rightarrow z = x))$

and

10\*.  $a$  is a primary substance  $\rightarrow (\exists x)(x \text{ is a nonsubstantial particular} \ \& \ x \text{ is in } a)$ .

Like its counterpart (9\*), (10\*) expresses a specific to general dependence of primary substances on nonsubstantial individuals: on (9\*), a specific primary substance, namely,  $a$ , must have some, but not any specific, maximally determinate universal; on (10\*),  $a$  must have some, but not any specific, nonsubstantial particular. Condition (10), on the other hand, expresses a *specific to specific* dependence of accidents on primary substances.  $\mathcal{A}$  can exist only if it is in one and only one primary substance. Thus, (10) and (10\*) establish an asymmetry between substances and nonsubstances *at the level of existence conditions*. Consequently, they provide the grounds for the claim that primary substances are primary because everything else exists thanks to them. Conditions (9) and (9\*) do not. Consequently, if we take the thesis of asymmetry seriously,

<sup>144</sup> Contrary to the above argument, and that of the previous chapter, that *vinke* is in fact a universal.

it seems that nonsubstantial individuals cannot be recurrent items of any sort.<sup>145</sup>

The strategy I am proposing emphasizes the fact that, from the formal point of view, MO offers an elegant picture of ontological dependence. Accidents depend on substances by the *being-in* relation and universals depend on individuals by the *said-of* relation. This picture is marred considerably if type-III items are recurrent individuals. Because such individuals are, Owen's objections notwithstanding, maximally determinate *universals*, the relation between nonsubstance universals (type-IV items) and the individuals (type-III items) they are said-of will be a different relation, formally speaking, from that between secondary substances (type-II items) and the individuals (type-I items) they are said-of. In the previous chapter we made much of the claim that in the *Categories* to be an individual is to be a particular, even as we admitted that there is broader, yet perfectly respectable, notion of individual. On this 'broad notion,' as we might call it, something is an individual just in case it is not further divisible. Thus, maximally determinate colors are individuals because they are not further divisible colorwise. We are now in a position to add an additional reason for eschewing the broad notion of individual. For on this notion, MO ends up countenancing not two but three kinds of individuals! For no more than *vink* is *man* a further divisible item.<sup>146</sup> Thus, the lowest-level items that are said-of substance particulars, namely, species, turn out to be individuals. Worse, it follows that one individual is now said-of another.<sup>147</sup> One might respond by

<sup>145</sup> Lewis (1991: 58) grants that 1a24–5 manages to separate the *being-in* from the *said-of* relation only if the lines are taken to harbor commitment to nonrecurrent accidents. However, he seconds Dancy's (1975) worry that because the inseparability requirement for nonsubstances is a "highly charged piece of an anti-Platonic polemic," Aristotle cannot simply say that it is true by definition; rather, he needs to argue the point. But Aristotle does not need a stand-alone argument for inseparability. It is enough that the inseparability of nonsubstances figure as part of a theory that, as a whole, is recommended because it avoids the pitfalls of Platonism. The theory is just the system of categories structured in accordance with MO. As such, the asymmetry of ontological dependence is built into it. Hence, commitment to the nonrecurrence of nonsubstantial individuals follows from their essential role in securing the asymmetry that is distinctive of the theory.

<sup>146</sup> In the sense of "divisible" appropriate to the broad notion of an individual.

<sup>147</sup> Furth (1988: 46–7), in fact, endorses the view that species are atomic individuals in so far as they are "fully determinate specific forms, which *do* indeed pluralize by being said-of the individual substances as specimens, but which *do not* stand to them as genus (less determinate) to species (more determinate); they are not further divided by differentiae, and they too are therefore, in that sense, atomic." This assumes that Aristotle employs the broad notion of individual. But the oddities that this engenders serve better as a *reductio* against the assumption. By the same token we need not follow Furth in complaining that in the *Categories* neither individual *white* nor the species *man* ought to be called universal. For Furth the question arises for both because both belong to many, and the complaint applies to both because both are atomic. My view avoids this because the individual *white* does not belong to many and the species *man* is not atomic. Frede's (1978) characterization of an individual as something that is a subjective part of something and has itself no subjective parts excludes the species and so avoids Furth's problem. Code would appear to agree with my assessment of Furth insofar as he holds, at least in Code (1986: 431), that the only τὸδε τι in the *Categories* is the particular.

claiming that MO employs both the broad and the narrow reading of individual and that the narrow notion covers primary substances alone. Not only does this maneuver detract from the elegance of MO but also the evidence, retailed in the previous chapter, supports extension of the narrow reading to nonsubstantial individuals. Besides, the proposed mixed reading is introduced simply to salvage a claim about nonsubstantial individuals—a claim we no longer need to save.

## 5. The Status of Nonsubstantial Universals

The asymmetry between substance and accident rests on the fundamental fact that the world contains two kinds of individuals that stand in a relation of one-way ontological dependence. Because these must be particulars, the world of the *Categories* is fundamentally a world of particulars. Thus, the fundamental asymmetry between substance and accident would be assured were there only individuals to contend with. It is far from clear, however, that it is exclusively a world of particulars. There is, for instance, the obvious objection that MO also encompasses universals, nonsubstantial as well as substantial. So it would seem that the world of the *Categories* can hardly be restricted to particulars, and so that its fundamental asymmetry is at risk. To address this worry we need to say something about the ontological status of universals.

That the *Categories* pursues a policy of ontological liberality is virtually an article of faith among commentators. A. C. Lloyd takes the work, without qualification, to exclude nominalism.<sup>148</sup> Indeed, on a popular line of interpretation, by the time Aristotle came to write the *Metaphysics*, at least the central books, he had given up the ontological excesses of youth in favor of the simpler tastes of maturity. Although the principal

<sup>148</sup> A. C. Lloyd (1966: 260): “In the *Categories* there is nothing to stop white, like man, from being a species, but it is said not to be a secondary substance because, unlike man, it is ‘in a subject’. This is the rule which preserves the distinction between the two kinds and excludes the nominalism or conventionalism.” Lloyd does not say what he understands by nominalism here. But if it marks a commitment to individuals as the sole existents, then the distinction between substance species and nonsubstance species does not, *contra* Lloyd, entail the doctrine. For denial of the distinction is consistent with affirming the existence of universals (Lloyd’s species), substantial as well as nonsubstantial—unless Lloyd’s point is that something must be a substance in order to enjoy any existential standing. But this not only flies in the face of *Metaphysics* Δ.7’s *per se* scheme, but also, and more importantly, flaunts MO’s claim to be dividing the field of τὸν ὄντως .

targets of demotion are species and genera in the category of substance, the claim ought to extend to all universals. For if substance universals come up short in point of existence, so, surely, should their counterparts in the realm of the accidental. This assumes, of course, that what one says about the ontological status of one kind of universal applies to the other; hence, it assumes that, formally, MO counts as universal what, and only what, can be said-of something. Thus, the relation relevant to determining the ontological status of universals is the *said-of* relation. In particular, what is crucial is the relation between these universals and the individuals they are said-of. In effect, my proposal is that the status of substance and nonsubstance universals is a function of their respective relations to individuals in 0-level substance and nonsubstance synonymy groups. Because, as the Primacy Passage makes abundantly clear, the *said-of* relation is a relation of ontological dependence, the status of universals turns on the kind of dependence marked by the *said-of* relation.

So what sort of dependence do *said-of* items have on their subjects? In particular, what sort of ontological status do nonsubstantial universals enjoy? In approaching this, it will be useful to look at a particularly clear “inflationary” account. Frede begins his important (1985) with the following remark:

Aristotle's ontology is very generous. It contains objects like trees and lions. But it also contains qualities, like colors, and quantities, like sizes, and all the kinds of items Aristotle distinguishes according to his so-called categories.

Hardly anyone, the nominalist included, will quarrel with the items enumerated here. Whether they comprise a rich ontology depends on what is said about them. Hold Aristotle to the assumption that properties exist. The case for inflation is, then, built around a few select theses Aristotle is made to endorse in the *Categories*:

- 11a. The existence of a property, *F*, does not just amount to the existence of objects that have *F*.
- 11b. The existence of objects that have *F* presupposes the existence of both objects and properties.
- 11c. The object–property distinction is basic.
- 11d. Properties are ontologically dependent on objects.

Elsewhere, Frede distinguishes between an object's properties and its kind.<sup>149</sup> The latter, species and genera in the category of substance, for example, *man* and *animal*, are also called general objects.<sup>150</sup> So the object–property distinction is equivalent to the substance–accident

<sup>149</sup> Frede (1978).

<sup>150</sup> The rationale for calling them objects will become clearer in the next section when we turn to the sense in which substance nonindividuals are subjects for accidents.

distinction. Thus, (11a)–(11d) are theses about the relation between substance and the nonsubstantial items dependent on them. As written, however, they permit Aristotle to get by with quite parsimonious ontological commitments. For neither severally nor jointly do (11a)–(11d) call for the existence of any nonsubstances beyond individuals; moreover, if (11d) is to express asymmetry of dependence, the theses will be obliged to countenance nonrecurrent property particulars. This does expand the ontology of the *Categories* at what we have called the 0-level of the meta-ontology (MO) by adding a second, formally distinct, kind of individual.

For commitment to nonsubstantial individuals to alarm the nominalist, however, it must be established, first, that type-III items are after all maximally determinate *universals* and, second, that what one says about the ontological status of one nonsubstantial universal holds for all such universals. Failing arguments to the contrary, parity of reasoning is sufficient for the second point. But the first point cannot be taken as established—not, at least, according to the argument of Chapter II. We may, then, grant that Aristotle assumes that properties exist but deny that this involves commitment to anything irreducibly general or universal. We may also grant (11c), which amounts to asserting that properties cannot be reduced to objects. For, again, this need not involve a claim about property universals. So taken, (11c) is of a piece with the view that nonsubstantial particulars are rock-bottom features of the world.

Countenancing nonsubstantial particulars allows us to give cash value to the distinction between (11a) and (11b), even where (11a) concerns the existence of a general property. Taking “just amounts to” as something like material equivalence, (11a), in effect, denies that

11a\*. The general property  $F$  exists  $\equiv (\exists x)(x \text{ has } F)$

gives us an *account* of the existence of properties. The point is not that (11a\*) is false but that it fails on explanatory grounds. For Frede, the correct way to put the matter is, rather, (11b). Taking “ $\supset$ ” to mark presupposition, (11b) can be written either as

11b\*.  $(\exists x)(x \text{ has } F) \supset (\exists y)(\exists z)(y \text{ is an object} \ \& \ z \text{ is a property} \ \& \ z = F)$ ,

or as

11b\*\*.  $(\exists x)(x \text{ has } F) \supset (\exists y)(\exists z)(y \text{ is an object} \ \& \ z \text{ is a property} \ \& \ z \text{ is } F)$ .

On (11b\*) the idea, roughly, is that the property had by an object is the same as that whose existence is presupposed. On (11b\*\*) what is presupposed, we may suppose, is the existence of a nonrecurrent property individual (and, thus, [11b\*\*] countenances something quite distinct from [11b\*]).

Which of these two readings better serves the anti-reductionist claims of (11c)? Presumably, the idea is that because (11a\*) is explanatorily inadequate, but (11b\*) or (11b\*\*) is not, the existence of properties cannot be reductively *explained* by the existence of objects having them. Since (11a\*) is true as a matter of extensional fact, it must be the notion of presupposition in (11b\*) or (11b\*\*) that underwrites the alleged nonreductionism. Intuitively, the point would seem to be that what is presupposed by something occurs at a more fundamental level and, hence, does not belong on the same explanatory plane. This is admittedly vague but, nonetheless, there is something right about the point. How does it work in the present case?

Suppose we help ourselves to a more canonical version of (11a\*):

11a\*\*.  $(\exists z)(z \text{ is a general property} \ \& \ z = F \equiv (\exists x)(x \text{ has } F))$ .

Supplementing (11a\*\*) with (11b\*) hardly moves us to a deeper level of explanation. For the existence of an object with the general property  $F$  is explained, in part, by the existence of the general property  $F$ ; yet by (11a\*) the object exists if, and only if, the property exists. This comes close to saying that the existence of a general property presupposes the existence of the general property. Whatever one makes of this, we do not get a kind of presupposition that explains or grounds the existence of  $F$ s. Alternative (11b\*\*), on the other hand, introduces a range of objects that occupy just the right explanatory space. On (11b\*\*) the idea is that the general property  $F$  exists just in case there are  $F$ s (i.e., [11a\*]), but the latter presupposes the existence of nonrecurrent property individuals; hence, what is presupposed, for purposes of explanation, by the existence of the general property  $F$  is only the existence of those nonrecurrent type-III items that  $F$  is said-of.<sup>151</sup>

Propositions (11a\*\*) and (11b\*\*) raise, but do not resolve, the relation between the existence of general properties and nonrecurrent property particulars. Propositions (11a)–(11d) are simply silent on this. Thus, even if (11c) is correct in holding that the existence of (general) properties cannot be reduced to the existence of objects that have them, their existence may yet be reducible to the existence of the nonsubstantial *individuals* they are said-of. So the status of nonsubstantial universals depends on the sort of ontological dependence that is meted out by the *said-of* relation. We may, then, move directly to this relation.

For this purpose, we need to revisit the Primacy Passage, this time indicating the structure of its argument:

<sup>151</sup> Much the same can be said for the (correct) claim that “the truth of at least some statements about objects is to be explained by assuming that there are properties” (Frede, 1978: 49). For, in line with (1) above, such statements need carry commitment to property individuals only.



[7] All the other things are either said of the primary substances as subjects or are in them as subjects. [ii] This is clear from an examination of cases. For example, animal is predicated of man and therefore also of the individual man; for were it predicated of none of the individual men it would not be predicated of man at all. Again, color is in body and therefore also in an individual body; for were it not in some individual body it would not be in body at all. Thus all the other things are either said of the primary substances as subjects or are in them as subjects. [iii] So if the primary substances did not exist it would be impossible for any of the other things to exist. (2a34–b6, Ackrill translation)

Proposition (iii) follows from (i) (recall our [7a] and [7b] above). Proposition (ii) secures the inference by a consideration of cases. Ackrill suggests, I think correctly, that the cases are, in effect, put forward as counterexamples to (i). This suggests that Aristotle may have only a weak attachment to the items constituting the counterexamples. Let us see if this is so. To take the case of interest, the objector points out *animal* is said-of *man*; hence, (i) is false and we are not entitled to assert (iii).

Aristotle's response can be captured in two claims. The first appears to contain straightforward necessary conditions for *animal's* being said-of *man*:

12. *Animal* is said-of *man*  $\rightarrow (\exists x)(x \text{ is a man} \ \& \ \textit{animal} \text{ is said-of } x)$ ,

or, perhaps, necessary and sufficient conditions:

12\*. *Animal* is said-of *man*  $\equiv (\exists x)(x \text{ is a man} \ \& \ \textit{animal} \text{ is said-of } x)$ .

What is important is the style of Aristotle's support for (12)/(12\*). It is not enough to explain (12) on the basis of

13.  $\neg (\exists x)(x \text{ is a man} \ \& \ \textit{animal} \text{ is said-of } x) \rightarrow \neg(\textit{animal} \text{ is said-of } \textit{man})$

because (13) and (12) are logically equivalent. So Aristotle utilizes a second claim at 2a38–b1, which we may couch in the language of justification:

14. Were it not the case that  $(\exists x)(x \text{ is a man} \ \& \ \textit{animal} \text{ is said-of } x)$ , then it would not be the case that (*animal* is said-of *man*).

From the dialectical point of view, what would not be the case, in (14), is precisely what the objector holds true, namely, that a genus is said-of a species. But so far from serving as a counterexample, (14) argues that the genus could not be said-of the species at all were it not said-of individuals of the species. And these are just c-substances (substance individuals). Hence, the objector's case is self-defeating as a counterexample to (iii). From the explanatory point of view, we can treat 'were it not the case that' as an operator that attaches to the stopper in the argument.

Thus, Aristotle clearly thinks that predicating the genus of a primary substance(s) is more fundamental than predicating it of the species, despite the fact that they are equivalent, as (12\*) reports. Indeed, the language in which Aristotle expresses (14), “εἰ γὰρ κατὰ μηδενὸς τῶν τινῶν ἀνθρώπων, οὐδὲ κατὰ ἀνθρώπου ὅλως,”<sup>152</sup> could be read to assert that, ultimately, predicating *animal* of *man* just amounts to predicating it of individual men. Understood in this reductive way, (12\*) provides a mechanism for bypassing the species entirely as a genuine subject.<sup>153</sup>

Consequently, the argument of the Primacy Passage appears to contain some grounds for supposing that Aristotle's commitment to species is ontologically soft. At least it contains the mechanisms for pressing this line. Although the Primacy Passage works this out for species and genera of substance(s), on the strength of MO the point may be extended to nonsubstantial categories as well. For there is no reason to suppose that the relation between substantial ‘subjects’ and the items said-of them will differ in any logically relevant way from the relation between nonsubstantial ‘subjects’ and the items said-of them. Thus, (12) is matched by

12a. *Color* is said-of *white*  $\rightarrow (\exists x)(x \text{ is a white accident particular} \ \& \ \textit{color} \text{ is said-of } x)$ ,

and, so, (14) by

14a. Were it not the case that  $(\exists x)(x \text{ is a white accident particular} \ \& \ \textit{color} \text{ is said-of } x)$ , then it would not be the case that (*color* is said-of *white*).

Rather than (12a) and (14a), one might object that when the Primacy Passage turns to nonsubstantial species and genera, *color* is made to depend on individual *bodies* and not on accident individuals. This is true but irrelevant. For the whole point of the Primacy Passage is to establish the dependence of everything else on substance individuals and for nonsubstantial items this is done by way of the *being-in* relation. Nonetheless, we know from MO that *color* is said-of *red* and *red* of color individuals (type-III items). So whatever can be said of the relation between type-II and type-I items, in virtue of their standing in the *said-of* relation, can be said of the relation between type-IV and type-II items.

Concerning species and genera in nonsubstantial categories, there are additional grounds for parsimony. For in addition to our general suspicions about the status of *said-of* items, we must honor the requirement that the domain of the nonsubstantial is asymmetrically dependent on

<sup>152</sup> “For were it predicated of none of the men, it would not be predicated of man at all.”

<sup>153</sup> I note now that Lewis (1991: 65) reads 2a38–b1 (i.e., [14]) in much the same way.

the domain of substance. This is intended to be a global claim concerning any nonsubstantial item that is accorded ontological status. A problem arises when we grant ontological status to nonindividual nonsubstantial items, such as species and genera of color. For, as we have seen, a number of these items are no more dependent on substance than substance is on them. Thus, for these items—including, notably, the categories themselves—asymmetry fails and, hence, the thesis of asymmetry no longer has global reach. But the thesis aspires to capture a general feature of the system of the *Categories*. If, however, the thesis governs relations between the fundamental existent items only, ontological parsimony provides a way out. Now it would, of course, be entirely *ad hoc* and, hence, unacceptable to shore up the asymmetry thesis by demoting only the troublesome cases. As nonsubstantial universals, there is no formal difference between them, at least none that is recognized in MO. All are type-IV items. Yet for  $x$  and  $y$  to differ in ontological status is for them to stand in formally different relations to substance. So worries about the status of one such item will apply to the others. Thus, qualms about the ontological status of the genus *color* will transfer to the species *pink* and even to Owen's *vink*.

Suppose, however, that Aristotle withholds ontological status from *all* nonsubstantial universals. The asymmetry thesis is automatically preserved, for we may now restrict it to the domain of nonsubstantial individuals. As particulars, one would expect these items to have a relation to substance that is formally different from that exhibited by nonsubstantial universals. And they do. As nonrecurrent, they are asymmetrically dependent on primary substances. Thus, the thesis of asymmetry is preserved at the rock-bottom level of individuals. And because no other nonsubstantial items are accorded ontological status, the thesis has no exceptions and in this sense enjoys global reach. Hence, we get agreement with the results of the last section.

## 6. The Status of Secondary Substances

Grant that ontological parsimony serves the ontological priority of c-substances with respect to accidents generally. Will this same strategy secure their priority with respect to the secondary substances that are said-of them? Some would cut off the strategy at the start, contesting the proposed extension of parsimony to substance universals on two points. First, the version of asymmetry appealed to immediately above governs accident–substance dependencies and so is not obviously of use in assaying the dependence of substance universals on substance individuals. Second, Aristotle appears to extend subject status to species and

genera in the category of substance and this must amount to extending a kind of irreducible ontological status to them. So we should drop our suspicions regarding the status of at least *substance* universals.

The first point is obviously correct. But the fact that nonsubstance universals are, by an independent argument, worse off than substance universals doesn't mean that the latter are to be recognized as robust constituents of the world. This, or something like this, is, however, what the second point is intended to establish. So the task of this section is to critically assess the chief argument summoned to block a deflationary stance on secondary substances. This will keep alive extension of parsimony to substance universals. In the following three sections, I consider independent proposals about the status of secondary substances. Finally, in section 10, I offer a 'deflationary' account, according to which the existence of a secondary substance is to be assessed in terms of the truth condition for statements asserting its existence. So the account is brought into line with my general view of the *Categories* as containing a theory of underlying ontological configurations for basic categorial statements.

The argument for the irreducible ontological status of substance universals is extracted from what I shall call the Subject Passage:

It is reasonable that, after the primary substances, their species and genera alone among other things should be called secondary substances (δεύτεραι οὐσίαι). For [β] only they, of things predicated, reveal the primary substance (διὰ τὴν πρώτην οὐσίαν). For if one is to say of the individual man what he is, it will be in place (οὐκ εἰς) to give the species or the genus (though more informative [γνωριμώτερον] to give man than animal); but to give any of the other things would be out of place (ἄλλοτριως)—for example, to say 'white' or 'runs' or anything like that. So it is reasonable that these should be the only other things called substances. Further, [γ] it is because primary substances are subjects for everything else that they are called substances most strictly (κυριώτατα οὐσίαι λέγονται). But [β] [α] as the primary substances stand to everything else, so the species and genera of the primary substances stand to all the rest: <for> [β] all the rest are predicated of these. For [ε] should you call the individual man grammatical, it follows that you call both a man and an animal grammatical; and similarly in other cases. (2b293a6, following Ackrill)

Now it appears from the Subject Passage that species and genera are substances in a secondary way only. Although this would seem to augur for a reduced sense in which they merit the term, most interpreters see the Subject Passage as a key document in building the case for their ontological liberality.

Precisely how the Subject Passage serves a policy of ontological liberality is, however, rather complicated. It will be useful to begin with two claims from Lewis (1991: 64):

- 1L. Because accidents of individual men accrue to *man* as well, the species *man* itself is a subject in a sufficiently robust sense to be a substance of a sort

and

- 2L. Because *man* is a kind relative to the various individual men and is predicated of them, *man* is substance to only a lesser degree.

The idea, also evident in Furth (1988), is that the more something is a subject the greater is its claim to substantiality. Substance individuals are subjects for substantial species and genera as well as for accidents. So they enjoy greater substantiality than the species and genera said-of them.

This certainly looks like a reasonable reading of the text. But there is more intrigue in the lines. For one thing, it would be dangerous simply to make unalloyed use of Furth's maxim: "The more of a *subject* something is, the more of a *substance* something is."<sup>154</sup> For, if to be more of a subject is to be subject to more things, then the species, for example, might count, after all, as more substantial than Socrates. For it will surely be subject to an array of accidents vastly greater than anything visited upon Socrates. Of course, Socrates is still subject for the species and has no subject himself. This should, however, serve to alert us to the fact that the subject criterion alone is insufficient. In particular, it does not tell us why species and genera should be counted as substances in the first place. Nor, so far as I can see, did Aristotle intend that it should. Section (*iv*) begins and ends with the refrain that it is reasonable (εἰκόντως) that, besides primary substances, only their species and genera should be called substance. So it at least appears to close off discussion of the claim—a point supported by the fact that (*v*) begins with 'ἔτι' ('further'), which typically marks a fresh start. But the crucial consideration is the *reason* Aristotle gives for calling species and genera substance, namely, that of what is predicated only they *reveal* what the primary substance is. Nothing is said here about their being subjects of anything at all, let alone in a sufficiently robust sense to count as substance.<sup>155</sup>

Not until (*v*) are species and genera mentioned as subjects. Because it follows (*v*)'s remark that primary substances are substance most strictly (κυριώτατα) by reason of their being subjects for everything else, (*v*) has been thought to embrace a subject criterion for species and genera, even if a weaker one. But this is not obviously true and, if true, its significance for ontological liberality is not obvious. Notice, first, that

<sup>154</sup> Furth (1988: 29).

<sup>155</sup> Lewis (1991: 64), which gives the whole of 2b29–3a6 as the locus of (1L), does not discuss (*iv*) at all.

(*vi*) says neither that species and genera are called *substances* nor that they are substances *secondarily* because of qualifying as subjects, albeit to a lesser degree than primary substances. It says simply that, as primary substances are subjects, so also, in a certain way, are species and genera subjects. So while (*vi*) offers some kind of contrast between primary substances and their species and genera, it does not contrast the *bases* on which they are *called substances*. This has already been given in (*iv*). Part (*vi*) simply records the fact that they are subjects to different kinds of items. Moreover, the point arises naturally from (*v*), which comments on the subjecthood of primary substance, for chapter 2's meta-ontology, MO, distinguished substances generally, both type-I and type-II items, as subjects of accidents and the Subject Passage reaffirms this, adding that type-I items are also subjects of type-II items.

What are we to make of the contrast? We might begin by noticing that (*vi*) itself consists of three parts. Part (*a*) distinguishes different bases for the two kinds of subjects; (*b*) gives the general principle underlying the distinction; and (*c*) contains a case-driven argument for the principle. We can take (*a*) to assert:

15. Primary substances are related to everything else as their species and genera are related to everything nonsubstantial.

We have already argued that (*a*) simply needs to make use of the general contrast between substance and accident; hence, (15) need not be given a fine-grained analysis. Thus read, the principle backing (15) is also broadly drawn:

16. Everything nonsubstantial is predicated of species and genera of primary substances.

Finally, (*c*)'s argument for (16) is a generalization from propositions such as

17. If an individual man is called grammatical, then (a) *man* and (an) *animal* are called grammatical.

Recall that our concern with the Subject Passage is the strength of its commitment to species and genera as subjects. My contention is that such commitment is considerably less evident than commonly supposed. First, the 'revealing' function in (*iv*) is naturally taken to support a deflationary account, on which species and genera are substances 'in a secondary way only'. Second, the subject criterion is distinct from this and, in any case, can itself be given a deflationary reading. Start with the point that (17) is the foundation of the argument. If we follow Ackrill and read (17) with the parentheses, then the argument rests on predicating

a nonsubstantial property of *a* man and *an* animal. Now the base predication will be something like “Socrates is grammatical” or “That man is grammatical.” On the latter, Aristotle is requiring that my saying “That man is grammatical” commits me to saying “A man is grammatical.” Although this may strike some as vacuous, it is not. It is simply existential generalization. And, although it may look more substantive, the move from “Socrates is grammatical” to “A man is grammatical” still ends in an existential generalization. So what the *argument* supports is nothing more than this. In particular, predication of the species gets a deflationary reading in (16): To say that *man* is grammatical is, at bottom, to say only that a man is grammatical. For this the species need not be accorded status as an irreducible object.

The deflationary account is plausible, even if (17) is taken without the parentheses. Put materially, it can be read as

17\*.  $x$  is an individual man &  $x$  is grammatical  $\rightarrow$  *man* is grammatical,

and appears to countenance the species *man* as a genuine subject. But this overlooks the lessons of the Primacy Passage. Principally, it overlooks the fact that a formula mentioning, or appearing to mention, a species can be equivalent to a formula quantifying over individuals of the species only and yet not be as fundamental as the second. Since we also know that the converse of (17\*) holds, Aristotle is committed to the appropriate closure of

17\*\*.  $x$  is an individual man &  $x$  is grammatical  $\equiv$  *man* is grammatical,

and, hence, to the claim that the left side of (17\*\*) has explanatory priority. This means that the species is the subject of grammaticality, and “everything else” of this sort, *because, and only because*, an individual of the species is the subject of grammaticality. So the possibility remains that Aristotle here promotes a deflationary account of the subjecthood of species and genera. Hence, even were subjecthood a mark of substantiality, the substantiality of species and genera will be no less deflated—much as in the Primacy Passage.

Still, it will be argued, Aristotle calls species and genera *substances* and this is enough to secure their status as full-fledged entities. Strictly, of course, Aristotle calls them δεύτεροι ούσιαι or secondary substances. However, the appellation does not simply indicate a second kind of substance but has obvious demotional force. In characterizing type-I items at the outset of chapter 5, Aristotle says that they are substances strictly, primarily, and most of all. So when Aristotle uses ‘πρώται ούσιαι’ (primary substance), the phrase inherits the fuller adverbial gloss. Likewise, I suggest, ‘δεύτεροι ούσιαι’ inherits adverbial force. Thus, to say that species and genera are secondary substances is to say that they are

substances in a secondary way only, and this invites a deflationary reading of their ontological status.<sup>156</sup>

The only question to be settled is the style and severity of the demotion. I do not think it is particularly useful to apply the idiom of degrees to the distinction between primary and secondary substance. This may be an appropriate way to distinguish between various secondary substances. We can say, following Aristotle, that *man* is nearer to or more revealing of a primary substance than *animal*. But the difference between these and substance individuals is a difference in kind, under-written by the formal divisions of MO, and not a difference in degree. So it is misleading to say, as Irwin does, that “ ‘second’ substances are substances to a lesser degree than first substances” (Irwin, 1988: 56). The demotion of secondary substances will have to proceed by a different route. Before turning fully to this, we shall consider, and reject, three proposals on the status of secondary substances.

## 7. Inflation: Species as General Objects

We are suggesting that, so far from insinuating ontological status, classification of species and genera as *secondary* substances serves chiefly to signal a demotion in ontological status and, hence, leaves open the possibility that substance species and genera (type-II items) are no less suspect, ontologically, than are accident universals (type-IV items). One might object that this obscures an important difference between items that are said-of in the category of substance and those that are said-of in the other categories and, moreover, that the difference has a relevance for the status of substance species and genera that does not depend on their wearing the label ‘secondary *substance*’. Something like this is urged by Frede (1978), for whom substance species and genera are *general objects* and, hence, quite different kinds of things from nonsubstance universals, which are *general properties*. On this view, it would not be particularly surprising to find Aristotle applying parsimony to nonindividuals in nonsubstance categories but not to those in the category of substance. Apart from its intrinsic interest, the view commands our attention because it might encourage resistance to our claim that

<sup>156</sup> Something like this occurs in *Metaphysics* Z.4. At 1030a21–3 Aristotle reports that *being* belongs primarily to one kind of thing and secondarily to another and, hence, what something is (τὸ τί ἐστίν) belongs strictly to substance and in some other way (πῶς) to nonsubstantial things. Here it is clear that what is secondary is not merely different from but of lesser status than what is primary. And the lessened status justifies asserting, for example, that accidents don't *really* have an essence or τί ἐστίν. Then at 1030a25–7 Aristotle says that quality, for example, has a τί ἐστίν on the model of how a nonexistent thing has being, namely as being nonexistent. This has serious demotional potential.



underlying ontological configurations need countenance nothing more than individuals standing in various relations of dependence.

On the view we shall propose, secondary substances are not genuine subjects or, at least, they are not subjects that ‘really’ exist in a way that adds anything beyond individuals to the inventory of the *Categories*. We can grant that they are subjects in said-of predications without worry because this need not amount to anything more than a condition of their role in TR and the overall structure of the categories.<sup>157</sup> Here they might be thought of as a kind of formal subject.

So in what sense do they fail as subjects? To ask this is to ask what conditions for being a subject secondary substances fail to satisfy. Suppose, then, we grant that something qualifies as a subject, in some serious sense of the term, insofar as it is a subject for accidents. Certainly, c-substances satisfy this condition and so count as full subjects.<sup>158</sup> But can secondary substances be such subjects? It will be useful to approach this question by following Frede's argument that secondary substances are *general objects* as opposed to accident universals, which are merely general properties. Frede (1978), followed by Frede and Patzig (1988) and Benson (1988), claims that species are general objects insofar as they are subjects for accidents and that this provides grounds for extending to them some real kind of existence that accident universals do not enjoy.

Drawing primarily on the Subject Passage,<sup>159</sup> the idea is that if *color* is present-in Socrates and *man* is said-of Socrates, then *color* is present-in *man*. Thus, *man* is a genuine subject for accidents.<sup>160</sup> We may represent this as

18.  $(G)(F)(x)(F \text{ is present-in } x \ \& \ G \text{ is said-of } x \rightarrow F \text{ is present-in } G).$

Now we have already tried to neutralize the value of the Primacy and Subject passages as evidence for ontological liberality on the side of secondary substances. Our present concern is with (18) itself. Supposing, for the moment, that (18) is textually secured, how does it enhance the ontological status of species? The idea, I believe, is this:<sup>161</sup> because the

<sup>157</sup> See Ch. I.

<sup>158</sup> Note that the notion of a full subject is not that of a strict subject. The latter, but not the former, is defined simply in terms of being a subject and not being a predicate. See n. 22.

<sup>159</sup> 2b29–3a6, cited at the front of this section.

<sup>160</sup> The examples Aristotle actually gives are slightly different. One is given in the Primacy Passage and is formulated in the technical language of MO but has different relata. The other, at the close of the Subject Passage, has the same relata but is not expressed in MO's technical idiom.

<sup>161</sup> I am not necessarily attributing this to those who see in (18) grounds for ontological liberality. But for the parsimoniously inclined it is natural to press the question in this way.

very accident that is present-in Socrates is also present-in *man*, Socrates and *man* are subjects for the same accident and so they are the same sort of subject.<sup>162</sup> Hence, it is argued, they enjoy equal claim to existence. However, this reasoning fails for the simple reason that being subjects for the same accident does not entail being subjects of the same sort.

So the most that can be hoped for is that type-I and type-II items share a claim to subjecthood that gives type-II items a firmer hold on existence than that had by type-IV items. But even this weaker thesis can't be correct because (18) is satisfied when expanded to include  $y$  ( $\neq x$ ) and  $F^*$  (incompatible with  $F$ ). This case gives us

19.  $(G)(F)(F^*)(x)(y)(F \text{ is present-in } x \ \& \ F^* \text{ is present in } y \ \& \ x \neq y \ \& \ G \text{ is said-of } x \ \& \ G \text{ is said-of } y \rightarrow F \text{ is present-in } G \ \& \ F^* \text{ is present-in } G).$

So our alleged subject of accidents, the general object  $G$ , will have, at one and the same time, incompatible properties holding of it. More contentiously, perhaps, we will have general objects, such as *man*, that are both light and dark, short and tall.

Now (19) ought to give pause concerning species and genera as general objects. But does Aristotle share this attitude? One place to begin is *Categories* 5, 4a10–11. In speaking of the distinguishing mark of substance, Aristotle there says that of *what is numerically one and the same* only primary substance can remain one and the same while taking contraries. This is clearly a subject condition on substance, so perhaps it can help. Now if the italicized expression is limited to individuals, then Aristotle may be taken to imply that *nonsubstantial* individuals do not remain one and the same while taking contraries. Rather, we might imagine, they are simply replaced. Of course, nothing here blocks the possibility for nonindividuals. But his silence on the matter makes this option unlikely. If, on the other hand, the italicized phrase has wide scope, i.e., is read without restriction, then 4a10–11 appears to imply that nothing at all, save primary substances, can remain one and the same while taking contraries. This would give us something like

20.  $(x)(F)(F^*)(Fx \text{ at } t \ \& \ F^*x \text{ at } t' \ \& \ F \text{ and } F^* \text{ are contraries} \rightarrow x \text{ is a primary substance}).$

Now it is clear that type-III items, as nonrecurrent particulars, do not satisfy the antecedent of (20). So there is no danger that they will end up

<sup>162</sup> Nonetheless, it may be worth adding that by the time Aristotle reaches *Metaphysics* Z.4 he is explicitly alive to the reductive possibility that *man* is a subject of a given accidental property if and only if *and because* some particular man is a subject of that property. At 1030b20–1 he explains that whiteness attaches to *man* “because Callias, who happens to be a man, is white” (τὸ λευκὸν... ἀνθρώπου, ὅτι Καλλίας λευκὸς ὃ συμβέβηκεν ἀνθρώπου ).

as primary substances. But how can species *as general objects* (that is, as subjects for accidents) be excluded? For if Socrates is light at  $t$  and Callias is dark at  $t'$ , then *man* is light at  $t$  and dark at  $t'$  even if  $t = t'$ . This appears to be a conclusive counterexample to (20). For this reason, Ackrill rejected the wide scope reading of 4a10–11 and took “what is numerically one and the same” to be restricted to individuals from the start.

Taking contraries is a temporally sensitive business. Thus, for example, the second alternative above (the wide scope reading) must be taken to imply that  $t$  and  $t'$  are different times. Although they may take contraries in some privileged way, not even primary substances may take them simultaneously. This might suggest blocking species as candidates for primary substancehood by adding to the antecedent of (20) the stipulation that  $t \neq t'$ . This is the right thing to add but in the wrong place. Rather, we need something like

20\*.  $(x)(F)(F^*)(t)(t')(Fx \text{ at } t \ \& \ F^*x \text{ at } t' \ \& \ F \text{ and } F^* \text{ are contraries} \rightarrow t \neq t')$ ,

which proscribes possession of contraries at one and the same time. Clearly, (20\*) is required if 4a10–11 is to work as a distinguishing mark of substantial primacy. But (20\*) is not satisfied by species as general objects (that is, as subjects of accidents) because it is possible that such an object have  $F$  and  $F^*$  at one and the same time. It is, of course, satisfied by c-substances such as Socrates and Secretariat. If thesis (20\*) is not a condition governing subjecthood for accidents, it defies imagination as to what would be. So the fact that general objects fail to satisfy (20\*) means that they cannot be the subjects of accidents in anything like the way primary substances are.

Moreover, it is, in any case, highly undesirable to take secondary substances as the sort of thing that can remain one and the same while taking contraries. For this leaves us with an incoherent notion of an object, namely, the notion of something that can be both  $F$  and the contrary of  $F$  at one and the same time. And this problem, which surfaced in (19) above, does appear to arise from treating species as general objects. For it is precisely because  $G$  is a general *object*, as opposed to a property, that there will be something that has a property and its contrary at one and the same time. Only the most Meinongian among us will take comfort here.

Moreover, Aristotle is not among them. In *Metaphysics* Z.14, for example, he worries about those who take forms to be substances. In particular, he worries about those who take an idea ( $\dot{\iota}\delta\acute{\epsilon}\alpha\nu$ ) to be a substance ( $\sigma\sigma\acute{\iota}\alpha$  at 1039a25; at 1039a30–1,  $\tau\acute{\omicron}\delta\epsilon\ \tau\iota$ ) capable of separate existence and also take the form ( $\epsilon\dot{\iota}\delta\omicron\varsigma$ ) to consist of the genus and differentiae. The worry, at least the one relevant here, is that the genus

*animal*, for example, will share in two-footedness and many-footedness. But this is impossible, for contrary attributes would at the same time belong to what is one and a this. The passage, in short, rails against a certain view of the genus *animal* because it embraces the very sort of possibility that (20\*) proscribes. So Aristotle seems to like (20\*) and, hence, to dislike secondary substances as objects, general or other.

Admittedly, the example from *Metaphysics* Z.14 concerns the genus *animal*, which is, I shall suppose, a *Categories* secondary substance, and its various differentiae. Although in the *Categories* the latter are qualifications, they are qualifications within the category of substance. Yet (20\*) concerns secondary substances as subjects of accidental qualities and the like. So perhaps the *Metaphysics* discussion has no bearing on the thesis that secondary substances are general objects. There are two points of response. First, Aristotle goes on to say that denying that two-footedness and many-footedness hold of *animal* makes it difficult to see what could be meant on the view under investigation by the rather straightforward claims that *animal* is two-footed and that *animal* is many-footed. Notice that these intra-categorical claims exactly parallel the cross-categorical claims that, although intended to support the doctrine of general objects, ultimately lead to its demise, namely, claims to the effect that *man* is light and *man* is dark. So the form of argument is similar. Second, the problem is not with saying that *animal* is two-footed but with saying this and also insisting that the *man* there mentioned is somehow one and the same subject ( $\tau\acute{\omicron}\ \alpha\acute{\upsilon}\tau\acute{\omicron}\ \kappa\alpha\iota\ \acute{\epsilon}\nu$  at 1039a33). My point is just this: if the thesis that secondary substances are general objects is to have content, it must be a thesis about a certain kind of one and the same subject. If secondary substances are universals, they will not fall prey to the argument of *Metaphysics* Z.14; but if they are individuals, they most certainly will. The trouble is that there is no middle ground between the universal and the particular when it comes to *man* and *animal*. True without a doubt of the *Categories*, this appears to hold for the *Metaphysics* as well.<sup>163</sup>

But even were this not the case, the thesis that secondary substances are general objects will be in trouble—so long as general objects are one and the same subject in a more serious sense than universals are. And this, it would seem, they must be. In short, general objects cannot be the subjects of accidents in anything remotely approaching the way c-substances are. Thus, a major justification for taking species to be objects, as opposed to general properties or universals, is lost. Hence, no support is forthcoming from this quarter for giving the nod, ontologically speaking, to type-II over type-IV items.

<sup>163</sup> Witness *Metaphysics* Z.10, 1035b25–7, where *man*, *horse*, and the like, are treated as universals in contrast to particulars.

## 8. Elimination: Species as Linguistic Items

Leveling the ontological playing field puts substance nonindividuals on the same footing with their nonsubstance counterparts. Because there are grounds for withholding full status from the latter (laid out in section 5), there is some reason to think that Aristotle was parsimonious when it came to extending ontological status to secondary substances. I shall speak to this more directly in the penultimate section of the chapter. First, however, something should be said about a proposal that will not work.

Strict Linguisticism or SLING, as I call the proposal, holds that the categories are categories of linguistic items. On a natural reading of this view, to say that Socrates is a man is simply to say that the general term ‘man’ applies, perhaps in an especially reliable way, to Socrates. Likewise, ultimately, for substance itself. Therein lies SLING's attraction for the detractors of secondary substance.

At the outset one complication should be mentioned. This concerns the identity and locus of the theory of categories. Frede (1981), for example, has argued persuasively<sup>164</sup> that Aristotle's official theory is found not in the *Categories* but rather in the *Topics* and that it is a theory about kinds of predication. So it is a theory about combinations or kinds of combined items. The *Categories*, on the other hand, concerns uncombined items. Fortunately, we need not enter the intricacies of this debate. All along we have spoken of the theory of the *Categories* as a theory of categories in full view of the possibility that Aristotle's canonical theory may lie elsewhere. And, anyway, SLING is standardly prosecuted as a proposal about the theory of categories in the *Categories* as opposed to the *Topics* (and usually in innocence of the debate).

That said, there remains an unfortunate amount of confusion about what sort of doctrine SLING is supposed to be. Cook opened his introduction to the Loeb edition<sup>165</sup> with the question “What is the subject of the *Categories*?” and proceeded to declare that the ten categories are ten predicates. This at least appears to suggest that the items belonging to a category are linguistic items, and so Cook appears to espouse a version of SLING.<sup>166</sup> Later, however, he gladly joins Ross (1924) in

<sup>164</sup> See also Oehler (1984: 204).

<sup>165</sup> Cook (1938).

<sup>166</sup> Including primary substance, because when asked what Socrates is, we can answer with the predicate ‘a primary substance’ (Cook, 1938: 7). This is supposed to circumvent the objection that there can be no predicate from a primary substance. This is most curious. For one thing, the objection means to rule out predicates such ‘(is) Socrates’. And although the predicate ‘(is a) substance’ would occur at the last stage in applying the ladder principle TR, nowhere in the process will one meet the predicate ‘(is a) primary substance’ (or the predicate ‘[is a] secondary substance’, for that matter). ‘Primary’ and ‘secondary’ are expressions added from outside the trees generated by TR for the purpose of marking the relative ontological values of items mentioned in such trees.

holding that the categories classify meanings, that is, *things meant*, all the while cheerfully oblivious to the thorough confusion (his, not Ross's) of use and mention.

Of course, care about use and mention is not itself an effective deterrent against SLING. Ryle, a professed guardian of the distinction, regards the list of categories as a list of ultimate predicates.<sup>167</sup> Thus, the category of quality, for example, will contain predicates of quality (e.g., 'red'). Accordingly, the category of substance will contain substance predicates (e.g., 'man'). However, for two reasons this makes it difficult to see how there is any room for so-called primary substances, such as Socrates and Secretariat (or nonsubstantial individuals). First, if the categories literally are categories *of* predicates, then nothing that is not a predicate will fall into a category. This may not be a problem for secondary substances, not at any rate for those prepared to remove them from the ontological inventory, but it is surely a problem for substance individuals. Second, because there is no predicate from a primary substance, there is not even a linguistic correlate for primary substances but only for the species and above. So Ryle's version of SLING is not beyond challenge. On the other hand, Ryle may have been only marginally more successful than Cook in toeing the strict linguistic line. Although linguistic, Ryle claims the categories were required to distinguish qualities from relations, these from substances, and all three from sorts or kinds. Because he is speaking here in the material mode, Ryle appears to grant that the real aim of the categories is a systematic classification of things that are. But then it is misleading in the extreme to call the categories ultimate types of predicates.<sup>168</sup>

As I have represented them, the above versions of SLING share two characteristics: they rest on presumptions about, rather than an examination of, the text and they apply SLING across the board and without qualification. Now some proponents of SLING find textual support in, for example, the discussion of uncombined expressions at 1a16 and 1b20–9. Shortly, I shall say something about this alleged evidence, but first it will be useful to look at two proponents of a focused and qualified use of SLING.

Some time ago Sachs (1948) argued that secondary substances are terms rather than extralogical or nonlinguistic entities of some kind. He summarizes his argument as follows

In sum, Aristotle has a definite doctrine of secondary substances. The only explicit source for the doctrine, the *Categories*, is concerned with predication,

<sup>167</sup> Ryle (1961).

<sup>168</sup> Note, what should be obvious, that I am not claiming that it would be misleading to employ the notion of ultimate predicates to generate a list of ultimate kinds of things. For reasons mentioned in Ch. I, however, I do not think that this is part of the program of the *Categories*.

in particular the distinctive features of incomplex terms. These terms are set forth as predicable of, or not predicable of primary substances, the ultimate subjects in the Aristotelian logic.<sup>169</sup> What is more, in the *Categories*, ‘primary substance’, like ‘secondary substance’, refers to a term, not to an extralogical entity or entities.<sup>170</sup>

Now a main aim of Sach's paper is to explain how the *Categories* doctrine of secondary substances, which are universals, is consistent with *Metaphysics* Z.13's assertion that nothing universal can be substance. He claims to achieve this by showing that secondary substances are merely terms. So to show that something is a term is to show that it need not be accorded ontological status.

For several reasons, this argument for demotion will not work. For one thing it assumes that if the *Categories* is concerned with predication, then it is concerned with, and only with, terms predicable of primary substances. It is hard to know what to make of this. For Sach's own argument appears to imply the bold thesis that primary substances are *not* genuine existents—if, as seems plausible, he means ‘primary substance’ to refer to primary substances. Moreover, failing further argument, this simply begs the question against the possibility that the *Categories* is concerned with metaphysical predication, that is, predicating kinds and properties of individuals.<sup>171</sup>

Granted, Sach's does provide some further argument but it amounts to little more than an appeal to authority, in particular, to Cook's claim: “In ordinary usage ‘κατηγορία’ . . . meant nothing other than ‘a predicate’. This meaning it seems highly probable that it retains in this text [i.e., the *Categories*].”<sup>172</sup> Unhappily for both Cook and Sach's, ‘κατηγορία’ does not occur in the *Categories* until 10b19 and here, as Frede has pointed out,<sup>173</sup> its occurrence is of no technical interest. So it does little to say that ‘κατηγορία’ retains its ordinary meaning in the text of the *Categories*. Moreover, at those crucial places in *Categories* 1–5 where technical readings are called for, Aristotle speaks of τῶν λεγομένων and he is naturally understood to be speaking of what is said or spoken of.

A somewhat more challenging strategy for demoting secondary substance is proposed in Jones (1975). Unlike Sach's (1948), primary and secondary substances are made to differ precisely in point of the fact that the first are things that exist and not words, whereas the second are words. They are, however, words “misrepresented as things” and so

<sup>169</sup> For those who see Aristotle's logic as the formal system of the *Prior Analytics*, this characterization of primary substances will not be taken as an obvious truth.

<sup>170</sup> Sach's (1948: 223).

<sup>171</sup> Not to mention the fact that we have argued that the *Categories* offers a theory of the underlying ontology for predication, rather than a theory of predication proper.

<sup>172</sup> Quoted by Sach's (1948: 221–2).

<sup>173</sup> Frede (1981).

Jones's Aristotle is himself mired in use–mention confusion. Much of Jones's effort consists in explaining how Aristotle might reasonably have found himself in such a position. But this will not be needed, if we can stay attribution of the view itself to Aristotle.

Here, roughly, is the proposed argument. (a) What is said or spoken without combination is a word; (b) Things spoken without combination are said-of individuals; (c) Items that are said-of individuals are among the things that are (MO's τὰ ὄντα). So by (a) and (b) secondary substances are words but by (b) and (c) they are real, nonlinguistic items. Jones adds that the words mentioned in (a) are also forms (εἶδη) and because Aristotle hypostatizes them they are regarded as real items. Since, presumably, it would be absurd to suppose that Aristotle or anyone hypostatized *words*, Aristotle's secondary substances can “hover between being things spoken of and things spoken” (171) only because the words are the forms that are hypostatized. So Aristotle is doubly in error, once for identifying words and forms, and once for taking the latter to be τῶν ὄντων (among the things that are). It is difficult to see why this should be a virtue of any interpretation.<sup>174</sup>

Let me begin with the alleged hypostatizing of εἶδη (forms). Presumably, the idea is that MO's retailing of things that are (τῶν ὄντων) includes as type-II items secondary substances such as *man* and *animal* but because such items are routinely referred to as εἶδη, the retailing amounts to a kind of hypostatization. Thus, MO, the meta-ontology that underlies the theory of categories, is built on a mistake. This is not a credible picture. Aristotle means exactly what he says. Among the things that are secondary substances, such as *man* and *animal*, and these are εἶδη. This just is his express theory, not the mistaken result of the theory.

So if there is a mistake, it will have to lie with the move from words to εἶδη. But if I am right about the express nature of Aristotle's theory, it is unlikely that he holds (a), as Jones believes. So we need to determine whether there is any evidence for (a).

Some might seek support for (a) in *Categories* 1a16 and 1b25–6 (and here we return to the alleged textual support for SLING). For there Aristotle appears to isolate linguistic items as what is spoken without combination. So if what is spoken without combination is an item from a category, then the categories will be categories of linguistic items. The first of these texts, 1a16–19, immediately precedes Aristotle's introduction of MO:

<sup>174</sup> Like Sachs, Jones (1975) is motivated by the threat of inconsistency, this time between the ontological priority of primary substances and the fact that they must be members of, and so dependent on, their species. But, as we show below, this problem submits to an alternative solution.



Of what is spoken (τῶν λεγομένων), some are spoken in combination (τὰ κατὰσμπλοκῆν λέγεται) and some without combination (τὰ ἄνευ συμπλοκῆς). What is spoken in combination is, e.g., *man runs* (ἄνθρωπος τρέχει) or *man wins* (ἄνθρωπος νικᾷ); what is spoken without combination is, for example, *man* (ἄνθρωπος), *ox* (βοῦς), *runs* (τρέχει), *wins* (νικᾷ).

What it is that is spoken without combination is given by the finite verbs ‘τρέχει’ and ‘νικᾷ’. So Aristotle here appears to be speaking of linguistic items rather than of *running* or *winning*. Champions of SLING will, therefore, insist that the categories are after all categories of linguistic items.

For several reasons this maneuver is unconvincing. First, it is insensitive to the fact that τὰ λεγόμενα may be the things that are spoken, namely linguistic items, or the things that are spoken *of*, namely, the nonlinguistic items these signify. So if the categories are items that are spoken of without combination, they need not be linguistic even if τὰ λεγόμενα in 1a16–19 are linguistic.<sup>175</sup> Indeed, the second text some find friendly to SLING actually counts against it. Occurring at the start of chapter 4, between the introduction of the ladder principle TR in chapter 3 and chapter 4's actual list of categories, it serves to introduce the categories by focusing just on what is signified by those things that are spoken without combination:<sup>176</sup>

Of those things that are spoken without any combination, each signifies either a substance or quantity or relative . . .  
(λεγομένων ἕκαστον ἧτοι οὐσίαν σημαίνει ἢ ποσὸν ἢ ποιὸν ἢ πρὸς τι . . .). (1b25–6)

Here we may take what is spoken without combination to *be* linguistic but it is implausible to suppose that what each *signifies* is linguistic, yet these are the categories. For example, substance is one thing that is so signified, and an example of this would be *man*. Presumably, this means that ‘man’, entered at 1a19 and 2a9 as something spoken without combination, signifies *man*. Now, the first ‘man’ is surely a linguistic item but the second can hardly be. For this would require that at 1a16–19 those things spoken without combination are not predicates but names of predicates. Nothing in the text calls for such metalinguistic extravagance.

<sup>175</sup> Jones (1975: 156) offers an alternative reading of the lines: “When things are spoken of, they are spoken of sometimes by means of single words and sometimes by means of sentences,” and finds that it confuses use and mention. But there is none here. His “confusion of ‘use’ and ‘mention,’” however, confuses use and mention.

<sup>176</sup> Aristotle actually says “without *any* combination,” presumably, in order to exclude as items proper to a category the signification of terms such as *white man* or even *musical man*. This nice point is spoiled somewhat in the final line of the chapter by Aristotle's opposing of what is said without any combination to what is true or false. For the combined term *white man* will be neither true nor false.

Indeed, the passage at 1b25–6, and following, seems clearly to be mentioning substance, quantity, quality, and the rest, rather than their names. In particular, Aristotle seems to be making the quite reasonable point that every uncombined expression (of the appropriate sort) signifies something from one of the categories.

The categories or, better, items in the categories are not linguistic items but the things signified by them. As suggested, this would follow, if from nothing else, from the fact that when chapter 4 mentions substance and the other categories and indicates the sort of items that fall into each, the meta-ontology of chapter 2 constrains interpretation. Thus, the very items indicated in chapter 4 are among the things that *are* (τῶν ὄντων) that are retailed by MO. *Man*, for example, is the star example of a thing that is said-of but not present-in a subject (i.e., a type-II item). So even if 1a16–19 does count τὰ λεγόμενα as linguistic items, the contrast between these and MO's τὰ ὄντα is decisive against the strict linguistic reading of the categories. For, if nothing else is clear, it is that the ontological relations spelled out in MO are to hold for items from the various categories. Thus, secondary substances such as *man* and *animal* are counted among the things that exist. Hence, SLING's strategy for demotion cannot work.<sup>177</sup>

Diehard adherents of SLING might suppose this rebutted by the fact that although Aristotle's examples of substance in chapter 4 are given in nominal forms suitable for mentioning things (ἄνθρωπος [man] and ἵππος [horse]), examples of the other categories are given by finite verb forms (e.g., ποιεῖν or doing by τέμνει ['cuts'] and καίει ['burns']) and these are unsuited for mentioning things. Yet surely it is *cutting* and *burning* rather than 'cuts' and 'burns' that ought to be *mentioned*, if the categories are nonlinguistic. By uniformity of reasoning, secondary substances are also terms. However, this worry is allayed by the observation that τέμνει and καίει, for example, are meant to be examples of uncombined expressions that *signify* something in the category of *doing* rather than examples of items that are themselves in the category. It is as if Aristotle simply breaks a simple sentence (i.e., a combination) into its semantically simple parts and says that the significance of one part is an item from the category of substance, the significance of another an item from the category of doing, and so on. This is precisely what he did at the outset of chapter 2. The difference now is that MO has intervened and so in chapter 4 we know that the signification of these parts is an entity in one of the divisions of the meta-ontology.

<sup>177</sup> Unlike some partisans of demotion, Jones recognizes the problem with a purely linguistic reading of secondary substance but tries to make a virtue out of it. As mentioned, however, his attempt mires Aristotle in a use-mention confusion of telling proportion.

## 9. Equivocation: Waffling on Existence

By the argument of the above section, secondary substances cannot be disposed of as merely linguistic items but must be accorded some sort of ontological status. Does this fact by itself defeat proposals for demotion? This depends on what one has in mind here by ontological status. In section 6, we argued that in point of ontological status type-II items do not enjoy an enhanced position over type-IV items. This means that whatever is not an individual, substantial as well as nonsubstantial, is a universal. So demoting secondary substances will amount to demoting a certain kind of universal. This is to ask what sort of ontological status we are to accord such items. Quineans, and other unitarians, will urge that, if universals exist, they exist in the same sense of ‘existence’ as do ordinary objects. Nonunitarians find it agreeable to deny this, holding that universals would exist in some different sense of the term. Insofar as they accord universals some ontological status of their own, nonunitarians pursue an inflationary policy. However, insofar as the status accorded is of inferior rank, they may be thought of as offering a deflationary account of secondary substances. Either way, something should be said of their view.

In seeking a nonunitarian answer to the general question of the ontological status of universals, Rescher<sup>178</sup> starts with the *Categories*' distinction between individuals and universals.<sup>179</sup> So he at least appears to place Aristotle in the nonunitarian camp. It will be useful to follow his argument. Because *existence* applies both to particulars and to universals, the question arises whether *existence* itself is equivocal and, hence, whether particulars and universals exist in different senses of the term. Rescher is inclined to think that they must.

Now it is important not to misunderstand the force of Rescher's claim as it bears on Aristotle. Granted, in characterizing MO as a theory of *per se* being, we are committed to holding that MO concerns things that exist in different ways. For *per se being* or *existence* is the sort of thing that is said in many ways. This much is clear from *Metaphysics* Δ.7, which says that the kinds of *per se* being map the divisions of the categories (καθ' αὐτὰ δὲ εἶναι λέγεται ὅσπερ σημαίνει τὰ σχήματα τῆς κατηγορίας, 1017a22–3), and *Metaphysics* Z.1, which counts this sort of being as something that is said in many ways (τὸ ὄν λέγεται πολλαχῶς

<sup>178</sup> Rescher (1978a).

<sup>179</sup> Actually, Rescher fixes on primary substances alone as the particulars that are to be contrasted with universals. So he does not consider the possibility that nonsubstantial individuals are also particulars. He also calls *all* nonindividuals secondary substances, type-II as well as type-IV, but this is surely a slip.

... σημαίνει γὰρ τὸ μὲν τί ἔστι καὶ τὸδε τι, τὸ δὲ ποιὸν ἢ ποσὸν ἢ τῶν ἄλλων ἕκαστον τῶν οὕτω κατηγορουμένων, 1028a10–13).

But it does not follow from this that *being* or *existence* is equivocal. The equivocality of *existence* requires that ‘exists’ *means* something different in

21a. *a* exists,

where *a* is a substance individual, and

21b. *S* exists,

where *S* is a secondary substance. But it is unlikely that Aristotle held any such view. As we have already remarked, none of the *onymies* introduced in *Categories* 1 can cover the kinds of *per se* being. In the framework of MO, *a* and *S* are both ὄντα (beings) because each is an ὄν (being). So ‘ὄν’ applies to them. But surely it does so without change of ending and, thus, they cannot be said to be paronyms relative to *being*.<sup>180</sup> Nor can they be homonyms (or, for that matter, synonyms). Other objections aside, this would require that the *being* suitable to *a* has a definition different from that of the *being* suitable to *S*. But there are no such definitions. Further, when Aristotle does express himself on the matter, as at *Metaphysics* Z.1 (with Δ.2), he says, of everything that is *per se*, that it is said to be by reference to one thing (πρὸς ἓν). The plain-clothes example he uses to illustrate this sort of connection is health. Thus, climate, exercise, and complexion will be healthy by reference to the single thing health—the first conducive to it, the second productive of it, and the third symptomatic of it. But no one would suppose that ‘healthy’ *means* something different in these cases; nor, by the same reasoning, would one expect variation in the *meaning* of ‘being’ or ‘existence’ across the categories.

Of course, the above cases concern cross-categorical distinctions rather than vertical distinctions within a category. And the universal–particular distinction is of the latter kind. But our purpose in raising the cases was simply to make clear that none of Aristotle’s standard devices for marking ambiguity apply to the distinction between universal and particular. Hence, they could not underwrite the alleged equivocality of *existence*.

Still, Rescher could grant that nothing in Aristotle’s theory catches the equivocality marked out in (21a) and (21b), but insist that, nonetheless, he is making a legitimate point about Aristotle, even if from the

<sup>180</sup> This implies that paronymy is not the same as focal meaning. See Irwin (1988: 504, n. 24) and Ross (1924: i. 256) for a different view; and see below for a defense of the implication.

outside. So what sort of argument does Rescher have for the claim that (21a) and (21b) must accord different sorts of existence to particulars and to universals? He begins with the idea that a universal  $\Phi$  exists if it characterizes some particular thing that exists. Where  $\Phi$  is a universal and  $x$  a particular, he writes this as

$$21c. (\exists x)(\Phi x) \rightarrow E!\Phi.$$

He resists strengthening (21c) to a biconditional because “There can be . . . properties, perfectly genuine and ‘real’, properties that are not actually exemplified in nature” (Rescher, 1978*a*: 59). In place of (21c) he offers

$$21d. E!\Phi \equiv \diamond(\exists x)(\Phi x).$$

Thus, “for universals to exist *sui generis, qua* universal, they need not be instantiated; it is sufficient if they are instantiable” (59).

It is hard to know what to make of (21d). Certain Platonists might find its tethering of a universal's existence to even possible instantiations too constraining. But what about Aristotle? Well, (21d) is acceptable enough, if it aims only to capture the unexceptionable slogan that universals just are what are said of many things. Here questions about the existence of universals need not arise.

But if (21d) contains a different and stronger thesis about the existence of universals, then it no longer enjoys this relatively uncontroversial status. For (21d) permits

$$21e. \Phi \text{ is a universal} \rightarrow \diamond(\Phi \text{ exists} \ \& \ \neg (\exists x)(\Phi x)).$$

However, (21e) is a thesis Aristotle would flatly reject, at least as it concerns MO and the theory of the *Categories*. For if anything is clear, it is that everything else depends, for its existence, on primary substances by being said-of or present-in them, not by *possibly* being said-of or present-in them or by being said-of or present-in *possible* primary substances. So adoption of (21d) undermines the asymmetric nature of the *said-of* and *being-in* relations.<sup>181</sup> This makes it unlikely that Aristotle accords universals their own peculiar sort of existence—at least not of the sort Rescher recommends. Rather, for Aristotle whatever existence they have is due to the existence of primary substances. To this extent he is a unitarian. So Aristotle's acceptance of (21a) and (21b) does not have the ontologically inflationary effect Rescher finds in them. By the same token, neither do they offer a way of demoting secondary substances by providing them with existence in a reduced sense of the term itself.

<sup>181</sup> Registered in (7a) and (7b) above, for example.

## 10. A Strategy for Demotion: Existence Conditions

In section 6, I argued that Aristotle's remarks, in the Subject Passage, about species and genera as subjects do not preclude adopting a parsimonious attitude on the question of their existence. I then examined, and rejected, three specific proposals on the status of secondary substances. It is now time to see if the strategy of parsimony can be carried out successfully.<sup>182</sup>

We may begin with an established point. This is that, unlike the merely sufficient condition of (21c), and without waffling on the meaning of 'exists', the existence of a given species depends, for Aristotle, on the existence of individuals of the species. We thus have

22. Species  $S$  exists  $\rightarrow (\exists x)(x \text{ is an } S)$ .

Despite its anti-Platonic tilt, (22) is a fairly weak claim. That a species depends for its existence on the existence of individuals does not, by itself, automatically undermine its existence. Dependent existence is still existence. Nor does it necessarily promote revisionism about the nature of what it is that exists when species are said to exist. For one thing, this would require, at the very least, upgrading (22) to

22\*. Species  $S$  exists  $\equiv (\exists x)(x \text{ is an } S)$ .

But, although (22\*) invites, it does not suggest an account of the species that would further the aims of demotion. So far as (22\*) is concerned, species are free to remain basic, unanalyzed entities. As such, (22\*) fits the popular view that the *Categories* countenances a number of irreducibly and formally different kinds of entities, namely, those retailed in MO. On the other hand, one lesson of the Primacy Passage was that ontological configurations involving individuals are fundamental and that they ground relations involving nonindividuals. Thus, a general property was said to be in a species if, and only if, *and because*, it was in an individual of the species. Likewise, we saw that the *said-of* relation is grounded in configurations involving individuals. Thus, *animal* was said-of *man* if, and only if, *and because*, *animal* was said-of some individual man.

This recommends that (22\*) be withdrawn in favor of

22\*\*. Species  $S$  exists *iff and because*  $(\exists x)(x \text{ is an } S)$ .

Lewis has suggested that instances of the *said-of* relation involving nonindividuals as subjects are not just equivalent to instances involving

<sup>182</sup> In this section I am indebted to remarks made in seminar by Jordi Cat.

individuals as subjects. Rather, they are reducible to them. Thus, on his view, Aristotle is “offering a *reductive* account of certain kinds of (metaphysical) predication, such that the various (metaphysical) predications his scheme [i.e., MO] allows that do not obviously have an individual substance as subject are to be analyzed in terms of (metaphysical) predications that do” (Lewis, 1991: 65–6). Apart from the characterization of MO (Lewis takes it as a theory of kinds of metaphysical predications; we take it as an account of the underlying ontology for such predications), I am in agreement with Lewis here.<sup>183</sup>

With (22\*\*), however, we go a step further. For reduction of all metaphysical *predication* to predication with individuals as subjects says nothing about the status of the items predicated. Further, (22\*\*) extends the reduction to propositions in which the terms typically *said-of* occur *as subjects only*, that is, to propositions asserting the existence of species and genera. Although some might balk at the extension on the grounds that nothing in MO corresponds to (22\*), there is something to be said for it. After all, the Primacy Passage utilizes the fact that *being said-of* is a relation of dependence to argue for the absolute ontological priority of primary substances. So settling questions of (proper) ontological commitment is hardly hostile to the project served by MO.

It is because (22\*\*) contains an existential formula that it might be taken as a reductionist account of the species itself. But, again, it is one thing to offer a reductionist account of *predication*, even metaphysical, involving the species and quite another to provide a revisionist reduction of the species itself. The latter involves identifying the species with a reductive base.<sup>184</sup> Proposition (22\*\*) does not attempt this—it says simply that the existence of *some* appropriate individual or other is necessary and sufficient for the existence of the species. For we know that the species *man* can't be reduced to just some individual man.<sup>185</sup> So,

<sup>183</sup> About, that is, the reducibility of ontological relations with nonindividuals as subjects to those with individuals as subjects. We continue to disagree about subject monolithicity and, thus, Lewis finds only primary subjects fit to be individuals in the strict sense of the term. Type-III items, in particular, end up as determinate universals on his account but not, of course, on ours.

<sup>184</sup> Here I am courting controversy. Proposition (22\*\*) is formulated with the strengthened connective ‘*iff and because*’. If this corresponds to something like necessary equivalence, then some might argue, following Kim (1984*a*), for example, that (22\*\*) is sufficient for reduction of the species. Other considerations aside, it is to be noted that this view is not shared by all, for example, not by Causey (1977). For more on this, see Wedin (1993*a*, esp. 90–1).

<sup>185</sup> Save, perhaps, in the limiting case, where there remains but a single such individual. Thus, Jones (1975) is wrong to distinguish *εἶδος* as form and as aggregate on the grounds that the first can exist with only one individual as an instance while the second requires a plurality of individuals. Unless, of course, it is part of the meaning of ‘aggregate’ that an aggregate contain more than one individual. But then this is just the wrong English word to describe at least the classic view of species as classes of a certain kind (for which see below).

explicitly, (22\*\*) aims for a reductive account of at most *existence assertions*, but not of the identity of the entity whose existence is asserted. In Quinean terms, (22\*\*) registers the theory's commitment to species but what this amounts to depends on interpretation, on what we take species to be, and this exceeds the reach of (22\*\*).

Nonetheless, (22\*\*) is the place to begin. For it is natural to ask what conception of species underlies the kind of claim it makes. Certainly, it is incompatible with, for example, Platonic separation. Indeed, its weaker part, (22), rules this out. So although (22\*\*) does appear to call for some kind of demotion on the side of the species, it is unclear what form this is to take.

One stock answer is that the species of the *Categories* are just certain classes of individuals. Since the identity of a class is a function of the identities of its members, one might suppose that the class depends on the individuals in a way that agrees with (22\*\*). Those tempted by this line will share Ackrill's complaint that in (ii) of the Primacy Passage Aristotle ought to have said, "were it [animal] not predicated of *all* of the individual men, it would not be predicated of man at all" (Ackrill, 1963: 82). For, by parity of reasoning, the complaint would presumably extend to (22\*\*): "Aristotle ought to have tied the existence of the species *S* to the existence of all, not just some, of the individuals that *S* is said-of." Beneath the surface of this complaint is the classic view that secondary substances are sets or classes of individual substances. It is easy to see how one might think, as Ackrill apparently did, that this is the most natural counterpart to (22\*\*). Moreover, the view is explicitly attested<sup>186</sup> and it is implicit in the complaint that Aristotle regularly conflates the relation between an individual and its species with that between a species and its genus<sup>187</sup> because the former is class membership and the latter is class inclusion.<sup>188</sup>

Nonetheless, several things counsel against distributing this as Aristotle's view. For one thing, it makes hash of the *said-of* relation. This is not because of transitivity—after all, if one class is contained in a second and this in a third, then the first is contained in the third.<sup>189</sup> Rather, it concerns the oddity of the very notion that a class is *said-of* Socrates in the first place or that it reveals or is more (or less) informative of the primary substance—requirements set down in *Categories* 5. This sort of talk is more suited for properties. Note, further, that the identification of species with classes commits Aristotle to the existence of abstract entities. For even if the identity,  $S = \{x | x \text{ is an } S\}$ , is read reductively,

<sup>186</sup> See, for example, Whiting (1986: 360, n. 6) and (1991: 636–7). Frede (1978/1987a: 52) appears to at least entertain the view but not to realize that while getting objects, it gets us not general objects but particulars (and pretty abstract ones at that).

<sup>187</sup> For example, Ackrill (1963: 76).

<sup>188</sup> So Geach (1972a).

<sup>189</sup> So long, at any rate, as these are proper classes.



Aristotle is committed not just to  $S$ s but to the existence of the *set of S*s, and sets are abstract entities.<sup>190</sup> Moreover, they are individuals. So the stock answer also flaunts Aristotle's rule that what is said-of a subject is a universal. Further, it saddles Aristotle's account with a conceptual embarrassment. Because the identity of a set is a function of the identity of its members, the notion of being in the same species will be severely restricted. Indeed, it will have virtually no diachronic range at all. For with the generation or destruction of a single member of the species, there arises a new set and, hence, a new species.<sup>191</sup>

One advantage of (22\*\*) is that it honors MO's requirement that species are among the things that are ( $\tau\acute{\omega}\nu\ \delta\upsilon\tau\omega\nu$ ) and it preserves the ontological relations delineated in MO. This is clear from the fact that (22\*\*) has an intuitive expression in the technical idiom of MO:

23. Species  $S$  exists *iff and because*  $(\exists x)(x$  is a substance individual &  $S$  is said-of  $x$ ).

According to (23), species exist because, and only because, there is a primary substance they are said-of. Because anything that is said-of a subject is a universal, species are universals. Put another way, species are after all a certain kind of general property and not a kind of object, general or other.

Further to (23)'s credit is the fact that it has an analog in the nonsubstantial categories:

24. Accident universal  $U$  exists *iff and because*  $(\exists x)(x$  is a nonsubstantial individual &  $U$  is said-of  $x$ ).

Because nonsubstantial individuals are present-in c-substances, (24) is not all there is to the existence of accident universals. But (24) is the place to pursue the question of their ontological status. This will appeal especially to friends of demotion, for it enables them to grant<sup>192</sup> that the

<sup>190</sup> Some might think that Ch. I's use of the notion of a synonymy group commits us to holding that species are after all a kind of set. But the notion of a synonymy group was chiefly an operational convenience, in principle eliminable in favor of individuals having the relevantly same terms said-of them. So we need not worry that it embraces the view that species are sets of individuals.

<sup>191</sup> Given its popularity, there is surprisingly slender evidence for the classic view. About the only exhibit for the defense is 3b21–3's remark that "One marks off more with the genus than with the species, for in speaking of animal more is encompassed than in speaking of a man." But this need mean nothing more than that the universal *animal* applies to more things than does the universal *man*. So it is hard to see how it could tell in favor of the classic view and against the view that secondary substances are universals. Jones also weighs in against the probative value of the passage for the classic view, but I do not understand his argument. See Code (1986, esp. 418–19) for allied concerns about the classic view of species as certain kinds of sets.

<sup>192</sup> With Frede (1978/1987a).

existence of, for example, the color red (a type-IV item) cannot amount just to the existence of red objects (type-I items), but to deny that this adds anything beyond individuals to the inventory of the *Categories*. This is because for such universals to exist is just for there to exist individuals of a certain kind, namely, nonsubstantial particulars.<sup>193</sup> The same holds for secondary substances, except that in this case the individuals are substance particulars.

Now it might appear that (23) is better positioned than (22\*\*) to offer a reductive account of secondary substances. As it stands, however, (23) is too weak for this. At best it *suggests* a reductive account, namely, that which identifies a species with the set of individuals it is said-of. But, as we have already argued, it is unlikely that Aristotle favors any such account. We must make do with (23) *sans* enhancements.

What can (23) tell us about the ontological status of secondary substances? My view is this: Aristotle thinks that we can, indeed, talk about the existence of species and the like but that such talk just amounts to talk about the truth conditions for statements asserting their existence, that is, for statements such as “The species *man* exists” or “*Man* exists.” And the conditions he favors are given by the right side of (23):

23a. “*Man* exists” is true *iff and because*  $(\exists x)(x \text{ is a substance individual \& } man \text{ is said-of } x)$ .

This is all that is required in order to justify MO's inclusion of species among the things that are ( $\tau\acute{o}\nu \delta\upsilon\upsilon\tau\omega\nu$ ). In particular, there is no need to countenance abstract objects such as sets or to quantify over properties proper. On the contrary, as a kind of universal, species exist as other Aristotelian universals do, namely, by way of their instantiations.

Proposition (23a) bears amplification. At one point<sup>194</sup> Sellars expressed Aristotle's view of the dependence of universals on primary substances by way of the formula: “Man is = Some primary substances are men.” Allowing for the nonstandard use of the double bar, we can take him to be endorsing something like (22\*\*) on Aristotle's behalf. This, in turn, he glosses as “‘Man is’ is traced to ‘This (substance) is a man.’” So it might appear that he holds Aristotle to something quite like (23a), namely,

23b. “Man exists” is true *iff and because* this (substance) is a man.

But endorsement of (23b) would be unfortunate. For regardless of what Sellars had in mind by the elusive relation, *being traced to*, (23b) ties the existence of the species *man* to the existence of some one particular

<sup>193</sup> Here I am in agreement with Sellars (1957: 128, n. 7).

<sup>194</sup> Sellars (1957: 127).

man, for example, Orcutt. This is absurd and hardly something Sellars would countenance.

However, (23b) does suggest an alternative that has much to recommend it. The trick is to tie the existence of the species to the existence of quite particular men, namely, those that happen to exist, without commitment to the abstract entity, the set of men. We achieve this by replacing (23a) in favor of:

23c. “*Man* exists” is true *iff and because* *man* is said-of  $s_1 \vee$  *man* is said-of  $s_2 \vee \dots \vee$  *man* is said-of  $s_k$ ,

where  $s_1, s_2 \dots$  &  $s_k$  are all the primary substances. Because (23c) does not identify the species with the primary substances that it, *man*, is said-of, the species faces no existential crisis should one man fail to exist. Nor does it harbor commitment, hidden or other, to the set of men. It allows the species to exist on the condition that this or that particular substance is a man.

One advantage of this proposal is that it undercuts what some take to be an irresolvable difficulty in the theory of the *Categories*, namely, how to ensure asymmetry between substance particulars and the nonindividual substances that are said-of them. Any reasonably careful reader of the *Categories* knows that the secondary substance *man* reveals *what* the individual man *is*. It is an easy step from here to the claim that *man* constitutes the essence of the individual man and, thus, to the claim that Socrates, say, depends for his existence on the existence of the species that is said-of him. Loux, for example, remarks, “surely it is the case that were these species not to exist, the basic subjects (i.e., the primary substances they are said-of) would not exist either,” and explains that this follows from “the essentialism that underlies the account of *ousia* in the *Categories*.”<sup>195</sup>

Now there are at least two ways to cash this remark (as distinct from the appended explanation). Where  $s$  is a particular primary substance, Loux may be inviting us to read Aristotle as holding either

25.  $s$  exists  $\rightarrow (\exists x)(x$  is a species &  $x$  is said-of  $s)$ ,

or

25a.  $s$  exists  $\rightarrow (\exists x)(x$  is a species &  $x$  is said-of  $s$  &  $(y)(y$  is a species &  $y$  is said-of  $x \rightarrow y = x)$ ).

Both (25) and (25a) appear to threaten the ontological priority of primary substances because, on both, the existence of a particular primary substance ‘entails’ the existence of a species. But they are

<sup>195</sup> Loux (1991: 48). Contrast Furth (1988), who finds the *Categories* devoid of explicit commitment to essentialism.

importantly different, for (25) ‘entails’ only the existence of some species or other, whereas (25a) ‘entails’ the existence of some one unique species. Nothing Loux says rules out (25a) as an interpretation of his remark. Moreover, both would follow from essentialism as crudely characterized above (i.e., *man* is the essence of Socrates). But only (25a) would be a serious contender to capture the doctrine in its own right.<sup>196</sup> So Loux's explanation leaves it unclear how the underlying essentialism “forces us to conclude that the relevant asymmetry just does not obtain in the relationship between substance-species and their members” (Loux, 1991: 48).

This is probably not crucial because the mentioned asymmetry would seem to be upset on either (25) or (25a). On the first, the existence of a particular primary substance, *s*, will depend on the existence of some species or other, but the existence of some species, to which *s* belongs, can hardly depend on the existence of *s*. Nor, to take the second case, is this more likely should the species be the only species to which *s* belongs.

But asymmetry is not so easily derailed. For (23a) allows us to skip quantification over species, so prominent in (25) and (25a), for something much more straightforward. Thus, grant, for argument's sake, the offending view:

26.  $s$  exists  $\rightarrow$  *man* exists.

Then, replace its right side with the right side of (23a):

26a.  $s$  exists  $\rightarrow$   $(\exists x)(x$  is a substance individual & *man* is said-of  $x$ ).

Now, (26) and (26a) express the dependence of *s*, say Socrates, on the secondary substance *man*. Moreover, this is no longer a dependence that threatens the asymmetrical priority of primary substances, for the existence of Socrates depends only on *man*'s being said-of something. Of course, it will be rightly worried that our concern is with the dependence or independence of Socrates in relation to the secondary substance that is said-of *him*.

This is easily remedied on my interpretation. Thus, replace the right side of (26a) by its equivalent from (23c):

26b.  $s$  exists  $\rightarrow$  *man* is said-of  $s_1 \vee$  *man* is said-of  $s_2 \vee \dots \vee$  *man* is said-of  $s_n$ ,

and add a disjunction identifying *s* with some one or another of the primary substances. This allows us to strengthen (26b) to a biconditional:

<sup>196</sup> Actually, we need a modalized version of it, or something like it. See the account in Wedin (1984: 67–88).

26c.  $s$  exists  $\equiv$   $man$  is said-of  $s_1 \vee man$  is said-of  $s_2 \vee \dots \vee man$  is said-of  $s_k$  &  $s = s_1 \vee s = s_2 \vee \dots \vee s = s_k$ .<sup>197</sup>

Thus, Socrates' existence depends on his being identical to some primary substance that *man* is said-of.<sup>198</sup>

Claiming (26c) on behalf of Aristotle is not a matter of invention. It fits naturally into the framework of the *Categories* and its progenitor, (26b), has an analog in (ii) of the Primacy Passage (see section 5 above). There Aristotle says that were *animal* predicated of none of the individual men, it would not be predicated of *man* at all. By extension of the point, we may presume that were *animal* predicated of none of the individual substances (i.e.,  $s_1 \dots s_k$ ), it would not be predicated of anything at all and, hence, we may presume, would not exist at all. The force of the quantificational idioms is clearer in the case of color. According to Aristotle were *color* not in *some of the individual bodies* (ἐν τινὶ τῶν καθ' ἑκάστον), it would not be in body at all and, hence, would not exist at all. Analogously, were *man* not said-of some of the individual substances (i.e., [26b]'s  $s_1 \dots s_k$ ), it would not be said-of anything and, hence, would not exist at all.

In effect, the existence of the species on which Socrates allegedly depends turns out to be nothing more than part of the truth conditions of the singular statement, "Socrates exists." Here there simply is no motivation to make Socrates asymmetrically dependent on the existence of an entity that goes under the title of 'man'. No such entity is required by (26c). An additional point about the Primacy Passage will help make this clear. In section 5 above, I read the passage reductively, arguing that species are bypassed entirely as genuine subjects. Now add a point introduced back in section 1, namely, that for Aristotle existential commitment comes through the subjects only of affirmative statements. It follows that elimination of *man* as a genuine subject frees us from commitment to the species, *man*, as such, and that occurrence of *man* as a predicate does not involve such commitment. Thus, (26c) carries ontological commitment, but it is commitment to *men*, not *man*.<sup>199</sup>

A second advantage of this view is that it solves a problem that arose

<sup>197</sup> We would also need an excluder clause to the effect that if  $s = s_1$ , then  $s \neq s_2$  &  $\dots$  &  $s \neq s_k$ , etc.

<sup>198</sup> As for the notion of two items belonging to the same species, we say that for  $x$  and  $y$  to be in the same species  $S$  is just for them to be in the same relevant synonymy group. And although this requires that  $S$  be said-of  $x$  and  $y$  it hardly requires the existence of a corresponding entity.

<sup>199</sup> What holds for the species holds for genera as well. Thus, when, say, *organism* is said-of *animal*, we say simply that there is some animal (a c-substance), such that *organism* is said-of it. In this way all secondary substances can be eliminated as genuine subjects.

in section 7 in the discussion of secondary substances as general objects, namely, how to avoid commitment to entities that take incompatible properties. And the problem needs a solution. For Aristotle is committed to inferences such as *Socrates is grammatical* → *Man is grammatical*—a consequence caught by the Subject Passage (see section 6 above), in particular, by (17) and the notion of *grammaticality* being predicated of *man*. But note that the Subject Passage says *nothing* about *how grammaticality* is predicated of *man*. My solution gives this question proper shape by replacing the idea that *man* is some kind of ‘stand-alone’ general object with the plainer idea that *man* is a universal and, hence, something of which another thing can be predicated universally or not universally. Here we can appeal directly to *De Interpretatione*'s canonical quantificational idioms. For to say that some man is white because Socrates is white hardly encourages talk of *man* as an object of accidents. For MO's purposes, of course, these exact idioms are not required. MO says simply that a certain relation holds among a type-IV and a type-II item, e.g., *whiteness* and *man*, whenever another relation holds among appropriate type-III and type-I items, e.g., *this white* and *this man*. This is enough for the *Categories* to display the underlying ontological configurations.

Although the above paragraph involves substances and accidents, for our purposes the relevant point is Aristotle's focus on the underlying configurations among *individuals*, in particular, those whose obtaining ensures the truth of predications involving nonindividuals. This is not invention. The same concern with underlying truth conditions is evident in *Posterior Analytics* A.11, where Aristotle urges that demonstration requires only the possibility of truly *predicating* one thing of many different things. His concern, again, is with the truth conditions for predication and not with the existence of forms or the existence of some one thing besides the many.<sup>200</sup>

If we are correct about secondary substances in the *Categories*, Aristotle, in effect, pursues a policy of benign neglect. Although he denies them independent existence, species are neither reduced to classes, as on the classic account, nor eliminated, as on SLING. He is content to provide a minimalist account of the conditions that make it the case that

<sup>200</sup> The passage, 77a5–9, reads: “If there is to be demonstration, it is not necessary that forms (εἶδη) exist or that there be a one besides the many (ἓν τι παρὰ τὰ πολλὰ); but it is necessary that one thing be truly predicated of many (ἓν κατὰ πολλῶν ἀληθῶς εἰπεῖν ἀνάγκη). For without this there will be no universal (οὐ γὰρ ἔσται τὸ καθόλου) . . . therefore, there must be something that is non-homonymously one and the same in a plurality of individuals (δεῖ ἄρα τι ἓν καὶ τὸ ἐπὶ πλείονων εἶναι μὴ ὁμώνυμον).” Even were one to object that Aristotle here takes aim at Platonic forms, the point remains that his alternative is a theory of truth conditions for predicating universals rather than a theory of an alternative kind of object.

a given species exists—an account that invokes individuals only. In effect, this means that Aristotle takes species to exist, at best, in some reduced manner; but he does not pursue this as an independent topic.

Such neglect is explained, in part, by the fact that nothing in the *theory* of the *Categories* requires that secondary substances exist in any more robust way. Everything done by secondary substances is, in effect, done by appeal to primary substances alone. From the point of view of theory, then, robustness is not called for. Even were this to mean that species are theoretically *eliminable*, it does not follow that they have been *eliminated*. Indeed, I have already rejected one eliminativist gambit, namely, SLING. In fact, as a matter of policy, the *Categories* does not pursue the question of ontological status. Concerned primarily with developing an underlying ontology, it gives the notion of classification central importance. This is evident, to recall Chapter I, in Aristotle's decision to feature the three *onymies* at the head of the work, for these are just grouping principles. As far as classification goes, what is required is simply that species and genera be predicable, that is, said-of individuals in 0-level synonymy groups. Nothing in the *Categories* suggests that this grouping function calls for any kind of irreducible existence for secondary substances. Of course, it remains correct that Aristotle's preoccupation with grouping means only that he does not address head-on the issue of what, if any, ontological status is to be accorded species and genera. So, again, even their theoretical *eliminability* would tell us little about Aristotle's final attitude toward their *elimination*.

In short, the *Categories* closes without espousing a final position on the issue, principally, I have been arguing, because it need not. Granted, species and genera populate one of MO's formal divisions of things that are (τῶν ὄντων). But this does not entail that they are entities in their own right. Even the nominalist can intone, "Of course, there are universals, but they aren't *things*." MO countenances species and genera largely because they are said-of individuals and their being so said-of is required to generate the categories and to yield a kind of individual suitable for duty in the semantical theory. An assay of their ontological status is simply not central to these functions. What the *Categories* leaves unresolved, however, might appear to be taken up elsewhere, namely, in *Metaphysics Z*, for here Aristotle provides extensive remarks on the notion of an εἶδος. But in *Metaphysics Z* εἶδος, which served to designate species in the *Categories*, is appropriated as the term of art for the form of members of species, that is, the form of c-substances. So these remarks are about something other than secondary substances. What Aristotle does say about secondary substances is decidedly deflationary. In brief passages of Z.10 and 11 he explicitly takes up *man* and

*animal* and asserts that, as abstracted universal compounds, they are not substances at all.<sup>201</sup>

The easy manner of Aristotle's dismissal is explained by the fact that species and genera are largely irrelevant to the program of *Metaphysics Z*. For this is devoted almost entirely to form and its role in explaining the nature and chief features of what the *Categories* calls primary substances. This view of the program of *Z* is hardly noncontroversial and requires development and defense, especially our contention that the theory of the *Metaphysics Z* is compatible with that of the *Categories*. We begin in the next chapter with a look at some alternative accounts of the relation between the early and late theories. But first a transitional remark.

## 11. Idealization in the Categories: A Transitional Remark

My account assumes that the *Categories* counts as primary substances only things such as Socrates, Secretariat, Madame Curie, and their ilk, as well as, perhaps, artifacts such as the Eiffel Tower. That is, only what might be called ordinary, complete individuals are to be classified as primary substances. This is the intuitive picture and it is embraced by the traditional commentary. It is, however, something of an idealization. For according to the *Categories* it is also true that a sufficient condition of  $x$ 's being a primary substance is that  $x$  is neither in something as a subject nor said-of something as a subject. By this criterion, certain items that do not fit the intuitive picture may qualify as primary substances. In *MO* itself Aristotle feeds this worry. Both the body and the soul serve as examples of subjects that other things are *in*: a certain bit of white color is in the body and a certain bit of grammatical knowledge is in the soul. On the intuitive view, it should be Socrates, for example, rather than his soul or his body, that is the subject of color and knowledge. And because it is pretty clear that they are not, in turn, said-of anything, the body and soul in question seem to qualify as primary substances. But Aristotle clearly wants it to turn out that the primary substances are not these, but men, horses, oxen, and the like. This is just what the intuitive view holds, and so the intuitive view appears to be an idealization.

<sup>201</sup> At 1035b27–31 and 1037a5–10, respectively. For more on this see Wedin (1991: 371–6) and Ch. VIII below. As universals of an offending kind, species and genera come to grief in *Metaphysics Z*.13's attack on the candidacy of the universal to serve as the substance-of something. But this is an argument against their fitness to be *primary* substance and so might not be the outright dismissal we get in *Z*.10 and 11.



This fact, however, hardly makes our task easier. Compatibility between the *Categories* and *Metaphysics Z* is threatened precisely because the first takes men, horses, and oxen to be primary substances, while the latter reserves the title for their forms. So the idealization only sharpens the issue. Nonetheless, and despite running against Aristotle's apparent intentions, the occurrence of body and soul as primary substances would mar the elegance of the theory of the *Categories*. Can this situation be ameliorated?

The body is not a difficult case, for we can simply take it as a stand-in for standard primary substances. There is a worry about this, namely, that *Categories* 6 includes (the) body in the category of quantity. But the worry can be turned to advantage, for it would make Aristotle provide an *accidental* item as an example of a thing that satisfies the subject condition for primacy of substancehood. So unless we are willing to saddle Aristotle with the clumsiest of contradictions, *body* in the meta-ontology, MO, *must* function differently from *body* as a quantity. One might say that the first is substantial body and the second quantitative body. Only substantial body could function as a kind of *stand-in for* c-substances and this differs from the role of quantitative body, which involves a *dependence on* c-substances.<sup>202</sup>

The case of the soul is resistant to this move. For it is simply implausible to take it as a stand-in for a c-substance.<sup>203</sup> So here Aristotle appears to count a part of a c-substance as a subject and, hence, to invite us to classify the soul as a primary substance. This detracts considerably from the elegance of the intuitive picture. But, again, something can be said in the service of amelioration. For notice that in the section of MO introducing the soul Aristotle's aim is to give an example of something that is in a subject, but not said-of a subject. So he is quite deliberate in selecting this item (knowledge). Equal deliberateness is not called for on the side of the subject, however, for his point is established whether he supplies Socrates or the soul as subject. When Aristotle turns to the characterization of MO's type-I items, those neither in nor said-of a subject, he gives the individual man and the individual horse but not the soul (which, by the way, he has *just* mentioned). These we may take to enjoy the same measure of deliberation. Moreover, chapter 5's discussion of primary substance reenlists the examples and adds the individual

<sup>202</sup> However, this gets worked out. (Fortunately, for present purposes I need not provide an account of quantitative body.)

<sup>203</sup> Especially in light of Ch. IV's arguments identifying the form of a c-substance as the genuine subject of accidents. Note, however, that Frede (1985) and Frede and Patzig (1988) find the identification in the *Metaphysics* where it heralds a new development in Aristotle's thinking. Thus, *were* the *Categories* to count the soul as primary substance because it is a subject, then *pace* Frede and Patzig the *Metaphysics* could not be breaking the new ground they claim it is breaking.

ox. The soul is nowhere in sight. So the soul occurs as a subject chiefly as a matter of convenience and without canonical standing.

Thus, if my account of the *Categories* yields an ideal theory, it is only a slight idealization and one that, in any case, parades as received doctrine.<sup>204</sup> Moreover, it is the 'ideal' theory of the *Categories* that clashes most dramatically with the theory advanced in *Metaphysics Z*. So my account begs no questions and makes no assumptions that ease the way to compatibility. We are, in short, left with the task of constructing a compatibilist account of the relation between the theories of the *Categories* and *Metaphysics Z*. I begin in the next chapter with some alternative accounts of this relation. This will prepare us for Chapter V, where the serious work of reconciliation begins.

<sup>204</sup> A notable exception is Dancy (1996).

# IV Tales of the Two Treatises

Entering the domain of *Metaphysics Z* fresh from the *Categories* is rather like leaving the simplicity of a pastoral landscape for a maze of underground caves. Chief cause of this and of the conceptual tectonics that shake the central books is the emergence of substantial form. This notion, whose discussion occupies virtually the whole of *Metaphysics Z*, is difficult, if not impossible, to grasp apart from the analysis of substance individuals into matter and form. The *Categories*, on the other hand, fails even to mention matter and appears to neglect entirely the idea of an individual's form, that is, the form of an individual thing (however this gets worked out), as opposed to its species. So it is quite correct that the *Categories* does not *use* the distinction between the species and the species form. And, generally, there will be no dispute as to the fundamentally different character of the two works. But fundamental differences are not *ipso facto* incompatible differences. So incompatibilists will need to say something more. This chapter looks at a number of accounts that find the relation between the *Categories* and central books to be problematic. Some of these are unswervingly incompatibilist and for this reason alone we must deal with them. Others are offered in at least the spirit of reconciliation but are, nonetheless, flawed in irreparable ways. This discussion of alternative accounts is by no means exhaustive but is intended to create the conceptual space for (and motivate interest in) a compatibilist account of the relation between the early and late theories. In constructing this account in the following chapters, I shall continue to make liberal use of the results of recent scholarship.

## 1. An Argument for Outright Incompatibility

A recent, and prominent, incompatibilist account begins with the suggestion that at the time of the *Categories* Aristotle did not even *have* the distinction “between species and the corresponding species-form or

essence.”<sup>205</sup> Although this goes beyond mere benign neglect, it still does not install an incompatibility between the *Categories* and *Metaphysics Z*. When certain other claims are entered into the equation, however, the incompatibility appears to surface in dramatic fashion.

Restricting individual items to type-I items, such as Socrates and Secretariat, the account begins with two claims about the *Categories*:

1. Individual items are the primary substances

and

2. Individual items are not regarded as subject to hylomorphic analysis,

and two claims about the *Metaphysics*:

- 1'. Individual items are form-matter compounds

and

- 2'. The form of an individual item is predicated of its matter.

Although the *Categories* does, as Code says, “make remarks about the individual man, his body, and soul,” there is virtually no discussion of the relation between these or their properties. But rather than (2), this could mean just that the *Categories* conceives of substance individuals as amenable to hylomorphic analysis but simply, as a matter of fact, does not apply such an analysis to them. This is harmless. Claim (2), on the other hand, seems false—at least according to the next section where is argued that the substance individuals of the *Categories* are precisely the sorts of things that receive a hylomorphic analysis in the *Metaphysics*.

So more needs to be said to get incompatibility. In particular, more specific theses must be extracted from each work. Code makes use of 4a10ff., where Aristotle lays down as the mark most distinctive of primary substance that only they, of what is numerically one and the same, can receive contraries:

3.  $(x)(x \text{ remains the same across contraries} \rightarrow x \text{ is a primary substance})$ .<sup>206</sup>

Thesis (3) gives a sufficient condition for primary substancehood. Since, according to Code,  $x$ 's body can be pale at  $t$  and tanned at  $t'$  and his soul bad at  $t$  and good at  $t'$ , (3) entails

- 4'.  $x$ 's body is a primary substance,

<sup>205</sup> Code (1986: esp. 429–33).

<sup>206</sup> Note that (3) does not assert that primary substances remain the same over time and so ‘the most distinctive mark’ is not a spatiotemporal continuity criterion. (3) asserts only sameness across contrary properties. It is not obvious how to draw the exact relation between these two kinds of sameness. Here I am indebted to a remark of Bogen's.

and

4".  $x$ 's soul is a primary substance.

Still, there is nothing very troubling about (4') and (4'')—at least nothing that threatens an incompatibility with the *Metaphysics*. The trouble begins with addition of another thesis from the *Categories*, namely,

5.  $(x)(x \text{ is a primary substance} \rightarrow x \text{ is a this } [\tau\acute{\omicron}\delta\epsilon \tau\iota])$ .<sup>207</sup>

From (5) and (4') it follows that  $x$ 's body is a this; and from (5) and (4'') it follows that  $x$ 's soul is a this. However, according to Code, Aristotle also holds

6.  $(x)(x \text{ is predicated of } y \rightarrow x \text{ is not a this})$ .<sup>208</sup>

Therefore, it follows that

7'.  $x$ 's body is not predicated of any  $y$ ,

which may not be cause for concern. But it also follows that

7".  $x$ 's soul is not predicated of any  $y$ ,

which is of concern because (7'') holds even when  $y$  is identical to  $x$ 's body. With this we have reached the impasse. For (7'') is held incompatible with a favored claim of the *Metaphysics*:

8.  $x$ 's soul is predicated of  $x$ 's body,  $y$ .

This conflict between central theses of the *Categories* and *Metaphysics* drives the claim that there is an outright incompatibility between the works themselves.

As far as the *Categories* is concerned the only sense in which *substance* could be predicated is as secondary substance (e.g., *man*). Here the name 'man' and its corresponding definition would be predicated of Socrates and his ilk; and such predication, for Code, amounts to giving the essence or the essential kind of thing that Socrates is. This has the consequence that in the *Categories* no form-like substantial item, that is, *nothing* that is like a substantial form, can be predicated of the body because the body is not essentially a human soul. This holds whether form is particular or nonparticular. Predication of

<sup>207</sup> Code strengthens (5) to a biconditional. This is not entirely straightforward, as Ch. II, n. 36 testifies.

<sup>208</sup> In Ch. II we found thesis (6) to be squarely Aristotelian. Code actually has something stronger: "no 'this' is predicated of a 'this'." But this last 'this' is not needed to make the point and so I omit it.

the latter is excluded by the present argument and predication of the former by (7'').<sup>209</sup>

This is a powerful argument, but responses are available. First, the magnitude of the alleged incompatibility might alert us to the possibility that the *Categories* and *Metaphysics* aren't so much incompatible as simply engaged in different projects. This, I believe, is correct but it will amount to wishful thinking unless something more can be said about the argument for incompatibility.

A more direct maneuver would be to challenge (8)'s credentials as a central doctrine of the *Metaphysics*. Although there may be something to this, I shall not pursue it at the moment. Some might think it more promising to worry about (3), perhaps, pointing out that 4b10ff. says something slightly different from Code's rendition, (3), namely, something like

3'. (x)(x is numerically one and the same & x remains the same across contraries → is primary substance).

The idea would be that souls simply aren't the sorts of things that remain one and the same while taking contrary properties. Rather, the suggestion runs, such changes just constitute a different soul because they yield a different array of properties. On this view the soul isn't so much a proper subject as a capacity that is explicated in terms of various psychological functions and properties. Thus, souls fail to satisfy the antecedent of (3') and so need not be counted as primary substances. Although this view is attractive (understood in the appropriate way),<sup>210</sup> two points counsel against finding it in the *Categories*. Most obviously, MO itself counts the soul as the subject in which knowledge is present. Thus, it looks like a subject—so, why not a primary substance?<sup>211</sup> Second, the point applies less obviously to bodies. Can we reasonably say that

<sup>209</sup> Code also assumes that the form could not be predicated accidentally of the body because it is a substantial item. This is correct, but less because of its substantial status than because of what the *Categories* understands by predication of accidents. (After all, one could say that the tallest thing in the room is a man and, hence, predicate something substantial of something nonsubstantial. But this would be a case of parasitic predication, predication κατὰ συμβεβηχός, and, as *Posterior Analytics* A.22 reports, this is not standard predication of an accident.)

<sup>210</sup> The basic idea is that, although it is in virtue of the soul that the person has or exercises various psychological states and functions, the *proper* subject of these states and functions is the person rather than the soul. I shall say more about this later. For worries about a recent proposal on behalf of the soul as subject, see sect. 4 below.

<sup>211</sup> I note that Aristotle says nothing of interest in the *Categories* about the relation between the soul and the person, nor about the relation between the soul and the body. On our view this is unsurprising, for neither the structure of whole primary substances nor the relation between primary substances plays any role in the sort of classificatory scheme developed in *Categories* 1–5 and guided by MO.

bodies fail to remain one and the same across contraries?<sup>212</sup> If not, and if we want a uniform account, then, perhaps, the *Categories* counts the soul as a primary substance after all.

However, two additional assumptions inform Code's argument and they are not beyond challenge. The first is that the soul whose predication is proscribed by the *Categories* (that mentioned in [7<sup>''</sup>]) is the same as the soul whose predicability is proscribed by the *Metaphysics* (that mentioned in [8]). This is not obvious, if only for the reason that the *Categories* treats the soul in a neutral and preanalytical fashion. When the *Metaphysics* displays the soul on the analytical dissection table, we get something more precise, in particular, something that is fit to play the role of essence and to explain how certain material parts constitute a whole object—a man, a horse, and so on. This notion of soul is not obviously relevant to the project of the *Categories*.

The second assumption also concerns (7<sup>''</sup>) and (8), but it is more critical. If they are to clash, then 'predication' must mean the same thing in both theses. This, however, is false. As a thesis of the *Categories*, (7<sup>''</sup>) can be replaced by

7<sup>'''</sup>.  $x$ 's soul is neither present in nor said-of  $x$ 's body,  $y$ .

Whatever relation (8) affirms, it surely isn't the negation of (7<sup>'''</sup>). The argument, thus, turns out to be something of a red herring. For the most it would show is that there is nothing in the *Categories* that corresponds to the sort of predication registered in (8). On our view this is exactly what should be expected. For the relations deployed in MO are in any case tailored to serve a quite specific classificatory function and to underwrite the theory of underlying ontological configurations for standard categorial statements. Moreover, the two relations, *being said-of* and *being present-in*, are not meant to be exhaustive of predicative relations. For one thing, the *Categories* itself exempts paronymy from the scope of MO<sup>213</sup> and, more generally, MO does not itself aspire to be a general theory of predication. At most it provides a theory of underlying ontological configurations for predication, specifically, *for standard categorial predicates only*. Because the latter will not include a thing's form or matter, there is no reason to suppose that Aristotle would have thought it appropriate to bring *Metaphysics*-style predication under

<sup>212</sup> A good reason not to is the fact that the Primacy Passage of *Categories* 5, discussed in sect. 5 of Ch. III, treats individual bodies as stand-ins for primary substances. On the other hand, *Categories* 6 appears to rank bodies as continuous quantities. It is for this reason that I call them 'stand-ins' for primary substances, in full awareness of the fact that more needs to be said about their allegedly joint appearance in different categories. (On this, see also sect. 11 of Ch. III.)

<sup>213</sup> For the argument here, see Ch. I.

MO's ontological relations.<sup>214</sup> So incompatibility could not enter by this route.

These considerations cast enough doubt on the argument's assumptions to allow us to resist, at least for the moment, its conclusion that the theory of the *Categories* is incompatible with the later theory of *Metaphysics Z*.

## 2. The Alleged Failure of the *Categories* Account of a Subject

Suppose we can meet the worries pressed by Code. Exactly how the *Categories* and *Metaphysics Z* fit together remains an unresolved question. Most attempts at reconciliation favor a developmental strategy and, thus, implicitly acknowledge the existence of some kind of incompatibility. But there is developmentalism good and bad. The bad variety, of which there are fortunately few practitioners, settles for declaring that Aristotle simply changed his mind and so, of course, the texts will not line up. It is hard to resist seeing this as much more than an explanatory last gasp. Some versions of developmentalism, however, hold out the promise of explaining the philosophical grounds for Aristotle's change of mind and, thus, of deepening our appreciation of the philosophical theories themselves. On the question of fit between the *Categories* and *Metaphysics Z*, one of the most instructive and provocative such accounts has been worked out by Frede (1978) and (1985) and Frede and Patzig (1988). This extended account will repay scrutiny. I begin with Frede (1978) and (1985), reserving for the next section the incarnation of the account in Frede and Patzig (1988).

Roughly, it is argued that the notion of an individual that dominates the *Categories* is given up in the central books of the *Metaphysics*. There are two reasons for this. First, the *Categories* notion of an individual presupposes the existence of species but species are denied existence in *Metaphysics Z*. Second, Aristotle came to see that the underlying subjects of accidental attributes could not be substance individuals but, rather, their matter, their form, or the compound of their matter and their form. So in his attempt to get clearer about how accidental attributes depend ontologically on objects, the notion of primary substance undergoes considerable change in the central books. Rather than the type-I individuals of the *Categories*, primary substance must be form, matter, or the compound. But it must still be what underlies

<sup>214</sup> To do so would make form an accident of matter in the way that color is an accident of a c-substance; but in the *Categories* the subjects of accidents are *already* (what in the *Metaphysics* become) compounds of form and matter.



accidents and this is why “Aristotle faces some odd results”<sup>215</sup> in *Metaphysics Z*.

Suppose we begin with the claim about the notion of an individual in the *Categories*. We should keep in mind that it is because c-substances (type-I items such as Socrates and Secretariat) are individuals that relinquishing the *Categories* conception of an individual amounts to relinquishing their status as primary substances. So what is the notion of an individual at work here?

For Frede, *Categories* individuals (what I shall call ‘c-individuals’) are, first and foremost, indivisible (ἄτομον). Some of these, namely c-substances, are also particulars. But the core notion is indivisibility. So where a c-individual is a *Categories* individual, we have

1.  $x$  is a c-individual  $\equiv x$  is indivisible (ἄτομον).

The second major thesis about these c-individuals is that they presuppose the existence of species. Taking ‘ $\Rightarrow$ ’ to mark presupposition, however this relation is made out, we get

2.  $x$  is a c-individual  $\Rightarrow (\exists z)(z$  is a species &  $x$  is a member of  $z)$ .

It is unclear whether (1) and (2) are linked, in particular, whether (2) rests on something like

- 2'.  $x$  is an indivisible  $\rightarrow (\exists z)(z$  is a species &  $x$  is a member of  $z)$ .

Proposition (2') merits discussion and I shall get to it in a moment. But first something should be said about the prominence in the *Categories* of indivisibility itself.

Frede rightly calls attention to the fact in *Metaphysics ZHΘ* ‘ἄτομον’ appears to drop out in favor of ‘τὸδι τι’ as the term of art for characterizing individuals. Exactly what we should make of this omission is, however, not entirely clear. As is well known, the *Categories* also finds τὸδι τι’ congenial. So it will require a special reading of (1) if the omission is to have evidential value. Frede provides this in (1978). For there c-individuals are indivisible in a quite specific sense. Obviously materially divisible, they are indivisible rather as subjective parts that do not themselves have subjective parts:

3.  $x$  is a c-individual  $\equiv$  (a)  $x$  is the subjective part of something & (b)  $x$  itself has no subjective parts.

Intuitively, Socrates is a c-individual because that of which he is a part is also a man, thus satisfying (3[a]), and there is no part of him that is itself a man, thus satisfying (3[b]).<sup>216</sup>

<sup>215</sup> Frede (1978: 50).

<sup>216</sup> In principle, the same holds for type-III individuals whether they are determinate properties (Frede's view) or nonrecurrent property particulars (our favored view, F++). See Ch. II.

It will be instructive to trace the alleged sources of (3) in the *Categories*. A key passage is 3b13–18 where Aristotle says that from the form of the name it might appear that man and animal signify an individual (τόδι τι σημαίνειν), but this is false because, in the case of secondary substances, the subject is not one (οὐ γὰρ ἓν ἐστὶ τὸ ὑπομείμενον), but *man* and *animal* are said-of many things (κατὰ πολλῶν λέγεται). So far as I can see, this passage gives us something like

3'.  $x$  is an individual  $\rightarrow x$  is not said of many things,

or perhaps a strengthened biconditional. For Frede, however, the passage “strongly suggests”

3".  $x$  is an individual  $\rightarrow$  (a)  $x$  has no actual parts & (b)  $x$  is indivisible.

This is not an innocent suggestion because (3") appears to hold only for subjective parts. For, surely, Socrates will satisfy it and yet be divisible into myriad material parts. With this, we are well on the way toward the doctrine of subjective parts that is central to (3).

There are, however, some points of concern about this argument. Note, for one thing, that the key passage (3b13–18) does not contain ‘ἄτομον’. So it is unclear why we should suppose that this notion is involved in (3') or (3"), as opposed to the notion of a τόδι τι and, hence, why (3) itself should be especially linked to atomicity. This undercuts using the fact that ‘ἄτομον’ is absent from *Metaphysics Z* to support the claim that we find there a different notion of individual from the notion at work in the *Categories*. It does not follow from this, however, that the claim itself is false or that (3) fails to represent the *Categories* conception of an individual.

So what about (3)? Once (3") is established, it is a short step to (3). And, according to Frede, (3") is strongly suggested by (3'). It is, however, difficult to see the strength of this suggestion. For one thing, (3') fails even to mention parts. So the suggested connection requires something like

4.  $x$  is not said-of many things  $\rightarrow$  (a)  $x$  has no actual parts & (b)  $x$  is indivisible.

Proposition (4) in turn assumes that the several things something is said-of are parts of that thing, namely, subjective parts. Now, (3) and (4) may well be consistent with what Aristotle says in the *Categories*, but that work does not require them. Our interpretation in Chapter I of the *said-of* relation, for example, makes no use of the notion of a subjective part. Probably, this is important only if the notion of a subjective part harbors commitments to unwanted entities or inconvenient theses.

This last remark returns us to (2') and the question of the link

between  $x$ 's being indivisible and the existence of a species containing  $x$ . Not everyone will be confident about this connection. In particular, some will wonder why something's being indivisible should be thought to presuppose the existence of a species. One answer, I suppose, might be that what is indivisible is a lowest level subjective part. Then the connection would assume two further propositions, namely,

4'.  $x$  is indivisible  $\rightarrow$  (a)  $x$  is the subjective part of something & (b)  $x$  itself has no subjective part

and

4''. (a)  $x$  is the subjective part of something & (b)  $x$  itself has no subjective part  $\Rightarrow (\exists z)(z$  is a species &  $x$  is a member of  $z$ ).

Unfortunately, (4') simply reinstates the two defining conditions for c-individuality (i.e., [3]) and so cannot provide an independent reason to tie individuality to the existence of the species. So the tie will have to rest just on (4''), where, presumably, the something, whose subjective part  $x$  is, is the species it belongs to.

In short, first, we must buy into the framework of subjective parts and, then, insist on the ontological commitments that (4'') attaches to this framework. So if we can resist the first, we need not be concerned about the second. Of course, even were (4'') false, one could only conclude that one proposal for linking c-individuals to the existence of species fails. In particular, there may be other, possibly more direct, arguments for establishing (2). However, in the previous chapter I retailed a number of such proposals and urged that Aristotle adopts a quite neutral stance on the question of what, if any, ontological status is to be meted out to species (and secondary substances generally).<sup>217</sup> So it is not clear that (2) is an unassailable truth. Thus, even if we follow Frede in holding that *Metaphysics Z* denies existence to species, this may not be sufficient for finding there an entirely new notion of individual. By the same token, we can no longer be confident that this difference plays a role in the transition between the two works.

I shall suppose, then, that we are justified in setting aside, for the moment at least, the arguments that depend on Frede's specific account of individuals in the *Categories*. This, however, leaves untouched an independent and more fundamental feature of his account, namely, that in *Metaphysics Z* Aristotle sacrifices a central thesis of the *Categories*—the thesis that substance individuals (c-substances) are the underlying subjects of accidents. This important claim not only underlies Frede's account of the relation between the *Categories* and *Metaphysics Z*

<sup>217</sup> See (23c) of Ch. III, sect. 10.

but also shapes his view of Aristotle's mature theory of sensible substance in the central books. For the moment, I shall concentrate on the first.

In the *Categories* Aristotle regards the subject of accidental attributes—or, at least, their ultimate such subject—to be the concrete individual. For Frede, then, the following proposition is crucial to the *Categories*:

5.  $x$  is an ultimate subject of accidents  $\rightarrow x$  is a concrete particular.

These ultimate subjects are, of course, primary substances such as Socrates and Secretariat—what I am calling c-substances. So if *Metaphysics Z* gives up on (5), it also gives up on c-substances as primary substances. According to Frede (1978), this occurs as early on as Z.3, where (5) is held to be superseded by

- 5'.  $x$  is a c-substance &  $x$  is  $F$  &  $F$  is an accidental attribute &  $z$  is the ultimate subject of  $F \rightarrow$  (a)  $z \neq x$  & (b)  $z =$  the form of  $x \vee z =$  the matter of  $x \vee z =$  the compound of the form and the matter of  $x$ .

It is important to note that (5)'s consequent contains two conjuncts, the first, (5'[a]), denies that the concrete individual object is the subject of accidents and the second, (5'[b]), identifies this subject with one of the components of the concrete object. Intuitively, the idea is that with the introduction of form and matter we are led to a new and complex analysis of c-substances and that this analysis is at least partly inspired by Aristotle's discovery that, contrary to what he had thought in the *Categories*, c-substances cannot be the subjects of accidents. This leads not only to a new account of such subjects but also to a new claim about “what is actually to count as an object or substance”<sup>218</sup> and, thus, to *Metaphysics Z*'s incompatibly different concept of what are to count as primary substances.

Frede's proposal has the merit of providing an explanation of why the Aristotle of *Metaphysics Z* awards substantial primacy to something radically different from the c-substances of the *Categories*. Moreover, we agree that Z.3 marks a point of departure from the *Categories* and that the distinction between form, matter, and compound plays the key role. On what this role is, however, and on the nature of the departure we differ widely. Beginning in the next chapter I shall argue that Z.3 introduces the form of a c-substance, its matter, and the compound of its form and its matter, not as candidates for a ‘new’ subject for the accidents of the c-substance, but as candidates for its substance. Thus, the substance-of a c-substance turns out to be the form and the form of a

<sup>218</sup> Frede (1978: 64).

c-substance cannot plausibly be taken to be the subject of its accidents. Frede, of course, argues otherwise, and we shall shortly turn to these and some kindred arguments. But first we need to set aside an objection that might be brought against both views.

With Frede (1978) we are committed to the distinction between the concrete particular and the compound of form and matter, and one might be tempted to reject this distinction out of hand. There are two reasons to resist this temptation, the first programmatic and the second textual. Proposition (5') is drawn from a discussion in *Metaphysics* Z.3 concerning one of the four candidates for substance, namely, what underlies (the ὑποκείμενον). If, as is our view, these are candidates for what is to count as the *substance-of* c-substances,<sup>219</sup> then (5') mentions three candidates for what underlies c-substances. So if a c-substance is a concrete particular, the compound will differ from it—at least to the extent that what underlies a thing must be different from it. This line of reasoning depends on a programmatic view that sees Z.3's candidates as introduced for the purpose of isolating the *substance-of* c-substances. Not every one will share this view, including Frede, so not everyone will be able to use it to defend the distinction between concrete particular and compound.

But there is independent textual evidence for the distinction. At *Metaphysics* Z.4, 1030a3–6 Aristotle says,

Whenever one thing is said of another thing, it is not strictly a 'this' (οὐκ ἔστιν ὅπερ τόδε τι); for example, the white man (ὁ λευκός ἄνθρωπος) is not strictly a 'this', since being a 'this' holds only of substances (τὸ τόδε ταῖς οὐσίαις ὑπάρχει μόνον).<sup>220</sup>

This passage makes it clear that accidental compounds, such as the *white man*, are not substances because they are not individuals in the strict sense. This alone, of course, is not enough to distinguish them from those compounds that are compounds of form and matter. But distinguished they are. For at Z.3 Aristotle excludes matter as a serious contender for the title of substance on the grounds that it fails to be a this or τόδε τι. However, both the form and the compound of matter and form pass the thisness test.<sup>221</sup> This implies that compounds of form and matter are different from compounds of a substance and an accident, such as the *white*

<sup>219</sup> See Ch. V for the argument.

<sup>220</sup> This passage is discussed at length in Ch. VI, which argues that *Metaphysics* Z.4 introduces a new notion of primacy, distinct from the ontological primacy of the *Categories*.

<sup>221</sup> Exactly how the compound satisfies thisness is complicated. See Ch. VI, sect. 8, esp. toward the end.

*man*. Because the latter are concrete particulars, concrete particulars are to be distinguished from compounds of form and matter.<sup>222</sup>

So we can set aside the objection that one of (5)'s major presuppositions is false, namely, the presupposition that concrete particulars are distinct from compounds of form and matter. From this, however, it does not follow that (5'[a]) is acceptable, for from the fact that concrete particulars and compounds are distinct nothing at all follows about the status of either as subjects of accidents. Additional argument is required. Frede provides this in the form of what I shall call the "Accident Argument." This argument is critical to his claim that on the topic of the subject of accidents Aristotle undergoes a fundamental change of heart in the central books of the *Metaphysics*.

According to Frede the lead thesis of both the *Categories* and *Metaphysics Z* is that a thing merits the title of substance precisely because it is an underlying subject, specifically, an underlying subject of accidents. Given this framing assumption, the Accident Argument can be put succinctly:

in the *Categories*, he [Aristotle] has still spoken as if substances were the concrete particulars of ordinary experience: tables, horses, trees, and human beings. We must ask, why is it that Aristotle is no longer satisfied with the answer of the *Categories*? . . . He now sees that it cannot be the ordinary objects of experience that underlie the properties, if there are to be properties in addition to the objects; for the ordinary objects of experience are the objects together with their properties.<sup>223</sup>

Undeniably, this argument enjoys an initial plausibility. It would, however, be imprudent not to press it further and, in any case, scrutiny of the argument will prove useful. Suppose we begin with one of the argument's presuppositions, namely, that in the *Categories* the primary underlying subjects of accidents are concrete particulars and that these are not what Aristotle later calls compounds of form and matter. In one

<sup>222</sup> This, and the above paragraph, provide exactly what Fine (1994: 32) finds missing: "there is no real evidence that Aristotle thought there were compounds in addition to the enmattered things with which they coincided." So, *pace* Fine (1994), it is false that "Aristotle regards the compounds and the sensible things as one and the same." Fine supports this identification with the remark that "in the battle for substantiality which is depicted in the central books of the *Metaphysics*, it is not as if the compounds were a contender in addition to the sensible things." But, as we show, beginning in the next chapter, the compound, along with the form and the matter, is an internal structural component of a sensible thing and as such it is at least coherent to wonder whether it might be the substance-of the sensible thing(s) it 'underlies'. So the compound can be a contender, to be dismissed of course, for the substance-of c-substances. Obviously, the same cannot be said for sensible things themselves.

<sup>223</sup> Frede (1978: 64).

sense, this is obviously true: because the *Categories* does not even mention form and matter, it can hardly be thought to mention the compound of form and matter. But this is an obvious truth only if it means that the *Categories* does not use language containing ‘form’ (εἶδος) and ‘matter’ (ὕλη). However, the relevant question is whether what the *Categories* leaves as unanalyzed subjects, namely, c-substances, are precisely what get analyzed in *Metaphysics Z* as compounds of form and matter. The answer, I believe, is ‘yes’. Thus, I also believe that the *Categories* mentions compounds of form and matter even if not *as* compounds of form and matter.

Recall, for one thing, that MO does not characterize c-substances simply as particular subjects. Indeed, as type-I items, they are strictly distinguished from accidents, whether of type-III or type-IV. So it would be surprising to find a hidden incoherence in the thesis that they are the subjects of accidents. Perhaps one could generate a worry by insisting that, if they are characterized *just* as subjects of accidents, then c-substances will already come with their accidents attached and so can hardly be (coherently) thought to underlie them. Even if this is a legitimate worry (I shall return to it below, where I urge that it is not), it would not follow that c-substances are anything other than the *Categories* version of the compounds of form and matter that figure so prominently in *Metaphysics Z*.

Indeed, there is reason to think that they are. Recall that MO's type-I items are also related to secondary substances (type-II items). Thus, insofar as primary substances are ‘thises’ of a certain kind, they will correspond to the form–matter compounds of the later ontology. For in characterizing Secretariat as a thing of a specific kind, I say nothing about his accidents but I do say a good deal about a thing that turns out to be the subject of accidents. And this is what *Metaphysics Z* counts as a compound of form and matter. It is precisely in virtue of falling into an appropriate specific kind that a c-substance submits to analysis in terms of form and matter. So we can consistently hold both

6.  $x$  is a c-substance  $\rightarrow x$  is a thing of a specific kind

and

6'.  $x$  is a thing of a specific kind  $\rightarrow x$  is a compound of form and matter,

and, thus, deny one of the chief presuppositions of the Accident Argument. If so, then impugning the ability of c-substances to serve as subjects for accidents impugns the ability of compounds as well.

So far from restoring c-substances to full subjecthood, however, one might urge that this result serves rather to bring compounds of form

and matter under the scope of the Accident Argument. But this extension, acceptable neither to Frede nor to us, is worrisome only if the Accident Argument itself is compelling. I believe that it is not.

To see this, suppose we have

7. Socrates is red,

and ask what the underlying subject of redness is. Frede rejects

7'. Socrates is the underlying subject of redness,

because Socrates is already red. How, if he is already red, could he possibly be the underlying subject of redness? Something like this fuels the Accident Argument. So the argument assumes

8. That which is the underlying subject of  $F$  cannot be  $F$ ,

and, thus, for the case at hand,

9. The red thing is not the underlying subject of redness.

Because Frede thinks that c-substances just come already complete with their accidental attributes, he regards (9) as fatal for their claim to be underlying subjects and, hence, for their claim to be primary substances. Moreover, Aristotle saw this and, hence, came to reject a favored doctrine of the *Categories*.

Even were c-substances to include all their accidental attributes, however, there is something wrong with (8) and (9). We can see this by focusing on (9), specifically on what it means to exclude, namely,

10. The red thing is the underlying subject of redness.

Now, presumably (10) has a consequence that makes it unacceptable. So far as I understand the Accident Argument, the trouble occurs when (10) is combined with

10a.  $x$  is the underlying subject of  $F \rightarrow \diamond (x \text{ exists} \ \& \ x \text{ is not } F)$ .

Where  $F$  is an accident, (10a) enjoys more than a little plausibility. So let us grant it. Then by (10) it seems possible that the red thing exists but is not red. Furthermore, it would also seem to follow that the red thing could be the underlying subject of, say, whiteness. Both of these results appear to challenge coherence and this, I believe, is what induces commentators to endorse (9) on Aristotle's behalf.

But this is mistaken. The impression of incoherence results, in effect, from giving the expression, 'the red thing', a *de dicto* or wide scope reading in (10). Giving it narrow scope, rather than (10) we get the *de re* reading:

10'. The thing that happens to be red is the underlying subject of redness.



What (10') yields, when paired with (10a), is that it is possible that the thing that happens to be red exists but is not red and, to take the second case, that it is possible that the thing that happens to be red is white. Neither possibility offends logic or common sense. Moreover, nothing prevents the thing that happens to be red from being a c-substance. Thus, the narrow-scope reading of (10') allows c-substances to serve as the underlying subjects of accidents without inviting the undesirable consequences of the Accident Argument. So the Accident Argument fails to establish (5'[a]).

Of course, it still *could* be the case that *Aristotle* favored what I am calling the wide-scope reading. But failing evidence to the contrary, charity of interpretation surely recommends the narrow-scope or *de re* reading.<sup>224</sup> If this is correct, then the Accident Argument is not a reliable guide to the relation between the early and late ontologies. In particular, it cannot represent Aristotle's reasoning—not, at least, if we want that reasoning to be cogent. Still, it does not follow from this that Frede's view itself is wrong. For other evidence or arguments may establish that Aristotle is, or, at least, ought to be, seeking a new candidate for what underlies the accidental attributes of a thing.

### 3. On Two Philosophical Arguments for the Subjecthood of Form

Frede (1978) and (1985) and Frede and Patzig (1988) argue that Aristotle's interest in a new subject for accidents is evident in *Metaphysics*

<sup>224</sup> In fact, there is reason to doubt Aristotle's attraction to the wide-scope reading in view of *Metaphysics* Z.17's rejection of asseverations to the effect that the musical man is the musical man in favor of the informative proposition that the man is musical (on which see Ch. X). For the latter suggests that he would be perfectly happy with the claim that that which happens to be musical (i.e., the man) might be unmusical and, hence, that the underlying subject is not something that is necessarily musical (i.e., 'always musical'). Somewhat further afield, in *Metaphysics* Θ.3 Aristotle chides the Megarians for holding that "what stands will always stand and what sits will always sit" (1047a15–16). So he would surely chide those who hold that what is red will always be red and what is not red will always be not red, and this is just what the wide-scope reading of (10) requires. Against this, Aristotle maintains that what is capable of sitting need not be actually sitting and so that what sits need not always sit. Although the target in Θ.3 is the Megarians' wholesale leveling of the distinction between actuality and potentiality, he is clearly committed to rejecting the naive wide-scope reading of (10) and its kind. For his counterproposal that what is not sitting, because it is capable of sitting, may serve as the underlying subject of sitting, can avoid the embarrassment of saying, for example, that what stands is the underlying subject of sitting, or, more dramatically, that what stands does not stand, only by adopting the *de re* reading. For if it seems impossible that the standing not be standing, for the thing which happens to be standing it is eminently possible that it not be standing.

Z.3. Given the results of the above section, such a reading of Z.3 cannot owe any part of its plausibility to Aristotle's supposed dissatisfaction with the *Categories* account of how primary substances are subjects for accidents—not, at least, as represented in the Accident Argument. However, two additional arguments are adduced in favor of form's subjecthood. The first, which I call the Kernel Argument, occurs in Frede (1985) and the second, the Identification Argument, occurs in Frede and Patzig (1988). These are philosophical arguments intended to support the subjecthood of form. So they claim to support (5'[b]), by establishing the first disjunct of (5'[b]). We need to look at the arguments before descending into the details of *Metaphysics* Z.3.

Both arguments are occasioned by a certain, and now familiar, view of Aristotle's project in *Metaphysics* Z. Thus, Frede (1985) again takes *Metaphysics* Z to pursue a question Aristotle had not asked in the *Categories*, namely, a question of the form: (Q1) What is the subject of health, if health is a distinct entity from its subject? To (Q1) is immediately attached a second question, (Q2): What, of all that constitutes the c-substance Socrates, is the thing itself as opposed to the properties it underlies? That Aristotle in fact focuses on questions like (Q1) and (Q2) is “borne out by the way he argues in 1029a10ff. that matter is the most straightforward candidate for the title of the ultimate subject” (Frede 1985: 75).

The next chapter will look at this evidence. As it stands, however, (Q1) need not call for revision. For one could simply respond, in the spirit of the above section, that what underlies health is just the c-substance that happens to be healthy. So only when read as (Q2) does (Q1) ask for a new subject of accidents. But it is not clear why we should accept such a reading—after all, much of the motivation for the reading vanished with the demise of the Accident Argument. Now (Q2) is not to be faulted for imputing to *Metaphysics* Z a dominant interest in the structural components of c-substances (form, matter, and the compound of form and matter). On this point, Frede is entirely correct. What is at issue, rather, is (Q2)'s presumption that one of these components is to serve as subject for accidents.

Putting aside for the moment the argument of *Metaphysics* Z.3 itself, there is something conceptually unsettling about the proposal that the chapter means to pursue (Q2). Indeed, it has a distinctly counterintuitive consequence. For the structural component of a c-substance best suited to serve as the subject of its accidents would appear to be the compound of its form and matter. So this rather than the form ought to answer (Q2). Yet because the new subject for accidents is also the new claimant to primary substancehood, this new subject must be the form rather than the matter or the compound (because *Metaphysics* Z

elevates form [εἶδος] to the status of primary substance). Frede is quite aware of this anomaly (it is one of the “odd results” he finds in *Metaphysics Z*); he offers to explain it in (1985) by the Kernel Argument, and it is explained in Frede and Patzig (1988) by the Identification Argument.

The Kernel Argument begins with an account of the role of forms in assuring the identity of c-substances and concludes that it is, therefore, “natural to look at the form as the center-piece of the cluster of entities that constitute the concrete object. And so it is no longer counterintuitive to regard all truths about an object as ultimately truths about its form.” Because the latter means to cover the role of form as the subject of accidents, the Kernel Argument proceeds from the following two premises:

11.  $x$  is a c-substance &  $y$  is the form of  $x \rightarrow y$  is the kernel of  $x$ ,

and

12.  $y$  is the kernel of  $x \rightarrow y$  is the subject for the accidents of  $x$ .

Propositions (11) and (12) directly yield that the form of a c-substance is the subject of its accidents.

It is (11) that is supported by the proposal that form guarantees the identity of c-substances. Grant that c-substances are such as to remain one and the same while enduring a number of changes, including changes to their material parts.<sup>225</sup> On this view a certain ship, say  $T_1$ , may over time suffer replacement of all its material parts and yet remain the same ship. And this is so, according to Frede, even when the original planks and bolts are later reassembled to produce  $T_2$ , an exact replica of  $T_1$ . Because the identity of  $T_1$  must be accounted for by its form or its matter and because the matter has been wholly replaced, it must be the form that is “to account for the identity of the ship.”<sup>226</sup> This, in turn, suggests that the form is the kernel of the concrete particular ship,  $T_1$ .

This is a seductive argument but one whose charms we ought to resist. For one thing, it assumes that there is an absolute criterion of identity for c-substances and that this must be either the form or the matter.<sup>227</sup> Moreover, it is unclear whether the Kernel Argument is meant as independent

<sup>225</sup> This is the critical case for Frede and, thus, he is not capitalizing on *Categories* 5's claim that the most characteristic mark of primary substances is their ability to remain one and the same across change of contraries. For these are quite clearly accidental attributes and not material parts.

<sup>226</sup> Frede (1985: 77).

<sup>227</sup> Presumably, the compound is not considered a candidate because if the matter has all changed it is irrelevant to the identity of the c-substance and, so, cannot add anything useful to form's ability to provide for identity.

philosophical support for the thesis that forms are subjects or whether it means mainly to capture Aristotle's views. In Frede and Patzig (1988) it is taken to be philosophical support and so shall I regard it here. However, persistence of a form seems neither necessary nor sufficient for the identity of a c-substance. We can see this by a simple variation of the thought experiment Frede adduces on behalf of his view. Thus, let us imagine an ancient antique dealer who hatches a plan to steal the original ship of Theseus ( $T_1$ ) by stealthily replacing the original parts with exact duplicates. Surely, he and the Romans, who cleverly retained his services in return for a vineyard in Provence, will regard the reconstructed ship,  $T_2$ , to be the genuine ship of Theseus.<sup>228</sup> Yet, the original form, however understood, persists in  $T_1$ . Therefore, the persistence of a form is not sufficient for the identity over time of a c-substance. Nor, the same case shows, is it necessary. For, to take a parallel example, the typewriter I claim on Friday is surely the same that was brought in for repair on Monday despite the fact that on Wednesday it was nothing more than scattered parts on a work bench. Thus, it is unclear that the form of a c-substance can provide either necessary or sufficient conditions for its identity over time.<sup>229</sup> By the same token, the philosophical support for (11) vanishes.

Notice, further, that even were (11) established, it would not follow that the form that is the kernel of the c-substance is also the subject of its accidents. That is why (12) is a *premise* of the Kernel Argument. Frede is quite aware of this. For he says only that it is “natural” to move from the antecedent of (12) to its consequent. But even if the form is what *accounts for* the identity of a c-substance and is, thereby, in some sense what accounts for its being a subject for accidents, it does not follow that the form *is* this subject.

So more needs to be said, and in Frede and Patzig (1988) we get more in the form of the Identification Argument. This argument, designed to establish that form is the subject of accidents, starts from the reasonable idea that in the new terrain of *Metaphysics Z* we are able to ask about the nature of c-substances themselves. Moreover, according to Frede and Patzig, we can now ask what is the object itself as opposed to the object with all its accidents. And this sets the stage for asking what it is that underlies the accidents.<sup>230</sup> Their argument can be put, loosely, as follows.<sup>231</sup> Where  $F$  is an accident, from

<sup>228</sup> And, just as surely, they will scoff at the argument that it is impossible to steal anything by stealing its parts and, hence, that they will not be getting  $T_1$  at all.

<sup>229</sup> Here I need not address whether the form in question is particular or general.

<sup>230</sup> Bear in mind the previous section's rejection of Frede's argument that c-substances can't be the bearers of accidents because they already come with their accidents.

<sup>231</sup> Frede and Patzig (1988: i. 40).

13a.  $x$  is an object (*Gegenstand*) and the subject of  $F$

and

13b.  $x$  is an object (*Gegenstand*) &  $y$  is the form of  $x \rightarrow y$  is  $x$ ,

we are encouraged to infer

13c.  $y$  is the subject of  $F$ .

Thus, the form is the subject of accidents because it is the form of a c-substance that is the subject of accidents.

Accepting this argument for the moment, it is not clear exactly what it establishes. For it would appear to argue that form is a subject because it is *related to* something that is a subject in a straightforward sense. Thus, the argument parallels the argument that the son of Callias is perceived because he stands in a relation to something that is perceived in a straightforward sense, namely, the white thing that is the son of Callias. But the son of Callias is perceived only *κατὰ συμβεβηκός* or incidentally, that is, in virtue of proper or *καθ' αὐτό* perception of something else. So if the parallel holds, form will be the subject of accidents only in a derivative manner. More to the point, it will be a subject only in virtue of the fact that the object mentioned in (13a) and (13b) is a proper subject of accidents. Therefore, it is unclear what it means to claim that in *Metaphysics Z* Aristotle is looking for a *new* subject of accidents, for by the present argument this candidate, the form, can be said to be a subject of accidents only because the object, whose form it is, is a subject of accidents. But this object is just a c-substance or, better, *Metaphysics Z*'s equivalent of a c-substance. So Aristotle couldn't be relinquishing the *Categories* view that c-substances are subjects for accidents. On the contrary, he is presupposing it.<sup>232</sup>

There remains an additional concern about the Identification Argument. Where I write “ $y$  is  $x$ ” in the consequent of (13b), Frede and Patzig say “der Gegenstand ist eigentlich die Form (the object is actually the form).”<sup>233</sup> Now it is unclear what is to be understood by the relation *y-being-actually-x*. If the relation is identity, (13b) will read

<sup>232</sup> One might combat the argument of this paragraph by urging that (13a) be replaced by (13a'):  $x$  is an object &  $x$  is the apparent/putative subject of  $F$ . For by holding that the c-substance,  $x$ , is only the *putative* subject of the accident  $F$ , we lose the parallel with the white thing that is the son of Callias. For, whatever else it may be, the white thing that is the son of Callias is not a mere putative object of perception. But this use of (13a') presumes that, independently of the Identification Argument, there exist grounds for asserting the merely putative status of c-substances as subjects of accidents. However, neither the Accident Argument, surveyed in sect. 3, nor the Kernel Argument, critiqued in the first part of this section, provide such grounds. So the immediate argument will have to make do with (13a) as it stands.

<sup>233</sup> Frede and Patzig (1988: i. 40).

13b'.  $x$  is an object (*Gegenstand*) &  $y$  is the form of  $x \rightarrow y = x$ .

Although (13b') does appear to get us the inference, it does so by *identifying* form and object. And this is far too high a price to pay (whether the object is the compound itself or the concrete particular). Yet it is hard to see how anything short of identity would be strong enough for the conclusion. And, as we just observed, the fact that (13b') contains an identity *entails* that the compound, or the concrete particular, is a subject of accidents if the form is, *pace* Frede and Patzig (1988).

Frede and Patzig are aware that difficulties face (13b), for they offer to qualify the conclusion (13c) with the rider “even if in this mediated way.” So forms will be subjects for accidents in a derivative way only. Presumably, this would follow from a weakened reading of the relation caught by (13b)'s ‘ $y$  is  $x$ ’. If this solves the problem of inference, it is only an apparent gain. For in addition to making sense of the weakened reading of (13b), we have the problem of explaining what is to be understood by the ‘mediated way’ attached to (13c) and how it gives us something that is, in any serious sense, the subject of accidents. One might respond to this by pointing out that no one worries about whether or how the son of Callias is perceived just because he is perceived in virtue of perceiving something else he has a relation to.<sup>234</sup> Unfortunately, this is of little use. No one doubts that incidental objects of perception are in fact perceived. What is at issue is the proper *explanation* of their being perceived. In the case of forms, however, the problem *just is* whether and how they can be subjects for accidents. This is not a settled matter of fact for subsequent explanation. So the cases are not parallel in this crucial respect.

At this point one might insist, objections notwithstanding, that Aristotle himself holds some version of the Identification Argument. Indeed, this might be thought supported by a set of remarks he makes in the course of *Metaphysics* Z.11. At 1037a5–10, in comparing individual compounds of form and matter, such as Socrates and Secretariat, and universal compounds, such as man and horse, Aristotle says:

And Socrates . . . , if also the soul of Socrates (εἰ μὲν καὶ ἡ ψυχὴ), is dual (διττόν), for some take this as the soul and others as the compound (οἱ μὲν γὰρ ἄς ψυχὴν οἱ δ' ἄς τὸ σύνολον).

Some might take this as evidence that Aristotle himself identifies Socrates with his soul and, hence, that he is willing to identify an object with its form. Thus, (13b') would be an Aristotelian thesis after all. But this reading of the passage is unlikely. For one thing, the passage gives

<sup>234</sup> Here I advert to the discussion in *De Anima* B.6 of incidental perception (κατὰ συμβεβηκός αἰσθάνεσθαι). For more see Wedin (1988).

just as good reason for identifying Socrates with the compound. Indeed, of the dual options, this rather than the form would appear to be the best bet to serve as the subject for accidents. From this point of view, then, one would have to insist that (13b') takes the form and the compound to be more or less the same. But the Z.11 passage clearly distinguishes them, as do Frede and Patzig themselves. And here they are quite correct. So the passage cannot be used to tie Aristotle to the Identification Argument.<sup>235</sup>

Neither the Kernel Argument nor the Identification Argument is a handsome piece of philosophy and Aristotle is well spared their authorship. One motivation for linking him to the latter was that it presented one way to make sense of the idea that form is the subject for accidents. So without reason to hang onto that idea, we can bypass the subtleties of the Identification Argument. It is, therefore, crucial to see if there are any texts that commit Aristotle to the proposition that form is a subject for accidents. Frede and Patzig take *Metaphysics* Z.3 to be dedicated to just this proposition. Their view here will receive attention in the next chapter. But first we need to look at an account that claims to find independent evidence for Aristotle's attachment to the subjecthood of form.

## 4. An 'Aristotelian' Argument for the Subjecthood of Form

On Aristotle's canonical account, the soul, as the form of the body, is not the subject of ordinary states but rather that in virtue of which the *person* is such a subject.<sup>236</sup> Thus, the soul explains, but does not itself enjoy, subjecthood. In addition to being a creature of general theory, this is born out in certain relatively self-contained passages—most famously at *De Anima* A.4, 408b11–15, in what I call the No Subject passage:

Thus, to say that the soul is angry is as if one were to say (καὶ ἂν εἴ τις λέγοι) that the soul weaves or builds. For it is probably (ἴσως) better to say not that the soul pities, learns, or thinks, but that the man does these in virtue of his soul (ἐν ψυχῇ).

Although they may not agree on the implied alternative, most scholars take these lines to impugn the status of the soul as a proper subject for

<sup>235</sup> See, further, Ch.VIII, which argues that in Z.10 and 11 the idiom of Socrates 'being' his soul simply gives us a certain way of regarding Socrates, namely, as an object that realizes a certain form.

<sup>236</sup> I have argued this at length elsewhere, principally in Wedin (1988).

mental acts and states.<sup>237</sup> So also on our account. This ‘deflationary’ reading of the No Subject passage has recently been challenged on the grounds that it commits Aristotle to an inconsistency of nontrivial proportions.<sup>238</sup> The problem arises when to

14.  $x$  is an οὐσία (substance)  $\rightarrow x$  is a ὑποκείμενον,

alleged to occur at *Metaphysics* Z.3, 1029a1–2, and

15.  $x$  is a soul  $\rightarrow x$  is an οὐσία,

asserted at *De Anima* B.1, 412a19–20 and *Metaphysics* Z.11, 1037a5, we add

16.  $x$  is a soul  $\rightarrow x$  is not a ὑποκείμενον,

which is just the deflationary reading of the No Subject passage. Since all parties agree on (15), Aristotle can avoid contradiction only by letting go of thesis (14) or thesis (16).

To see what is at stake here we need more fine-grained theses, reflecting the two kinds of subjects spelled out in *Metaphysics* Z.13, at 1038b5–6: that which underlies the complete actuality (the ὑποκείμενον<sub>1</sub>) and that which underlies properties—a τὸδε τι or individual (the ὑποκείμενον<sub>2</sub>). We may, then, construe the ‘trilemma’ with the reformulated theses:

14'.  $x$  is an οὐσία  $\wedge x$  is a ὑποκείμενον<sub>1</sub>  $\vee x$  is a ὑποκείμενον<sub>2</sub>,

15'.  $x$  is a soul  $\rightarrow x$  is an οὐσία,

and

16'.  $x$  is a soul  $\rightarrow x$  is not a ὑποκείμενον<sub>1</sub>  $\& x$  is not a ὑποκείμενον<sub>2</sub>.

We hold, on the basis of the No Subject passage, that (16') is true, that is, that the soul is not a subject in either sense spelled out in *Metaphysics* Z.13. Moreover, insofar as it is extracted from *Metaphysics* Z.3, (14') is also true. Thus, (14') is true only where  $x$  is a c-substance (a *Categories*-style primary substance), or, perhaps by extension, where  $x$  is matter.<sup>239</sup> Where  $x$  is a form, however, (14') is false. All can agree that (15') is true and, moreover, that the soul that is οὐσία (substance) is form. Hence,

<sup>237</sup> For example, Hicks (1907: 275), Barnes (1971–2), Owens (1971), Modrak (1987: 115), and, with qualifications, Granger (1996: 76–81).

<sup>238</sup> Shields (1988: 140–9). Objections to Shields have now been raised in Granger (1995a). The response in Shields (1995) has a further reply in Granger (1995b).

<sup>239</sup> Shields has only the second disjunct in the consequent of (14'). The more generous version is simply to accommodate the possibility that matter can be said to be substance, in some sense. Here I take no stand on the possibility.



(14') is consistent with (15') and (16') because the latter apply only to substances that are not forms.

This resolution of the alleged 'trilemma' will be contested by Shields, who would replace (16') with

16".  $x$  is a soul  $\rightarrow x$  is not a  $\text{ὑποκείμενον}_1$  &  $x$  is a  $\text{ὑποκείμενον}_2$ .

On this view, the soul is as fit a subject as any c-substance. Because (16") is incompatible with our appraisal of the No Subject passage, an alternative reading is proposed. Thus Shields takes Aristotle's chief worry to be whether the soul is moved, not whether it is a logically proper subject, and concludes from this that the No Subject passage evinces no interest in denying the subjecthood of form. This is supposed to be clear from placing the passage in its interpretive context.

So let us see if this is so by entering 408b1–4, the passage which sets the context of interpretation:

We say ( $\text{φραμῆν}$ ) that the soul is grieved, rejoices, is courageous or afraid; and again that it is angry, perceives, and thinks ( $\text{διανοεῖσθαι}$ ). But these all seem to be movements ( $\text{κινήσεις}$ ). One might conclude from this that the soul itself is moved ( $\text{αὐτὴν κινεῖσθαι}$ ) but this is not necessary.

Taking  $\psi$ ing as a stand-in for grieving or thinking, etc., the crucial assumption under consideration is

17.  $x$  is a soul &  $x\psi$ s &  $\psi$ ing is a movement  $\rightarrow x$  itself moves.

According to Shields what Aristotle regards as damaging is the conclusion that the soul itself is moved  $\kappa\alpha\theta' \alpha\tilde{\upsilon}\tau\acute{o}$  (*per se* or in its own right). So (17) is ambiguous between

17a.  $x$  is a soul &  $x\psi$ s &  $\psi$ ing is a movement  $\kappa\alpha\theta' \alpha\tilde{\upsilon}\tau\acute{o} \rightarrow x$  itself moves  $\kappa\alpha\theta' \alpha\tilde{\upsilon}\tau\acute{o}$

and

17b.  $x$  is a soul &  $x\psi$ s &  $\psi$ ing is a movement incidentally ( $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{o}\varsigma \rightarrow x$  itself moves  $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{o}\varsigma$ ,

but only (17a) is proscribed.

Aristotle is made to exclude (17a) on the grounds that if the soul  $\psi$ s, then  $\psi$ ing must be a movement incidentally ( $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{o}\varsigma$ ) (Shields, 1988, 147). Thus, (17b) is the only alternative. Unfortunately, this gives a deceptively neat picture of the passage. For one thing, the passage ends by saying that it is not necessary to *conclude* that the soul itself is moved. So Aristotle may allow that it is moved, perhaps, on other grounds. But the passage does not mention the distinction between *per se* ( $\kappa\alpha\theta' \alpha\tilde{\upsilon}\tau\acute{o}$ ) and *incidental* ( $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{o}\varsigma$ ) motion; so it is unclear

what he might be allowing. This suggests that the question whether the soul is moved is not uppermost in Aristotle's mind.

But the question is certainly related to what is uppermost in his mind, for immediately, at 408b5–11, Aristotle explains why one need not conclude that the soul itself is moved. What he says is that *if* it is fully granted that (εἰ γάρ καὶ ὅτι μάλιστα) thinking and grieving, for example, are movements and movements are due to the soul (ὑπὸ τῆς ψυχῆς) and this, in turn, consists in movements of the heart or another part, *then*

to say that the soul is angry is as if one were to say (καὶ ἂν εἴ τις λέγοι) that the soul weaves or builds. For it is probably (ἴσως) better to say not that the soul pities, learns, or thinks, but that the man does these in virtue of his soul (τῆ ψυχῆ). (408b11–15)

Thus, the discussion of movement in 408b5–11 amounts, in effect, to an extended protasis for a claim that is *explained* by the No Subject passage. The extended protasis grants that various psychological ψings are movements that involve something's being moved—whether the heart or, in the case of thinking, some ‘other’ part. This is what makes it tempting to conclude, as 408b3–4 reports, that the soul itself is moved.

Now why, one might reasonably wonder, is Aristotle going to such lengths here? Well, reflect on the likelihood that the untutored among his listeners will experience nothing odd in saying that the soul itself is moved—at least in the case of those ψings that are like thinking and being angry. This was, no doubt, as much a part of Greek folk psychology as it is a part of ours. This is a consequence of holding that the soul is the subject of such ψings, but a consequence the untutored display little concern over. But Aristotle is no folk psychologist and has principled reasons for rejecting such doings of the soul.<sup>240</sup> Therefore, in order to make the case, we are given, in typical Aristotelian fashion, a philosopher's plain-man's case. If, following the extended protasis, one insists on saying that the soul is angry, i.e., that it is the subject of anger, *then* it would be like saying, absurdly, that the soul weaves or builds. And why should it be like this? Because the thing that weaves and builds is the thing that thinks and grieves, namely, Socrates and the like. Otherwise, we lose hold of locutions such as “I thought about the house for a long time before I actually built it.” But, Aristotle points out, it is not necessary to hold that the soul is moved in this absurd way because (γάρ), linking the No Subject passage back up with 408b5, it is better to say, not that the soul is angry, but just that the person is angry in virtue

<sup>240</sup> To appeal to Wedin (1988), Aristotle aims rather to provide an account of the mechanisms that explain the psychological capacities and functions of the full person.

of his soul and likewise for other such  $\psi$ ings. Hence, we are committed only to holding, sanely, that the person weaves and builds in virtue of his soul. So the plain-man's case makes apparent what lies hidden in the case of interest, namely, psychological states and processes.

Moreover, so read, the passage characterizes the soul's candidate doings—thinking, perceiving, and the like—in a way that would be suitable for incidental ( $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{\omicron}\varsigma$ ), rather than *per se* ( $\kappa\alpha\theta'\ \alpha\ddot{\upsilon}\tau\acute{\omicron}$ ), movement. Thinking is a movement in virtue of the fact that something else, the heart or another part, is moved. This is consistent with Shields's pinpointing of (17a) as the damaging conclusion, and so that preference cannot derail the claim that the No Subject passage proscribes the soul's subjecthood. Indeed, were Aristotle concerned only with the appropriate characterization of the soul's movement, he ought to have followed the extended protasis with the proposition that the soul itself is not moved. What we get instead is the No Subject passage, enjoining against ascription of pity, learning, and thinking to the soul.

Although immediately following the No Subject passage Aristotle says something about the movement not taking place in the soul, his point is quite clear. He is explaining the exact sense in which an agent does something in virtue of his soul, namely, not because the movement takes place in the soul but because the movement bridges the soul and the various sense organs. Presumably, this is simply a condition that must be satisfied by any psychosomatic movement if it is to explain how an agent does something. But nothing here implies that there is no movement in the soul, only that it is not in virtue of its being in the soul that it manages to account for the agent acting. It must also 'reach out'. We invite the difficulty blocked by the No Subject passage only if we allow *both* that there is some sort of movement proper to the soul *and* that this is the soul's thinking, grieving, being angry, and so on. Aristotle simply needs to insist, again sanely, that the movements of the soul are those in virtue of which, not the soul, but the soul's possessor, enjoys fully intentional states and actions.

Now, of course, Shields may reply that this intra-soul movement is fully intentional but incidental ( $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{\omicron}\varsigma$ ). But this, too, is unclear. For he himself allows that the movements in question are, or at least involve,  $\kappa\alpha\theta'\ \alpha\ddot{\upsilon}\tau\acute{\omicron}$  movements. Thus, he appears to allow

17c.  $x$  is a soul &  $x\psi$ s &  $\psi$ ing is a movement  $\kappa\alpha\theta'\ \alpha\ddot{\upsilon}\tau\acute{\omicron}$   $\rightarrow$   $x$  itself is moved  $\kappa\alpha\iota\acute{\alpha}\sigma\upsilon\mu\beta\epsilon\beta\eta\kappa\acute{\omicron}\varsigma\rightarrow$ .

For Shields, (17c) is required by the presence of the No Subject passage, that is, it is required to explain exactly how being angry and similar mental states are like weaving and building. Because the latter certainly involve  $\kappa\alpha\theta'\ \alpha\ddot{\upsilon}\tau\acute{\omicron}$  movements, so must the former.

As it turns out, there is a sense in which (17c) is quite correct. For the soul may be said to be moved itself in virtue of moving the body whose form the soul is:

17d.  $x$  is a soul &  $x$  itself is moved  $\rightarrow \exists y)(x$  is the form of  $y$  &  $x$  moves  $y)$ .

But neither (17d) nor (17c) succeeds in restoring the soul to the status of a proper subject. Nor does the text call for this. The entire passage fails to mention subjecthood at all, including that of the soul. What the passage says is that we ought not to say that the soul *does* something, say, thinking, in its own right. Rather, we ought to say, when speaking carefully, that the person thinks. And the fact that the person does so in virtue of his soul, including whatever movements may occur in it, does not entail that the soul thinks. If we insist on the idiom, then we ought to say that the person is the proper or  $\alpha\alpha\theta'$   $\alpha\tilde{\upsilon}\tau\acute{\omicron}$  subject of thinking and that the soul thinks only in the sense that it houses the potentiality for thought. Put this way, the No Subject passage doesn't so much deny that the soul is a proper subject as assign it a role that leaves no room for the possibility. Thus, it is something of a logical mistake to suppose that the soul is capable of intentional activity in its own right. Of course, were it a proper subject, it would be so capable. Hence, implicitly, the No Subject passage counts it a mistake to rank the soul as a proper subject, that is, a subject of complete intentional acts.

At this point friends of subjecthood might retrench by offering two additional arguments for the soul's subjecthood and advocating a policy of benign neglect toward the No Subject passage. The first such argument claims to pick out a key assumption of our interpretation and produce a conclusive counter example. This involves claiming that (16) and (16') are made to rest on a plain-case argument: if (a) the soul pities, learns, or thinks, then it must also build or weave (the plain cases). But, plainly, (b) not the soul, but the ensouled person, is what does the weaving and the building. Hence, (c) not the soul, but the person, is what pities, learns, and thinks. Hicks (1907), who found this argument in 408b11–15, took (c) to support (16) because he took (a) to mean that the logical subject of pity and building, to extract two examples, must be the same. Because it cannot be the subject of the plain cases (weaving and building), neither can the soul be the subject of the less evident cases (learning and thinking). Thus, (c) amounts to saying that the person alone can be the logical subject of either kind of intentional act, but not the soul. With this we have disclosed the assumption that offends friends of subjecthood.

By way of attacking the assumption, Shields begins by objecting to (a), more precisely to a generalization of (a), namely,

- d*. If the soul is the subject (ὑποκείμενον) of mental states, then the soul is the subject of other sorts of states (including weaving and housebuilding).

Although the text does not put forward anything as general as (*d*), pity, learning, and thinking admittedly figure as examples; so some kind of generality is called for. Whether it is the kind put forward in (*d*), however, may not be so clear. This will have a direct bearing on Shields's objection to (*a*), which is that it is logically possible for there to be disembodied subjects of consciousness. Moreover, and what is more to the point, Aristotle himself is held to countenance this in *Metaphysics*Λ.9, where “he commits himself to the existence of an immaterial god who is the subject of intellectual states.”<sup>241</sup>

This objection is not persuasive. Skepticism about the alleged logical possibility aside, it is hardly clear that the unmoved mover can be described as the *subject of* intellectual states. For it *is* thinking, not something that *has* thoughts, however lofty. Moreover, as purely reflexive thinking, it is described as ‘thinking thinking’. Absence of ὄτ-clauses from the curious formula ‘νόησις νοήσεως’ suggests further that such thought will not be propositional in character.<sup>242</sup> Thus, if for a subject to *have* a thought is for it to think propositionally, then the counterexample to (*d*) collapses. Moreover, even were the unmoved mover a subject of intellectual states, it would be the subject of only one such state, namely, itself—and this necessarily. Nothing here corresponds to the way persons are subjects of intellectual states. Hence, it has no obvious bearing on the No Subject passage because the No Subject passage concerns the thought of persons.

Nor is it so clear what generalization the examples of (*a*) are meant to support. One might suppose that the very example of thinking (διανοεῖσθαι) is sufficient to support extension of the point to all thought, including that of the unmoved mover. But at 408b24ff. διανοεῖσθαι is contrasted with νοεῖν and θεωρεῖν:

Thus [intellective] thought (νοεῖν) and contemplation (θεωρεῖν) decay because something else within is destroyed, while thought (αὐτό) is in itself unaffected. But thinking (διανοεῖσθαι) and loving or hating are not affections of that (ἐκείνου) but of the individual thing which has it (τοῦδι τοῦ ἔχοντος ἐκείνου).<sup>243</sup>

<sup>241</sup> Shields (1988: 146). Presumably, this alleged counterexample to (*a*) and (*a*’) is also intended to counter the deflationary reading recorded in (16) insofar as this reading requires the existence of a cognitive system within which the soul plays its contributory, if deflationary, role. In the case of Aristotle’s immaterial god there could be no such system.

<sup>242</sup> For the argument here, see “The Return of the Unmoved Mover,” App. C of Wedin (1988).

<sup>243</sup> Following Hamlyn (1968).

Taking the first occurrence of ἐκεῖνος to refer to αὐτό at 408b25 and thus to pick up ὁ νοῦς (the mind) at the beginning of the section (408b18), the point is that unlike intellective thinking (νοεῖν), discursive thinking (διανοεῖσθαι) is an affection of the thing that has the faculty of νοῦς and, as such, is subject to decay.<sup>244</sup> Thus, occurrence of διανοεῖσθαι as an example in (a) does not support generalization to (a'), which, as Shields reads it, must mention νοεῖν and θεωρεῖν. And so it is not obvious that the argument depends on an assumption that flouts Aristotle's theory of the unmoved mover.

On the subjecthood of the soul in general, Shields might continue to demur, insisting that “Aristotle believes that forms, including souls, are predicated of matter; this does not entail that souls, or other substances, are not themselves ὑποκείμενα<sub>2</sub> [subjects.]. Like other substances, forms are non-derivative bearers of essential and accidental properties” (1988: 144). It is certainly wise to deny the entertained entailment. But we have seen neither evidence nor argument that supports the more adventurous claim that forms are nonderivative bearers of properties. Now, some might tie the subjecthood of form to the doctrine of particular forms and on this basis promote its explanatory virtues. Here, the substance of an individual concrete substance is the form that is particular to it and, at least on some versions of particularism, it is that in virtue of which the compound can be identified and reidentified as the particular thing it is. Then, presumably, it will be urged that such a thing is obviously the subject of properties. Two problems, at least, face this view. First, there is still no direct textual support for the claim that forms, particular or other, are fit subjects for nonsubstantial attributes. Certainly, none of the arguments examined in this chapter successfully establish this. The second problem, a logical difficulty already discussed, concerns the fact that virtually all commentators agree that *if* particular forms are subjects, they will be subjects of accidental characteristics. However, *pace* Shields, most also agree that it is not an obvious truth that particular forms are such subjects *directly*. Argument is usually summoned to establish the point.<sup>245</sup> But here, as we have seen, the prognosis is not good. Neither the Kernel Argument nor the Identification Argument succeeds, and it is hard to see what would.

<sup>244</sup> This is pretty much confirmed by 408b29, which concludes this stretch of argument with the contrast: “But the mind (νοῦς) is probably something more divine and unaffected.”

<sup>245</sup> This implicitly concedes that simply insisting that forms are the *non-derivative* bearers of accidental characteristics amounts to mere legislation.

## 5. How not to Smuggle Matter into the Categories

Once Aristotle puts in play the distinction between form and matter, matter is accorded at least nominal rights to the title of substance. On this there is agreement. But the central books show no temptation to elevate matter to the status of primary substance—neither on our view, which gives this honorific to form alone, nor on the view that awards the title to the compound. Indeed, matter's claim to the title amounts finally, and solely, to its being a potential substance or, more carefully, to its being potentially a substance. This is so even if the basis for the claim is, for example, that it serves as some sort of subject. It is also a point of general agreement that the *Categories* fails even to mention matter and, hence, fails to engage the hylomorphism that is at the heart of Aristotle's mature analysis of substance in the central books.

Failure to accommodate the central roles of matter and form has led a number of scholars to the view that the early ontological framework offered in the *Categories* is at least inadequate and possibly inconsistent with the framework of the central books. This worry has prompted some to look for a way to smuggle matter into the framework of the categories after all. Kung (1978), for example, argues that what I am calling matter's nominal hold on substantiality is sufficient for its inclusion in the category of substance. After retailing a number of passages from the central books that accord some measure of substantiality to matter, she writes:

If it were not [in the category of substance], one would expect a radical revision of the categorial scheme of the *Categories* and several references back to the logical works, in which matter is not mentioned, with appropriate explanations and qualifications. But we do not find this. Instead, Aristotle goes on utilizing the scheme, as if nothing is amiss. (1978: 150)

Kung is quite correct about Aristotle's confidence in the scheme of the *Categories*. Indeed, this is to be expected on our compatibilist account. But what about her inference that this installs matter in the *category* of substance? Certainly, the motivation is laudable, consisting in the desire to maintain consistency in the face of three apparently conflicting propositions: (a) “[L]iving things are unquestionably substances and are of central importance in the sublunar world;” (b) Substances are subjects, i.e., “that which is not predicated of a substratum but of which all else is predicated;” and (c) Matter is a subject of predication.

Propositions (b) and (c) suggest that matter is a substance but proposition (a) appears to deny this insofar as it takes paradigm substances to be Socrates, Secretariat, and the like. Moreover, proposition (c) is

based on texts such as *Metaphysics* Z.3, which entertain the proposition that matter is in fact the ultimate subject of predication. This suggests to Kung that “it is not living things but matter which is the ultimate subject and deserves first place in the sublunar ontological line-up” (1978: 140). So the three propositions conflict even if (a) is not taken to deny that matter is substance, for (a) surely denies that matter is the premier kind of substance. More grandly, because (a) amounts to championing the substantiality of c-substances and (c) presupposes the central books' distinction between form and matter, what is at issue is nothing less than the compatibility of the *Categories* and the central books.

Our next chapter looks in detail at proposition (c) and argues that it has neither the consequence that matter is primary substance nor the consequence that Aristotle rejects the status of c-substances as primary. At the moment I am concerned with the general strategy of Kung's argument, in particular, with the inference from the claim that matter is, in some sense, substance to the claim that it belongs in the category of substance. If, as suggested, the first claim promotes matter as a *potential* substance only, then its inclusion in the *category* of substance is inappropriate. For as we argued in the previous chapter, the *Categories* provides a theory of underlying ontological configurations for *standard* categorial propositions, such as *Socrates runs*. It tells us what the world must be like in order for the proposition to be true, that is, it tells us which items from what categories must exist and how they must be related. Socrates will figure in such truth conditions, but not his form or his matter. These emerge as part of a different project, namely, accounting for the structure of Socrates and the like; and this serves an explanatory project quite unlike the semantical project of the *Categories*.

Putting the above point aside, where exactly would matter be located in the framework of the *Categories*? It surely cannot be a secondary substance. For the texts Kung uses to establish matter's claim to substantiality report that matter is the subject of predication but not itself something that is predicated. But secondary substances are, each and every one, said-of some subject. They are, in short, predicates. So matter will have to be primary substance and primary by the criteria set down in the *Categories*. This means, for example, that matter will have to be a  $\tau\delta\epsilon$  and enjoy ontological independence. But, notoriously, it fails to satisfy either. Moreover, the failure is announced more than once in the central books themselves. So the thought that they bring matter into the *category* of substance tests credulity.

Although well motivated, Kung's account errs by assuming that the *Categories* and the central books, principally *Metaphysics* Z, aim to



provide accounts of the same thing. As we shall see in the next chapter, they do not. Indeed, they operate on quite different levels. The theory of *Metaphysics Z* is neither a proper part nor an extension of the theory of the *Categories* but is rather a theory *about that theory* or its major part. The same assumption lies behind a more recent, and rather different, suggestion for reconciling the early and late ontologies. Maudlin (1988–9: 130) views matters as follows:

The introduction of the distinction between substantial form and matter was bound to cause Aristotle difficulties. Most obviously, matter does not fit anywhere in the traditional ten categories. This problem, however, is not in itself overwhelming: the number of categories is not clearly fixed . . . so an additional category for matter could just be appended to the others.

This is a courageous but curious recommendation. By smuggling matter into a nonsubstantial category, Maudlin consigns it to accidental status. Now some would argue that the relation between form and matter is accidental and so the smuggling is legitimate after all. Maudlin himself illustrates this with the case of a bronze sphere, whose form arguably has no ‘intimate’ connection with the matter. But this is complicated. For although it may be clear that the general form of sphere can be realized in a wide variety of materials, it is less clear that the form of *this* sphere (the bronze one on Ortcutt's desk) can be so realized. In any case, it is one thing for the *relation* between form and matter to be contingent, but quite another for the matter itself to be an *accidental property* of the compound whose matter it is. Yet this is what the proposed smuggling requires. Socrates' matter must be an accident of *him* and not merely be contingently related to his form.

Maudlin is well aware that difficulties face his revisionist proposal. Chief among them, he suggests, is that locating matter and form in separate categories makes it impossible for concrete individuals to “exhibit the unity of definition requisite for substances” (130). However, it is not clear how this could be the main problem, for it harbors several assumptions of dubious Aristotelian stamp. No one denies that type-I items, substance individuals, are accorded a nontrivial kind of unity. Indeed, on our view this is just one of the features of *Categories* primary substances that the central books target for explanation. But it is hardly clear that this unity is the same as the unity of definition, for this equation requires that the compound itself be the object of definition. But, as Chapter VI argues, the proper objects of definition are forms. Worse yet, by locating matter in a nonsubstantial category, the proposal assimilates compounds of form and matter to accidental compounds such as the *white thing* or *the white man*. But, as we saw in section 2, *Metaphysics Z* keeps these carefully separate. Finally, note that Maudlin assumes that

the form of a concrete thing is itself a substance. This, of course, is a mainstay of the central books, but it is hardly obvious that the *Categories* takes the form of a primary substance itself to be a primary substance. Nonetheless, I shall not insist on the last point—after all, at *Categories* 1b1–2 knowledge is said to be in the soul<sup>246</sup>—but only on the point that the paradigm primary substances of the *Categories* are full individuals such as Socrates, Secretariat, and Madame Curie. Insofar as this holds, there is little temptation to include forms as categorial items of any sort.

Fundamentally, Maudlin's proposal goes wrong because it assumes that the internal structural components of *Categories* primary substances are to be located on the same level as the primary substances themselves and, hence, that they are a proper part of the theory of the categories. But the theory of the *Categories* is a theory of underlying ontological configurations for standard categorial assertions. Form and matter, which are internal structural components of c-substances, have no role in such a theory. But they can be proper parts of *another* theory that *explains* one of the proper parts of this first theory. The 'other' theory is, of course, the hylomorphic theory of the central books, and the proper part of the first theory is its pivotal notion of primary substance. And surely a theory can explain the nature or substance-of c-substances without relinquishing or altering the notion of a c-substance itself. This is precisely the kind of account that preoccupies Aristotle in the central books. Thus, proposals of the sort offered by Kung and Maudlin obscure or even preclude the very project that Aristotle undertakes in *Metaphysics Z* and the central books generally.<sup>247</sup>

We have considered a number of views on the relation between the *Categories* and the central books of the *Metaphysics*. Some maintain, in varying degrees, that the two works are irresolvably incompatible; others hold that the incompatibilities are only apparent and so submit

<sup>246</sup> Note, however, that the remark about knowledge being in the soul occurs in the meta-ontology (MO) in ch. 2. Nothing is said there about the soul being the form of anything—it is simply an example of an item other things may be present in. Nor is there anything else in the treatise that could be taken as mentioning the *form of* something. In the *Categories*, εἶδος functions always and only as a one-place predicate attaching to secondary substances such as *man*, *horse*, and *dog*, that is, to so-called species. Whatever else they might be (see Ch. VI below), species are not *forms of* Socrates, Secretariat, Barko, or any other type-I items.

<sup>247</sup> A sign of this is Maudlin's (1988 –9) opinion that in Z.3 Aristotle is confronting an issue that arises from the fact that c-substances can be analyzed into form and matter, namely, that “it is not yet clear whether the ultimate subject is the form, the matter, or the compound of form and matter.” This view, which is reminiscent of that of Frede (1978) and (1985) and Frede and Patzig (1988) discussed in sect. 3, puts the internal structural components of a c-substance on a par with the c-substance itself. For a different view of Z.3 see Ch. V below.

to resolution. None, however, has proven to be decisive. So the possibility of a compatibilist interpretation remains quite alive. The next chapter begins to develop just such an account. By no means have I considered all scholarly results that bear on or rival my compatibilist version of the relation between the early and late ontological theories. Hopefully, this is at least partially remedied by the fact that I develop my own account by making liberal use of much of this scholarship.

# V The Structure and Substance of Substance

The *Categories* provides a theory of underlying ontological configurations for standard categorial predications. It tells us the way the world must be if our various pronouncements and assertions about it are to be true. What I am calling c-substances—Socrates, Secretariat, and the like—are given the lead role in the story. These and the other items countenanced in the ontology of the *Categories* are, in effect, taken at face value.<sup>248</sup> No attempt is made to provide a deeper account of their natures. In particular, nothing is said about the structure of c-substances. *Metaphysics Z*, on the other hand, turns to just such a task. Because it aims to explain central features of the standing theory of the *Categories*, *Metaphysics Z* complements rather than contradicts that theory. For this claim to be more than interesting speculation, there ought to be some hint of it in the text of *Metaphysics Z* itself. And, so I shall argue, there is. Chapter 1 installs the framework of the *Categories* as the target of investigation and chapter 2 indicates that this framework is to be approached out of an interest in the concept of substance (i.e., what substance is) rather than its extension (i.e., what things are or have substance). *Metaphysics Z*.3 draws the broad outlines of an analysis of the concept, in effect arguing that we will get clear on what substance is by getting clear on which internal structural component of a c-substance—its form (εἶδος), its matter, or the compound of its form and its matter—is the *substance-of* the c-substance. The balance of *Metaphysics Z* then consists in an investigation of form in this role.

Before getting down to the details of *Metaphysics Z*, it will be useful to address a general question about the notion of form as substance-of. When Aristotle describes form as (a) substance *simpliciter*, as he occasionally does in *Z*, does substance have a different meaning from the meaning it has when he says, for example, that Socrates is a substance? One way of putting this would be to ask whether the list of substances found in the *Categories* is supplemented by the claim that form is a substance. On our view the answer to this question is plain. When Aristotle describes form as (a) substance he has in mind that it is the

<sup>248</sup> Namely, MO's type-I, type-II, type-III, and type-IV items. See sect. 2 of Ch. I.

substance-of something.<sup>249</sup> This is quite different from the notion of substance that dominates the *Categories*. Thus, the claim that form is (a) substance does not merely ‘supplement’ the list of substances. Rather, form enters as part of the analysis of the structure of those substances.

This, of course, is interpretation, and this chapter begins the interpretation by addressing, first, Aristotle's use in Z.1 of the framework of the *Categories* and, then, turning to the strategy Z.3 sets down for explaining the nature and structure of c-substances. The latter is especially crucial because it is in Z.3 that Aristotle introduces the program of the book as a whole. Because my view of these chapters runs against established opinion, in each case it will prove useful to develop my account against a set of recent accounts.

## 1. The Categories Framework in Metaphysics Z.1

*Metaphysics* Z.1 begins with the familiar adage that being is said in many ways. Sometimes, as in *Metaphysics* Γ.2, this is a quite general appeal to ‘ambiguity’. But here its range is restricted. The various ways of being are, says Aristotle, as several as the categories. The lines, 1028a12–14,

on the one hand, it [being] signifies the what (τί ἐστί) and the this (τόδε τι), on the other hand, the quality or quantity, or one of the other things that are predicated as these (τῶν ἄλλων ἕκαστον τῶν οὕτω κατηγορουμένων),

make it clear that he has in mind what *Metaphysics* Δ.7 calls *per se* being (καθ' αὐτὸ ὄν). So the *per se* scheme, as we called it in Chapter III, is on the table at the outset and, equally, it would appear, is the *Categories* meta-ontology, MO. Nonetheless, the lines are less plain than they appear.<sup>250</sup> The principle point of intrigue is Aristotle's use of the complex expression ‘τί ἐστί καὶ τόδε τι’ (‘the what and the this’) to introduce the first category, substance. I shall get to this in a moment.

First, however, I wish to focus on a claim the text goes on to make, namely, that it is clear that the primary being (πρῶτον ὄν) is the what

<sup>249</sup> Apart from the divine separate substances, should they be forms. But these do not figure in the argumentation of *Metaphysics* Z.

<sup>250</sup> They do not, however, approach the complexity that Bostock (1994) fathers on them. He says little about what I am calling the principle point of intrigue but a good deal about the familiar adage itself. Indeed, he gives us two accounts of the claim that being is said in many ways. Unfortunately, neither the accounts themselves nor the relation between them is easy to make out. See Wedin (1996*b*).

(τί ἔστω), which signifies substance. Philosophically, this is ambiguous<sup>251</sup> and could mean either

1. The ὄν answering to the τί ἔστω that signifies substance is primary,

or

- 1'. The ὄν answering to τί ἔστω signifies substance and is primary.

Option (1) allows that things besides substances have τί ἔστω. This is a requirement of the *per se* scheme and was essential to our reading of the meta-ontology, in particular, to the ability of the ladder principle TR to demarcate the categories. So we prefer it. It also seems preferable in its own right. For Aristotle goes on to give intuitive evidence for his claim: gods and men satisfy it, whereas *being healthy* and *being hot* do not. Then, toward the end of Z.1, in arguing that substance is first in every sense, Aristotle makes use of the fact that items other than substance have a τί ἔστω (a what). So he can hardly be embracing (1'). By the same token, then, we can assume that MO casts its shadow over the opening of *Metaphysics Z.*

So gods and men answer to ‘whats’ or τί ἔστω that signify substance and because of this they are primary. Note that we get no argument for this save the intuitive consideration that gods, especially, and men, arguably, are prior to health and hotness.<sup>252</sup> Indeed, we have so far not drawn any relation between such items. This Aristotle quickly remedies (1028a18–20) by turning to a relation that is at least a cousin of focal meaning, in effect, urging adoption of

2.  $x$  is not a substance &  $x$  is a *per se* item  $\rightarrow x$  exists only because  $(\exists y)(x$  is of  $y$  &  $y$  exists in the primary sense).

Some might challenge tying (2) to focal meaning on the grounds that the telltale marker—πρῶτος ἔν—is absent. If the canonical idiom is absent, the concept is not. It simply enters by way of a different phrase, namely, “τοῦ οὕτως ὄντος” (of what exists in this [i.e., the primary] way). Admittedly, one could deny that this alone is enough to secure the presence of focal meaning. But this loses plausibility in light of the fact that *Metaphysics* Γ.2 makes express use of the telltale idiom and cites as a case things that are affections of substance (τὰ πάθη οὐσίας), plus the fact that *Metaphysics* Z.4 enlists the idiom in arguing that the primary

<sup>251</sup> The ambiguity is preserved in the text: φανερόν ἐστι τοῦτον πρῶτον ὄν τὸ τί ἔστω, ὅπερ σημαίνει τὴν οὐσίαν (1028a14–15).

<sup>252</sup> Otherwise, the scenario he runs through at 1028a15–18 will make no sense whatsoever.

and unqualified notion of definition and essence is that applying to substances.

Proposition (2), using the admittedly awkward expression ‘*x* is *of y*’, expresses a relation of ontological dependence of accidental on nonaccidental items. Such dependence, says Aristotle, might make the wary reader question whether *walking* or *being healthy* is the sort of thing that can be said to exist because *walking* does not exist in its own right (καθ’ αὐτό), nor can it exist separately from substance (οὔτε χωρίζεσθαι δυνατόν τῆς οὐσίας) (1028a20–4). The question appears to be well taken because Aristotle immediately adds that what exists, if anything, is the walker.<sup>253</sup> So rather than *walking*, *being healthy*, and *sitting*, what exists is simply *that which walks*, *that which is healthy*, and *that which sits*.

Aristotle makes the point by saying that the latter are τῶν ὄντων or among the things that are. This idiom is at the center of the *Categories* account of ontological commitment. So we can take him here, as there, to be concerned with the commitments that attend the truth of a sentence such as “Socrates walks.” In particular, he appears to be rejecting anything like

3. “*a* is walking” is true  $\equiv (\exists x)(\exists y)(x = a \ \& \ y = \textit{walking} \ \& \ yRx)$ ,

where *R* is some metaphysical tie (perhaps, Platonic participation), in favor of the leaner commitments of

3'. “*a* is walking” is true  $\equiv (\exists x)(x = a \ \& \ x \text{ is a walking thing})$ .

On our account of commitment in the *Categories*, the fact that truth conditions don't require mention of properties is grounds for slighting the degree of ontological commitment accorded such entities. Aristotle appears to be making precisely the same point here and so, again, he appears to focus the opening of *Metaphysics Z* on the framework of the early work.

These appearances are immediately borne out by the text. If (3') establishes *that*, in the general area of ambulatory affairs, if anything exists, it is that which walks rather than the property *walking*, the following lines (1028a25–9) explain *why* this is so:

These [that which walks and the like] are seen to be more real (μᾶλλον ὄντα) [than walking and the like] because there is a certain determinate subject of them (τὸ ὑποκείμενον αὐτοῖς ὀρισμένον) and this is the substance and the particular (τοῦτο δ' ἐστὶν ἡ οὐσία καὶ τὸ καθ' ἕκαστον).

One can take this remark to indicate that, when appropriately occurring in a statement, expressions of the form ‘that which  $\Phi$ s’ call for the

<sup>253</sup> ἀλλὰ μᾶλλον, εἴπερ, τὸ βαδίζον τῶν ὄντων καὶ τὸ καθήμενον καὶ τὸ ὑγιαίνον (1028a24–5).

existence of an underlying subject. Expressions of the form ‘ $\phi$ ing’ or ‘the  $\phi$ ing’ do not. If there is to be commitment to  $\phi$ ing, it is to come through commitments associated with the descriptor ‘that which  $\phi$ s’. Moreover, the determinate subject responsible for this firmer ontological status is not simply *that which  $\phi$ s*. These are the paronyms of the *Categories*—items we argued do not even have a place in that work’s meta-ontology. Thus, if that framework is alive in Z.1, so should be its parsimonious attitude toward such subjects. And this is exactly what we find. Their claim to be more real than properties rests solely on the fact that the statements in which their descriptors occur imply the existence of an appropriately correlated substance particular. Further, when Aristotle says, of *walking* and *that which walks*, that the latter is more real, he adds the rider, “if anything.” So he is committed to saying only that, *if either of the two* is more real, it is that which  $\phi$ s rather than  $\phi$ ing. Thus, the rider has the effect of weakening commitment to the existence of that which walks as well. What he is firm about, however, is the existence of the determinate subject. So we get something like

4. “*a* is walking” is true  $\equiv (\exists x)(x \text{ is a substance particular} \ \& \ x = a \ \& \ x \text{ walks}),$

which explicitly avoids commitment even to paronyms. This is exactly what we would expect if the theory of categories, as we have developed it, lies beneath the surface of *Metaphysics* Z.1.

Notice that Aristotle does not say that  $x$  is more real than  $y$ , if  $x$  underlies (is the subject for)  $y$ . Rather,  $x$  is more real than  $y$ , if  $x$  underlies  $y$  *and*  $x$  is something definite. So rather than

5.  $x \text{ is the subject for } y \rightarrow x \text{ is more real than } y,$

we get

- 5'.  $x \text{ is the subject for } y \ \& \ x \text{ is something definite} \rightarrow x \text{ is more real than } y.$

Proposition (5) is to be avoided because of inviting the thought that matter is more real than the substance it underlies. So Aristotle’s insistence on (5’) undoubtedly looks forward to Z.3’s argument against the substantiality of matter. (I shall get to this in section 3 below.) In the piece of argument we are following, the values for  $x$  will be substances. So we can take it that (5’) is to entail

- 5''  $y \text{ is a nonsubstantial item} \ \& \ y \text{ exists} \rightarrow (\exists x)(x \text{ is a substance particular} \ \& \ y \text{ exists because of } x),$

where ‘existing because of’ is a dependence relation. Proposition (5'') catches the very sort of asymmetry that we argued underlies the



*Categories* account of the relation between nonsubstantial and substantial items.<sup>254</sup> So we are clearly in the realm of the *Categories*. Finally, Aristotle *concludes* from this that what primarily exists—not ‘kind of’ exists but strictly exists—will be substance.<sup>255</sup> This again will be familiar to readers of the *Categories*. For it appears to award ontological primacy to those items on which all the other things depend for their existence. These appear to be what the *Categories* ranked as primary substances, namely, c-substances. The idea that what underlies has some sort of claim on ontological primacy will suffer a critical review in *Metaphysics* Z.3. So on this point, also, Z.1 prepares for the later chapter's more detailed look at the theory of the *Categories*.

Before joining the argument of *Metaphysics* Z.3, however, something needs to be said about what I called the principle point of intrigue, namely, the fact that Aristotle refers to substance by way of the complex expression, ‘τί ἔσται καὶ τὸδε τ’ (‘the what and the this’). Ross (1924: ii. 159–60) equated what something is (the τί ἔσται) with the essence and held that it was a universal or combination of universals.<sup>256</sup> The this (τὸδε τ), on the other hand, is for Ross simply an individual and, unlike the τί ἔσται, it is not the τὸδε τ-*of* something. In effect, he holds that the τί ἔσται is always something nonparticular while the τὸδε τ is always particular. So there could be nothing that is both. No doubt this is why he translated the expression as “‘what a thing is’ or a ‘this.’”

Ross also found the same ambiguity in the *Categories* distinction between primary substance (πρώτη οὐσία), which is a this (τὸδε τ), and secondary substance (δευτέρα οὐσία), which is a what (τί ἔσται). Right to find an allusion to the *Categories*, Ross was wrong to find an ambiguity in that work. At least there is none that courts confusion. For in the *Categories* one finds no grounds for the temptation, evident in *Metaphysics* Z.1, to attach both labels to one and the same thing. Furthermore, we need not, in any case, yield to the temptation. Nor need we follow Ross's linking of τί ἔσται and essence. Insofar as the latter is the technical notion of *Metaphysics* Z, the essence (τί ἦν εἶναι) that is a cause and principle, it is arguably absent from both the *Categories* and *Metaphysics* Z.1. Finally, as we shall soon see, the *Categories* has no use for the notion of the *substance-of* something. Likewise for the τί ἔσται-*of* something (the what of something), in any technical sense. These simply are not required for the grouping function assigned there to τί

<sup>254</sup> See, for example, propositions (5), (6), and (7) of Ch. III.

<sup>255</sup> ὥστε τὸ πρότερον ὄν καὶ οὐ τί ὄν ἀλλ’ ὄν ἀπλῶς ἢ οὐσία ἂν εἴη (1028a30–1). Note my translation of ‘τί’ as a weakening expression.

<sup>256</sup> Ross actually says “stated as a universal or combination of universals.” But this differs from what I attribute to him only if conjoined with an explicit remark about the possibility that the essence itself is not universal. There is none.

ἔστω terms. In short, the early work has nothing corresponding to the technical notion of substance-of, a notion that dominates much of the course of *Metaphysics Z*. At the same time it is not obvious that something that is a this (τόδε τι) cannot be the substance-of something. To this extent Ross was wrong to insist that there can be nothing that is the τόδε τι-of something. Indeed, Aristotle's text may require the opposite, for two of Z.3's candidates for substance, the form and the compound, are more promising than the third, matter, because each is a τόδε τι.<sup>257</sup>

Nonetheless, Ross was right to draw attention to the presence of *Categories* doctrines in the opening lines of *Metaphysics Z*.1. Moreover, it would be wrong to think of this as an inadvertent intrusion. On our view, the lines serve the explicit but simple purpose of introducing the framework of the *Categories*. Occurrence of the expression 'τί ἔστω καὶ τόδε τι' ('the what and the this') need not, therefore, bear significant interpretive weight. For what Aristotle wants to say about this sort of substance, the substance of the *Categories*, is to be found in the arguments and analysis of Z.3 and beyond. There is, however, a prominent recent account that runs against this rather neat picture and we need to say something about it.

Frede and Patzig (1988) argue that *Metaphysics Z* constructs a notion of substance around two features that might be thought distinct and that this is what makes it a new and nonstandard notion. Moreover, both features are encoded in the phrase 'τί ἔστω καὶ τόδε τι'. Taking up a pair of distinctions from *Metaphysics Δ*.8, they propose to combine

7.  $x$  is τί ἔστω  $\rightarrow x$  is an explanatory factor

and

7'.  $x$  is τόδε τι  $\rightarrow x$  is a particular (subject)

into a single complex feature,

8.  $x$  is τί ἔστω and τόδε τι  $\rightarrow x$  is a particular (subject) and explanatory factor.<sup>258</sup>

<sup>257</sup> I say 'may' require because one could grant that  $x$  is the form of  $y$  and also that  $x$  is a 'τόδε τι and still deny that  $x$  is the τόδε τι-of  $y$ . But one could not deny that a τόδε τι is the form of  $y$ . And this is enough to upset Ross. But it need not be upsetting, if 'τόδε τι' is translated as 'this sort' (taking the 'τόδε' in 'τόδε τι' demonstratively and the 'τι' as standing for a kind). For on this reading to be a τόδε τι is simply to be an indivisible determinate kind and this may include nonparticulars. But even translated as 'a certain this' and so, presumably, as indicating a particular (but see Gill, 1989: 31), it isn't certain that a τόδε τι cannot be the τόδε τι of something. On the two ways to take the expression, see Gill (1989: 31–4) and Frede and Patzig (1988: ii. 15). For those who champion the claim of substance to be τόδε τι, but not particular, see Code (1984) and Driscoll (1981).

<sup>258</sup> Proposition (8) serves their view, which I call PART, that the primary substance of *Metaphysics Z* is particular form. See Wedin (1991) for more on this.

Because they read the τί ἔστω condition, (7), simply as an explanatory condition, Frede and Patzig are free to combine (7) and (7') without threat of the incoherence that worried Ross. Moreover, they argue that Aristotle meant them to be combined because the 'and' in 'the what and the this' (the 'καί' in 'τί ἔστω καὶ τὸδε τι') operates exegetically. Thus, at the very outset of *Metaphysics Z* Aristotle is held to promote the view that substances both function as subjects and play an explanatory role. BLEND, as I call this view,<sup>259</sup> denies that *Metaphysics Z* devotes its attention to substance in the role of substance-of. For this requires strict observance of the distinction between substance and substance-of, and this is precisely what Frede and Patzig (1988) deny. So the argument for reading 'καί' exegetically is obviously of interest to us.

On this view, lines 1028a10–12 are to be read: “for, on the one hand, it [being (τὸ ὄν)] signifies what a thing is (τί ἔστω), that is to say, the individual (τὸδε τι).” For convenience, let us write this as

9. 'τὸ ὄν' signifies τί ἔστω, that is, τὸδε τι.

The argument for (9) turns on an alleged parallel with 1028a25–7, where in speaking of what underlies that which walks, Aristotle says

9a. This is the substance (ἡ οὐσία) and (καί) the particular (τὸ καθ' ἕκαστον).

The 'and' (καί) in (9a) is taken to be evidently exegetical—otherwise the 'διὰ ταύτην' ('because of this') at 1028a29–30 is held not to make sense.<sup>260</sup> Proposition (9a), in effect, *identifies* substance with the particular and this is supposed to be sufficient for (9). But this presupposes, first, the equivalence of being an individual (τὸδε τι) and being a particular (τὸ καθ' ἕκαστον) and, second, the equivalence of being a τί ἔστω and being an οὐσία. Both require argument.<sup>261</sup>

Frede and Patzig might seek assistance from 1028a14–15, where Aristotle says that the primary being (πρῶτον ὄν) is τί ἔστω which signifies substance. This appears to address the second presupposition. For from

9b. The primary being (πρῶτον ὄν) is the what (τί ἔστω) & the this (τί ἔστω) signifies substance

and (9a) it appears to follow, granting for the moment the first presupposition, that

<sup>259</sup> In Wedin (1991).

<sup>260</sup> For 1028a29–30 says that it is 'because of this' that the sitting thing, and its kind, exist; therefore, the 'this' must be a substance particular. But the 'this' must also refer back to what is characterized in (9a). Thus, (9a)'s 'καί' must be read exegetically or, at least, as capturing substance particulars.

<sup>261</sup> Additionally, Malcolm (1993: 83–4) argues that at 1028a27 'καὶ τὸ καθ' ἕκαστον' is introduced precisely to *exegetically limit* 'οὐσία' in a local context and, hence, provides no grounds for finding an exegetical reading earlier at 1028a10–12.

9c. The what (τί ἔστω) signifies the this (τόδε τι),

and, hence, that the exegetical reading of (9) is correct. However, this would require that (9c) be read as *identifying*, or, at least, equating, τί ἔστω and τόδε τι, and this surely is not required by (9b)'s notion of *signifying* the substance (σημαίνειν τῆν οὐσίαν). As in the *Categories*, the species and genus reveal the primary substance, so here might not something nonparticular signify something particular (still presupposing the interchangeability of the individual and the particular)? Besides this, we have already argued that (9b) is not the preferred reading of 1028a14–15. This preferred reading, on which the primary being is the τί ἔστω that signifies substance,<sup>262</sup> is too weak to support exegetical attachments to τί ἔστω *simpliciter*.

It is, therefore, by no means obvious that Aristotle used the expression 'τί ἔστω καὶ τόδε τι' ('the what and the this') to introduce BLEND,<sup>263</sup> nor, thus, that *Metaphysics Z* was meant to be anything but an inquiry into the substance-of c-substances. A reasonable place to start such an inquiry would be with a sketch of the framework of the *Categories*, and for this purpose the disputed phrase is admirably suited.

Failing further comment, it might appear that Z.1 simply equates its τὸ πρῶτως ὄν (primary being) with the *Categories* ἡ πρῶτη οὐσία (primary substance). But the situation is somewhat more complex, for Aristotle immediately distinguishes three different kinds of primacy, all of which are enjoyed by substance, but not all of which are obviously variants on the kind of ontological primacy distinctive of primary substances in the *Categories*. So it might be argued that Z.1 cannot be introducing the framework of the early ontology. Of course, the inference would be mistaken. For one thing, we have already seen that Z.1's argument for primacy in time invokes a quite specific thesis from the *Categories*.<sup>264</sup> But, in any case, the presence of novel considerations is entirely consistent with locating the main burden of Z.1 in presenting the central elements of an established view—especially if they come with a rationale.

On our account, there are two possible explanations for this complication. The first holds that *Categories*-style primacy is simply out of place in the environment of *Metaphysics Z*. This would fit with my view that because *Metaphysics Z* is asking in virtue of what, *primarily*, do c-substances have the features they do, form is *primarily* the substance-of c-substances and, hence, merits claim to the title of primary substance. This sort of primacy is a kind of explanatory primacy and differs from

<sup>262</sup> That is, proposition (1) above.

<sup>263</sup> What satisfies the conditions laid down in the consequent of (8) are, for Frede and Patzig, particular forms. So in seeing BLEND on the table at the very outset of *Metaphysics Z*, they also see the particular forms view being promoted. On our view, no such special theoretical commitments are yet at work.

<sup>264</sup> See Ch. II, sect. 6.

the ontological primacy of the *Categories*. This proposal is correct but misplaced. It emerges first in Z.3 and 4 and will be discussed in that context.<sup>265</sup> The second explanation, which I favor, keeps the Z.1 discussion of primacy closer to the theory of the *Categories*. We have already seen, at 1028a18–20, an overt appeal to focal meaning in arguing for the priority of what exists in the primary sense (τὸ πρῶτως ὄν), namely, substance, to items from the other categories. Now the *Categories* already insists on the one-way priority of c-substances to everything else. Focal meaning can be thought of as a strengthened version of this, involving, for example, some sort of semantic dependence of the nonsubstantial on the substantial.<sup>266</sup> This sort of primacy exceeds the strict ontological primacy favored by the *Categories*, and, hence, exceeds what Z.1 calls ‘primacy in time’.<sup>267</sup> But it is precisely the sort of primacy that is covered by the other two varieties discussed in Z.1, primacy in knowledge and primacy in definition. Thus, the discussion of senses of ‘πρῶτον’ (‘primary’) serves the cause of focal meaning.<sup>268</sup> However, it leaves untouched the structure of these entities that are focally prior to everything else and so does not promote the sort of explanatory primacy attributed to form. This, of course, is just what one would expect on our view of the program of *Metaphysics Z*.<sup>269</sup>

## 2. Subjects and Substance in Z.3

*Metaphysics Z.3* is the chief arena for debate over the relation between the *Categories* and *Metaphysics Z*. Virtually all commentators see the

<sup>265</sup> See Ch. VI, where much is made of the proposal, and Ch. X, sect. 9.

<sup>266</sup> Owen, for example, is quite clear in calling for this in his classic (1960).

<sup>267</sup> For how primacy in time turns out to be ontological primacy, see the argument in Ch. II, sect. 6.

<sup>268</sup> Lest one protest that focal meaning is not at issue in Z.1's discussion of primacy (perhaps, because it is not actually mentioned by way of the πρῶτος ἔν formula), notice that Z.4, 1030a27–b7 explicitly enlists it in arguing the very point we have urged for Z.1. At 1030a35–b3 we get the standard analog: something is called medical by reference to one and the same thing (πρῶτος τὸ αὐτὸ καὶ ἔν), not in one sense but by reference to one thing (οὔτε καθ' ἓν ἀλλὰ πρῶτος ἔν).

<sup>269</sup> The view that Z.1's discussion of primacy serves the cause of focal meaning is confirmed by the fact that at Z.4, 1030a34–b3, focal meaning is enlisted to ensure that definition belongs primarily to substance. Of course, that passage also argues the same for essence, and some might object that this notion is absent from Z.1's discussion. The point is correct but the worry misplaced. Although the Z.1 discussion does use the notion of a thing's τί ἔσται (what it is), this is the classificatory notion from the *Categories* and not the explanatory notion called for by the essence or τί ἦν εἶναι of *Metaphysics Z*. But if, as we hold, Z.1 introduces the framework of the early ontology as the target of explanation, then the notion of essence ought not to occur there but in the material that explains the framework. This is precisely the role we have given to Z.4.

chapter as rejecting a crucial thesis of the earlier work, namely, the thesis that c-substances alone are the primary substances. There is, however, little agreement on exactly what this amounts to. Thus, for Lewis (1991) the philosophical culprit is the monolithic conception of the subject of predication which he takes to be the *Categories* criterion for substantial primacy. For Frede and Patzig (1988), on the other hand, Z.3 reaffirms the subject criterion but finds that a new candidate satisfies it. Each of these views, then, offers a different philosophical account of *Metaphysics Z*'s rejection of the *Categories* view that ordinary objects such as Socrates and Secretariat are the primary substances. On our view this must be false. If *Metaphysics Z* is meant to explain central features of the theory of the *Categories*, as a standing theory, then it would be a nontrivial difficulty were we forced to read Z.3 either with Lewis (1991) or with Frede and Patzig (1988).

Before looking at their accounts, it will help to supply a few general remarks about the chapter. It begins (1028b33–6) by announcing that four items stand to claim the title of substance: the essence (τὸ τί ᾗν εἶναι), the universal (τὸ καθόλου), the genus (τὸ γένος), and the subject (τὸ ὑποκείμενον). Then (1028b36–1029a7) Aristotle explains what is meant by the subject and goes on to divide it further into the form, the matter, and the compound—suggesting that the form is prior. Following a bridge passage (1029a7–10) we get a long reductio section (1029a10–26 or, perhaps, 27) arguing that on a certain assumption matter alone turns out to be substance. This consequence is then assailed in what I call the independence section (1029a27–33) for installing as substance something that fails to be a this (τὸδε τι) or separate (χωριστόν). The chapter ends with a recommendation to restrict the inquiry, at least at the outset, to sensible substances.<sup>270</sup>

Although *Metaphysics Z.3* begins by introducing four candidates for substance, this is not all there is to the topic. For, immediately, we are told that they are introduced on the strength of the fact that they are thought to be the *substance-of* each thing (οὐσία ἐκάστου).<sup>271</sup> With this

<sup>270</sup> On my view, the recommendation is meant to cover all of *Metaphysics Z*.

<sup>271</sup> Bostock (1994) does not translate the 'γὰρ' at 1028b34 and thus fails to catch the fact Aristotle is giving a *reason* for entertaining the four candidates as candidates for substance, namely, that they are thought to be the substance-of (whatever they apply to). No doubt this serves his point that only the essence is always the essence of something as well as being the substance-of it. Thus, he proposes (74) that Aristotle "carelessly wrote as if the same applied to all his other candidates too." But if a philosopher is going to be careless, it is not when giving reasons. And this is exactly what Aristotle is doing in the γὰρ-clause. Moreover, in Z.13 the universal is considered as a candidate, not merely for substance, but for the substance-of what it applies to. Bostock worries about the supposed oddness involved in talking about a thing's universal ("its universal"), as opposed to its essence or substance. Aristotle does not appear to share Bostock's intuitions here, or he realizes that such linguistic subtleties are entirely beside the point. When *Metaphysics Z.13* asks whether the substance-of a thing could be a universal, it is asking a perfectly coherent question. Moreover, even if the answer is negative, the question gives a perfectly coherent sense to the proposition that the universal be the substance-of a thing. So much for Bostock's proposal that Aristotle does not mean what he says in the opening lines of Z.3.

something new is afoot. Aristotle's usage is quite deliberate and effectively announces a shift, not merely to a new topic, but to an altogether new level of analysis. The 'substance-of' idiom is absent from the *Categories*, where 'substance' operates exclusively as a one-place predicate. And there is no provision for the notion that goes with it. Although species and genera are called substances because they *reveal* the nature of primary substances (2b29–37) and although they mark off a quality *concerning* substance (περὶ οὐσίαν), neither they nor anything else are said to be the substance-of anything.<sup>272</sup>

The opening of *Metaphysics* Z.3 does not, however, go quite so smoothly. For after introducing the first three candidates, Aristotle goes on to add, "and fourth of these is the subject" (τέταρτον τοῦτων τὸ ὑποκείμενον). This phrase could, in principle, be read in two ways. One of these might encourage some to suppose that there are only three serious pretenders to the title and that the subject is introduced only to be excluded even as a contender. After all, the balance of the chapter focuses on its candidacy with apparently negative results. This view, on which the subject is never under consideration for the *substance-of* c-substance,<sup>273</sup> takes 'τοῦτων' at 1028b35 to refer to 1028b33's four main ways in which substance is said (ἐν τέτταρσί γε μάλιστα) rather than to something's being the substance-of something. Thus, rather than "and fourth of the things thought to be the substance-of each thing is the subject," we get "and fourth of the things most said to be substance is the subject."

Although grammatically possible,<sup>274</sup> this reading cannot be what the lines mean. Aristotle announces that substance is spoken of in four main ways and immediately gives a reason for this (καὶ γάρ . . .). Now either the γάρ-clause ranges over the first three candidates only or it covers

<sup>272</sup> Some might continue to insist that *only* the idiom is absent from the *Categories*. But if anything from the early work were to qualify as *Metaphysics* Z's substance-of, it would be the differentia. However, the *Categories* is notorious for neglecting the entire question of differentiae. Moreover, what he says about them concerns entirely their role in the *Categories* classificatory scheme (see Ch. I). So even on the best-case scenario, the *Categories* completely neglects the notion of substance-of.

<sup>273</sup> Woods (1991b: 48) holds this opinion, but without argument.

<sup>274</sup> This is not the target of Frede and Patzig (1988: ii. 36)'s complaint against splitting οὐσία δοκεῖ εἶναι and ἐκάστου. With this they reject, rightly, the claim that the first three candidates (essence, universal, and genus) fall under the full expression, 'οὐσία δοκεῖ εἶναι ἐκάστωι', whereas the last (the subject) falls under 'οὐσία δοκεῖ εἶναι' only. The claim we are considering is not guilty of such splitting.

all four. The first is impossible because the clause gives a reason why *four* things are said to be substance. But if it ranges over all four candidates, it must give a reason for each of these being considered substance. There is no problem with the essence, the universal, and the genus—they are spoken of as substance on the strength of the fact that they are thought to be the substance-of each thing (they apply to). If this reason does not apply to the subject as well, we are left without *any* reason for its counting as substance. For the text would now say, in effect, that *s* is one of the four things that are, most of all, spoken of as substance because *s* is thought to be one of these four things or, perhaps, because *s* is thought to be substance. Neither gives us a *reason* for taking the subject to be substance.<sup>275</sup> Thus, its claim to substantiality must rest on the fact that it is thought to be the substance-of each thing. On this point it differs none from the other three candidates.<sup>276</sup>

This is an important result, given my overall view of the strategy of *Metaphysics Z*. For I take Aristotle's focus on the subject (ὑποκείμενον) in Z.3 as his way of introducing the idea that the substance-of a thing, a c-substance, is to be sought among its internal structural components—its form, its matter, or the compound of its form and its matter. So when Z.3 argues that the form is prior to the matter and to the compound, it is elevating the same item that subsequent chapters tout as the substance-of c-substances. This would make little sense were not Z.3's form also thought of as substance-of and, thus, were not the subject

<sup>275</sup> Malcolm has suggested that this argument may be vulnerable, if Aristotle is giving reasons for there being four items on a list (of substance[s]) rather than reasons for there being four things that are substance(s). For then Aristotle could be saying that the subject is included in the list because it is one of the things that is most of all thought to be substance. And this would be a reason for including it in a *list* of substance candidates. This, of course, leaves intact the general argument for the claim that in *Metaphysics Z* Aristotle's focus is on the substance-of c-substances. Nor does the point tell against extending to the subject the notion of substance-of. It challenges only that this is established in the opening lines of Z.3, and this is consistent with asserting the extension. Moreover, as we argue in this chapter, there are good interpretive reasons for honoring the extension. Finally, if this line of attack were correct, we might have expected a 'ἄρ' to precede 1029a36's start of the discussion of the subject—as indicating the reason it is fourth (on the list).

<sup>276</sup> Bostock (1994: 74) suggests an additional argument against construing the subject (ὑποκείμενον) as a candidate for substance-of: "the doctrine of the *Categories* is that what underlies is a substance, not that it is the substance *of* the thing that it underlies, and it certainly does appear to be the doctrine of the *Categories* that is cited in the next sentence." This is wrong on two scores. First, what underlies in the *Categories* is the concrete particular, Socrates, Secretariat, and the like. In *Metaphysics Z.3* the subject will be form, matter, or the compound of form and matter. *None* of these is even mentioned in the early work, and *any* is logically suited to function as the structural component of a c-substance that is the substance-of that c-substance. Second, as we have just pointed out, it is hardly clear that the following line, 1028b36–7, merely cites doctrine from the *Categories*. See also n. 25.



(ὑποκείμενον), from whose division it emerges, also conceived under the same rubric.

So it is quite clear that we are after some feature of a thing that is to count as *its* substance. What are these things and what kind of feature does Aristotle have in mind? Well, recall that Z.2 ran through a number of items that are thought to have substance, most obviously, natural bodies (ἡ οὐσία ὑπάρχειν φανερώτατα . . . τοῖς σώμασιν, 1028b8–9) and that Z.3 ends by recommending that we are to investigate sensible substances. This suggests that Z.3's four candidates are candidates for the substance-of sensible substances. So it is plausible to suppose that Aristotle is proposing to investigate the substance-of c-substances, for the latter prominently include sensible substances.<sup>277</sup> Of course, *Metaphysics* Z hints at a larger metaphysical program that provides for the study of nonsensible substances. If these can be accommodated, technically, within the framework of the *Categories* as c-substances, then we might take the larger metaphysical program to amount to a study of the substance-of c-substances. But this is not needed. Aristotle maintains only that the study of sensible substances, more precisely the form of sensible substances, will be of *use* in pursuing the larger program.<sup>278</sup> Thus, as far as *Metaphysics* Z is concerned, sensible substances fix the domain of investigatory discourse and, hence, we may take Z.3 to promote an examination of the substance-of c-substances. Moreover, given the results of the above section, we take this in the strict sense, that is, as restricting inquiry to only the two-place use of 'substance'. As we shall shortly see, this is not an uncontested view of *Metaphysics* Z.3.

There is fairly broad agreement on where the four candidates for

<sup>277</sup> This interest extends into *Metaphysics* H. Aristotle begins H.2 by setting aside that which underlies as matter and is potentiality in order to focus on explaining the nature of that which is the *substance-of* perceptible things as actuality ( of that which is the substance-of perceptible things as actuality (τὴν ὡς ἐνέργειαν οὐσίαν τῶν αἰσθητῶν) ).

<sup>278</sup> The end of Z.2 contains a promise—unfulfilled in *Metaphysics* Z—to address the question of separately existing nonsensible substances, and Z.3 closes with the observation that to get clear about form we must *first* investigate sensible substances, presumably, the forms of sensible substances. This is to be advantageous in getting clear about something else, presumably (among other things), independently existing nonsensible substances. If these just *are* forms, then determining the nature of the substance-of c-substances may be of use in illuminating their nature. But it is not clear that there will be any closer connection. For if the substance-of a c-substance is of the same logical type as a separate nonsensible substance, then the latter will have to be the substance-of something. This could only be itself. But then nonsensible substances will have to be the substance-of something that is the substance-of something. And this tests coherence. If, on the other hand, the substance-of a c-substance is not of the same logical type as separately existing nonsensible substances, then *Metaphysics* Z's investigation into the substance-of c-substances could at most be a useful *heuristic* device in carrying out the larger metaphysical program. Unfortunately, it is not clear how it can play even this role.

substance are discussed in the balance of *Metaphysics* Z. The subject (ὑποκείμενον) is dealt with in Z.3, essence takes up Z.4–6, 10–11 and is revisited in Z.17, and the universal, including the genus, comes to grief in Z.13–16.<sup>279</sup> Less clear, however, is exactly how the four candidates work in the overall argument. It is, for example, standardly assumed that in Z.3 Aristotle *dispatches* with the subject (ὑποκείμενον) and then proceeds to a fresh discussion of the other candidates, beginning with the essence in Z.4. I see Aristotle's strategy rather differently.

Suppose, as I have argued, that his concern with substance is a concern with the substance-of c-substances and that this is motivated by an interest in explaining the nature of c-substances, in particular, explaining certain of their central features—features mentioned in but not explained by the *Categories*. Resolutely anti-Platonist, Aristotle requires that what explains such a feature must be an internal structural component of the c-substance. Once c-substances are subjected to hylomorphic analysis, it follows that such a component must be the form of the c-substance, its matter, or the compound of its form and its matter. Considering the candidacy of the subject (ὑποκείμενον) is Aristotle's way of entering these into the discussion because it introduces them as candidates for what underlies and so as what is responsible for the unity and nature of a c-substance. The idea is that we ask what it is that underlies, say, Socrates and so is responsible for the fact that he remains a single, unified thing even across change and contraries, that he falls into a species, and so on. Thus, under the subject (or, perhaps, better, that which underlies) we may understand the matter (ὑλη), the shape (μορφή),<sup>280</sup> or the compound of them (τὸ ἐκ τοῦτων . . . τὸ σύνολον). By the time we reach the end of Z.3 the μορφή has been identified as the εἶδος or form and is given the edge as the most promising candidate of the three. Moreover, we are counseled to investigate form because it is the most puzzling of the three components. But, obviously, form commands our attention not merely for this reason. Rather, it is for this reason and for the reason that it is the component of a c-substance that has the best claim to be *its* substance, that is, to be the substance-of the

<sup>279</sup> Conspicuous in their absence from this list are Z.7–9 and 12. Reputable authorities (Frede and Patzig [1988 ] and Burnyeat [unpublished]) find them to be late insertions not party to the central argument of *Metaphysics* Z. As already indicated, I shall indulge in this convenience.

<sup>280</sup> This is immediately glossed at 1029a4–5 by “the schema of its appearances” (τὸ σχῆμα τῆς ἰδέας ). Rather than giving this a heavily perceptual reading, as do Ross (1924) and Bostock (1994), one might hazard the suggestion that Aristotle means that the μορφή governs the ways in which a thing must appear (i.e., occur) if it is to be the kind of thing that it is. This would be neutral with respect to perceptual appearances or with respect to non-perceptual (i.e., straightforward physical) manifestations.

c-substance.<sup>281</sup> Thus, on my view, the entire balance of *Metaphysics Z* amounts to an investigation of the form of c-substances and this is precisely the form that Z.3 distinguishes as one of the underlying components ('subjects') of a c-substance.

### 3. The Priority Argument

I take it, then, that the notion of a subject introduced in Z.3 can be linked to the notion of the substance-of a thing and, thus, that form's role as an explanatory factor is installed early as the central concern of *Metaphysics Z*. This assessment of the dialectical force of Z.3 will not be shared by all commentators. In particular, it will not be shared by those who take the *reductio* section of the chapter (roughly, 1029a10–26) to require rejection of some part of the theory of the *Categories*.<sup>282</sup> This is clear from a glance at recent work on the chapter, and in a moment I shall look at two such accounts. First, however, I wish to say something about an argument that precedes the *reductio* section, namely, the argument for the priority of form at 1029a5–7. It will be clear from this that the priority accorded form is not the same sort of priority that was meted out to primary substance in the *Categories*. This, in turn, suggests a point that will be developed in Chapter VI, namely, that primacy itself is not the same thing in the two treatises.

After introducing the shape (ἡ μορφή) of a c-substance, its matter (ἡ ὕλη), and the compound of its form and its matter (τὸ ἐκ τοῦτων), Aristotle suggests that one of these internal structural components is to be granted priority over the others. He puts the point conditionally:

if the form is prior to the matter (τὸ εἶδος τῆς ὕλης πρότερον) and more real (μᾶλλον ὄν), it will be prior to the compound (τοῦ ἐξ ἀμφοῖν πρότερον), for the same reason (διὰ τὸν αὐτὸν λόγον). (1029a5–7)

Whatever one makes of the appearance of μορφή (shape) at 1029a2–5 (see n. 33 above), clearly it is used to stand in for the form of a c-substance. Thus, unlike in the *Categories*, where priority relations ranged between primary substances and other distinct entities recognized in the meta-ontology, MO, here priority is a relation among internal components of one such entity itself, namely, primary substance. The thrust of

<sup>281</sup> Irwin (1988: 211) takes Aristotle's remark to reflect the fact that "it is not obvious how form is a subject." So far from being secured by textual evidence, this reading simply serves Irwin's interpretation that Z.3 means to promote the thesis that form is subject. It should be clear from the current chapter that no such promoting is required of Z.3 and from Ch. IV that the evidence for the subjecthood of form is thin at best.

<sup>282</sup> Assuming that what is explained is the early theory of the *Categories*.

the first sort of priority is plainly ontological. Whatever is prior in this sense can exist separately; what is posterior cannot. Thus, Socrates can exist separately but his color cannot, for the latter exists only by being in something.

The second sort of priority is not ontological, in this sense, because Aristotle *denies* that the form of a c-substance can exist in separation from the c-substance. If not clear from reflection, *Metaphysics* H.1, 1042a28–31, puts the matter beyond doubt. At 1042a24–31 Aristotle summarizes the discussion of *Metaphysics* Z.3, including the trifurcation of the subject (τὸ ὑποκείμενον) into form, matter, and the compound. The form (ὁ λόγος καὶ ἡ μορφή) is a τὸδε τι (a this) and, hence, is capable of separate formulation (ὃ τὸδε τι ἂν τῷ λόγῳ χωριστὸν ἔσται). Nonetheless, it compares unfavorably with the compound on the point that the compound is also capable of separate existence (τὸ ἐκ τούτων . . . καὶ χωριστὸν ἄπλῶς).<sup>283</sup> So the priority accorded form cannot be standard ontological priority.<sup>284</sup> It is worth emphasizing that this fact anticipates the argument, advanced in my next chapter, that when Z.4 declares that form alone is primary, it is not endowing form with ontological primacy. At least this is so if form's primacy tracks its priority, as surely it must.

On my reading, then, the Priority Argument, as I shall call it, should take the form to be prior to the matter and to the compound, but it should not have the consequence that form is more real than the compound.<sup>285</sup> Among other things, this would violate *Metaphysics* H.1's awarding of separate existence to the compound alone. Sustaining this reading will require going against more customary renderings of 1029a5–7.

We may begin by asking how to read Aristotle's remark that the form

<sup>283</sup> The passage from *Metaphysics* H.1 implies that in *Metaphysics* Z to be a τὸδε τι is, first and foremost, to be capable of separate formulation. I return to this point below.

<sup>284</sup> For the moment, I shall take it that for  $x$  to be separate λόγῳ (in account) is for nothing different from  $x$  to be mentioned in the account of  $x$ . As is clear from *Metaphysics* Γ.2 and Z.1's discussion of priority in knowledge and definition, accidents are not separate λόγῳ because their accounts contain something other than the accident, namely, the substance they happen to be in. Note that if to be a τὸδε τι was to be a particular c-substance, then separateness in account and separateness in existence would coincide. Whether Aristotle ever held this (some might find this in the *Categories*), the two sorts of separateness clearly come apart in *Metaphysics* Z.

<sup>285</sup> Here I assume that for  $x$  to be more real than  $y$  is for  $x$  to be ontologically prior to or 'more separate' than  $y$ . Other construals of the phrase 'μᾶλλον ὄν' ('more real') may come to mind, but mine has the virtue of being straightforward and tractable. Moreover, Z.1 uses the same formula to express ontological priority. As we saw in sect. 1, that which walks, and its ilk, are more real (μᾶλλον ὄν) than *walking*, and its ilk, precisely because a substance particular underlies them. Hence, an interpretation of the Priority Argument along these lines is to be recommended.

will be prior to the compound *for the same reason* (δι τὸν αὐτὸν λόγον). Here is one suggestion:

- 10a. *For whatever reason* the form is prior to and more real than the matter, for the same reason the form will be prior to and more real than the compound.

On this reading, the reason for form's priority to matter is not given in the Priority Argument at all. One might suggest that the reason is not expressed until 1029a27–30, where matter is disqualified as substance on the grounds that it is neither separate (χωριστὸν) nor a this (τόδε τι). The form, on the other hand, is usually held to satisfy both conditions. But the same is said of the compound. Moreover, this provides *prima facie* grounds for thinking that both it and the form are substance. So it is hard to see how this reason could explain how the form is more real than the compound.

A second suggestion is this:

- 10b. The form is prior to the matter *for the reason that it is more real than the matter*, so the form is prior to the compound for the same reason (i.e., because it is more real than the compound).

On (10b) the reason for form's priority to the compound is contained in the Priority Argument. However, it counts the form as more real than the compound and so runs up against the fact that 1029a27–30 counts the compound right along with the form as separate and a this. On this score, then, it fares no better than (10a). Now one might, I suppose, suggest that precisely because of these conflicts with 1029a27–30 and 1042a26–31, Aristotle must mean that for  $x$  to be μᾶλλον ὄν (more real) with respect to  $y$  is for  $x$  to be *explanatorily* more fundamental than  $y$ . This would allow form to be more real than the compound while still acknowledging the latter's superior ontological separateness. But this reading of 'μᾶλλον ὄν' is sufficiently strained to encourage further attempts.

Consider, then, a literal version:

- 10c. The form is prior to the matter *for the reason that it is more real than the matter*, so the form is prior to the compound of form and matter for the same reason (i.e., because it is more real than the matter).

Version (10c) locates the reason for form's priority to the compound in the Priority Argument. This virtue it shares with (10b). But (10c) says nothing about form being more real than the compound, and this is to its credit. Moreover, it appears to endorse the following interesting principle:<sup>286</sup>

<sup>286</sup> The ὥστε at 1029a5 may signal the presence of just such an endorsement, for the priority of form to compound seems to follow immediately from the fact that the compound is a compound of form and matter.

10c.  $x$  is more real than  $y$  &  $z$  contains  $x$  and  $y \rightarrow x$  is prior to  $z$ ,

instantiated in the present case with  $x$  as form,  $y$  as matter, and  $z$  as their compound. Neither (10c') nor (10c) say, or imply, that the form is prior to the compound because it is more real than the compound, but rather because it is more real than the other element in the compound.<sup>287</sup>

There is a philosophical reason, and two interpretive reasons, for shying away from (10a) and (10b)'s commitment to the reduced reality of the compound. Philosophically, the commitment entails that something containing the form is less real than the form itself. Odd on its face, in light of the fact that these sorts of Aristotelian forms cannot exist on their own, it is not clear what this entailment would even mean. On the side of interpretation note, first, that (10c) allows for a quite natural reading of  $\mu\acute{\alpha}\lambda\lambda\omicron\nu \acute{\alpha}\nu$  ('more real'). For form's being more real than the matter can be cashed in terms of its having actual being as opposed to the merely potential being of the matter. This is far more natural than the 'explanatorily more fundamental' reading tried out in connection with (10b). A second interpretive reason to favor (10c) is that it allows us to maintain c-substances as fully real items and, nonetheless, proceed to look for something that is their substance. For the substance-of a c-substance will be prior to the c-substance in point of explanation but not in point of existence. In short, on (10c) c-substances are not to be demoted but explained.<sup>288</sup>

Let me close discussion of the Priority Argument by taking note of two objections. The first insists that 1029a5–7 is merely a conditional statement. Thus, the fact that its consequent contains the proposition that form is prior to the compound can hardly be supposed to establish Aristotle's commitment to the truth of that proposition. This objection withers in light of 1029a30–2, which dismisses the compound on the grounds that it is posterior and obvious. Plainly, it can only be the form to which it is posterior. So the form is prior. The second objection appeals to variation in the manuscripts. Reading  $\tau\acute{o} \acute{\epsilon}\xi \acute{\alpha}\mu\phi\acute{o}\iota\nu$  rather than  $\tau\acute{o}\upsilon \acute{\epsilon}\xi \acute{\alpha}\mu\phi\acute{o}\iota\nu$  at 1029a6, Gill finds that the lines read, "So if the

<sup>287</sup> Bostock (1994: 152) suggests that the operative principle is one he finds in *Metaphysics* M.7, 1081a27–9, namely, that if  $x$  is prior to  $y$ , then  $x$  is prior to the compound of  $x$  and  $y$  and the compound of  $x$  and  $y$  is prior to  $y$ . But now we have to find other work for the claim that the form is more real than the matter. And there is no indication of what this might be.

<sup>288</sup> Noting the fact that the text says only that the form is prior *and* more real than the matter, D. Frelove has suggested in seminar a modified formulation of (10a): (10a') *For whatever reason* the form is prior to and more real than the matter, for the same reason the form will be prior to the compound. On (10a') the reason is not given in the Priority Argument but, whatever it is, it is a reason just for form's priority to the matter and to the compound, not for its being more real. Although this avoids the claim that the form is ontologically prior to (more real than) the compound, it leaves no work at all for the claim that the form is more real than the matter. So I continue to prefer (10c).

form is prior to the matter and more real, the composite too will be prior for the same reason.<sup>289</sup> This intriguing suggestion will please those who wish to keep the compound alive as a candidate for primary substance.<sup>290</sup> Indeed, Gill holds that the main project of *Metaphysics Z.3* is to refine a notion of the subject that allows both the form and the composite to fit under the heading of *substance as subject*. This is defended, in part, by appeal to the fact that form and the compound satisfy the separateness and thisness conditions. I am, however, less sanguine about this use of the passage. For one thing, it comes rather later in the chapter and, when it does, as we have seen, it is accompanied by a clear statement of form's priority to the compound. This is unmistakable.<sup>291</sup> Moreover, unlike 1029a5–7, this expression of form's priority rests on no softness in the manuscripts.

## 4. The Reductio Argument

At 1029a7–9 Aristotle announces that he has outlined the nature of substance. He then (1029a9–10) expresses some reservations, not the least of which is that what has been said leads to the false and unacceptable conclusion that matter is substance. Finally (1029a10–26), we get the actual reductio argument supposedly establishing the offending result. Although the reductio itself will claim most of our attention in this section, the lines that lead into it are not without interest. First, we get the summary statement,

It has now been stated in outline [ζ] what sort of thing substance is (γὺν μὲν οὖν τύπῳ εἴρηται τί ποτ' ἐστὶν ἡ οὐσία), [ζζ] that it is that which is not predicated of a subject but of which other things are predicated (ὅτι τὸ μὴ καθ' ὑποκείμενον ἀλλὰ καθ' οὐ τὰ ἄλλα). (1029a7–9)

For ease of reference, suppose we say that this passage contains the following, crudely formulated, view:

<sup>289</sup> Gill (1989): 16.

<sup>290</sup> Gill (1989) ably defends just such an account. See also Loux (1991).

<sup>291</sup> Gill (1989: 17) denies that form is said to win in this section of the text. So far from stating that form wins, she argues that the chapter's end still specifies all three components as substance and that “this part of the chapter gives no reasons for the priority of form.” This will test more than one reader, for matter, form, and the compound are said to be substance precisely in a context that also asserts the priority of one to the others, namely, the form. This is not affected in the least by the fact that no reason is given there for the priority. On our view, of course, this is remedied by the fact that the reason for form's priority has been given earlier in the Priority Argument. Moreover, if Aristotle is focused on that component of the subject that is fit to serve as the subject-of c-substances, then reference to all three as substances is benign and priority talk natural.

S.  $x$  is a substance  $\equiv x$  is not predicated of  $y$  &  $y$  is predicated of  $x$ ,

where  $y$  is anything other than  $x$ . In a moment I shall have a good deal more to say about (S), in particular, about some of its more well-formed relatives. First, however, some comments of a more programmatic cast.

In remarking that he has outlined the sort of thing that substance is, Aristotle confirms our claim that *Metaphysics* Z.3 aims for an analysis of the concept rather than a specification of its extension. Further, he is referring not to the four candidates introduced at the beginning of the chapter, but solely to the candidacy of the subject ( $\tau\acute{\omicron}\ \acute{\upsilon}\pi\omicron\kappa\acute{\epsilon}\iota\mu\epsilon\nu\omicron$ ). And here there is an ambiguity. The  $\acute{\omicron}\tau\iota$ -clause, (ii) of the text cited above, may indicate that Aristotle has been talking about the substance *that* is not predicated of a subject . . . or about substance, *which* is not predicated of a subject. . . . This leads one to ask whether he takes himself to have spelled out the concept of substance that is to be investigated in the balance of *Metaphysics* Z or whether his remark is to be confined to Z.3. Ross's translation,<sup>292</sup> which favors the first, is probably correct. At any rate, it is friendly to our view that the form ( $\epsilon\acute{\iota}\delta\omicron\varsigma$ ) discussed under the heading of the subject ( $\tau\acute{\omicron}\ \acute{\upsilon}\pi\omicron\kappa\acute{\epsilon}\iota\mu\epsilon\nu\omicron$ ) is the target of investigation in *Metaphysics* Z as a whole. Moreover, there is an accompanying explanation for the immediate and obvious concern about matter that Aristotle displays in the *reductio* section. If only an internal structural component is able to serve as the substance-of a c-substance, then this will be something that underlies the c-substance—in the technical sense of underlying. This cannot, however, turn out to be the matter of the c-substance. So Aristotle raises this worry directly in order to set it aside and clear the decks for the consideration of form alone.

Not all commentators share this view of the aim of the *reductio* argument.<sup>293</sup> And even those who agree that it serves the interests of form usually have a different estimate of the argument's dialectical force. In particular, most see it as rejecting a major tenet of the *Categories*. For Frede and Patzig (1988) the argument tells against the proposition, favored in the *Categories*, that c-substances are the subjects of accidents. For Lewis (1991) the target is the very criterion that work sets for primary substances. Our compatibilist account of Z.3 will, predictably, have neither of these consequences. To appreciate this fully, it will be useful to look at the alternative proposals.

The *reductio* section actually contains two arguments—a main argument at 1029a10–19 and an auxiliary argument at 1029a21–6. I shall

<sup>292</sup> “We have now outlined the nature of substance, showing that it is that which is not predicated of a stratum, but of which all else is predicated.”

<sup>293</sup> For example, Gill (1989) and Loux (1991).



refer to the first as A1 and the second as A2. For a while I shall speak only about A1. It is introduced as follows:

We must not leave it merely like this [i.e., (S)], for it is not adequate (δεῖ δὲ μὴ μόνον οὕτως, οὐ γὰρ ἰκανόν). For this itself is unclear (αὐτὸ γὰρ τοῦτο ἀδηλον) and further matter becomes substance (καὶ ἔτι ἡ ὕλη οὐσία γίγνεται). For,<sup>294</sup> if matter is not substance, it is hard to see what else could be (τίς ἔστιν ἄλλη διαφεύγει), for when the other things are stripped away it appears that nothing [but matter] remains<sup>295</sup> (περιαρουμένον γὰρ τῶν ἄλλων οὐ φαίνεται οὐδὲν ὑπομένον). (1029a9–12)

Aristotle has already announced his intention to focus Z.3 on the candidacy of the subject and so here we may take him to be saying that of the three things that enter under the heading of the subject, namely, form, matter, and the compound, matter will have the best claim to be substance—on assumption of (S). Matter's claim to substantiality is grounded on the fact (*a*) that when other things are stripped away, only it remains. Bostock worries about this line. Thus, he asks us to suppose that Aristotle meant (*a*) to read “if you take everything away but matter, then only matter remains.” Although true, this would not seem to establish anything of interest, for an analogous truth holds of shape (“if you take everything away but shape, only shape remains,” Bostock, 1994: 76). And, thus, he suggests that the phrase “all else” is best glossed by “all that is admittedly not substance.” There are several things wrong with this. First, the grounding fact itself is not meant to *establish* anything. Rather (*a*) gives the conclusion that is to be established by the attached reductio argument. Second, it is just false that (*a*) has an analog for shape. One cannot strip away everything other than shape and have shape remaining. Shape is simply not that sort of thing. Third, the text supposes not that “all else” is stripped away but only that “other things” are so stripped. Fourth, Bostock's positive suggestion is curious, for to suppose that all that is admittedly not substance is what is stripped away will not leave *only* matter remaining. For the form as well as the compound are admittedly substance. So Bostock's view makes it hard to see how 1029a9–12 fits with the reductio it introduces.

In fact, there is a straightforward version of 1029a11–12 that avoids Bostock's worries as well as the flaws of his own proposal. It is this: when the other things have been stripped away from the *subject*, nothing remains but matter. About the only thing presupposed by this version is that the subject can be distinguished from whatever is predicated of it. This stands in its favor since it is also one of the (few) presuppositions

<sup>294</sup> Bostock fails to translate the ‘γάρ’ at 1029a11 as well as at a9.

<sup>295</sup> Compare Bostock's translation: “nothing apparent remains.”

of the stripping procedure that drives the reductio argument. So let us look at that argument.

The main argument of the reductio section, (A1), proceeds in two stages. Stage I (1029a10–16) strips away those ‘other’ things that are attributes ( $\pi\acute{\alpha}\theta\eta$ ), products ( $\pi\omicron\iota\eta\mu\alpha\tau\alpha$ ), and capacities ( $\delta\upsilon\nu\acute{\alpha}\mu\epsilon\iota\varsigma$ ) of bodies. This results in an entirely stripped-down subject in the sense that everything that it is a subject *for* has been stripped away. There is nothing other than it (the subject) left. It does not follow from this, however, that the remaining subject is nothing at all nor, even, that it is mere matter. Rather it is something with length, breadth, and depth. And these, Aristotle says, unsurprisingly, are not substance(s) but quantities. Moreover, they are quantities that hold primarily of their subjects. So, apparently, what does not hold of something as its ‘first’ subject can be removed without prejudice to the subject. Hence, they would seem to be accidental to it. But, then, the first subject to which length, breadth, and depth belong is a subject they hold of non-accidentally. This subject, body, is also said to be substance.<sup>296</sup> So after stage I of the process, we are left with a stripped-down substance, that is, a substance with length, breadth, and depth.

How can we go further? We started with a subject and stripped away the ‘other’ things that it underlies. But it was part of the bargain to keep the subject after the stripping has run its course. So these ‘other’ things cannot include anything that is necessary to the subject. To strip away breadth, length, and depth thus threatens to leave us with no subject at all and, moreover, to do so without even reaching the level of matter. Aristotle addresses this in stage II (1029a16–20) of the stripping procedure by what Lewis aptly calls the shift-of-subject maneuver. Begin fresh with the subject remaining after stage I and ask whether there is some further subject that has, in a strippable way, the very properties that could not be stripped from the subject in stage I. If so, there will have to be something that is determined by length, breadth, and depth. Moreover, it will have to be the sort of subject that remains after the stripping has occurred and, hence, these ‘other’ things must not be essential to the subject. Matter alone could be this sort of subject. Thus, of all the three kinds of subjects Aristotle is canvassing, matter has the strongest claim to be substance because only it remains when all stages of stripping are complete.

This is an informal version of the main reductio argument, A1. As far as it goes, it agrees substantially with the more formal analysis of

<sup>296</sup> As far as Aristotle is concerned, at least for purposes of the reductio. He says (1029a15–16) that, so far from being substance, quantities are what belong primarily to it (and to bodies).

Lewis.<sup>297</sup> However, according to Lewis, the target of A1 is what is expressed in 1029a7–9, i.e., (S), which he reads as

S\*. Everything is predicated of  $x$  but  $x$  is predicated of nothing else ( $x$  is a primary subject, for short) if and only if  $x$  is a substance.<sup>298</sup>

Proposition (S\*) expresses the monolithic conception of the subject that Lewis takes to have served in the *Categories* as the criterion for primary substancehood. Thus, the reductio targets a major thesis of the early ontology and so excludes a compatibilist interpretation of the sort we favor.

At this point one might look for a reading of the reductio argument that does not sacrifice such a central thesis from the *Categories*. The most provocative view of this sort is that of Frede and Patzig (1988). Their version of the reductio serves a broader view of the relation between the *Categories* and *Metaphysics* Z.3. In both Aristotle focuses on what is the proper subject of accidents but in the later work he realizes that, not c-substances themselves, but their forms must play this role. I have already, in Chapter IV, registered worries about a number of arguments advanced on behalf of this view. Although this might undercut the motivational or logical basis for the view, Frede and Patzig might still be correct in ascribing the view to Aristotle. If so, the view will need a clear textual warrant in *Metaphysics* Z.3.

Anyone who thinks that *Metaphysics* Z.3 means to retain primary substances as the subjects of accidents will have to say something about the reductio argument, A1. For it appears that treating substance as a subject leads to the unacceptable conclusion that matter alone is substance. So it could hardly be form that picks up the fallen standard of the *Categories*. For Frede and Patzig, however, this *is* just a matter of appearances. First, they admit that the subject condition entails that matter is substance. But, they argue, so are form and the compound of form and matter. Only one of these is *primary* substance, and this is determined by arguments that lie outside the reductio, for example, the priority argument discussed in the previous section and the requirement at 1029a27–33 that substance be a this and separate. All this is compatible with the results of stage I of the stripping procedure. For, as we have seen, stage I does not install matter as the sole pretender to substantial primacy or even as the primary underlying thing.

The stronger result, that matter *alone* is substance, is resisted for two reasons. First, it is urged that *Aristotle* can't be arguing that the subject condition entails the stronger result, because he has just said that matter,

<sup>297</sup> See ch. 10 of Lewis (1991) for an elegant and extremely useful analysis of the reductio argument.

<sup>298</sup> Lewis (1991: 279).

form, and the compound of form and matter are subjects. This, however, is consistent with finding, by the subject condition, that matter has the *strongest* claim of the three to substantiality. Against this, Frede and Patzig urge that Aristotle has just said, at 1029a2–5, that matter, form, and the compound of form and matter are said to be not just subjects, but *primary* subjects (what primarily underlies).<sup>299</sup> However, this point will have its intended effect of leveling the ‘subjective’ playing field only if τοιοῦτον (‘of this sort’) at 1029a2 refers to τὸ ὑποκείμενον πρῶτον (what underlies primarily) at 1029a1–2 and all three are primary underliers in the same sense. That this is not obvious is suggested by noting that what Aristotle says is slightly more complicated: “In a certain way (τρόπον τινά), matter is said to be a thing of this sort (τοιοῦτον), in another way (ἄλλον τρόπον) shape, and in a third (τρίτον) the compound.” Thus, even if τοιοῦτον (‘of this sort’) does go back to τὸ ὑποκείμενον πρῶτον (what underlies primarily), the way in which matter is said to primarily underlie may be a more fundamental way. Hence, it still may have the chief claim to be substance, *on the subject condition*. In that sense matter alone could turn out to be substance.

The second reason Frede and Patzig give for resisting the stronger result is that it is established, if anywhere, in stage II of A1. Yet stage II is not an argument that Aristotle endorses. Rather, it is the Platonist who holds that length, breadth, and depth belong to objects in a way that makes them the substance of the object. Aristotle holds no such thing. Indeed, he is clear on the point that these are, in fact, accidents and, hence, can be stripped away. It is this Platonist gloss that is under attack in stage II. Hence, it is not Aristotle who is forced to the stronger result that matter alone is substance, by dint of holding to the subject condition, but rather the Platonists. Thus, Aristotle is free to keep the subject condition without inviting the embarrassment that matter alone is substance.

Despite its appeal, there are some worries about this proposal. One is that the text of Z.3 contains very little that would suggest the

<sup>299</sup> Frede and Patzig say that this establishes that form is a subject and, in particular, one that turns out to be the subject of accidents. This supposes, of course, that 1029a2–5 is to be taken at face value. But form is only *said* to be a primarily underlying thing and only in a certain way. This, plus the fact that Aristotle is in the midst of spinning a reductio cast some doubt on the face-value reading of 1029a2–5. But even taking the lines as they stand, another suggestion comes to mind. Recall that the shape (of a thing) is the schema of (its) appearances (τὸ σχῆμα τῆς ἰδέας, 1029a4–5) and that shape is immediately identified as the (thing’s) form. Might not the form underlie these appearances in the way that a person has one form that underlies his varying appearances at different stages of growth and development? These appearances will not be accidents of the thing at, say, *t*, but rather the particular embodiment of the form that the thing has at *t*. If so, then the form may be a subject in some sense without being a subject of accidents. (Even this, however, is more than we care to admit.)

Platonist intrusion in the midst of the reductio section.<sup>300</sup> A second worry is that, even if the Platonists hold the views ascribed to them, Aristotle himself seems committed to keeping stage II in camp. At *Physics* 209b9–11<sup>301</sup> he reports that when the boundary and attributes of the sphere are taken away (ἀφαίρεσι) there remains nothing besides the matter (οὐδέν παρὰ τῆν ὕλην). This is the same verb deployed in *Metaphysics* Z.3's stripping procedure (see ἀφαιρουμένου at 1029a16–17) and the procedures themselves seem no different. Further, in the *Physics* passage Aristotle appears to be speaking in his own voice. So it is not at all obvious that stage II of A1's stripping is not also in Aristotle's voice.

Does this mean that we are stuck with a Lewis-style reading of A1 and, hence, with rejecting the central thesis of the *Categories*? I think not. There is another alternative and one that preserves the compatibilist reading of the two treatises. Suppose we begin by revisiting the following point. After announcing that he has outlined the nature of substance as that which is not predicated of a subject but of which the other things are predicated, Aristotle immediately expresses reservation:

We must not leave it merely like this, for it is not adequate (δεῖ δὲ μὴ μόνον οὕτως, οὐ γὰρ ἰκανόν). For this itself is unclear (αὐτὸ γὰρ τοῦτο ἄδηλον) and further matter becomes substance (καὶ ἔτι ἡ ὕλη οὐσία γίγνεται). (1029a9–10)

Now Aristotle is pretty clearly referring to the characterization of substance, just given at 1029a7–9, as that which is not predicated of anything but of which other things are predicated (S). It is reasonable to suppose that there is a problem with (S). But the exact difficulty is harder to pinpoint. In fact, there is a problem even about the status of the proposition contained in 1029a7–9. Is (S), as some would say, simply a definition of substance, perhaps, even, the *Categories* definition of primary substance?<sup>302</sup> Or is it asserted on the strength of other propositions already introduced in Z.3? The former is unlikely. For in 1029a7–9 Aristotle gives us the upshot of his summary discussion of substance as subject. However, that discussion (1028b36–1029a2) does *not* contain anything that says just what (S), in 1029a7–9, says. But it should have, if 1029a7–9 is supposed to be summarizing a *definition*. Rather, I suggest,

<sup>300</sup> It is, perhaps, worth mentioning that for Frede and Patzig (1988), “those who consider the matter in this way” (οὕτω σκοποῦμενοι) at 1029a19 must refer not to those holding some view about subjects and substance but rather to those holding Platonistic views about length, breadth, and depth. This may detract from the attractiveness of their position.

<sup>301</sup> Cited by Lewis (1991) and Bostock (1994).

<sup>302</sup> Bostock (1994: 75) seems committed to this. For reasons clear from Ch. I, I prefer to speak of the *Categories* specification, rather than definition, of primary substance.

the lines contain what is, in effect, the conclusion of 1028b36–1029a2—the lines discussing the candidacy of the subject (ὑποκείμενον). And here, as we shall see, there are a number of propositions involved. Thus, it is possible that the intended target of the reductio is not (S) but rather a proposition or set of propositions that lead to it.

So let us take a closer look at Aristotle's opening discussion of the subject (τὸ ὑποκείμενον). It is first characterized at 1028b36–7, where Aristotle says “the subject is that of which other things are predicated while it itself is not further predicated of the others.”<sup>303</sup> This is often taken to assert that the subject is such that everything else is said of it.<sup>304</sup> This gives us something like

11.  $(x)(x \text{ is a subject} \equiv (y)(y \neq x \rightarrow y \text{ is predicated of } x \ \& \ \neg(\exists z)(x \text{ is predicated of } z)))$ .

Aristotle adds immediately that the subject is to be investigated first, “for what most seems (δοκεῖ) to be substance is what primary underlies” (1029a1–2). Write this as:

12.  $(x)(y)(x \text{ underlies } y \text{ primarily} \rightarrow x \text{ is the substance-of } y)$ .

If (12) is the reason for investigating the subject, as characterized in (11), then Aristotle clearly assumes (relative to whatever modality is introduced by ‘δοκεῖ’ in 1029a1):

13.  $(x)(y)(y \neq x \ \& \ y \text{ is predicated of } x \ \& \ \neg(\exists z)(x \text{ is predicated of } z) \rightarrow x \text{ underlies } y \text{ primarily})$ .

Proposition (13) is acceptable but (11) is more than nominally unlucky. Its right side is too strong to be satisfied by anything.<sup>305</sup> There is nothing that is the subject for everything that is different from it—not Socrates, not Secretariat, not the Eiffel Tower. So despite being the usual reading of the definition of a subject, (11) must be replaced in favor of

- 11a.  $(x)(x \text{ is a subject} \equiv (\exists y)(y \neq x \ \& \ y \text{ is predicated of } x) \ \& \ \neg(\exists z)(x \text{ is predicated of } z))$ ,<sup>306</sup>

which says simply that something is a subject, if some other thing is predicated of it while it is predicated of nothing. With (11a) we have a principle that fits naturally with (13). In short, to underlie something

<sup>303</sup> τὸ δ' ὑποκείμενον ἐστὶ καθ' οὗ τὰ ἄλλα λέγεται, ἐκεῖνο δὲ αὐτὸ μηκέτι καθ' ἄλλου .

<sup>304</sup> So Ross (1928), Tricot (1974), and Frede and Patzig (1988).

<sup>305</sup> This may not affect its truth, for it will be vacuously true, but it eliminates its utility as a criterion of any kind.

<sup>306</sup> Compare (11a) with Irwin (1988: 215), who formulates 1028b36–7 directly as a condition on substance:  $x$  is a substance  $\equiv x$  is not predicated of anything else. But the broad predication formula, as Irwin calls this, obviously fails as a *subject* condition, for  $x$  can satisfy it without being the subject of anything at all.

primarily it is sufficient for a subject to have something predicated of it and to be itself predicated of nothing.

Proposition (13) appears to take us deep into *Categories* country. For it means, among other things, to exclude interim subjects as candidates for what underlies primarily, e.g., *man* as underlying *animal*. Thus, it appears to reject anything like secondary substances as the primarily underlying entities.<sup>307</sup> So if (13) or (11a), the definition of the subject that presupposes (13), is the subject of Aristotle's reservations in 1029a9–10, then the *Categories* account appears to come under fire. This, again, appears to threaten any account favoring the compatibility of the *Categories* and *Metaphysics Z*.

So what are the prospects for a compatibilist reading of A1, the reductio section of Z.3? Aristotle makes no bones about the fact that primary substance cannot turn out to be matter, and it is equally clear that some proposition or set of propositions appears to lead to this unattractive result and so must be given up. But which proposition or propositions is hardly obvious, as the two accounts just examined make clear. Most importantly, can an account of this sort be given that is not incompatible with the compatibility of the *Categories* and *Metaphysics Z*?

Most interpreters take the culprit to lurk in 1028b36–7, which they take to characterize a subject as that of which *everything* else is predicated.<sup>308</sup> Roughly, the idea would be that nothing but matter could conceivably play this role because only of matter can we conceivably suppose that everything else is predicated. There is no denying the appeal of this suggestion. But it requires an unalloyed reading of the passage, namely, (11). However, 1028a36–7, the text backing (11) reads, “the subject is that of which *others* (τὰ ἄλλα) are predicated.”<sup>309</sup> This may be taken to say only that the subject is that of which *something* else is predicated. This is just our preferred reading, (11a), which does not inspire such global confidence in the claims of matter. Still, (11a) somehow combines with (12) and (13a) to give

14.  $x$  is a subject  $\rightarrow x$  is the substance-of (whatever it underlies),

and, on the assumption that the substance-of an item just is primary substance,

<sup>307</sup> Note that this is not equivalent to being a subject and never a predicate. These are what Ch. III referred to as ‘strict subjects’. But, as that chapter argues, some strict subjects (namely, nonsubstantial individuals construed as nonrecurrent particulars) are never predicates but nonetheless have something underlying them.

<sup>308</sup> For example, as we have seen, Lewis (1991: 274).

<sup>309</sup> With, now, Bostock's (1994) “What underlies is that of which other things are predicated while it itself is predicated of nothing further,” and against Ross's (1928) “that of which everything else is predicated,” and Frede and Patzig's (1988) “von dem alles Übrige ausgesagt wird.”

14a.  $x$  is a subject  $\rightarrow x$  is primary substance.

So being a subject ( $\acute{\upsilon}\pi\omicron\kappa\epsilon\acute{\iota}\mu\epsilon\nu\omicron\nu$ ) appears to entail being a primary substance. Thus, if the reductio establishes that the subject of (14a) must be identical with matter, it establishes that matter must be primary substance. Alternatively, if it establishes that matter has the best claim to be the subject of (14a), then it establishes that matter has the best claim to be primary substance. Moreover, with (14a) we finally arrive at a proposition that *is* contained in 1029a7–9, for given the definition of a subject in (11a), (14a) is equivalent to

14b.  $(x)(\exists y)(y \neq x \ \& \ y \text{ is predicated of } x \ \& \ \neg(\exists z)(x \text{ is predicated of } z)) \rightarrow x \text{ is a primary substance}$ ,

and, strengthened to a biconditional, (14b) gives the proper reading of (S). The stronger reading favored by Lewis, (S\*), does not. Further, we get (14a)/(14b) by using three propositions, none of which explicitly connects primary substantiality with primary subjecthood. This connection, formalized in (14b), invites the reductio, but it is obtained as a *conclusion*. So if we wish to break the connection, we must give up at least one of the propositions that generated (14b), namely, (11a), (12), or (13a).

It will be useful to begin with some observations about the key propositions themselves: (11a) contains a definition of the subject ( $\acute{\upsilon}\pi\omicron\kappa\epsilon\acute{\iota}\mu\epsilon\nu\omicron\nu$ ) as what is a subject and never a predicate; (13a) links this notion of a subject to that of a *primary* underlying thing; and (12) links primacy of this sort to the notion of substance-of and, hence, to primary substance itself. This is the situation when we arrive at 1029a7–10, a passage that bridges the discussion of the subject with the reductio section of the chapter:

We have now said what sort of thing substance is, that it is not  $\langle$ predicated $\rangle$  of a subject but the other things ( $\tau\acute{\alpha}$   $\acute{\alpha}\lambda\lambda\alpha$ ) are predicated of it. But it can't be left just like this ( $\delta\epsilon\acute{\iota}$   $\delta\epsilon$   $\mu\eta$   $\mu\acute{\omicron}\nu\omicron\nu$   $\omicron\upsilon\tau\omega\varsigma$ ), for this is not adequate ( $\omicron\upsilon$   $\gamma\acute{\alpha}\rho$   $\acute{\iota}\kappa\alpha\nu\acute{\omicron}\nu$ ) because it itself is unclear ( $\alpha\upsilon\tau\acute{\omicron}$   $\gamma\acute{\alpha}\rho$   $\tau\omicron\upsilon\tau\omicron$   $\acute{\alpha}\delta\eta\lambda\omicron\nu$ ) and, further, on this view, matter becomes substance ( $\acute{\eta}$   $\acute{\upsilon}\lambda\eta$   $\omicron\upsilon\sigma\acute{\iota}\alpha$   $\gamma\acute{\iota}\gamma\nu\epsilon\tau\alpha\iota$ ).

The first sentence does not merely reiterate, as is widely assumed, the definition of the subject given at 1028b36–7, namely, (11a). Assuming that the underlined expressions all refer back to the contents of the first sentence, Aristotle appears to be voicing a worry less about (11a) than about (14a)/(14b).

In fact, Aristotle states the worry three times in Z.3. In addition to 1029a9–10, we have

1029a18–19: therefore, matter alone would appear to be substance to those who look at things this way,



and

1029a26–7: proceeding, then, from this, it follows that matter is substance.

Is *what is unclear* in the first passage (a9–10) the same as *the way things are looked at* in the second (a18–19) and the same as *that from which it follows* in the third (a26–7)? One reason to think so is that 1029a7–10 asserts that the formulation that is inadequate is so because it is unclear *and* makes matter substance. So it would seem that this is also what in a18–19 and a26–7 is responsible for matter turning out to be substance. Now, of course, it is true that a18–19 says that matter *alone* would appear to be substance, whereas the other two passages press only the weaker claim that matter is substance. As we have seen, Frede and Patzig make much of this in urging that Aristotle wants to retain a subject criterion for substance and that he does so by granting that matter, form, and the compound are all subjects (the matter and the compound to be excluded as primary substance by other arguments). This is preserved by the weaker claim in a9–10 and a26–7. The stronger claim of a18–19, however, would appear to exclude all but matter as the ultimate subject. Thus, the subject condition appears to promote matter as primary substance and this, in turn, would recommend repeal of subjecthood as the criterion for substantial primacy. Frede and Patzig reject this course because, although the primary substance of *Metaphysics Z* is form, it remains, as in the *Categories*, the subject of accidents. Thus, they find the strong claim of a18–19 to be derived not from the Aristotelian thesis (11a), but from a Platonist gloss. In this way, the *Categories* subject criterion for primary substance remains intact.

As already indicated, we take a line on the *reductio* section closer to that of Lewis. In particular, we take all three occurrences of A1's conclusion (a10, a18–19, a26–7) to contain the strong claim that matter alone is substance. Indeed, we take this to claim that matter alone is substance in the primary sense.<sup>310</sup> So, with Lewis, something more than a Platonist gloss is to be surrendered. But is it (11a) and, if so, is this tantamount to giving up the *Categories* criterion for primary substance?

Recall that something's being a subject entailed its being primary substance (in [14a]/[14b]) on assumption of (11a), (12), and (13). The unacceptable claim that matter alone is primary substance is arrived at by adding to (14a)/(14b) the proposition that matter is the primary underlying thing. This is what the *reductio* section's stripping-away was meant to establish. But the stripping-away does not by itself establish that matter alone is primary substance. It requires (14a)/(14b), and

<sup>310</sup> The falsity of this claim is consistent with holding that matter is substance in a reduced sense, namely, as a potential substance. Frede and Patzig offer this same judgment on matter's claim to substantiality. So on this point they hold no advantage.

(14a)/(14b) follows from three other propositions. Moreover, only one of these, namely, (11a), pretends to define what a subject is. Thus, Aristotle could avoid the reductio's conclusion by giving up (12) or (13) rather than (11a).

Now some think that 1028b36–7 introduces the *Categories* definition of a subject and that Z.3 proceeds to reject it. But usually they do not distinguish (11a) from other theses we have isolated, especially (14b).<sup>311</sup> Others might worry about the fact that Z.13, for example, distinguishes two sorts of subjects. One subject, the subject<sub>1</sub>, is a this (τὸδε τι) and underlies in the way that an animal underlies its properties. The other subject, the subject<sub>2</sub>, underlies as matter underlies the animal (what Aristotle calls the complete reality). Assuming that neither of these is a subject of which the other is predicated, we appear to have two irreducibly different kinds of subjects. But thesis (11a) does not register this distinction. Granted, (11a) says just that something is a subject if, and only if, something is predicated of it and it is predicated of nothing. However, this is compatible with the subject<sub>1</sub>–subject<sub>2</sub> distinction. Indeed, as I read (11a), both a ‘this’ such as Socrates and matter qualify as subjects. They would simply be subjects for different kinds of items, none of which they are predicated of.<sup>312</sup> So, *pace* Lewis, subject monolithicity is not necessarily built into (11a), nor, thus, into its presupposition, (13).

Furthermore, it is not obvious anyway that (11a) gives the *Categories* subject criterion for primary substance. Bostock takes 1028b36–7 to be “precisely the definition of ‘primary substance’ that is given in the *Categories* (2a11–14).”<sup>313</sup> But the latter is usually understood as a purely negative specification:  $x$  is a primary substance if, and only if,  $x$  is neither present in nor said-of a subject.<sup>314</sup> In particular, there is no provision for the positive point that there is something that  $x$  underlies. Of course, there are other grounds for holding this in the *Categories*, but these are independent grounds. My point is simply that the positive point is not

<sup>311</sup> Thus, Lewis (1991: 279), who appears to equate (11a) with (14b).

<sup>312</sup> Again, this is obscured by those, such as Ross (1928), who translate 1028a36–7 to contain (11) rather than the weaker (11a).

<sup>313</sup> Bostock (1994: 75).

<sup>314</sup> As I point out in Ch. III (see proposition [4]), 2a11–12's negative conditions only *pick out* primary substances. The lines do not pretend to say why they are primary. This may be remedied at 2a15–17, which adds to the negative conditions the condition that all the other things are said-of primary substances or are in them. I say this “may” remedy the omission in 2a11–12 because the augmented set of conditions explains why primary substances are substances *most of all* and this is not quite yet to explain why they are *primary*. Perhaps, more worth noting is that the explanation at *Categories* 2b15–17 is couched in language absent from 1028b36–7. It says “it is because the primary substances are subjects for *all* the other things (τοῖς ἄλλοις ἅπασιν) and *all* the other things (πάντα τὰ ἄλλα) are predicated of them or in them, that they are called substances most of all.”

part of the specification of a primary substance.<sup>315</sup> But it is part of (11a) and so we cannot be certain that (11a) means to give the specification of primary substance from the *Categories*, as Bostock construes that.<sup>316</sup> There is an additional nuance to tease out. In the *Categories* the notions of predication and underlying come apart in the following way. Not everything that has an underlying subject is predicated of that subject.<sup>317</sup> Thus, type-III items have primary substances as their underlying subjects, indeed, they cannot exist without them. But because they are particulars, as Chapter II argues, type-III items are not predicated of the subjects they are present in. Thus, the *Categories* countenances two kinds of strict subjects, only one of which is an ultimate subject.<sup>318</sup> As we have seen, thesis (11a) can be held satisfied by two irreducibly different kinds of subjects—subjects<sub>1</sub> and subjects<sub>2</sub>. But the items that these subjects underlie are also items that are predicated of them: Socrates, a this, underlies pallor, which is predicated of him, and form is predicated of matter, which underlies it.

It is, thus, not entirely obvious that (11a) is a mainline *Categories* thesis. So, even were it the target of the reductio, it is not obvious that the *Categories* comes under direct attack. Moreover, it is no longer clear that there is much objectionable in (11a). Thus, it is not entirely reckless to hazard the thought that the reductio section of Z.3 takes aim, not on (11a), but on (12). For one thing, it is only (12) that even mentions substance. More dramatically, failing (12), the reductio establishes nothing at all about *substance*. And, by the same token, without (12) nothing is established about *primary* substance, assuming that to be the substance-of something is to be its primary substance.

There is a decided advantage to our proposal. It allows us to apply much of Lewis's version of the reductio *without* being committed to subject monolithicity as its target.<sup>319</sup> For we can regard Aristotle as proceeding,

<sup>315</sup> Insistence on the purely negative specification has philosophical punch. For it allows the system of categories to accommodate entities that have no accidents, should there be such. Indeed, it is arguable that the unmoved mover and its kind are precisely such entities.

<sup>316</sup> Again, rather than Bostock's 'definition', I speak of the 'specification' of primary substance because it is not obvious that substance *as such* has a definition in the canonical sense of the term. On this see the argument of Ch. I.

<sup>317</sup> It is worth noting that 2b15–17 (quoted at the end of n. 67) separates predication from being-in something, assuming that predication there is not restricted to MO's technical *said -of* relation, and so may give some independent support for the claim that predication and underlying come apart in the *Categories*.

<sup>318</sup> See Ch. III, and n. 60 above.

<sup>319</sup> Lewis (1991: 279) formulates the target of the reductio as follows: "Everything is predicated of  $x$  but  $x$  is predicated of nothing else ( $x$  is a primary subject, for short) if and only if  $x$  is a substance." Moreover, he finds it in 1028b35–6, where we find only (11a) and in 1029a1–2, where we find only (12), and in 1029a7–9, which we get as a conclusion (i.e., [14a]/[14b]) of a set of propositions that include (11a) and (12). Plus, we give a weaker reading to this conclusion. Strictly, there is nothing that satisfies Lewis's formulation, (S\*), just as there was nothing that satisfies (11) above.

first, with stripping of those attributes which pertain to the subject<sub>1</sub> and, then, proceeding to strip this subject of features that are more deeply connected to it. This results in a ‘deeper’ subject, namely, matter or the subject<sub>2</sub>. And nothing here requires that one of these subjects be predicated of the other. So (11a) is still in force. How, exactly, might this work? First, we must assume, reasonably, that the reductio invokes two stages of stripping and that they are more or less independently applied. Note, then, that in the second stage of stripping, not form proper, but length, breadth, and depth are what get stripped so as to leave only matter. So we need to further assume, what also seems reasonable, that what remains with length, breadth, and depth, after the first stage of stripping, is a τὸδε τι (a this) and that, although they are not form proper, length, breadth, and depth determine the shape of the τὸδε τι. So if, with 1029a4–6, we allow that the shape is also the form, then, perhaps, stripping away the shape-determining features of a thing will amount to stripping away its form and so give us in the end nothing more than something that underlies as matter, namely, the subject<sub>2</sub>. As far as I can tell, nothing in this account calls for a rejection of anything in the *Categories*. What, if anything, ought to be rejected is the proposition that what you get at the end of all this is primary substance. No such thing is obtained, because matter could not conceivably be the *substance-of* the τὸδε τι that was the original target of the stripping operation. And this is just to recommend that (12) be given up.

Another reason for focusing the reductio on (12) is the fact that in *Metaphysics Z* the primacy enjoyed by primary substance turns out to be a kind of structural primacy that is quite different from the more standard ontological brand of the *Categories*. I take this up in the next chapter. But first something should be said about the ‘auxiliary’ argument at 1029a20–6, for some will find it less than hospitable to our compatibilist leanings, in particular, to our claim that Z.3 champions the candidacy of form because form has the best claim to be the substance-of c-substances.

## 5. The Auxiliary Argument

To A1, the main argument of the reductio section, Aristotle attaches the following passage:

[i] By matter I understand what is not, in its own right, said to be something (τι) or a quantity or any other thing by which being is made determinate (μήτε ἄλλο οἷς ὄρισται τὸ ὄν); for [ii] there is something of which each of these is predicated, whose being is different from that of each of the predicates (ἕ τὸ εἶναι ἕτερον καὶ τῶν κατηγοριῶν ἕκαστι); for [iii] the other things are predicated of substance and substance is predicated of matter. So [iv] the last thing is not, in its own right, something or a quantity or any other thing (ὥστε τὸ ἕσχατον καθ' αὐτὸ οὐτε τι οὐτε ποσὸν οὐτε ἄλλο οὐδεν ἔσται).

Although most commentators agree on the presence of an argument in these lines (the ‘auxiliary’ argument or A2), there is considerably less agreement on its precise shape or its force. Lewis (1991) locates it mainly in (ii) and (iii) and takes it to support A1's stand against matter alone (for him, prime matter) as substance. His reading of (ii)—“There is something, namely, (prime) matter, of which each of the predicables from all the different categories is predicated”—suggests for the conclusion of A2,

15.  $(\exists x)(y)((x \text{ is matter} \ \& \ y \text{ is substance} \ \vee \ y \text{ is a nonsubstantial categorial item}) \rightarrow y \text{ is predicated of } x)$ .

However, (15) is pretty clearly false. There simply is no bunch of matter, prime or other, of which everything else is predicated. So we are probably better off with

15'.  $(y)(y \text{ is substance} \ \vee \ y \text{ is a nonsubstantial categorial item} \rightarrow (\exists x)(x \neq y \ \& \ x \text{ is matter} \ \& \ y \text{ is predicated of } x))$ ,

which reverses the effect of the (15)'s quantifiers and requires only that every categorial item be predicated of some matter or other.

However, it is difficult to see how (15') follows from anything in (iii). For (iii) contains

16.  $(x)(x \text{ is a nonsubstantial categorial item} \rightarrow (\exists y)(y \text{ is a substance} \ \& \ x \text{ is predicated of } y))$ ,

and

17.  $(y)(y \text{ is (a) substance} \rightarrow (\exists u)(u \text{ is matter} \ \& \ y \text{ is predicated of } u))$ ,

and these entail nothing stronger than

15''  $(y)(y \text{ is substance} \ \vee \ y \text{ is a nonsubstantial categorial item} \rightarrow (\exists x)(x \neq y \ \& \ y \text{ is predicated of } x))$ .

Proposition (15''), however, says nothing about everything being predicated of matter; in effect, it requires only that everything be predicated either of matter or of substance.

So getting (15') from (16) and (17) will require something more. Where 'x' ranges over nonsubstantial categorial items, 'y' over substantial items, and 'z' over bunches of matter, a transitivity principle of the following sort might be thought to work:

18.  $(x)(y)(z)(x \text{ is predicated}_1 \text{ of } y \ \& \ y \text{ is predicated}_2 \text{ of } z \rightarrow x \text{ is predicated}_3 \text{ of } z)$ .

Roughly, the idea behind (18) is that if any nonsubstantial item is predicated of a substance and if every substance is predicated of a bunch of matter, then every categorial item will be predicated of some bunch of matter. This gives a perfectly good sense to the claim that everything will be predicated of matter. But the point of the argument is hardly clear. For one thing, if read as an argument, A2 is probably meant to afford some kind of support to A1 and so should have the force of a *reductio*.

This raises the question of what A2 could be targeting for rejection. I shall get to this in a moment, but a prior question concerns the very soundness of the argument. For if Aristotle holds both (16) and (17) and yet denies (15'), then he had better find something wrong with the inference. Shortly, I shall suggest that (18) is at fault, but first it would be advisable to look at some alternative views of (18). In part, this is because some readings of (18) run against our compatibilist claim that *Metaphysics* Z.3 picks out form as the best candidate for substance on the grounds that it is the substance-of c-substances.

Bostock gives a decidedly incompatibilist reading of A2. On his view, (16) and (17) entail (15') only if the range of 'y' in (17) is limited to c-substances such as Socrates and Secretariat. Thus, his A2 argues "that what the *Categories* calls a primary substance—a particular man, or horse—is not after all an ultimate subject; no doubt other things are predicated of it, but *it* must be predicated of something further, namely its matter."<sup>320</sup> This is incompatibilist because it claims that a central proposition of the *Categories* is attacked in A2, namely, the proposition that primary substances are ultimate subjects. This, presumably, is the Bostockian reading of (15'). But, as we have pointed out,<sup>321</sup> the *Categories* claims only that primary substances are the ultimate subjects for every (*other*) categorial item; and neither matter nor form are categorial items at all, that is, items that must be available in the underlying ontology for specifying the truth conditions of standard categorial predications.

The last response notwithstanding, Bostock must assume that Aristotle is *committed* to the alleged consequence, (15'), and, thus, presumably, to the argument for it. This, in turn, demands Aristotle's allegiance

<sup>320</sup> Bostock (1994: 78).

<sup>321</sup> Ch. IV, esp. sect. 1.

to the transitivity principle, (18). But (18) presupposes, first, that predication<sub>1</sub>, predication<sub>2</sub>, and predication<sub>3</sub> are the same, or at least that they will support the required transitivity, and, second, that the substance of which nonsubstantial categorial items are predicated<sub>1</sub> is the same as the substance that is predicated<sub>2</sub> of matter.

The first presupposition is not obvious, for the tie between an accident and its subject is rather different from that holding between substance and its matter—regardless of how ‘substance’ is construed.<sup>322</sup> The second presupposition, that the substance of accidents is also the substance that is predicated of form, is scarcely plausible. Because, for Bostock, the first is a *Categories* primary substance, or c-substance, so must be the substance that is predicated of matter. The worry is not just that this threatens our view that Z.3 promotes the candidacy of form as the substance-of things. The trouble, mainly, is a complete lack of evidence that Aristotle would entertain *predication* of Socrates, Secretariat, and the like. Proscription of this goes well beyond the *Categories*. So Bostock makes Aristotle jettison a *Categories* doctrine by use of a thesis that he holds neither early nor late. Admittedly, Bostock (79) does suggest that one might “resist Aristotle’s argument” by distinguishing between predication (predication<sub>1</sub>) and constitution (predication<sub>2</sub>). But this will hardly help, because the latter still must catch the notion of Socrates being predicated of his matter, and this is no less suspect a notion for being glossed in terms of constitution (i.e., Socrates being constituted by his matter).<sup>323</sup>

In effect, Bostock reads (17) in terms of (16), as a way of getting a uniform reading for ‘substance’ in (18). On the other hand, one might try to save the inference by letting (17) fix the sense of ‘substance’ as form and insisting that just as the substance predicated<sub>2</sub> of matter is form, so also is the substance of which nonsubstantial categorial items are predicated<sub>1</sub>. This might be agreeable to incompatibilists who, like Frede and Patzig (1988), urge that *Metaphysics Z* rejects the *Categories* view that concrete particulars are the subjects of accidents and awards this role to their forms.<sup>324</sup> On this view, however, (18) gets a uniform reading at a rather high price, namely, by requiring that form itself be a subject for nonsubstantial categorial items, i.e., accidents. However, so far from being a requirement, there is reason to think that Aristotle

<sup>322</sup> Frede and Patzig hold, similarly, but somewhat more expansively, that the form is not predicated of the matter in the same sense (of ‘predication’) in which accidents are predicated of the concrete subject *or the form*. Here inclusion of form serves to promote their view that in *Metaphysics Z* the subject of a thing’s accidents is, ultimately, its form. See this chapter, above, and Ch. IV for worries about this idea.

<sup>323</sup> Besides, if A2 is an argument, it is a *reductio* argument. Hence, it is unclear what is intended by Bostock’s recommendation that we resist it.

<sup>324</sup> I hasten to add that Frede and Patzig (1988) do not explicitly make this connection to A2.

rejects this sort of subjecthood for forms.<sup>325</sup> If so, this attempt to wrest a valid argument out of A2 is hardly better off.<sup>326</sup>

Attempts to save the argument of A2 by finding a uniform reading of (18) are, I think, bound to fail. This should not be surprising in light of the fact that A2 supports the reductio argument A1 and, hence, should tell against its conclusion that matter (alone) turns out to be substance (for convenience I shall call this MAT). It is, however, not exactly clear how the line of support runs, for, as the alleged conclusion of A2, (15') says only that every categorial item is predicated of some matter.

Now it may be that Aristotle simply leaves it to the reader to make the further inference that matter (alone) turns out to be substance. However, there are two points of concern about this. First, A2's alleged conclusion, (15'), that everything is predicated of matter, could not support the claim that matter is *substance*, because (15') is entailed by the premises that accidents are predicated of substance and that substance is predicated of matter. If 'substance' is here read univocally, then the claim that matter is substance has, in effect, been excluded in the premises. Moreover, more finely drawn distinctions will not help so long as we insist on a uniform reading of 'substance' in the premises. Thus, Bostock's reading of 'substance' as the compound in both premises allows that the conclusion of A2 might support MAT, even were the latter taken to say that matter is substance in the sense of form. And reading 'substance' uniformly as form would allow that MAT be taken to say that matter is substance in the sense of the compound.

Surely, these options are meant to be excluded, and so it would be preferable to find a version of the argument that allows neither—even as 'formal' possibilities. This is easily accomplished, of course, by giving up uniformity. Thus, let the substance mentioned in (16) be the compound and that mentioned in (17) be the form. Besides making (16) and (17) true, this refocuses attention on the transitivity principle itself as the flaw in A2. And well it should. For, arguably, there is no substance,  $y$ , such that an accident,  $x$ , is predicated of  $y$  and  $y$  is predicated of some matter,  $z$ .<sup>327</sup> Yet this was required by (18). This suggests that one point of A2 is to underscore that there is nothing that is the subject of everything.<sup>328</sup> The point is correct, but to properly understand its force in A2, it will be useful to have in hand the second point of concern.

<sup>325</sup> Again, see Ch. IV for some remarks on this.

<sup>326</sup> See Ch. IX, sect. 1, for discussion of the view of Burnyeat (unpublished) that it is the whole animal that is predicated of matter.

<sup>327</sup> And, even were there, it would not follow that  $x$  is predicated of  $z$ .

<sup>328</sup> As Lewis (1991) has well pointed out. My quarrel with him centers on the further claim that in the *Categories* Aristotle holds just this on behalf of primary substances. The quarrel concerns not the analysis of A2 but whether the claim is to be found in the *Categories*. On my view, primary substances are there held to be the subjects for all other categorial items.



It is this. If Aristotle's strategy in A1 is to argue (even for purposes of reductio) that matter turns out to be substance, then A2 is not, as Bostock suggests,<sup>329</sup> an entirely independent argument for the same conclusion as A1. For A2 ends with the weaker (15'), and so requires a premise from the outside in order to match A1's result. This additional premise is none other than the proposition that, I have argued, is the main target of the A1 reductio itself, namely, (12), that what most seems to be substance is what primarily underlies. The fact that this is absent entirely from A2 suggests that the auxiliary argument is not, after all, meant to be an additional stand-alone reductio having the same force as A1. Certainly, it is not a stand-alone set-up argument for MAT. Neither, however, can A2 take aim at (15'), which I have so far entertained as an 'alleged' consequence only.

So how does A2 support A1? Recall, first, that it is situated between two statements of MAT, A1's unacceptable consequence that matter (alone) is substance. This consequence followed from A1's two-stage stripping operation. Although the operation does provide some clues, Aristotle apparently feels the need to give us an explicit statement of what he understands by 'matter' in A1 and, more particularly, in its consequence, MAT. Admittedly, it would be natural to provide a remark to this effect simply in the interests of clarity, and, indeed, he may be doing just this when he explains, at (i) of 1029a20–6 (the text containing A2),<sup>330</sup> that matter will not have any determinate properties in its own right. But Aristotle goes on to give reasons for his reading of matter and this may involve something more. In particular, I suggest, he may wish to contrast matter with what has, not just determinate properties, but determinate *categorical* properties, where the latter is a property something has by virtue of being or having an item from one of the categories. Thus, he wishes to make clear that the thesis to be rejected is the thesis that the matter (alone) of a c-substance is the substance-of the c-substance. This is entirely appropriate given our view that *Metaphysics* Z.3 weighs the claims of a thing's matter, its form, or the compound of its matter and its form to be the substance-of the thing.

How is this reflected in the text? Notice, first, that (ii) gives a reason for (i), namely, that each categorial property is predicated of something whose being is different. Then we get (iii), which contains the 'argument', A2. Now A2 is introduced by a  $\alpha\lambda\omicron$ -clause and so is meant to be a reason for something but not, we have seen, a reason for (15'), let alone a set-up argument for MAT. Rather, A2 gives the grounds for (ii)'s claim that there is something that each categorial item is predicated of and whose being is different from its being. That part of A2 we have

<sup>329</sup> Bostock (1994: 78).

<sup>330</sup> Quoted at the beginning of this section.

labeled (16) establishes the claim for nonsubstantial categorial items. The part labeled (17) establishes it for substance. On the basis of (ii) and (iii), then, Aristotle feels justified in moving to (iv) and, with this, he has explained, finally, why he understands matter in the manner of (i).

This reading of 1029a20–6 has a distinct advantage: it does not require A2 to contain an argument that presupposes a uniform reading of substance in (16) and (17). Therefore, A2 no longer needs to rely on a suspect transitivity principle like (18). This does not, however, exempt us from showing how (16) and (17) manage to explain why Aristotle takes matter to be what has no categorial property in its own right. For (16) opposes nonsubstantial categorial items to substance (the compound) and (17) opposes substance (the form) to matter. In short, it is only in (17) that matter gets opposed to something. But this is only a surface worry. For surely the upshot of (16) is that for a nonsubstantial categorial item to be predicated of a substance compound is (by ii) for such an item to have a kind of being different from that of the compound and, thus, we may presume, different from that of its constitutive components, namely, form and matter. Proposition (17) then secures the same point for the form and matter themselves. With the first, the matter has been distinguished from the nonsubstantial categorial items and, hence, is not a quantity, or any other such item; with the second, the matter has been distinguished from the form and, hence, is not a  $\tau\acute{\iota}$ .<sup>331</sup> Thanks to the form, Socrates may be a certain thing ( $\tau\acute{\iota}$ ) in his own right, say, a man. But this benefit does not extend to “the last thing,” i.e., to his matter, which in its own right is not a  $\tau\acute{\iota}$  of any kind. And this is just what (iv) reports.

Having explained what he understands by matter (and why), Aristotle provides the lower bound to the auxiliary passage by reiterating that for those who have argued in a certain way it turns out that matter (alone) is substance. This is just A1's unacceptable consequence, MAT. Notice that Aristotle does not represent MAT as following independently from A2 or anything else in the auxiliary passage. So the auxiliary passage is an explanatory gloss. It is not, however, merely a gloss. In light of the auxiliary argument, we know that MAT concerns the matter of a c-substance, and from what has come earlier in Z.3 we know that matter, form, and the compound are competing for the title of the substance-of c-substances. Thus, MAT is to be understood as the claim that the matter (alone) of a thing is the substance-of that thing. So the explanatory gloss constrains the notion of matter operative in the main

<sup>331</sup> An additional attraction of this reading of 1029a20–6 is that it treats (16) and (17) as issued more or less independently, thus, paralleling the two-stage stripping operation in A1. For there, too, the stages operated independently.

reductio to the notion invoked earlier in Z.3, where matter is one of three things that the subject (ὑποκείμενον) might be said to be (along with the form and the compound of the form and the matter). No less than at the outset of *Metaphysics* Z.3, then, the reductio argument shows Aristotle to be firmly focused on the question of what internal component of a *Categories* primary substance could be its substance. Hence, the so-called auxiliary argument remains resolutely compatibilist.

# VI Form as Essence

Toward the end of *Metaphysics* Z.3 Aristotle announces that of the three internal structural components of a c-substance—the matter, the form, and the compound—it is the form that is most puzzling and, hence, the one that must be investigated. Now in Z.3 the form, the matter, and the compound are all represented as having, at least initially, a claim to be the substance-of the c-substance whose internal components they are. Since Z.3 also argues that of these the form has the best claim, it is natural to expect his next chapter to embark on the promised investigation of form. Given this (and given my view of the strategy of Z as a whole), the need to investigate form is a function less of some general interest in clarity than of the desire to remove a special sort of unclarity. What is unclear, I suggest, is how a thing's form is to be characterized, in order for it to serve as the substance-of the thing. It is entirely plausible and, for Aristotle, completely natural to start by asking whether the form of a thing, so construed, might be its essence. So it is unsurprising that *Metaphysics* Z.4 begins by turning to the four candidates introduced at the outset of his previous chapter and from these selects the essence (τὸ τί ἦν εἶναι) as the focus of Z.4–6.<sup>332</sup> Moreover, because in Z.3 the essence was introduced on the strength of its claim to be the substance-of (at least certain) things, Z.4's focus on essence is arguably the opening move in an investigation of form of the sort we have suggested.

## 1. A Transitional Problem

Now it is true that Aristotle does not begin Z.4 by identifying form and essence, and some might use this to campaign against our thesis that Z.4 initiates an analysis of what a thing's form must be like, if it is to count as its substance. But such an identification would be premature. For the notion of an essence must itself be clarified and properly restricted, if it is to be of use in explicating the requisite notion of form. *Metaphysics*

<sup>332</sup> This is subject to the contention of Burnyeat (unpublished) that Z.6 is something of a detour and that the proper 'logical' order is from Z.4 and 5 to Z.10 and 11. I shall have more to say on this in Ch. VII.

Z.4–6, and much of the balance of Z, are devoted to this task. Broached in Z.10, the identification of form and essence is fully embraced in Z.17, the book's final chapter. But we should not expect this to be advertised at the start of Z.4.

For some, however, Z.4–6's focus on essence will be troubling. Bostock (1994: 116), for example, holds that the chapters “pay no attention to the distinction between form and matter” and that “it is the familiar category of substance that remains central.” The familiar category is that of the *Categories*, where, as we ourselves have argued, there is no need for the distinction between form and matter. On his view, however, Z.4–6 have nothing at all to do with form. This makes Z.3's prescription to investigate the form rather difficult to explain. Bostock (1994: 81–2) is compelled to take it as a recommendation to explain how form is one of the underlying things or, perhaps, how it is separable and a this. However, as he confesses, “the further discussion” does nothing in this service. Obviously, such service will not be provided by Z.4 because, according to Bostock, the chapter does not even concern form. Nor could the final lines of Z.3 (1029b3–12), what I shall call its ‘intrusive’ section, provide help, for they expand on the methodological adage that investigation ought to proceed from the less to the more intelligible by nature. This might be germane to an eventual examination of thoroughly incorporeal forms (the unmoved mover and its ilk), but it is hardly relevant to an analysis of the forms of sensible substances. That is what Z.3 prescribes, and so the transition from Z.3 to Z.4 appears anything but smooth.

No doubt this predicament will seem inevitable to those who, with Bostock, presume that Z.4–6 is devoid of interest in form. From our point of view the presumption is dubious on its face and the support produced for it does little to improve matters. First, *pace* Bostock (1994: 116), the fact that the *word* ‘form’ occurs but twice in the chapters (and ‘matter’ not at all) hardly licenses the claim that neither form nor matter is *mentioned*. Second, although Bostock correctly holds that the *distinction* between matter and form is not discussed in Z.4–6, it would be incorrect to conclude from this that neither term of the distinction is discussed.

Our view—that Aristotle intends his discussion of essence to be a discussion of form, in particular, of what form must be like if it is to function as the substance-of c-substances—is somewhat obscured by the order of the text that guides the transition from Z.3 to Z.4. This may underlie some of Bostock's difficulties with the transition between the two chapters.<sup>333</sup>

Briefly, the situation is this. The received text of Z.3 ends (1029a33–4) with the remark that the investigation should begin with sensible substances.

<sup>333</sup> He does not comment on the issue.

Because Aristotle has just said that we must examine the claims of form, it is natural to expect an investigation of the forms of sensible substances. Z.4 begins (1029b1–3), as mentioned, by returning us to the four inaugural candidates for substance and singling out the essence for analysis. This also is a natural step because it is entirely appropriate to begin an analysis of the form of sensible substances by supposing that these forms might be a certain kind of essence. The trouble begins with what I am calling the ‘intrusive’ methodological section at 1029b3–12. Rather than proceeding with an examination of essence, it extols the advantages of starting from what is by nature less knowable as a means of gaining understanding of what is more knowable. Thematically, however, this consideration is entirely out of place. It belongs, if anywhere, immediately following 1029a33–4’s invocation to begin with sensible substances. For the ‘intrusive’ section would at least give a reason for beginning with sensible substances, namely, that they are less knowable by nature and so are suited to provide the basis for gaining knowledge of what is more knowable. If this were not enough, 1029b13–14 signals the onset of Z.4’s official analysis by announcing that we are to begin with some logical remarks *about it* (περὶ αὐτοῦ). This adds linguistic weight to complaints about the placement of the intrusive lines (1029b3–12), for nothing in the intrusive section could serve as the reference for ‘αὐτοῦ’ (‘it’) at 1029b13. Clearly, something is out of place.

Faced with these difficulties, Bonitz (1848–9) suggested that 1029b3–12 should follow 1029a33–4 and, thus, that 1029b1–3 is to be followed, now naturally, by 1029b13. This has proven popular among commentators.<sup>334</sup> Less so, however, is his view that Z.4 begins with the intrusive lines, 1029b3–12. Most commentators find it awkward that Aristotle’s technical analysis of essence should begin with such a general methodological preamble, and so virtually all subsequent editors place the ‘intrusive’ section at the end of Z.3. I believe they are correct about Z.4, but I also believe that the lines make for a quite awkward conclusion to Z.3. This view, apparently, was shared by Jaeger, who argued that the lines are a late insertion originally written on a loose sheet attached to the manuscript.<sup>335</sup> Without adopting the details of Jaeger’s story,<sup>336</sup> there is clearly a case to be made for the alien nature of 1029b3–12.

<sup>334</sup> Christ (1895), Ross (1924), Jaeger (1957), and Tricot (1974) followed Bonitz, as do now Frede and Patzig (1988) and Bostock (1994).

<sup>335</sup> Jaeger (1923/1948: 199, n. 1).

<sup>336</sup> Jaeger (1923/1948: 199, n. 1) took the recommendation to look at sensible substances to be the first line of the insertion, written between the lines of the old manuscript and continued on the loose sheet. Presumably, this was to explain how they became separated in what came to be the received text. But the epistemic demands of this account suggest that the safest course is simply to regard 1029b3–12 as a unit and to remain neutral on the details of its insertion into the text.

For present purposes, the important point is that presence of the ‘intrusive’ section at the end of *Metaphysics* Z.3 contributes to the impression of thematic distance between Z.3 and Z.4. But this is an entirely false impression. Without the lines we get a smooth transition between the two chapters and one that reflects a natural course of argument. For Z.3 ends by proposing that we investigate form and that we are to do so by first looking at sensible substances. In effect, this is to propose that we investigate the forms of c-substances. This is exactly what we should expect to find in the following chapter and, I submit, exactly what we do find in Z.4–6. For in recalling Z.3's inaugural slate of candidates, Z.4 reinvokes, even if implicitly, Z.3's insistence that essence merits consideration because it is thought to be the substance-of things. Reliance on the notion of the substance-of a thing recurs explicitly in Z.6's gloss on the importance of deciding whether each thing is the same as its essence; and all this is carried out within the domain of sensible substances. Thus, so far from operating with the familiar category of substance, namely, c-substances, Z.4–6 are concerned rather with the *substance-of* these substances, namely, with their forms. Presumably, the grounds for Z.4's modal declaration that we *must* investigate the essence (θεωρητέον περὶ αὐτοῦ, 1029b2–3) lie in Z.3's closing recommendation that we *must* investigate the form (περὶ δὲ τῆς τρίτης σκεπτέον). The parallel is not idle. Thus, we *must* investigate the essence, as the substance-of c-substances, in order to investigate form, and we must investigate the form because, as Z.3 made plain, it is the lead candidate for the substance-of c-substances. With the intrusive section bracketed, this is exactly what Z.4–6 proceed to do. Moreover, in pursuing this by asking how the *essence* could function as the form served up in Z.3, Z.4–6 employ another notion absent from the *Categories*. So rather than operating *with*, the chapters are operating *on* a notion of substance familiar from that work, namely, primary substances. And the inquiry, to repeat, starts from asking how form, as the substance-of a thing, can be explicated as the essence of the thing.

## 2. Some ‘Logical’ Remarks About Essence

*Metaphysics* Z.4 gets down to business with some remarks about essence that are of a ‘logical’ nature (πρῶτον εἰπομεν ἕνια περὶ αὐτοῦ λογικῶς). There is no general agreement on how far this discussion extends into the chapter or on what exactly is meant by ‘λογικῶς’

(‘logical’).<sup>337</sup> These points are connected to the extent that determining the range of the logical remarks presumes that one can recognize the ‘logical’ character of a discussion. Divergence on the question of range is not particularly important because it concerns less the actual arguments and analyses in the texts in question than how we should characterize them at what can fairly be called a meta-level. What are crucial to interpretation are the analyses and arguments. Thus, on the extension of the ‘logical’ remarks I take the rather unexciting position that they include, at least, 1029b13–22’s distinction of two kinds of *per se* or καθ’ αὐτό relations, only one of which is suitable for explicating the notion of essence.<sup>338</sup> These remarks are ‘logical’ because they aim to situate the concept of essence within the range of relations that are set out in the logical works, broadly construed to include the *Posterior Analytics*.<sup>339</sup>

So one might think of the logical discussion as, at least, a partial delineation of formal features of the concept. Aristotle begins by trying out the thesis that *Y* is the essence of *X* only if *X* is, in its own right (καθ’ αὐτό), said to be *Y*, but he quickly qualifies this with the comment that not everything that *X* is in its own right can be part of *X*’s essence. In effect, this enforces *Posterior Analytics* A.4’s distinction between two kinds of καθ’ αὐτό or, as I shall say, *per se* predication:

<sup>337</sup> For Woods (1974–5: 170–1) the discussion continues only to 1029b22. Owen (1960) and Ross (1924: ii. 168) find that the ‘logical’ remarks, as concerning language in general, run until 1030a27. But, as Woods (1974–5: 170–1), Frede and Patzig (1988: ii. 68), and Burnyeat (unpublished) point out, on this basis, one would expect the logical discussion to extend beyond 1030a27. Indeed, given this, Woods (1974–5) extends the range of λογικώς only to 1029b22, while Burnyeat (unpublished) proposes to expand it to all of Z.4–6. Malcolm has suggested that λογικώς is tied to what is said and, thus, that Ross’s view is supported by the fact that at 1030a27–8 a transition is made to how things are (τὸ πῶς ἔχει) as opposed to how they are to be spoken of (τὸ πῶς δεῖ λέγειν).

<sup>338</sup> Woods’s (1974–5) ground for taking the logical discussion to end at 1029b22 was that 1029b13–22 explains the notion of καθ’ αὐτό predication. Bostock (1994: 86) represents this as a proposal to *define* a notion of essence. But it is not obvious that Woods means this and, *pace* Bostock, the lines do not attempt to define essence but only to specify the domain within which one might begin looking for such a definition.

<sup>339</sup> Burnyeat (unpublished) gives roughly the same weight to ‘logical’. Now one might suppose that the term applies to the four candidates that Z.3 considers for the title of substance on the grounds that the concepts involved are all familiar from the *Organon*, and from this one might conclude that the four candidates are separated in a significant way from matter and form, neither of which is mentioned in the *Organon*. Against this, however, stands the point that one of the ‘logical’ candidates, namely, the subject, is given an analysis in terms of form and matter; so these notions cannot be entirely absent from Z.3’s discussion. Moreover, and more importantly, if, as we argue, Z.4–6 mean to discuss form, in the guise of essence, then form is certainly *mentioned* in these chapters. So even were we to agree on extending the range of λογικώς to Z.4–6, we would not share the supposed reason for characterizing all three chapters as logical.



1.  $Y$  belongs *per se*<sub>1</sub> to  $X \equiv Y$  belongs to  $X$  &  $Y$  is in the definition of  $X$ ,
- and
2.  $Y$  belongs *per se*<sub>2</sub> to  $X \equiv Y$  belongs to  $X$  &  $X$  is in the definition of  $Y$ .

Thus, *animal* belongs *per se*<sub>1</sub> to *man* because *man* is defined as a certain kind of animal. On the other hand, *oddness* belongs καθ' αὐτό or *per se* to *number* but it is not in the definition of number (for in this case all numbers would be odd).<sup>340</sup> Rather *oddness* is defined in terms of *number* ( $x$  is odd if, and only if,  $x$  is such-and-such a number) and so is said to belong to it in a different way, namely, *per se*<sub>2</sub>. The same relation holds between surfaces and colors, the example used in our passage. Thus, *white* does not belong *per se*<sub>1</sub> to *surface* because *being for a surface* (τὸ ἐπιφανείᾳ εἶναι) is not to be defined in terms of *being white* (1029b17–18). But *white* belongs καθ' αὐτό to *surface* because surfaces are the proper subjects for *whiteness*—by their very nature they are such as to be white, red, green, and so on. Thus, a surface is said to be *per se*<sub>2</sub> white.<sup>341</sup>

So *white*, as a *per se*<sub>2</sub> attribute of surface, cannot be its essence. Aristotle says no more about this case, but goes on to remark that neither should one take the essence of surface to consist in *being for a white-surface*. Now *white-surface* is what might be called a *per se*<sub>2</sub> compound, that is, a compound of a subject and one of the attributes that belongs to it *per se*<sub>2</sub>. So this suggestion amounts to adding *surface* to *white* as a way of getting the essence of surface. But, says Aristotle, *being for a white surface* cannot be the essence of *surface* precisely because surface must be added. Programmatically, Aristotle uses the case to generate the first constraint on what is to count as an essence: “The formula that determines (expresses) a thing but does not include the thing, this is the formula of the essence of the thing” (λέγοντι αὐτό, οὗτος ὁ λόγος τοῦ τί ἦν εἶναι ἐκάστῳ ἐν ᾧ ἄρα μὴ ἐνέσται λόγῳ αὐτό) (1029b19–20). Let us write this as

3. ‘ $XY$ ’ is the formula of the essence of  $Z \rightarrow$  ‘ $XY$ ’ is a formula & ‘ $XY$ ’ determines  $Z$  &  $Z$  is not mentioned by any part of ‘ $XY$ ’.

Now one might think that Aristotle's formulation merely guards against conflation of use and mention. On pain of flouting the distinction, a thing

<sup>340</sup> Aristotle assumes much here, for instance, that it is improper to define number in terms of a disjunction that includes *oddness*, say:  $x$  is a number  $\equiv x$  is odd  $\vee x$  is even  $\vee \dots$

<sup>341</sup> The exact interpretation of belonging *per se*<sub>2</sub> is complicated and has received extensive discussion in the literature (for example, Wedin [1973 ], Graham [1975 ], Granger [1981 ], Tiles [1983 ], and Ferejohn [1991 ]). Fortunately, we can be fairly clear about Aristotle's use of the notion without entering the fine points of this discussion.

had better not be included in the linguistic formula that stands for it. But here, as elsewhere, Aristotle pursues a policy of benign neglect. In fact, the text implies that some things could be contained in their formulae. Whatever this might mean, it makes plain that the point of the remark is not to enforce a use–mention distinction. The point, rather, is to insist that an account can succeed in saying *what* something is only if the *explanans* is framed in terms that are logically independent of the *explanandum*.<sup>342</sup> This is a requirement on the informativeness or explanatory power of the account. That (3) requires this of a thing's essence, thus suggests that the essence is to assume an explanatory role. Although it is no secret that the essence shoulders this burden in later chapters of Z (think of Z.17), it has gone unremarked that the same presumption is alive and well right at the start of Z.4.<sup>343</sup>

The major thesis of Z.4, found at 1030a10–14, connects definability with some sort of primacy and, on this basis, restricts it to forms (or, perhaps, species) of a genus (τῶν γένους εἰδῶν). It is hardly obvious that proposition (3) is enough to get this. One would have to assume, for example, that (3) entails that Z is a primary thing. Were Aristotle to have assumed this, we might have expected him to move immediately to discussion of the major thesis. But he does not. Instead, we get a surprisingly

<sup>342</sup> Once the use–mention reading is excluded, we need to allow for the now plausible claim that in some sense the *whole* formula mentions the thing. The final conjunct of (3) allows this harmless claim and excludes the damaging case, where the account of a thing makes appeal to the thing itself.

<sup>343</sup> There is a slight complication about combining an ‘explanatory’ reading of (3) with (1). Explanation itself is hardly a concern. Aristotle’s final position is that the form that is the essence of a thing is predicated not of the thing but of the matter of the thing. This is required, in Z.17, if the form is to play a genuinely explanatory role (so I argue in Ch. X). Z.4, on the other hand, says that a thing’s essence is to be investigated by looking at its *per se*<sub>1</sub> attributes. But if *belonging* and *predicating* are interchangeable, then (1) suggests the following corollary: (1′) *X* belongs *per se*<sub>1</sub> to *Y* → *Y* is a subject & *X* is predicated of *Y*. The complication is that, given Z.17’s explanatory account of form, what goes for *X* in (1′) cannot be the form. Otherwise, the essence of a thing would be predicated of the thing itself. Yet Z.4 counsels us to examine a thing’s *per se*<sub>1</sub> attributes to find its essence, and, on our account, this is part of specifying what the *form* of a thing must be like if it is to be the substance-of the thing. So the opening lines of Z.4 seem to undercut the explanatory account of form. The situation is improved by taking note of exactly what Aristotle says. Granted, his announcement at 1029b13–14 that the essence of each thing is what the thing is said to be *per se*<sub>1</sub> appears to commit him to (a): *F* is the essence of *a* → *a* is *per se*<sub>1</sub>*F*. But the force of the announcement is determined by the reason given for it at 1029b14–16. Here Aristotle is more subtle. It is because *a* is not *F per se*<sub>1</sub> that *being-for-a* is not *being-for-an-F*. This is equivalent to (b): *being-for-a* is *being-for-an-F* → *a* is *per se*<sub>1</sub>*F*. But (b) plainly doesn’t support the idea that *being-for-an-F* is predicated of *a* but only that *F*, or *being-F*, is so predicated. Thus, we may read (a) as (a′): *being-for-an-F* is *being-for-a* → *f* (*being-F*) belongs *per se*<sub>1</sub> to *a*. So a thing’s essence will be intimately connected with its *per se*<sub>1</sub> attributes, but the essence will not simply be one of these attributes.

inventive discussion of compounds of a rather different sort (that is, different from *per se*<sub>2</sub> compounds). For each of the categories, says Aristotle, there will be compounds such as *white-man*, and about such (accidental) compounds he asks whether there is a formula of the essence (λόγος τοῦ τί ἦν εἶναι) and whether they have essences.

By the end of Z.4 it will be clear that such items do not have essences, or, at least, none that could eventually qualify as primary substance. Now one might suppose that this is obvious and so find it surprising that Aristotle goes on to argue the point. But this is not nearly as surprising as his proposal to pursue the question:

Let 'cloak' (ἰμάτιον) be the name of this [the white man]; then what is the essence of cloak (τί ἐστὶ τὸ ἰματίου εἶναι)? (1029b27–8)

Why is the question given this form? Well, the first thing to recall is that he has just finished a 'logical' discussion<sup>344</sup> that situated a thing's essence among its *per se*<sub>1</sub> properties. So it might occur to someone that accidental compounds, such as the *white-man*, are to be denied essences (or, perhaps, to be denied status as essences) on the grounds that they are not said to be *per se* items at all, let alone *per se*<sub>1</sub> items.

Aristotle responds to this, at 1029b29–1030a2, by insisting that there are only two ways that something may fail to be expressed in a *per se* manner: either by including something in the *definiens* that does not belong or excluding something that does belong. Thus, with Aristotle's made-up example, were one to define *cloak* by giving a formula mentioning only *the white*, one would have left out something that belongs to *being for a cloak* in *its* own right, that is, insofar as it is about cloaks. Conversely, were 'cloak' to name just *the white* and were one to define *cloak* by giving a formula mentioning both *white* and *man*, then one would have included something that does not belong to a cloak (or *being a cloak*) in *its* own right, that is, something that does not belong to it simply insofar as it is about cloaks, i.e., white things. But, if 'cloak' stands for *white-man* or, perhaps, *being for a white man*, nothing prevents defining cloak by means of a formula that mentions both *white* and *man*. So nothing about the 'logical' nature of *being for a cloak* (or, perhaps, the expression 'cloak') excludes it from being an item that can be expressed in a *per se* manner. Moreover, by taking the formula that mentions both *man* and *white* as a definition of *cloak* or *being for a cloak* we get something that satisfies the right side of the informativeness condition, (3), the condition on the explanatory independence of the *definiens* and *definiendum*.

<sup>344</sup> Or 'that part of a logical discussion', to hold off debate on the range of ὁλογικῶς?.

By a philosophically inventive use of ‘cloak’ Aristotle is able to set aside the worry that a definition of *white-man* is necessarily uninformative and, hence, not an essence *because* its *definiendum* will mention both *white* and *man*. This might be thought, mistakenly, to result from (3), were ‘white man’ to give the substantive content of the formula of the essence of *white-man*. In fact, it does not because (3) only proscribes mention of what is being defined, namely, *white-man*, by a *part* of the formula. So Aristotle avoids even the appearance of unformativeness by letting the essence defined by the formula ‘white man’ be something that does not invite the worry, namely, by letting it be *being for a cloak*. Thus, neither because of unformativeness nor because of qualms about its status as a *per se* item<sup>345</sup> can *being for a cloak*, as here understood, be denied an essence, namely, *being for a white man*.<sup>346</sup> It would, however, be rash to conclude that *being for a cloak* and its ilk have essences after all. For (3) gives only a necessary condition on definability and, thus, other grounds may exclude them as possessors of definitions and essences. Indeed, he will shortly press this issue. The point secured in 1029b29–1030a2 is that such a denial will have to come by a different route.<sup>347</sup>

### 3. The New Primacy Passage

*Being for a cloak* is eliminated as a candidate for essence by the fact that it does not count as *being a (certain kind of) this*. This is argued at 1030a2–17. The passage commands attention not only because of this Elimination Argument (given at 1030a2–6) but also because it is fundamental

<sup>345</sup> To be somewhat heavy-handed, note that this does not conflict with Aristotle’s opening claim at 1029b14–15 that the ‘essence of you’ (τὸ οὐ εἶναι) is not the same as the essence of musical (τὸ μουσικῶς εἶναι) because ‘you (i.e., you, *qua* a man) are not musical *per se*’. For it is consistent with this that you, *qua* a musical man, be *per se* musical and a man.

<sup>346</sup> If this analysis is correct, then Aristotle appears to hold that the ‘logical’ discussion can only generate a necessary condition for essence. This might give some reason to follow Woods (1974–5) and restrict the ‘logical’ discussion to 1029b22; or, we can now say, to extend it to 1030a2 because b22–1030a2 continues to discuss whether and how something can be expressed *per se*.

<sup>347</sup> Failure to appreciate the character of Aristotle’s response can make a conundrum of the passage. Thus, Ferejohn (1994: 295) takes 1029b29–1030a2 to be intended as Aristotle’s *effective* objection against defining something by addition or subtraction but laments his failure to show how this objection is “even relevant to the case of the compound *white man*.” On my view, Aristotle’s aim just is to underscore this irrelevance. I note, now, that Frede and Patzig (1988) share this much of our view of the passage.

to understanding what Aristotle means in *Metaphysics Z* by the primacy of primary substances (this is contained, principally, in the second and longer section of the passage, 1030a6–17).<sup>348</sup> The latter is especially pertinent to my claim that the primacy accorded primary substance in the central books is a kind of explanatory primacy, not to be confused with the ontological brand favored by the *Categories*. For this reason I shall sometimes refer to 1030a2–17 as the New Primacy Passage.<sup>349</sup> Obviously, it calls for special scrutiny.

Aristotle begins by asking whether *being for a cloak* (τὸ ἵματιοφείναι) is an essence at all, despite surviving the challenge to its *per se* credentials. Note that this asks whether a certain thing *is* an essence, not whether a certain thing *has* an essence. If, in investigating essence, Aristotle is investigating what form must be like to be the substance-of c-substances, then this is exactly the question he ought to be asking. And it appears to be the one he is asking, for his answer proceeds by issuing constraints on the structure of the object of definition. This amounts to imposing a structural condition on what *gives* the proper definition of a thing, that is, on the *definiens* and, hence, on the essence and the form itself. Although, as we shall shortly see, he also talks about having an essence, he does so in the service of illuminating what essence *is*. This, at least, is my contention. As suggested, the New Primacy Passage divides into a smaller part (1030a2–6), which contains an argument against counting *being for a cloak* and its kind as essences, and a larger part (1030a6–17), which concludes that only forms (of a genus) have essences because they alone enjoy the requisite sort of primacy. The first argument I call the Elimination Argument and the second the New Primacy Argument.

To at once repeat and anticipate, one thing I wish to extract from the New Primacy Passage, as a whole, is the thesis that the primacy under discussion in *Metaphysics Z* is a kind of explanatory primacy satisfied by the form alone of a c-substance<sup>350</sup> and compatible with the structural complexity of form. The materials for deciding this thesis lie mainly in the longer text that contains the New Primacy Argument. So we shall get to this after taking a look at the Elimination Argument.

<sup>348</sup> Other passages will prove central to working out the exact shape of this new brand of primacy, but 1030a2–17 is the *Schwerpunkt* of the discussion.

<sup>349</sup> To contrast with its homonymous counterpart from *Categories* 5, 2a34–b6, which promotes the *ontological* primacy of substance individuals. For discussion of this Primacy Passage, see Ch. III.

<sup>350</sup> This is not quite correct because thoroughly incorporeal pure forms, such as the unmoved movers, are, ultimately, to be included as substantial forms and it might be doubted whether these are c-substances. But see Ch. V, n. 68, for a suggestion on how to accommodate these into the framework of the *Categories*.

## 4. The Elimination Argument

*Being for a cloak* is probably not an essence, says Aristotle, because

[*z*] an essence is precisely what is something ( $\delta\pi\epsilon\rho\ \gamma\acute{\alpha\rho}\ \tau\iota\ \epsilon\sigma\tau\iota\ \tau\acute{o}\ \tau\acute{\iota}\ \eta\upsilon\ \epsilon\iota\sigma\tau\alpha\iota$ );<sup>351</sup> but [*z*] whenever one thing is predicated of another ( $\acute{\alpha}\lambda\lambda\omicron\ \kappa\alpha\tau'\acute{\alpha}\lambda\lambda\omicron\ \lambda\acute{\epsilon}\gamma\eta\tau\alpha\iota$ ), there is not precisely  $\langle$ what is $\rangle$  a this ( $\omicron\upsilon\kappa\ \acute{\epsilon}\sigma\tau\iota\nu\ \acute{\omicron}\pi\epsilon\rho\ \tau\acute{o}\delta\epsilon\ \tau\iota$ ). For example, the white man is not precisely  $\langle$ what is $\rangle$  a this ( $\omicron\upsilon\kappa\ \acute{\epsilon}\sigma\tau\iota\nu\ \acute{\omicron}\pi\epsilon\rho\ \tau\acute{o}\delta\epsilon\ \tau\iota$ ), if indeed [*z*] thisness belongs only to substances ( $\epsilon\iota\pi\epsilon\rho\ \tau\acute{o}\ \tau\acute{o}\delta\epsilon\ \tau\alpha\acute{\iota}\varsigma\ \omicron\upsilon\delta\omicron\iota\alpha\varsigma\ \acute{\upsilon}\pi\acute{\alpha}\rho\chi\epsilon\iota\ \mu\acute{o}\nu\omicron\nu$ ). (1030a2–6)

The argument begins in (*z*) with a condition on something's counting as an essence. I shall write this as

4.  $XY$  is (precisely what is) something  $\leftrightarrow XY$  is an essence.

I use the ' $XY$ ' notation to keep open the possibility that essences are structurally complex. This will become crucial later in discussing the primacy of essences because some have claimed that primacy must be read as simplicity. The notation does not, of course, beg this question, for it may turn out that ' $XY$ ' is vacuously complex (although we shall argue that it is not).

From (*ii*) and (*iii*) we get two more premises, the first,

5.  $(X$  is predicated of  $Y \vee Y$  is predicated of  $X) \ \& \ X$  is other than  $Y \rightarrow XY$  is not (precisely what is) a this, is equivalent to

5'.  $XY$  is (precisely what is) a this  $\rightarrow \neg (X$  is predicated of  $Y \vee Y$  is predicated of  $X) \ \vee X$  is not other than  $Y$ , and so, in effect, gives us a necessary condition for being precisely what is a this ( $\acute{\omicron}\pi\epsilon\rho\ \tau\acute{o}\delta\epsilon\ \tau\iota$ ). I shall sometimes refer to the consequent of (5') as an *impredicability* condition, or, simply, 'impredicability', for it proscribes a first thing's being predicated of a second that is distinct from it.

The second premise adds an additional necessary condition:

6.  $XY$  is a this  $\rightarrow XY$  is a substance.

Now remember that these premises are supposed to yield an argument that eliminates *being for a cloak* as an essence. An immediate complication is that the backing text (1030a2–6) does not mention *being for a cloak*, at least not in those terms. It does, however, give (the) *white-man*

<sup>351</sup> Bonitz (1848–9) reads  $\acute{\omicron}\pi\epsilon\rho\ \gamma\acute{\alpha}\rho\ \langle\tau\acute{o}\delta\epsilon\rangle\ \theta\iota$ : an essence is precisely what is a this. He is followed by Jaeger (1923/1948) and Bostock (1994), among others. For more on this see immediately below. Note that I translate ' $A$  is  $\acute{\omicron}\pi\epsilon\rho\ B$ ' as ' $A$  is precisely what is  $B$ ' rather than ' $A$  is precisely what  $B$  is'. Here I follow Furth (1985: 108) and Barnes (1975: 168).

(ὁ λευκὸς ἄνθρωπος) as an example of something that is not a this. Presumably, this is established by (6) because (the) *white-man*, as such, is not a substance. Now, the text, in fact, gives (the) *white-man* as an example that satisfies the antecedent of (5). So, because Aristotle is using ‘cloak’ to name *white-man*, perhaps, *being for a cloak* enters the argument in this way.

But how, exactly? From (5) and the fact that ‘cloak’ names (the/a) white man it follows only that neither (the/a) white man nor, thus, (the/a) cloak is precisely what is a this. (For the reason, presumably, that *white* is predicated of *man* and, so, for the reason that one feature of *cloak* is predicated of another feature of it.) It is not clear how this bears on eliminating *being for a cloak* as an essence. One way to at least get *being for a cloak* into the picture would be to assume that *being for a cloak* is a this only if a cloak is a this. In effect, this would be to assume

7.  $XY$  is the essence of  $Z$  &  $XY$  is (precisely what is) a this  $\rightarrow Z$  is (precisely what is) a this.

This may get *being for a cloak* (and, for that matter, *being for a white man*) into the argument, but does it help? Assuming, for the moment indifferently, that neither (the/a) white man nor (the/a) cloak is a this (for reasons governed by [5]), what follows from (7) is that *being for a cloak* (*white man*) is not (precisely what is) a this *or* that it is not the essence of (the/a) cloak (*white man*). One could still insist that *being for a cloak* is an essence so long as one denied that it was also a this.

Appeal to the lead premise, (4), will not help because it is silent on the relation between essentiality and thisness. It says only that something is an essence if, and only if, it is precisely what is something (ὄπερ τι). For reasons such as this, Jaeger (1957) and others,<sup>352</sup> following a suggestion of Bonitz (1848–9), supply in place of (i) the reading (i\*): ὅπερ γὰρ (τόδε) τι ἐστὶ τὸ τί ἦν εἶναι (for an essence is precisely what is a *this*). This yields a different lead premise, namely,

4'.  $XY$  is (precisely what is) a this  $\leftrightarrow XY$  is an essence,

and (4') *will* yield the result that *being for a cloak* is not an essence. For it excludes the possibility that something could be an essence but not precisely what is a this and, thus, knocks *being for a cloak* out of the running.

Not all commentators follow Bonitz. Ross (1924) thought that (i) works perfectly well in the passage because he held that being precisely what is a this was just the same as being precisely what is something—as he put it: ‘ὄπερ τὸδε τι (= ὄπερ τι)’. In the same vein, Frede and Patzig (1988: ii. 64) regard Bonitz’s conjecture as unnecessary because ‘ὄπερ

<sup>352</sup> Bostock (1994).

τί' ('precisely what is something') and 'Ὅπερ τὸδε τι' ('precisely what is a this') "refer in the same way to the what of a substance (*das Was einer ousia*)." This might be challenged on the grounds that the notion of being a this (a 'τὸδε τι') is two-faced, signifying, sometimes, a particular (a certain this) and, sometimes, a determinate kind (this sort),<sup>353</sup> and that, when bearing the former sense, the identity fails. This may be of little threat to Frede and Patzig because they hold that the primary substance of *Metaphysics Z* just is a *particular sort*, namely, a particular form and, hence, something that, in effect, combines the two kinds of thisness. But it will worry those less inclined to accept BLEND, as I call this view.<sup>354</sup> And there is some point to the worry, if only because use of broad doctrinal commitments to decide a point of detail that could be taken to counter the doctrine will strike some as question-begging.

Nonetheless, there is something right in Frede and Patzig's maneuvering. For to get an argument out of (i) and (ii), we do need an additional assumption. One might suggest upgrading (6), so far idle in the argument, to a biconditional. This, plus the further assumption that something is (a) substance if, and only if, it is precisely what is something would be enough to defeat the claims of *being for a cloak*. But is this further assumption plausible? Not if it is given its most natural reading:

8.  $XY$  is a substance  $\leftrightarrow XY$  is (precisely what is) something.

For (8) requires that nothing nonsubstantial can be Ὅπερ τι (precisely what is something). But this seems to be false. In *Metaphysics H.6*, 1045a33–b7, for example, quantity and quality join substance (there designated, conveniently for us, τὸ τὸδε) and essence as items that are both Ὅπερ ἓν τι (precisely what is some one thing) and Ὅπερ ὄν τι (precisely what is some existing thing). It is hard to believe that Aristotle would not also be comfortable referring to (a) quality and (a) quantity simply as Ὅπερ τι.

Moreover, even were the further assumption acceptable, it is not clear that the upgrading of (6) captures Aristotle's reasoning in this passage. This is because the difficult move is surely from thisness to substantiality, not from substantiality to thisness, and, thus, it appears that Aristotle wishes to highlight the role of this connection in the argument. For this reason it is unlikely that the proposed upgrading captures *Aristotle's* reasoning. His emphasis on the dependence of thisness on substantiality suggests, perhaps, that (iii), i.e., (6), is meant only as some kind of support for (ii), i.e., (5).

<sup>353</sup> See Ch. V, n. 10.

<sup>354</sup> For more on BLEND, see Ch. V, sect. 1, and Wedin (1991).



This suggests isolating an assumption that enables just (4) and (5) to do the job. Something like

9.  $XY$  is not (precisely what is) a this  $\rightarrow XY$  is not (precisely what is) something

would work. With (9) in place, we could conclude, with Aristotle, that *being for a cloak* is not an essence. This solution is similar to that of Frede and Patzig (1988) but without embracing the view that ‘ὄπερ τι’ and ‘ὅπερ τὸδε τι’ are actually co-designative. But (9) does not quiet the worries voiced about their view, for (9) is equivalent to

9'.  $XY$  is (precisely what is) something  $\rightarrow XY$  is (precisely what is) a this,

and this gives a sufficient condition for something's being a this, but a condition that is satisfied by the quantity and quality mentioned in the H.6 passage (1045a33–b7). Yet, as (6) above from our text quietly insists, only substance can be a this.

Other assumptions might be available for reconstructing an argument out of the elimination passage, but I doubt that any will be more plausible than Bonitz's original conjecture, registered in (4'). So, if we want (i), (ii), and (iii) to deliver an argument that knocks out *being for a cloak* as an essence and that does not run afoul of attested doctrine, we may have no alternative to accepting the conjecture.<sup>355</sup>

## 5. The Notion of a τὸδε τι

The Elimination Argument makes central use of the notion of a this (τὸδε τι) in arguing that *being for a cloak* is not an essence. The New

<sup>355</sup> Another consideration favors adoption of (4'). Propositions (5') and (6), both of which are in the text, entail (6'):  $XY$  is a this  $\rightarrow XY$  is a substance &  $(\neg(X$  is predicated of  $Y \vee Y$  is predicated of  $X) \vee X$  is not other than  $Y)$ . As written, (6') does not exclude the possibility that matter is a this. Someone might point out that Aristotle permits matter to be substance, in some sense of the term, and then insist that matter satisfies the second conjunct in the consequent: if matter has no parts, then the second conjunct is trivially satisfied; if it has parts, surely they will not be of the sort to be predicated of one another. Upgrading (6') to a biconditional will only result in *requiring* that matter be a this—something we know to be unqualifiedly false for Aristotle. Now one might counsel that this situation arises only because the Elimination Argument is preoccupied with the candidacy of *being for a cloak* and, thus, presumes that matter has already been eliminated from competition. This is true but unhelpful because the present worry stems from an argument that eliminates *being for a cloak* on the grounds that it fails to display thisness. If, however, (4') is available, we may include in (6')'s conditions that what is a this is an essence and this clearly rules out matter. Proposition (4), on the other hand, is irrelevant to the worry.

Primacy Passage will go on to urge that the form at least, and possibly at most, qualifies as such a thing. Before following this discussion further, something ought to be said about the notion of a τὸδε τι, a notion Aristotle puts to broad and crucial use. It figures as a leading mark of substance in both the *Categories* and the *Metaphysics*. Indeed, as we saw in Chapter V, matter's lack of thisness was a chief ground in Z.3 for discrediting its claim to be substance. I shall not be concerned with the full range of its employment in the corpus but will focus on a few passages that are especially pertinent to its use in the New Primacy Passage.

*Metaphysics* Δ.8, in Aristotle's philosophical lexicon, does not contain a separate entry for τὸδε τι, but it is mentioned in the entry on substance. After discussing a number of things that are said to be substance, Aristotle groups them into two fundamental kinds:

both [a] the ultimate subject (τὸ ὑποκείμενον ἕσχατον), which is not further predicated of anything else (ὄ μηκέτι κατ' ἄλλου λέγεται),<sup>356</sup> and [b] whatever, being a this, is also separable (ὄ ἄν τὸδε τι ὄν καὶ χωριστόν)—such is each thing's shape and form (ἡ μορφή καὶ τὸ εἶδος). (1017b23–6)

The first sense, which might cover *Categories* primary substances, comes in for rough sailing in *Metaphysics* Z.3, where the second sense emerges as the dominant candidate for substance. So it is (b) that interests us. Sense (b) summarizes, or follows from (Aristotle uses 'συμβαίνει'), three examples:

(b1) any constituent of such things, i.e., the things not predicated of a subject (ἐνυπάρχον ἐν τοῖς τοιοῦτοις ὅσα μὴ λέγεται καθ' ὑποκειμένους), that is a cause of their being (αἴτιον τοῦ εἶναι), as for instance the soul (1017b14–16);

(b2) those constituents of such things that define and signify a this (ἐνυπάρχοντά ἐστιν ἐν τοῖς τοιοῦτοις ὀρίζοντά τε καὶ τὸδε τι σημαίνοντα<sup>ὅσα μὲρσι</sup>) and with whose elimination the whole thing is eliminated (1017b17–21);

(b3) again, the essence, whose formula is a definition, this is also said to be the substance of each thing (οὐσία λέγεται ἐκάστου τὸ τί ἦν εἶναι, οὗ ὁ λόγος ἐστὶν ὀρισμός, καὶ τοῦτοι) (1017b21–3).

Although some may worry about the middle example, (b2) (e.g., Kirwan, 1971: 148–9), clearly the first and third illustrate (b), the second fundamental kind of substance in the summary. Because the summary makes much of the link between substance and thisness, the middle case probably is meant to illustrate it as well. So I shall assume that (b1), (b2), and (b3) all exemplify (b).

<sup>356</sup> 'Said of something else' might be a more natural rendering of 'κατ' ἄλλου λέγεται' but this invites identification with its use in the *Categories*, where 'said of' has the technical sense discussed in Ch. I. In the lexicon it covers a quite general notion of predication.

Notice that (b) gives a sufficient condition for being a substance, in effect, repeating (6)'s claim that anything that is a this is a substance. So Aristotle appears to have on the same thinking cap he wore when composing *Metaphysics* Z.4. Much the same can be said about (b1) and (b3). For in (b3) substance is just the substance-of each thing, presumably, the substance-of those c-substances that are covered in (a), namely, their essence, and (b1) indicates that this sort of substance explains why something, whose substance it is, happens to be a being of the sort that it is. Here the role of a thing's substance as an explanatory factor is especially clear.

Although thisness is mentioned in one example only, (b2), it is central to the second of the two fundamental kinds (or, perhaps, meta-kinds) of substance retailed in the summary, namely (b). So it is obviously central to this brand of substance. Further, Aristotle adds that this sort of substance is also separate. As far as *Metaphysics* Δ.8 is concerned, this is an entirely fresh point, not at all presaged in the examples. Some will echo Kirwan (1971: 149), who wonders, rhetorically, how form can be separate and a this. Presumably, separateness is the principal point of worry. If the apparently capricious introduction of separateness is a worry, it is a serious worry because Aristotle is unambiguous in attributing separateness to the shape and form of a thing.<sup>357</sup> Moreover, and what is most surprising, it is *because it is a this* that the form of a thing is separate. In effect, Aristotle endorses something like

10.  $XY$  is a this  $\rightarrow XY$  is separate.

Although (10) softens the charge that Aristotle's introduction of separateness in (b) is merely capricious, it will provide little relief to those whose chief worry in the first place is form's alleged separateness; for them, worries about separateness will be transferred to (10) itself or, possibly, to the thesis that form is a this.

Relinquishing form's claim to thisness is no light matter. For we have already seen<sup>358</sup> that Z.3 rules against the candidacy of matter on the grounds that it is neither separate nor a this—in contrast to the compound and the form. This would appear to require that the form be a this. However, the Z.3 passage also appears to require that form be separate. Since as far as the text is concerned this will be the sort of separateness enjoyed by the compound of form and matter, the Z.3 passage appears to impute ontological separateness to the form. And this would, rightly, worry Kirwan.

There may, however, be another reading of the crucial passage from Z.3. Having arrived, by way of *reductio*, at the proposition that matter

<sup>357</sup> Echoing, notice, the terminology of Z.3.

<sup>358</sup> Ch. V.

alone turns out to be substance, Aristotle declares this impossible because separateness and thisness belong most of all to substance (τὸ χωριστὸν καὶ τὸ τὸδε τι ὑπάρχειν δοκεῖ μάλιστα τῇ οὐσίᾳ), and so the form and the compound of form and matter (τὸ εἶδος καὶ τὸ ἐξ ἁμφοῖν) would be substance rather than the matter. Now as far as *this* argument is concerned, matter is excluded because it is *neither* separate *nor* a this. So Aristotle could permit something to be a substance so long as it is separate *or* a this. That is, matter would be eliminated whether we read 1029a27–8 as

11.  $XY$  is a substance  $\rightarrow XY$  is a this  $\vee XY$  is separate,

or as

11'.  $XY$  is a substance  $\rightarrow XY$  is a this &  $XY$  is separate.

Matter fails to satisfy either set of conditions imposed on substance, but only (11') requires that a substance be *both* separate and a this. So something could be a substance, even if it is not separate—so long as it is a this. Form might, then, turn out to be a substance of this sort, ending worries about its separateness.

Now some might object to this attempt to finesse the separateness of form by insisting that 1029a27–8 favors (11') over (11): “separateness *and* thisness are thought to belong most of all to substance.” But the line can be given a weaker reading, to the effect that separateness and thisness are to be found most of all (and, perhaps, exclusively) among substances but not that every substance has both. So read, the line will parallel the claim, for example, that musicality and athleticism belong (most of all or exclusively) to persons.<sup>359</sup> Here there is no temptation to suppose that every person is an athlete and a musician. The point, rather, is that only persons are athletes and only persons are musicians. Of course, no given person must be one or the other, and this does not hold for (11), which requires that a substance be either separate or a this. This might recommend, as a nearer parallel, the familiar case of oddness and evenness, which belong (most of all or exclusively) to numbers and one of which any given number must have.

These cases give, I believe, a perfectly good sense to the proposal that Aristotle means to endorse (11) only. There is, however, a worry. Suppose we grant that form is a this (τὸδε τι) and that the compound is separate and, thus, that they but not the matter satisfy (11). This is compatible with two troubling options: (A) that the compound is also a τὸδε τι and (B) that the form is also separate. Option (A) is troubling because, as we shall see from the New Primacy Argument in the next

<sup>359</sup> These examples were suggested by David Barton.

section, being a this is sufficient for being a primary item and these are forms only.<sup>360</sup> Option (B) surely ought to be false, but it cannot be dismissed simply as a formal but unactualized possibility. I shall begin with it.

The problem with option (B) arises from the fact that *Metaphysics* Δ.8 endorses an *inference* from thisness to separateness and this appears to weigh heavily in favor of (11'). Now I suppose one might challenge (11') were *Metaphysics* Δ.8's commitment to the 'thisness-to-separateness inference' (ὅ ἄν τὸδε τι ὄν καὶ χωριστόν, 1017b24–5) anomalous and affirmed nowhere else in the corpus. Even restricted to 1017b24–5, however, (11') would rate canonical status because it appears in Aristotle's philosophical lexicon. It is implausible to suppose that Aristotle would here speak with the looseness presupposed by the challenge to (11'). So if Δ.8 does support the inference recorded in (11'), that inference is hardly anomalous and, thus, cannot be credibly challenged on that basis.

However, we must remember that (11) and (11') were introduced as alternative readings of the condition Z.3 uses to disenfranchise matter as a candidate for substance. Here 'separate' must mean ontological separateness. The Δ.8 passage just adduced may use the term rather differently. That this is in fact the case is clear from a parallel passage at *Metaphysics* H.1, 1042a29–31. As part of Aristotle's summary of *Metaphysics* Z, this passage is especially significant for settling the reading of 'thisness' in Z.4. Moreover, it gives a more precise account of what sort of separateness is enjoyed by form, an account that neutralizes the troublesome option (B). The passage reads:

What underlies is a substance, and in one way this is the matter—by which I mean that which is not a this in actuality, but is a this potentially (ἴλην δὲ λέγω ἢ μὴ τὸδε τι οὕσα ἐνεργεία δυνάμει ἐστὶ τὸδε τι); though in another way it is the formula and the shape (ὁ λόγος καὶ ἡ μορφή)—which, being a this, is separate in formula (ὃ τὸδε τι ὄν τῷ λόγῳ χωριστόν ἐστιν); and in a third way it is the compound of these—and this alone can come to be and cease to be and is separate without qualification (οὗ γένεσις μόνου καὶ φθορά ἐστι, καὶ χωριστόν ἀπλῶς), for of those substances that are given by a formula some are separate and some are not (τῶν γὰρ κατὰ τὸν λόγον οὐκ οἰῶν αἱ μὲν αἱ δ' οἴῃ). (1042a26–31)

This section of H.1 aims to summarize the argument of Z.3. There thisness, along with separateness, was invoked to exclude matter as a candidate for (primary) substance. In Z.3 'τὸδε τι' occurs only once, at 1029a27–8, where it performs its disenfranchising function, but in *Metaphysics*

<sup>360</sup> Thisness entails intrinsicness (13) and intrinsicness is equivalent to primacy (16).

H.1's summary freer use is made of the term. This indicates, I think, how fundamental it is to the way Aristotle thinks of substance in the central books. Thus, both matter and form are explicitly characterized in relation to thisness, the matter as what is potentially, but not actually, a this and the form as what is actually a this. The form is also characterized as separate, in contrast to the matter.

Two points merit special comment. First, it is *because* the form is a this (τόδε τι) that it is separate. So Aristotle endorses, again, the 'thisness-to-separateness' inference registered in (10).<sup>361</sup> Second, the brand of separateness involved is separateness in formula (τῷ λογῆ). Now one might take this simply as a gloss on how Aristotle conceives of the separability of form only. But what he says is that the form (i.e., ὁ λόγος καὶ ἡ μορφὴ) is separate in formula *because* it is a this. This suggests that Aristotle is committed to the interesting claim

10'.  $XY \text{ is a } \tau\acute{o}\delta\epsilon \tau\iota \rightarrow XY \text{ is separate in formula.}$

For reasons that will emerge shortly, I shall sometimes refer to the condition given in (10') as an *autonomy* condition, or, simply, 'autonomy'. Proposition (10') is interesting because it suggests that the sort of separateness that *derives* from thisness is separateness in formula only.<sup>362</sup> The passage from *Metaphysics* Δ.8, introduced above, treats the same case (i.e., ἡ μορφὴ καὶ τὸ εἶδος at 1017b25–6) in virtually identical language. Moreover, it regards c-substances, compounds of form and matter, as belonging to the first fundamental kind of substance, namely, ultimate subjects (see part [a] of the passage). And here the notion of thisness is not used. So the form, as characterized by thisness, is divided off from both the matter and the compound and this same division is echoed in H.1. Thus, it appears that Δ.8's lexical version, (10), is to be cashed as (10').

The fact that thisness has a special connection with formulaic separateness need not imply that the form alone is a this. It does imply that thisness requires such separateness, but not that it is restricted to it. But what prevents a thing from being both separate in formula and separate in being? This brings us to troublesome option (A), and, indeed, appears to be a view that many attribute to Aristotle. But does Aristotle really rank compounds as thises in H.1? They are, he says, the only things that are separate in an unqualified way (χωριστὸν ἀπλῶς), that

<sup>361</sup> Bostock (1994), whose translation I follow in the H.1 passage (1042a26–31), reads the crucial line at a29, "which is a this and is separable in formula" and, thus, misses the line's inferential force. Obviously, I do not follow him in this detail.

<sup>362</sup> Kung (1978: 159) finds that H.1 links thisness with ontological separateness, but she offers no argument.

is, the only things that are ontologically separate,<sup>363</sup> and he explains this by pointing out that of those substances that are specified by a formula ( $\kappa\alpha\tau\acute{\alpha}\ \tau\acute{\omicron}\nu\ \lambda\acute{\omicron}\gamma\omicron\nu$ ) some are separate and others are not. Write this as

12.  $XY$  is a substance &  $XY$  is specified by a formula  $\rightarrow XY$  is not separate  $\vee XY$  is separate,

and assume, what must be the case, that ‘separate’ here means ‘separate without qualification’. Then the separateness registered in (12) will correspond to the ontological primacy that the *Categories* awarded to substance individuals, those items we are calling c-substances. It will also be the sort of separateness countenanced in Z.3’s condition (11)/(11’). The fact that form is not separate in this sense, provides a powerful objection to construing the primacy accorded to form in the New Primacy Passage as ontological primacy. I shall return to this in the next section.

Note, first, however, that nowhere in the passage does Aristotle *explicitly* say that both the form and the compound are thises. Form alone wins such express praise.<sup>364</sup> Aristotle does report that both the form and the compound of form and matter are substances *specified by or in accordance with a formula* ( $\kappa\alpha\tau\acute{\alpha}\ \tau\acute{\omicron}\nu\ \lambda\acute{\omicron}\gamma\omicron\nu$ ). But this promotes the thisness of compounds only if being specified by a formula is equivalent to being separate in formula. Then (12) would amount to saying that of those substances separate in formula some are also separate ontologically and some are not. The first would hold for c-substances and the second for their forms, even as both count as thises. For to be a this, on my account, is just to be separate in formula. But there is no reason to suppose that being  $\kappa\alpha\tau\acute{\alpha}\ \tau\acute{\omicron}\nu\ \lambda\acute{\omicron}\gamma\omicron\nu$  (specified by a formula) and being separate in formula are equivalent. Some formulae are separate, for example, those of the essence, and some are not, for example, those of the species. Of course, this rests on a certain understanding of what it means for something to be separate in formula. Let us say something more about this.

According to (10’) whatever is a  $\tau\acute{\omicron}\delta\epsilon\ \tau\iota$ , a this, is separate in formula ( $\tau\acute{\omicron}\psi\ \lambda\omicron\gamma\omicron\acute{\iota}$ ). For something to be separate in formula is, I suggest, for it to have a separate formula and this, in turn, is for it to have a formula neither containing nor mentioning anything that is different from the thing. In short, no feature of a  $\tau\acute{\omicron}\delta\epsilon\ \tau\iota$  will be common to another thing because no part of its formula will be part of the formula of another

<sup>363</sup> He means, of course, of the three kinds under discussion, namely, the matter, the form, and the compound of both. Otherwise, the unmoved mover(s) would not count as ontologically separate; but they are the best of the separate entities.

<sup>364</sup> The compound comes by it only implicitly; and I return to this at the end of sect. 8 of this chapter.

thing. So its formula will be separate or autonomous and, hence, I say that (10') asserts an autonomy condition.

This suggestion wins support from a passage outside *Metaphysics* Z, namely, *Posterior Analytics* A.4. At 73b5–10 Aristotle continues his discussion of *per se* (καθ' αὐτό) belonging. He has already distinguished what we have called *per se*<sub>1</sub> and *per se*<sub>2</sub> belonging,<sup>365</sup> so he may be introducing yet another kind of *per se* belonging.<sup>366</sup> In any case, what he says is of interest for our purposes:

Again, [I call *per se*] that which is not said of some other subject (ὃ μὴ καθ' ὑποκειμένου λέγεται ἄλλου τινός), as, for example, the walking thing is something different walking (τὸ βαδίζον ἕτερόν τι ὃν βαδίζον ἐστὶ) and so for the white thing; but substance, that is (καί, b7), whatever signifies a this, is not precisely what is [something] in virtue of being something different (ἢ δ' οὐσίαι καὶ ὅσα τόδε τι σημαίνει, οὐχ ἕτερόν τι ὅντα ἐστὶν ὅπερ ἐστὶν, b7–8). Things not said of a subject I call *per se*; things said of a subject [I call] accidents. (73b5–10)

Before proceeding to our central point, it is worth noting that the 'καί' at b7 is best taken exegetically, as 'that is', and so the passage commits Aristotle to the view that whatever is a substance is a this and vice versa. This puts beyond doubt that being a this is sufficient for being definable—assuming that equivalence to substance is sufficient for definability. In effect, this is (4') above, which was the emendation proposed by Bonitz to save the Elimination Argument that opens the New Primacy Passage. So the *Posterior Analytics* A.4 passage confirms our earlier argument in support of Bonitz.

The central point is at 73b7–8, where it is claimed that whatever signifies (σημαίνει), or is,<sup>367</sup> a this is precisely what is (something) not in virtue of being something different. This contrasts with the case of walking, where there could be something that is precisely what is (something), namely, a walking thing, only in virtue of there being something different, namely, a man or horse, etc.<sup>368</sup> So we have Aristotle endorsing, on behalf of thisness, what I shall call *intrinsicness*:

13.  $XY$  is a this  $\rightarrow \neg(XY$  is (precisely what is) something in virtue of  $Z$  &  $Z$  is different from  $XY$ ).

<sup>365</sup> See (1) and (2), sect. 2 above.

<sup>366</sup> So, for example, Barnes (1975: 115–18) and McKirahan (1992: 93–4).

<sup>367</sup> This is to mark Aristotle's looseness in distinguishing use and mention. What signifies a this ought to be a linguistic item and not, for example, substance itself. But no philosophical damage is done.

<sup>368</sup> Here we have echoes of *Metaphysics* Z.1, where *being white* depends, if it is to be, on there being a *white thing* and this in turn depends on there being an underlying substance. See Ch. V.



A *white thing*, says Aristotle, is something different (i.e., different from the white thing) that is or happens to be white, presumably, the underlying substance; likewise for the walking thing. Therefore, (what is precisely) a white thing is what it is (namely, a white thing)<sup>369</sup> in virtue of something different from it. Hence, the white thing cannot be a this.

The idea behind (13) is that something can be a this and be precisely what is something so long as no feature of it is different from or alien to it. It is for this reason that I refer to (13) as an intrinsicness condition. We also know that such an item will have a formula. By (5'), extracted from (ii) of the New Primacy Passage, such a formula will not involve the predication of one thing of a different thing. Suppose, then, that when Aristotle twice remarks that thisness yields formulaic separateness, i.e., when he endorses autonomy in (10'), that he is claiming that the formula of (what precisely is) a this neither contains nor mentions anything different from it. That is, suppose he welcomes the following corollaries to (5') and (13):

- 5".  $XY$  is the formula of  $Z$  &  $\neg((X$  is predicated of  $Y \vee Y$  is predicated of  $X) \& X$  is other than  $Y)$   $\leftrightarrow Z$  is separate in formula

and

- 13'.  $XY$  is the formula of  $Z$  &  $\neg(XY$  applies to  $Z$  in virtue of something  $W$  &  $W$  is different from  $Z)$   $\leftrightarrow Z$  is separate in formula.

In effect, I am proposing that the two conditions that (5') and (13) place on being a  $\tau\acute{o}\delta\epsilon$   $\tau$ i, namely, impredicability and intrinsicness, are equivalent to autonomy, the condition imposed by (10'). If this is correct, then the notion of being a  $\tau\acute{o}\delta\epsilon$   $\tau$ i is at bottom a structural notion—at least in the contexts relevant to its use in *Metaphysics* Z.4. Specifically, it is the notion of something having a structure that is captured by a separate formula, that is, by a formula that does not mention extrinsic factors or entities and that does not involve the predication of one element in the formula of another such element. Such formulae would appear to be those Aristotle ranks as definitions. The fact that the Elimination Argument makes central use of the notion of thisness, and that the

<sup>369</sup> This nicely illustrates the role of  $\acute{\omicron}\pi\epsilon\rho$ -constructions as scope operators, whose function is to isolate the precise feature or property with respect to which discourse about a subject is constrained. At least, the constructions function this way in the contexts that concern us. Thus, to consider something  $\acute{\omicron}\pi\epsilon\rho$   $\lambda\epsilon\upsilon\kappa\acute{\omicron}\nu$   $\tau$ i is to consider that thing insofar as, and only insofar as, it is a certain white. (See, for example, *Posterior Analytics* A.22, 83a7–8: “For it is not the case that, being white or *what precisely is some particular white*, it came to be a log  $[\kappa\alpha\iota \gamma\acute{\alpha}\rho \omicron\upsilon\tau\epsilon \lambda\epsilon\upsilon\kappa\acute{\omicron}\nu \acute{\omicron}\nu \omicron\upsilon\theta' \acute{\omicron}\pi\epsilon\rho \lambda\epsilon\upsilon\kappa\acute{\omicron}\nu \tau\iota \acute{\epsilon}\gamma\acute{\epsilon}\nu\epsilon\tau\omicron \xi\acute{\upsilon}\lambda\omicron\nu]$ .”) It is tempting to say that this is to consider a subject insofar as it falls under a description, in this case, ‘the white thing’. But this might too easily encourage comparisons with certain quite specific contemporary proposals.

immediately following section centers its argument on the notion of a definition, surely count in favor of our proposal. This latter argument, which I am calling the New Primacy Argument, is the major argument of the New Primacy Passage, and it is time to examine it.

## 6. The New Primacy Argument

In section 4 we saw that the Elimination Argument knocked out *being for a cloak* as a candidate for essence on the grounds that it is not a this (τόδε τι). The intervening section argued that the notion of a τόδε τι there deployed is a certain kind of structural notion. This concern with structure is evident in the long discussion (1030a6–17) that immediately follows the Elimination Argument. Indeed, the discussion begins by asserting a consequence of that argument, namely, that only something whose formula is a definition could be an essence. This is the first mention of definition in the New Primacy Passage, but it is expected. For we have just seen, in section 5, that only a certain kind of formula can specify a τόδε τι, namely, one agreeing with (5") and (13'). And such a formula will be, as (4') insists, a formula of the essence and a formula of the essence turns out to be a definition. The balance of the 1030a6–17 then explains what sort of thing qualifies as the proper object of definition.<sup>370</sup>

Slightly redacted, the passage reads as follows:

Therefore, [iv] there is an essence only of those things whose formula is a definition (ὅστε τὸ τί ἦν εἶναι ἐστὶν ὅσων ὁ λόγος ἐστὶν ὁρισμός). But [v] there is a definition not where a name signifies the same thing as a formula (ὁρισμός δ' ἐστὶν οὐκ ἂν ὄνομα λόγῳ ταὐτὸ σημαίνει) . . . ; rather, [vi] there is a definition only of something primary (ἀλλ' ἐὰν πρώτου τινὸς †). [vii] Things of this sort are those expressed without predicating one thing of another (τοιαῦτα δ' ἐστὶν ὅσα λέγεται μὴ τῷ ἄλλο κατ' ἄλλου λέγεσθαι). Therefore, essence will belong to nothing that is not a form of a genus (οὐκ ἔσται ἄρα οὐδενὶ τῶν μὴ γένους εἰδῶν ὑπάρχον τὸ τί ἦν εἶναι). It will belong to these alone, for [viii] these appear not to involve predicating on the basis of participation or as an attribute or coincidentally (λέγεσθαι καὶ πάθος οὐδ' ὡς συμβεβηκός <sup>ἀλλὰ τοῦτοις μόνον. ταῦτα γὰρ δοκεῖ οὐ κατὰ μετοχήν</sup>). But [ix] there will be a formula of what is signified (τί σημαίνει) for each of the other cases also: in the case of a name, a formula to the effect that this belongs to that (ἐὰν ἢ ὄνομα, ὅτι τόδε τῷδε ὑπάρχει) or, in the case of a non-simple formula, something more complex (ἀντὶ λόγου ἀπλοῦ ἀκριβέστερος). But here there will be neither a definition

<sup>370</sup> This is not unanticipated. Z.3's claim that form is prior to the compound surely suggests that it enjoys a primacy denied the compound. But just as surely, the form is not ontologically prior to the compound; nor, thus, is its primacy ontological primacy.

nor an essence (ὁρισμὸς δ' οὐκ ἔσται οὐδὲ τὸ τί ἦν εἶναι). (1030a6–17, following Bostock, 1994)

The chief objective of this passage is the claim, in (vii), that only what belongs among the ‘forms (or, perhaps, species) of a genus’ will be or have an essence. The claim is established by appeal to a notion of primacy that is tied to definability and that turns out to be fundamentally different from the ontological primacy central to the *Categories*. This will emerge below when we reconstruct the argument of the passage. Here I shall be using the term ‘argument’ rather loosely, conceding the somewhat artificial flavor of the discussion. In large, it proceeds by specifying Aristotle’s use of various notions and so one might legitimately complain that (vii) is established by stipulation rather than argument. But this will not detract from our claim that in the New Primacy Passage Aristotle embraces a new notion of primacy.

Begin with (iv), which concludes (presumably, on the basis of the Elimination Argument) that only what is definable can be an essence. Specifically, Aristotle says that something is an essence only if it has a formula that is a definition. So he holds

14.  $Z$  is an essence  $\rightarrow$  ‘ $XY$ ’ is the formula of  $Z$  &  $XY$  is a definition,

which gives a necessary condition for essentiality. Although (14) probably could be strengthened to a biconditional, it is the necessary condition that is relevant to his argument.

Until (iv) *Metaphysics* Z.4 has not used the notion of definition—at least not straightforwardly. As we saw in section 2,<sup>371</sup> he criticizes those who produce formulae that omit something that should be included and those who include something that should be omitted. Moreover, such formulae are discussed in connection with attempts to *define*, in some sense of the term, *being for a cloak* (ὀρίζεται, b31–2; ὀριζόμενος, b32; and ὀρίζοιτο, b34). But so far from providing genuine instances of defining, these can be described as counterfactual uses of the notion, introduced to set limits on what counts as a proper *per se* formula. Aristotle’s point is not that a proper formula of *white-man*, namely, a formula that mentions just *white* and *man*, is a formula that is a definition. The point, rather, is that such a formula cannot be disqualified as specifying an essence on the grounds that it fails to be a *per se* formula. So, to appropriate his counterfactual idiom, even *were* one to define *white-man* in a way that satisfies the constraints on *per se* formulating, this would not yield a proper definition but only a proper *per se* formula. According to (v) the fact that a name signifies the same thing as a formula is not sufficient for getting an essence. Thus, as Aristotle says at

<sup>371</sup> Esp. the final paragraph.

1029b27–8, let ‘cloak’ be the name of *white-man*; then it will signify the same thing as the formula, ‘white man’. But it does not follow that *being for a cloak* is an essence. Aristotle is not denying that there can be an essence where a name signifies the same thing as a formula. His point is that this is not enough; something more is required. In the case of *being for cloak*, the formula fails because it is not the formula of something primary.

This brings us to (vi) of the New Primacy Passage, which connects definability and primacy:

15. ‘XY’ is a formula of Z & ‘XY’ is a definition  $\rightarrow$  Z is primary.

Now (14) and (15) are explicit renderings, and so Aristotle is clearly committed to

15a. Z is an essence  $\rightarrow$  Z is primary,

which they entail (he leaves the entailment implicit). The idea, then, is that despite having a formula that is *per se*, *being for a cloak* does not enjoy the requisite sort of primacy. So its formula is not a definition and, so, it is not an essence.

Now (15a) mentions but does not tell us what primacy consists in. My contention is that this is a new kind of primacy, a structural or explanatory primacy different from the ontological variety familiar from the *Categories*. How is this evident in the passage? Well, recall that the Elimination Argument excluded *being for a cloak* as an essence because it is not a this ( $\tau\acute{\omicron}\delta\epsilon$   $\tau$ ), and that we argued, in the previous section, that the notion of a  $\tau\acute{\omicron}\delta\epsilon$   $\tau$  is a structural notion. We might, therefore, expect some connection between that argument and (15)'s primacy condition. Just this is suggested by (vii)'s characterization of primacy because that characterization appears to invoke something akin to (5)'s impredicability condition on being a  $\tau\acute{\omicron}\delta\epsilon$   $\tau$  (this):

16. Z is primary  $\rightarrow$  Z is expressed without one thing (in it) being predicated of another thing (in it).

Proposition (16) can be expressed more conveniently in our ‘XY’ notation, as

16'. Z is primary  $\rightarrow$  ‘XY’ is the formula of Z &  $\neg((X$  is predicated of  $Y \vee Y$  is predicated of  $X) \& X$  is other than  $Y)$ .

By (16') primacy entails impredicability. Moreover, according to the previous section, impredicability is equivalent to intrinsicness, (13), and autonomy, (5"). So primacy will share in these equivalencies as well. If this is correct, then the primacy featured in (16') is a structural notion, mirroring the structural features of thisness. In short, the primacy of the

New Primacy Passage is a kind of structural primacy, altogether different from the ontological brand favored in the *Categories*.

We have reached this point by a very abstract argument, both ours and Aristotle's. We need to identify, in a more concrete way, the item that enjoys this structural primacy. Aristotle apparently feels the same pressure, for he immediately announces, in (vii), that only what is among the forms of a genus (τῶν γένους εἰδῶν) will have an essence because only this, he says in (viii), will satisfy (16'). With this, we come to the major thesis of the New Primacy Passage:

17.  $XY$  is/has an essence  $\rightarrow XY$  is the form of a genus.

Proposition (17) is asserted on the basis of (15a) and (16'), along with

18.  $\neg ((X$  is predicated of  $Y \vee Y$  is predicated of  $X) \ \& \ X$  is other than  $Y) \rightarrow XY$  is the form of a genus,

which is explicit in (viii). Note that (17) also may be derived from (16') and (18), along with

19.  $XY$  is/has an essence  $\rightarrow \neg((X$  is predicated of  $Y \vee Y$  is predicated of  $X) \ \& \ X$  is other than  $Y)$ ,

which follows from (4') and (5'), both already available.<sup>372</sup> Thus, by two routes we arrive at the major thesis of the New Primacy Passage, namely, (17).

But what, exactly, have we arrived at? Interpretation of (17) rests on interpretation of (18) and (19), its entailing propositions. So there are three notions to puzzle over: essentiality, impredicability, and being the form of a genus. The first of these we can set aside because the nature of essence just is what is to be explained—this is the task of New Primacy Passage, indeed of a good portion of *Metaphysics Z* itself—so its meaning is to be settled by looking at the other two notions. Given the relation between primacy, in (16'), and impredicability, in (18), we can assert

18'.  $XY$  is primary  $\rightarrow XY$  is the form of a genus,

and so primacy and impredicability will call for joint illumination. I shall first say something about this and then turn to the inviting but tricky notion of a form of a genus.

The claim that primacy is a structural notion depends on a certain reading of the impredicability condition. Something is primary just in case nothing *within* it is predicated of anything else *within* it. Some

<sup>372</sup> Proposition (4') is just Bonitz's conjecture. The fact that it plays a role in getting a satisfactory version of the New Primacy Argument is another reason to adopt it.

might hold, against this, that a thing's primacy requires only that there is nothing it is predicated of. 'Subject primacy', as this view might be called, is a close cousin of *Categories*-style primacy and, thus, is a kind of ontological primacy. On this view the New Primacy Passage is simply ill-named. But if this is what primacy means, then Aristotle ought to have included c-substances among the primary items. But (vii) grants this status *exclusively* to forms of a genus. Whatever one makes of the phrase, and I shall address this shortly, it can hardly cover c-substances. What is worse, we have seen that *Metaphysics* H.1 explicitly denies that forms are ontologically separate. So they can hardly be ontologically primary as subject primacy requires. Plus, Z.3 appears to argue against identifying primary substances and primary subjects, but the form accorded primacy in (18') is *the* premier candidate for primary substance in the central books.

A moment's reflection shows that the text itself of Z.4 contains no support for subject primacy. In the background of the New Primacy Passage is the failed candidacy of *being for a cloak*. Now *were* it an essence, its formula would mention in the appropriate way *white* and *man*. But unlike a form of a genus, any such formula will involve predicating on the basis of participation, or predicating something as an attribute or coincidentally—exactly as (viii) reports. Aristotle cannot plausibly be taken to mean that *being a white man* is predicated on the basis of participation or as an attribute. Rather, he must mean that one factor *in* the complex, *white man*, or the putative essence *being for a white man*, is predicated of another factor in it, either on the basis of participation (a certain man participates in *whiteness*) or as an attribute or accident (*white* or *being white* is predicated of a certain man). Therefore, *being for a cloak* does not enjoy the internal structure required for essences.

We are now in a position to provide a more useful formulation of the condition that genuine essences satisfy but *being for a cloak* fails to satisfy, namely,

20. *Being for an F* is an essence  $\rightarrow$  *being for an F* belongs to Z & Z is primary,

which, in view of (16'), is effectively equivalent to

20'. *Being for an F* is an essence  $\rightarrow$  *being for an F* belongs to Z & 'XY' is the formula of Z &  $\neg((X$  is predicated of Y  $\vee Y$  is predicated of X) & X is other than Y).

In explicating primacy as a structural notion, i.e., in terms of impredicability, I am committed to holding that the X and Y of (20') are internal features of Z, the item that is primary. But (20') says only that they

are what correspond to ‘X’ and ‘Y’, the substantive terms of Z’s definition. What uneasiness might accompany this thought is alleviated by recalling that impredicability is equivalent to intrinsicness. Intrinsicness says that Z is what it is not in virtue of anything extrinsic to it. Hence, if Z is what it is in virtue of *being for an F* and if this amounts to Z’s being what it is in virtue of the formula ‘XY’, then X and Y will be intrinsic features of Z.

In promoting forms of c-substances as primary, I wish to keep open the possibility that they are also complex. Before seeing what this amounts to, two contending views should be looked at. The first holds that c-substances, or at least compounds of form and matter, satisfy impredicability. The idea is that impredicability proscribes predicating accidents of subjects but not predicating the form of a c-substance of its matter. Because the form and the matter are internal components of the c-substance, this view, unlike subject primacy, regards primacy as an internal structural feature. Thus, it counts c-substances or their compounds as primary and so they remain in the running for the title of primary substance.<sup>373</sup> For several reasons, this view will not work. First, as (20) indicates, impredicability proscribes the predication of one feature in a thing of *another* feature in it. Surely, form and matter count as two such features. Indeed, Aristotle says precisely this at *Metaphysics* Z.3, 1029a23–4, where substance is held predicated of matter, for, as we saw in Chapter V, substance there must be the form of a c-substance.<sup>374</sup> Moreover, as we have already noted, (vii) concludes that *only* the forms of a genus have essences; hence, only they will be claimants to primary substancehood. Moreover, he concludes this *on the basis of* impredicability. If impredicability does not proscribe the predication of form of matter, then it is mysterious why Aristotle limits impredicability to form. Surely he does not mean to suggest that form *cum* matter compounds are in fact forms!<sup>375</sup> So far from keeping it open, I conclude that Aristotle shuts the door on c-substances, or their form-cum-matter compounds.

On the second of the contending views, impredicability casts a wide net. Any predication of one feature in a thing of another such feature is proscribed and this, in turn, is taken to show that primacy is equivalent to simplicity. I shall call this naive primacy. On naive primacy, form-cum-matter compounds will not count as primary. Moreover, although

<sup>373</sup> If it can be made out, this would be congenial to those, such as Gill (1989) and Loux (1991), who hold that in the central books of the *Metaphysics* primary substance remains the concrete individual of the *Categories* —Socrates, Secretariat, and the like.

<sup>374</sup> Here I am in agreement with Frede and Patzig (1988), who share my lack of sympathy with the view.

<sup>375</sup> But see Ch. VIII below which considers the possibly different view that the forms of c-substances must contain the characteristic matter in which they are realized.

primacy remains an internal structural notion, it is now the limit case, namely, structural simplicity. This conflicts directly with our view that the primacy exhibited by forms allows for their internal complexity. So we need to look at naive primacy.

Although it may have other representatives,<sup>376</sup> naive primacy is most recently incarnated in Bostock (1994: 91). In saying this I do not imply that Bostock is a fan of such primacy. On the contrary, he voices two worries. The first, that “no satisfying reason has been given for the claim that only things that are in a certain sense simple can have essences,” is aimed at the connection between essence and primacy, as reported, for example, in (20); the second, that “we are given no reason at all for the claim that *only* forms, i.e., species, are in this way simple,” takes aim on a main interim conclusion of the New Primacy Passage, namely, (18'), which links primacy to the form of a genus. It is understandable that one might use such worries to dismiss the New Primacy Argument and its major claim that only forms of a genus can be essences. On the other hand, one can use such worries to drive interpretation—to ask, for instance, what forms must be like in order to be primary in the required sense without being simple. This attitude is much to be preferred and hopefully will allow us to allay some of the worries Bostock rightly calls to our attention.

At the moment, however, I want to call attention to an assumption underlying Bostock's analysis. This is that primacy amounts to simplicity. He would say simplicity “in a certain sense” and by this allude to the impredicability condition. So the right side of (16') is made the locus of simplicity and, thus, structural primacy turns out to be structural simplicity. But is this so? A reason for doubt is the fact that (16') imposes a disjunctive requirement on items that are primary. Either (a) no feature of the item, or item's structure, is predicated of another such feature, or (b) the feature that is predicated is not other than the feature of which it is predicated. But nothing here prevents an item from having any number of internal features—so long as these are not predicated one of another. To get simplicity we need to assume that all internal features of an item involve predication and that for one feature to be ‘not other’ than another is for them to be identical. That is, we need to associate with (a) something like

- 21a.  $(x)(z)(x \text{ is an internal structural feature of } z \rightarrow (\exists y)(y \text{ is an internal structural feature of } z \ \& \ x \text{ is predicated of } y \ \forall y \text{ is predicated of } x)),$

and with (b) something like

<sup>376</sup> Possibly, for example, Burnyeat *et al.* (1979).



21b.  $(x)(y)(z)(x \text{ and } y \text{ are internal structural features of } z \ \& \ x \text{ is not other than } y \rightarrow x \equiv y)$ .

Assumptions (21a) and (21b) provide a strengthened notion of impredicability, guaranteeing that whatever satisfies it is an item without distinct internal features. Such an item will be simple and so structural primacy reduces to structural simplicity.

But both assumptions can be challenged. It is, for example, not obvious that Aristotle would read 'X is not other than Y' as (21b) requires. Aristotle might mean by this that X and Y are conceptually related without being identical. In this way, perhaps, the hand is not other than the body in terms of which it is defined. What is obvious, however, is the implausibility of (21a). Nothing in the text suggests it, and Aristotle can hardly have been drawn to the view. Consider the case of matter. Clearly, the material parts of a thing are internal features of it. But just as clearly no such feature is predicated of another. I suppose one might insist that form, or parts of the form, are predicated of these various material parts. This could serve the cause of naive primacy, however, only if all the parts are identical, and this is wildly implausible. Rather than reducing it to structural simplicity, the New Primacy Argument appears to treat structural primacy as a kind of structural complexity. As far as that argument is concerned an item may be primary and complex to a given degree so long as the features that fix the degree of complexity are not predicatively related *one to another*.

Finally, were primacy just simplicity<sup>377</sup> one might have expected to find in the New Primacy Passage a contrast between what is primary and what is complex. But in  $(ix)$  primary items are contrasted with 'the other cases' and these include both what is signified by a simple formula (a name) and what is signified by a complex formula. In neither case is there a definition or an essence so long as neither case is a formula about something that is primary. So an item's primacy is independent of whether the formula signifying it is simple or complex, and this certainly suggests that what is primary could enjoy a certain kind of structural complexity.

Although the New Primacy Passage allows an item to be complex as well as primary, it says little else about the structure of such items. Impredicability tells us what primacy does not involve but not what it involves. Much the same can be said for the two equivalent notions of intrinsicness and autonomy, respectively (5') and (13) above. This is worrisome because it might appear to admit unwanted items as cases of primacy. For example, it might be thought to countenance mereological

<sup>377</sup> Proponents of naive simplicity do not say what sort of simplicity they have in mind, other than predicative simplicity.

sums because such items are mere collections of parts. No predicative relations are presupposed. Obviously, this is nothing Aristotle would welcome but, just as obviously, it is nothing he shows concern about. For he immediately proceeds, in *(vii)*, to declare in forthright terms that only forms of a genus exhibit the kind of impredicability that confers primacy. The source of such confidence is not evident from the New Primacy Passage but it does emerge clearly at the end of *Metaphysics* Z.4. There he returns to the point that a formula of *Z* is not a definition just because *Z* signifies the same thing as the formula.<sup>378</sup> Rather, it must signify the same thing as a certain sort of formula (τινὶ λόγῳ), namely, a formula of something that is a unity (τοῦτο δὲ ἐὰν ἑνὸς ᾖ). We thus get an additional constraint on structural primacy:

22. *Z* is primary  $\rightarrow$  ‘*XY*’ is the formula of *Z* &  $\neg((X$  is predicated of *Y*  $\vee Y$  is predicated of *X*) & *X* is other than *Y*) & *X* and *Y* make up a unity,

and, thus, an additional constraint on what counts as *being for an F*:

- 22'. *Being for an F* is an essence  $\rightarrow$  *being for an F* belongs to *Z* & ‘*XY*’ is the formula of *Z* &  $\neg((X$  is predicated of *Y*  $\vee Y$  is predicated of *X*) & *X* is other than *Y*) & *X* and *Y* make up a unity.

Only the forms of a genus will satisfy (22) and (22') and so only they will exhibit not only primacy and impredicability but also unity. But the end of Z.4 also says, and *Metaphysics* Γ.2 argues, that there are as many kinds of unity as kinds of being. Aristotle has in mind here mainly the kinds of being distributed among what we called the *per se* scheme in Chapter III, namely, those corresponding to the categories. Accordingly, items from nonsubstantial categories have definitions and essences in a reduced sense, and even accidental compounds will have them, in a yet more attenuated way.

It is a bit unclear why Aristotle says that an accidental compound has an essence. He says only that because there are as many (*per se*) senses of being and unity as categories, there will be a formula and definition even of a white man (διὸ καὶ λευκοῦ ἀνθρώπου ἔσται λόγος καὶ ὀρισμός, 1030b12–13). Grant, as Aristotle will, that the kinds of *per se* being generate kinds of essences as well as kinds of unity. Why should this entail that what is constructed out of *per se* items from distinct categories should itself have an essence? One might appeal to the principle that if *Z* is constructed from *X* and *Y* and if *X* and *Y* have essences, then *Z* has an essence. But this principle would be no more plausible

<sup>378</sup> Or, perhaps, “as the name of *Z*. ” Here, again, we encounter disregard for the use–mention distinction.

than the inference it licenses. It is pretty clear that Aristotle has a low opinion of the accidental compound's claim to essence—this much is clear from his attack on *being for a cloak* earlier in Z.4. So his apparent permissiveness here is entirely concessive and comes at no cost. For what matters is that definition and essence belong in the primary and unqualified way to substance (ὁ πρῶτος καὶ ἀπλῶς ὀρισμὸς καὶ τὸ τί ἦν εἶναι τῶν οὐσιῶν ἐστίν, 1030b5–6). Whatever unity *being for a cloak* might impart to an item will be tenuous at best. So there is no difficulty understanding the doubly attenuated kind of essence assigned to it.<sup>379</sup>

The case of nonsubstantial *per se* items is more complicated. Z.4's closing remark does not distinguish definitions of these items from definitions of substances.<sup>380</sup> But they are to be distinguished. Immediately upon closing the New Primacy Passage with the forthright claim that only forms of a genus will have a definition and an essence, Aristotle's predilection for subtlety surfaces with the thought that definition might enjoy the same range of ambiguity as 'what a thing is' (τὸ τί ἔστί, 1030a17–18). Aristotle is not suddenly changing the terms of argumentation from essence (τὸ τί ἦν εἶναι) to the old notion of what a thing is (its τί ἔστί). To ask whether 'definition' is polysemous just is to ask whether 'essence' is polysemous. Because this is part of the investigation of the nature of essence, it would be absurd to suppose that the question ought to be whether 'definition' is ambiguous in as many senses as 'essence'. The latter is the question to be determined and, thus, Aristotle pursues it by asking whether 'τί ἔστί' is ambiguous. This procedure presupposes, reasonably, that the notion of what a thing is (its 'τί ἔστί') is better understood than the technical notion of essence and that, where there are fundamentally different kinds of τί ἔστίς, there are correspondingly different kinds of essences. This too is a reasonable assumption because what a thing is, i.e., how it is classified categorially, is ultimately to be explained by appeal to its essence, i.e., its essential cause.

Of an item from a nonsubstantial category we can ask what it is. So, says Aristotle, it has a nature or τί ἔστί but not of an unqualified sort. Only substance has a 'τί ἔστί' in a primary and unqualified way. Aristotle uses this to draw a parallel conclusion about essence:

And so . . . essence also will belong in a similar way primarily and without qualification to substance (τὸ τί ἦν εἶναι ὁμοίως ὑπάρξει πρῶτος μὲν καὶ ἀπλῶς τῇ οὐσίᾳ), and then also to the others, just as what a thing is (τὸ τί ἔστί). (1030a29–31)

<sup>379</sup> Plus, as Ch. VII shows, Z.6 strips such essences of explanatory utility.

<sup>380</sup> "So there will be a formula and a definition even of a white man, but not in the same way as there is of white and of substance."

How does this work? Recall Chapter II's discussion of the claim in *Metaphysics* Z.1 that substance is prior in definition, knowledge, and time (existence).<sup>381</sup> The idea was that to have knowledge of a nonsubstantial item, a quantity or quality, is to have knowledge of what it is (its τί ἔστω). But this is just given by its definition and its definition must mention substance. So knowledge of nonsubstantial items depends on knowledge of substance *because* the nature or τί ἔστω of nonsubstantial items depends on or, in some sense, contains substance. The converse does not hold for the τί ἔστω of substance and so it is primary and not subject to qualification. It is in the nature of a quality, on the other hand, just to be a quality of something, namely, a substance. *Metaphysics* Z.4 suggests that a parallel point holds for a thing's essence. And just as *Metaphysics* Z.1's discussion of the three senses of primacy served the cause of focal meaning from within the framework of the *Categories*,<sup>382</sup> so here focal meaning is extended to the explanatory notion of essence. *Being for white*, for example, is not an essence in an unqualified way because it is a case of *being for a quality* and, when we say what such things are, we can do so only "by adding something" on whose existence they depend for their existence, namely substance.<sup>383</sup>

Where  $X$  is a substance and  $Y$  a nonsubstantial *per se* item, Aristotle appears to endorse something like:

23.  $Y$ 's existence depends on  $X$ 's existence & *being for an F* belongs to  $Y \rightarrow$  *being for an F* belongs to  $Y$  in virtue of something ( $X$ ) that is different from  $Y$ .

We should not be surprised to find (23) making an appearance here. For it says, in effect, that *being for an F*, whenever it stands for *being for (a) white (property or property instance)* and the like,<sup>384</sup> runs afoul of intrinsicness. And, in the previous section, we saw that intrinsicness was a feature of the notion of thisness: as (13) there reports, anything that is a this has the property. It is, I think, hardly coincidental that twice in Z.4 Aristotle uses the notion of a this to mention the first category. At 1030a18–19 'τί ἔστω' (what something is) signifies, primarily, the substance and the this (τήν οὐσίαν καί τὸ τόσε τι) and at 1030b11–12 being (τὸ ὄν) signifies, primarily, the this (τὸ τὸδε τι). Since intrinsicness is required for primacy, it follows that properties or property instances do

<sup>381</sup> In sect. 6.

<sup>382</sup> See the discussion of Ch. V, esp. sect. 1.

<sup>383</sup> Aristotle actually says, "by adding and subtracting (προσθίεντας - καὶ ἀφαιρούντας)," but the case of subtracting probably covers saying, for example, what the essence of a white man is, where one wants to give the essence of the thing that happens to be white, because here any reference to white would have to be subtracted.

<sup>384</sup> In terms of the meta-ontology, MO, as we put it in Ch. I, whenever the  $F$  in *being for an F* is a type-III or type-IV item.

not have definitions or essences of an unqualified and primary sort. Better off than accidental compounds, they still fall short of forms of a genus. At the end of the New Primacy Argument only these remain as candidates for essence in the full sense of that term.

## 7. Essence as the Form of a Genus (γένους εἶδος)

We began this chapter by arguing that *Metaphysics* Z.4's interest in essence rests on its claim to be the substance-of the thing, or things, whose essence it is. This, in turn, serves Aristotle's general explanatory project of determining what the form of a c-substance must be like in order to serve as its substance. In this light, it would have been inconvenient had the New Primacy Argument concluded that the compound of a c-substance's form and matter is the chief contender for essence. But it is hardly inconvenient to discover that this essence is a certain kind of form, namely, a form of a genus. Because other things have lesser grades of essence, forms of a genus are the *primary* possessors of essence. So we have

24. *Being for an F* belongs primarily and without qualification to  $Z \rightarrow Z$  is a form of a genus.

Moreover, as we saw at the end of the above section, essences attach primarily and in an unqualified way to substances only. Twice stated, at 1030a29–31 and 1030b4–6, the claim is probably best taken as stating an equivalence:

24'. *Being for an F* belongs primarily and without qualification to  $Z \leftrightarrow Z$  is (a) substance.

So it follows that if  $Z$  is substance, then  $Z$  is a form of a genus; and, if (24) can be upgraded to a biconditional, it follows that  $Z$  is a substance if, and only if,  $Z$  is a form of a genus.<sup>385</sup>

The form of a genus just is (a) substance and vice versa. Now, if substance is a kind of form, then the New Primacy Passage arguably treats substance under the rubric of *substance-of*. What other kind of substance could a *form* be? Hence, *Metaphysics* Z.4's substance turns out to be the form of c-substances and, ultimately, primary substance. This, of course, squares with our interpretation of *Metaphysics* Z as pursuing

<sup>385</sup> Frede and Patzig (1988: ii. 65–6) find that 1030a6–17 draws the further conclusion that only primary substances (*primäre ousiai*) have essences. Although I agree that this *turns out* to be the case, Z.4 does not explicitly draw this conclusion. In fact, it is not explicit until Z.11 (setting aside, from caution, the triple equation of form, essence, and primary substance at 1032b1–2 in the 'inserted' chapter, Z.7).

an explanatory account of the nature of c-substances.<sup>386</sup> But establishing this point requires a bit more reflection on the expression ‘form of a genus’ (γένους εἶδος). Although I shall finally argue that Aristotle means that the essence (and so substance) of a thing is its form, this is not uncontested. Ross (1924), for example, took a γένους εἶδος to be a *Categories*-style species and Burnyeat *et al.* (1979) also take the species to be the target of the New Primacy Argument. This view, which I shall call the species-reading, would also appear to be forced on Owen (1965*b*)<sup>387</sup> and Woods (1967).<sup>388</sup> While agreeing with us that Z.4's form of a genus finally reigns as primary substance in *Metaphysics* Z, they also insist that the secondary substance of the *Categories* is elevated to the status of primary substance in Z. These two propositions entail that Z.4's form of a genus just is the species of the early work. So the claim that the New Primacy Argument and Z.4 as a whole champion the cause of the species emerges as a presupposition of their view that the accounts of substance in the *Categories* and the central books<sup>389</sup> are fundamentally incompatible.<sup>390</sup> For some this alone would be sufficient to reject equating forms of a genus and species. And, certainly, it does not sit well with our compatibilist account.

The issue of consistency aside, there are a number of objections to the species-reading. These also tell effectively against Bostock's claim that *Metaphysics* Z.4–5 “maintain a distinct preference for items in the old category of substance” (Bostock, 1994: 116). First, there is a point of strategy. If Z.4 promotes essence on the strength of its claim to be the substance-of those things whose essence it is, for example, c-substances, and if this is part of Z's examination of form, then Aristotle's identification of essence, in the primary sense, with the γένους εἶδος is arguably an identification with the species-*form* rather than the species.<sup>391</sup> Because

<sup>386</sup> In particular, it reflects our view that the form of Z.4's form of a genus is the same form that Z.3 ranks above the matter and the compound, namely, the form of a c-substance.

<sup>387</sup> Also Owen (1978–9).

<sup>388</sup> Furth (1988: 238–9) is an unabashed advocate of the species reading. It also seems to be the view of Code (1985*a*), but not the (later-written) Code (1984). See also Rorty (1973), Irwin (1988), and Ferejohn (1994: 294–5).

<sup>389</sup> Or, at least, book Z, since some (e.g., Gill, 1989) hold that Z's incontestable preference for form is dialectically driven and gives way finally, at the end of H.6, to the candidacy of the compound.

<sup>390</sup> Indeed, Owen (1965*b*: 137, n. 10) officially locates the species-reading in the New Primacy Passage: “this is one thesis that needs no arguing: it is already afoot when 1030a6–14 is read with VII 6.” We return to this in the next chapter.

<sup>391</sup> For the moment, I shall mean by the species-*form* the single form in virtue of which all members of a given species fall into the species, as distinct from the form, if any, which is particular to each member of the species. Alternatively, we might take the species-*form* to be the form of the abstracted universal compound that Z.10 and 11 identify with species, such as *man*, i.e., with *Categories* secondary substances.

the form of a genus turns out to be primary substance, this assumes that substantial form (the form that is substance), and so primary substance, is located at the same level of generality as the species and, therefore, that it is not particular. This may well turn out to be false, but in any case it need not be decided at the moment.<sup>392</sup> The point to press now is that, even if we grant the generality assumption, the species-form rather than the species would be the likely match for Z.4's γένους εἶδος.<sup>393</sup>

A second difficulty is that the species-reading does not sit well with Aristotle's usage. His technical jargon for the essence is (τὸ) τί ἦν εἶναι, and particular essences are reported with dative constructions such as τὸ ἱματίῳ εἶναι and τὸ ἀνθρώπῳ εἶναι, which may be translated, respectively, as 'the being for (or of) a cloak' and 'the being for (or of) an animal'. Such constructions are naturally paired with questions such as "In what does the being of a cloak (or animal) consist?" That is, they are well designed for the purpose of designating that feature of a thing that explains the thing's nature or being. As such they are well designed for designating the form of a cloak or animal, to take our sample cases. The species-form may be such a feature, but the species surely is not. At *Metaphysics* Z.10, 1035b27–31 species such as *man* and *horse* are said to be universals that are predicated of particular men and horses. What is predicated of, say, Socrates is not *being for a man* but *being a man*, and what is predicated of Secretariat is not *being for a horse* but *being a horse*. *Being a horse* is the sort of thing that in the *Categories* is said-of individual horses and so it is suited to play an essentially classifying role in the underlying ontology for ordinary predications.<sup>394</sup> But it is ill-suited to explain the internal structure(s) of the lead items in that ontology, namely, c-substances—Socrates, Secretariat, and the like. Given the distinction between species and species-forms, it is hard to believe that the former have any claim to be forms of a genus, because in Z.4 the latter are designated by expressions like 'being *for* an F', and such designations comport most naturally with species-forms rather than species.

Even if we waive the point about usage, the species reading encounters down-line trouble. For Z.10 and 11 contain an *account* of species that makes it most unattractive to equate them with Z.4's forms of a genus.<sup>395</sup> In Z.10 and 11, at 1035b27–31 and 1037a5–10, species are counted as universal compounds, abstracted from given particular compound substances (i.e., abstracted from *this* matter and form).

<sup>392</sup> For some more detailed remarks, see Wedin (1991).

<sup>393</sup> Bostock (1994) shows no sensitivity to this distinction. Its importance is clear from the central role it plays in, for example, Code (1984), Driscoll (1981), and Lewis (1991).

<sup>394</sup> Recall here Ch. I's discussion of the role of the *said-of* relation in the ladder principle TR, which sorts individuals into their proper categories.

<sup>395</sup> See Wedin (1991) for extended discussion of this account.

Moreover, they are explicitly said not to be substances. Although some might take this merely to deny them status as *primary* substances,<sup>396</sup> this will not help the cause of the species in Z.4. For here the very question is the identity of something, for us the *substance-of* c-substances, that turns out to be primary substance.

Finally, it is not clear how the species-reading can be squared with the impredicability condition on forms of a genus. Species are universal compounds abstracted from *this* matter and form. But we saw earlier that particular form-cum-matter compounds fail to satisfy impredicability because one internal component was predicated of another. Why should we expect the *abstract compound* obtained from a concrete compound suddenly to enjoy impredicability? This problem is particularly acute for those, such as Bostock (1994), who equate impredicability with simplicity. For although a complex of a form and matter may be a unity of a kind, it hardly counts as a unity in virtue of being simple.

When Aristotle concludes that only forms of a genus are primary because only they do not involve the predication of one feature in them of another, he does not have the species in mind.<sup>397</sup> What, then, does he have in mind? A useful place to begin is with Frede and Patzig (1988)'s gloss on the expression 'what is not among the forms of a genus' (τῶν μὴ γένους εἰδῶν ὑπάρχον). It is, they suggest, to be understood as restricting the appellation 'essence' to those εἶδη (forms) which can be thought of as produced through the determination of a genus by means of a specific differentia.<sup>398</sup> Further, the restriction was deemed necessary because the Platonists applied the term 'εἶδος' ('form') to genera but Aristotle denies that genera are essences on the grounds that the genus is not a substance. Although correct, the last point cannot *explain* Aristotle's restriction because the status of εἶδη or forms as primary and impredicative is what justifies their claim to be essences in the primary sense. This is not to deny that for Aristotle genera are not substances but it does cast doubt on the utility of this fact in explicating the notion of a form of a genus. As far as the New Primacy Argument is concerned, genera fail to be essences because they lack primacy and impredicability.

<sup>396</sup> For example, Malcolm (1993).

<sup>397</sup> We have already suggested that lovers of species could, at most, hold out for identifying the essence with the species-*form*. But if this amounts to demanding that substantial form, the form that ends up as substance, is to be identified with some kind of general, as opposed to particular, form, then it is a premature demand. We ought first to focus just on the notion itself of a form of a genus, reserving for later the question as to its general or particular nature. See Wedin (1991) for a beginning discussion.

<sup>398</sup> "Diese Ausdrucksweise . . . ist wohl zu verstehen, dass für Aristoteles nur solche εἶδη ein 'Was es heisst, dies zu sein' haben, die als durch nähere Bestimmungen einer Gattung mittels einer spezifischen Differenz entstanden gedacht werden können" (Frede and Patzig, 1988: ii. 66).



As to the expression itself, Frede and Patzig (1988) translate ‘γένους εἶδη’ as ‘forms of a genus’ (*Formen einer Gattung*), but leave ‘εἶδος’ untranslated in their gloss on the expression in the commentary.<sup>399</sup> In any case, the gloss itself is unclear. If the result of applying a specific differentia to a genus, for example, *two-footed* to *animal*, is a species, for example, *man*, then the εἶδη in question will be species and not forms—whether species-forms or particular forms of members of a species. But this yields the species-reading that we have already rejected. One might try to avoid this result by claiming that the εἶδος is not the *species*, but rather the differentia-cum-genus complex that fixes the species. This, however, is only an illusory gain, for what provides a distinct way of fixing an item need not fix a distinct item. In this case it remains the same item, namely, the species. Moreover, when we come to *Metaphysics* Z.13, it will be quite clear that the genus is no part of the essence. The suggested way out conflicts with this. For it takes a complex of the (specific) differentia and genus to be the εἶδος that is an essence (i.e., Z.4’s εἶδος).<sup>400</sup>

Perhaps, then, there is another way to understand what forms of a genus might be. Here we must be careful to weigh the exact force of definition in the New Primacy Argument. What I shall call the standard form of a definition contains a differentia and genus in the *definiens*. Begin, then, by representing the definition of *man* as: *man* = <sub>at</sub> *two-footed animal*. At the moment it will not matter what we take the differentia to be. The main point is that the standard form of a definition is

$$25. \quad S = \text{at} dG,$$

where *S* is a species, *d* a differentia, and *G* a genus. Although this notion of definition fits well with the strategy of the *Categories*, as developed in Chapter I, is it also alive in Z.4? In section (iv) of the New Primacy Passage the essence is what is signified by a formula that is a definition. Registered in (14) above, this can be strengthened to the biconditional

$$14'. \quad Z \text{ is an essence} \leftrightarrow \text{‘}XY\text{’ the formula of } Z \text{ \& ‘}XY\text{’ is a definition.}$$

From (14') and (25) it appears to follow that the essence is identical with the species. So one can see how the species-reading gains force. However, the inference assumes not only that species are defined as in (25) but also that all definitions accord with the standard form, (25).<sup>401</sup>

<sup>399</sup> At least, in their main gloss on it.

<sup>400</sup> Frede and Patzig (1988) would not, of course, welcome such a view—not, at any rate, if they share our view that the γένους εἶδος of Z.4 turns out to be primary substance. For on their view, PART, particular forms are the recipients of this honorific.

<sup>401</sup> The inference may also assume that definitions pick out essences in the *Categories*. But the technical expression for essence, ‘τὶ ἢν εἶναι’, is arguably absent from the work and its program can be executed without use of the notion. The less technical notion of a thing’s nature, its τὶ ἐστὶ, will do.

It assumes, in short, that in (14) one of  $X$  and  $Y$  is a differentia and one is a genus. Is this correct?

Given my overall view of the role of the central books, it would not be surprising to find Aristotle interested in a rather different notion. For while (25) is ideally suited for saying *what* a thing is and so for playing a role in articulating the categorial scheme of the *Categories*, including the classification of c-substances, it is not clear that (25) is of much use in explaining their internal structure. And this is the chief charge of *Metaphysics Z*. One can think of the first project as providing a certain kind of account of the one-place predicate, “\_ is a substance,” and for this (25) will do nicely, as we saw in Chapter I. As an account of the two-place predicate, “\_ is the substance-of \_,” the second project is essentially explanatory, and appeal to the species could hardly further its aims. Much more needs to be said about this, and I do so below. But it will be helpful to preview one point now, namely, the requirement that the form, if it is to be the substance-of a c-substance, must be an essence that is the cause of certain matter constituting, for example, a *man*. Here, in tabulating the *result* of form's work, we do allude to the species. But it is mentioned as part of the fact *to be explained*, namely, a thing's membership in the species *man*. So it would be unhelpful in the extreme to ‘explain’ that the cause of certain matter constituting something that falls into a species is just the species. This looks like an attempt to explain membership in a species by membership in a species.

Despite the testimony of some commentators, nowhere in Z.4–6 do we find explicit use of the standard form (25). Toward the beginning of Z.4 Aristotle discusses *per se*<sub>1</sub> formulae and lays down an informativeness condition for formulae that express essences, namely, (3) above. But these do not require that definitions fit the standard form of (25). In fact, differentiae are not mentioned at all.

Nonetheless, some scholars, notably Ross (1924), Furth (1988: 238–9), and Frede and Patzig (1988: ii. 66), find standard definitions implicit in Z.4's notion of a γένους εἶδος. Furth (1988: 238), in fact, takes impredicability to express “the structure of genus and differentiae.” But this is risky business, for if a form of a genus is what is defined by a standard definition and if the essence is the ontological correlate of the *definiens*,<sup>402</sup> then again the essence is identified with the species. So if we insist that all definitions follow the standard form, then the species reading can be avoided only by denying the correlation between essence and *definiens*.<sup>403</sup> To make this palatable one might suppose that Aristotle means only that the thing that *has* a definition has an essence. We

<sup>402</sup> As Furth (1988: 238) holds.

<sup>403</sup> Here I am presuming that we have given good grounds for rejecting the species reading.

could then insist that a definition *picks out* the thing that has the essence but does not correlate isomorphically with the essence or articulate its structure. Unfortunately, this way out of the species-reading cuts against the grain of the text. For one thing, it probably requires a strictly linguistic notion of definition, yet Aristotle notoriously shows a preference for so-called real definitions, that is, definitions that track a thing's real nature. Recall, also, the formulation of primacy in (16'). It connects primacy and impredicability by using the correlation between elements in the formula and elements in the (primary) item itself. Consider how difficult it would be to formulate Aristotle's notion of primacy without such a correlation. Further, suppose we were to grant that definitions do not correlate with essences. Then there will be a different formula with a *definiens* that *does* correlate in the required way with the structure of the essence. Would not this, then, enjoy chief claim to be the proper definition?

Now one could grant the last point and still cling to the idea that species correlate with definitions, by appealing to Aristotle's own taste for ambiguity in Z.4, in particular by reminding us that in a reduced sense there are definitions of accidental attributes and, in a doubly reduced sense, of accidental compounds. Why not, then, extend this liberal policy to species as well? Thus, one might insist that there are definitions of species and that this would be compatible with granting that there are also definitions of the form or species-form. This might preserve the species as an object of definition, but it will not help the species *reading* because the species reading identifies the species with something that is *primary*, namely, the γένους εἶδος or form of a genus. And when it comes to a contest, definitions of the species-form will be prior to definitions of the species. At least this is the upshot of the analysis of form in *Metaphysics* Z.10 and 11. For these chapters presuppose, first, that there is a correlation between the parts of a definition and the parts of the defined object and that the correlation applies, above all, to the form itself; they, then, argue that form, and its parts, are the prior sorts of entities, in particular, prior to the compound and its (nonformal) parts. On the view I am promoting, the γένους εἶδος (form of a genus) of Z.4 is the very form that is subjected to analysis in Z.10 and 11. If so, γένους εἶδη (forms of a genus) will be prior to particular compounds and, surely, also, to the universal compound obtained by abstraction from them, that is, the species.<sup>404</sup>

<sup>404</sup> Bostock (1994: 91) also notes that the analysis of Z.10 and 11 counts against the primacy of the species but he takes this simply to contradict the account of Z.4. He locates Z.10's case against the species in 1035b27–30 and Z.11's in 1037a5–7. But if both chapters as a whole promote the primacy of form over everything else (as I argue in Ch. VIII), then these passages need not carry the burden of the argument. This is to the good because, as Bostock sets the problem, only 1037a5–7 gives primacy to the form and, explicitly, only to the form of Socrates as opposed to his matter and the compound of the form and his matter. This result is already familiar from Z.3. What would be new is extension of primacy to the species-form, that is, to the form of the universal form *cum* matter compound that is gotten by abstraction from the particular compound. (See Wedin, 1991 for more on the status of the universal compound.) To get this out of 1037a5–7 requires assuming that if  $F$  is the formal component of a universal compound  $C$ , and  $C$  is derived by abstraction from a particular compound  $c$ , and  $f$  is the formal component of  $c$ , and  $f$  is the primary component of  $c$ , then  $F$  is the primary component of  $C$ . There is no hint of the assumption in either of the passages Bostock adduces. It is, rather, the general argument of Z.10 and 11 that establishes the global primacy of form. This, of course, calls for explanation and argument. See below, Ch. VIII.

## 8. The γένους εἶδος and Formal Differentiae

So far I have argued against the widely held view that the New Primacy Passage urges that the essence is to be identified with the species.<sup>405</sup> From the point of view of our overall interpretation of the central books this is hardly surprising, for the view amounts to urging that the essence of a c-substance is the species to which it belongs. This, in effect, strips essence of the explanatory force I take to be central to its role in *Metaphysics* Z and H. The species-reading was discarded in part because Z.4 essences are not the isomorphic correlates of standard, differentia(e)cum-genus definitions. However, this is not to declare that definitions are wholly irrelevant to the discussion. On the contrary, this section shall suggest that they correlate with the differentiating components of standard definitions and with these only.

The above section closed with the proposal that Z.4's form of a genus (γένους εἶδος) is the beneficiary of Z.10 and 11's extended discussion of form. So it will not be out of place to begin with a familiar point from the later chapters. In both Z.10 and 11 species and, indeed, all secondary substances, involve form and matter. Moreover, Aristotle emphasizes that the species is structurally analogous to the form-cum-matter compounds from which it is abstracted. One point of analogy is the predication of form of matter. So the account of Z.10 and 11 appears to welcome the predication of species-form of species-matter.

<sup>405</sup> Burnyeat *et al.* (1979: 25) worry that the New Primacy Argument allows the genus also to count as primary: "genera are not ruled out so far, at least not if they are species of a further genus." Bostock (1994: 91) gives his peculiar twist to the same worry: "But even if species are in the relevant way simple, what is more distracting is that it appears that genera . . . must also be simple—and, one would have thought, even more simple." Setting aside the issue of simplicity, which we have already addressed, both worries assume that the γένους εἶδος is the species. Our argument against the species reading relied, in part, on Z.10 and 11's analysis of the species as a universal compound of form and matter. But genera are also said to be compounds of this sort. Hence, no more than the species will the genus satisfy imprecability. In this way we are able to explain why the genus is not a primary item.

It is not exactly clear how to square the idea that species are universal compounds of form and matter with the idea that they are the targets of standard definitions, that is, items that are composed of the differentia and the genus. Given our line of argument, it should turn out that one component in the *definiens* of a standard definition is predicated of another. But just this might be challenged by friends of the species-reading. They might try to preserve the species by arguing that the *definiens* of a standard definition satisfies impredicability and so also primacy, appealing to a premise of Aristotle's so-called proof that being is not a genus—sketched at *Metaphysics* B.3, 998b22–7 and K.1, 1059b24–34. The premise asserts that no genus is predicated of its proper differentiae. Hence, preservationists conclude, the complex of differentia(e) and genus satisfies impredicability and primacy. However, as we have formulated it, impredicability is a two-way street, requiring also that no differentia be predicated of its genus.<sup>406</sup> Because this possibility is not excluded in either version of the proof, preservationists cannot conclude that impredicability attaches to the complex of differentiae and genus mentioned in the *definiens* of a standard definition.

But can we go further and assert that the differentia(e) mentioned in a standard definition *is* predicated of the genus? There are two questions here: First, (Q1) is the relation between differentia(e) and genus analogous to the relation between form and matter? Second, (Q2) can the analogy be extended to the predication of the differentia(e) of the genus?

Regarding the first question, the analogy is used throughout the *Metaphysics*, both in and out of Z, and, although (Q1) is an important question, a full answer to it is quite complicated. Fortunately, for present purposes I need take the question only far enough to shed light on the nature of Z.4's γένους εἶδος (form of a genus). Note that I am not asking whether 'matter' and 'genus' are everywhere codesignative and certainly not whether they are the same concepts.<sup>407</sup> I am simply trying to make sense of what Aristotle means by treating the genus *as* matter in a few passages that are relevant to our task.<sup>408</sup> It will be useful to begin with a few passages outside of Z.

After remarking in *Metaphysics* I.8 that species are composed of the genus and the differentiae (ἐκ τοῦ γένους καὶ τῶν διαφορῶν τὰ εἶδη, 1057b7), Aristotle proceeds in I.9 to characterize the genus as matter:

for the matter is indicated by negation, and the genus is the matter of that of which it is called the genus (τὸ δὲ γένος ἕλη οὐ λέγεται γένος), not in the sense in

<sup>406</sup> As, for example, in (5') and (16') above.

<sup>407</sup> So my account does not invite the cluster of problems that vexed Grene (1974).

<sup>408</sup> In addition to Grene (1974) and Rorty (1973 and 1974), see G. E. R. Lloyd (1990) and Balme (1990) for general discussion of the relation between genus and matter.

which we speak of the genus or family of the Heraclidae, but in that in which the genus is a feature in a thing's nature (ὡς τὸ ἐν τῇ φύσει). (1058a23–6, after Ross)

The I.9 passage understands by the genus something that is in a thing's nature. If that of which *animal*, say, is the genus is the species of I.8, then the thing in question is probably the species *man*. Alternatively, the thing in question might be a member of the species, say, Socrates. So the genus is the matter of the species or of particular members of the species. In terms of Z.10 and 11's analysis of the species, the genus will be the matter of the universal compound of form and matter or of a particular compound of form and matter. In either case, we may think of the genus as an internal structural feature. If this is so and if we are correct in holding that of the three internal structural components of a c-substance—the form, the matter, and the compound of form and matter—only the form stands to be the substance-of the c-substance, then the essence should exclude the genus. I shall consider two supporting texts that underline the exclusion in an especially clear way. The first, from *Metaphysics* Δ's philosophical lexicon, will also answer our second question, (Q2), about predicating the differentia(e) of the genus.

The *Metaphysics* I.9 passage makes a special point of distinguishing between the γένος as a biological family or race and the γένος as an internal feature of a thing. Aristotle is, thus, focusing on the third kind of genus specified in *Metaphysics* Δ.28, the first of our supporting texts. His initial characterization at 1024a36–b4,

again, as the plane is the genus of figures that are plane, and the solid of those that are solid; for each of the figures is either a plane of such and such a kind or a solid of such and such a kind, that being the subject of its differentiae (τοῦτο δ' ἐστὶ τὸ ὑποκείμενον ταῖς διαφοραῖς),

is summarized at 1024b8–9:<sup>409</sup>

and as matter, for what differentiae and qualities are of is their subject, which we call the matter (ἐστὶ τὸ ὑποκείμενον, ὃ λέγεται ἕλην τὸ δ' ὡς ἕλην οὐ γὰρ ἡ διαφορὰ καὶ ἡ ποιότης ἐστὶ, τοῦτ').

The lexicon reaffirms the status of the genus as matter, at least the genus that is mentioned in a standard definition. This much is useful as an answer to (Q1) but does not address (Q2). However, the passages from

<sup>409</sup> This also must be intended as a summary of 1024b4–6: “again, as the first constituent stated in formulae < saying > *what a thing is, for this is the genus, whose qualities are called differentiae* (γένος, οὗ διαφορὰ λέγονται αἱ ποιότητες ὡς ἐν τοῖς λόγοις τὸ πρῶτον ἐνεκάρχον, ὃ λέγεται ἐν τῷ πᾶσι τοῦτο (γὰρ) .” As Kirwan (1971) notes, ‘first constituent’ is somewhat difficult, but that difficulty does not stand in our way. For it is at least clear that it cannot mean anything like the primacy that is enjoyed by *forms* of a genus. Pellegrin (1986) is probably right in suggesting that this just signifies the first-occurring term in the *definiens*, as in defining a triangle as a *plane* of such-and-such a kind.

Δ.28 also report that, as matter, the genus *underlies* its differentiae. Thus, Aristotle holds something like

26.  $S =_{df} dG \rightarrow G$  is the subject of (underlies)  $d$ .

But in holding (26) Aristotle is committed to

26'.  $S =_{df} dG \rightarrow d$  is predicated of  $G$ ,

because he holds that a first thing's underlying a second is sufficient for the second's being predicated of it. That is, he holds that the differentia(e) is predicated of the genus because in general<sup>410</sup>

27.  $x$  underlies  $y \rightarrow y$  is predicated of  $x$ .

Proposition (27) can be upgraded to a biconditional only if the predicative relation between  $x$  and  $y$  is a case of the one underlying the other. This may not be generally true,<sup>411</sup> but it does hold where  $x$  is a c-substance and  $y$  is an accidental attribute as well as where  $x$  is the matter of a c-substance and  $y$  is its form. The latter fact, along with the likening of differentiae to form and genus to matter, is what enables moving to (26'). Note that this result does not require that (27) be strengthened to a biconditional. Nor does it require that matter be *identified* with the genus. So these worries do not affect the immediate argument, and the immediate argument shows that the complex of differentia(e) and genus occurring in the *definiens* of a standard definition fails to satisfy Z.4's impredicability requirement and, hence, fails to count as primary.

I suppose some species preservationists might acknowledge the plausibility of (27) but doggedly insist that Aristotle would not have extended it to the relation between differentiae and genus. In effect, this is to grant (26) but deny (26'). Now the point of this maneuver is to keep open the possibility that species satisfy impredicability and so qualify as Z.4's primary items. In Z.4's New Primacy Passage Aristotle is quite clear about characterizing primacy in terms of impredicability (recall

<sup>410</sup> Although not always, for instance, not when  $y$  is a nonrecurrent particular. But this case is not relevant here.

<sup>411</sup> Some predications obviously resist the upgrading, for example, predications such as "The white thing is a log." Grammatically, the subject is *the white thing*, but metaphysically, it is the log. Likewise a predication such as "The musical thing is a white thing" suggests, grammatically, that an accidental compound, the musical thing, is the underlying subject. But the metaphysical subject is a wholly different thing, a substance, that underlies both musicality and whiteness. The grammatical form of all such predications does not match the underlying ontological relations. So they are not in proper 'logical' form. Indeed, in *Posterior Analytics* B.22 Aristotle declares that they are not predications at all or only incidentally, that is, only in virtue of being reducible to predications that are in proper form. No doubt understanding predication in (27) as proper predication would make the project of upgrading less risky. For some excellent discussion on the nature and scope of metaphysical predication, see Lewis (1991).

[16'] above). This is one of two places in *Metaphysics Z* which give explicit accounts of the term's meaning. The other occurs in the second of our supporting texts, at *Metaphysics Z.11*, 1037b3–4:

By primary I mean what is not expressed by one thing being in another which underlies it as matter  
(λέγω δὲ πρώτην ἢ μὴ λέγεται τῷ ἄλλο ἐν ἄλλῳ εἶναι καὶ ὑποκειμένῳ ὡς ὕλη).

This outflanks even the last maneuver of the reason-resistant species preservationists. For were we to agree that (27) does not extend to the relation between differentiae and genus, still all parties must acknowledge that the genus underlies the differentiae *as matter*. But according to the Z.11 passage this dooms the species reading. For the passage is unambiguous in denying primacy to anything composed of one thing underlying a second. And as I.8, 1057b7 made clear, the species is precisely such a thing. I suppose an irretrievably reason-resistant preservationist might resort to claiming that Z.4 and Z.11 involve different notions of primacy. But this would not be a serious move in the game. Besides, the Z.11 passage immediately goes on to say that things that are as matter or taken together with matter are not the same as their essences. Since the species is an item taken together with matter, it will not be the same as its essence. So Z.4's form of a genus (γένους εἶδος) could hardly be the species, for the γένους εἶδος is primary and *per se*<sub>1</sub> and, thus, is what Z.6 counts as the same as its essence. More needs to be said about this Zeta 6 Thesis, as I shall call it,<sup>412</sup> and the next chapter provides some of this. But first some unfinished business.

The above passages from *Metaphysics* I.8 and 9 and Δ.28, which I referred to as supporting passages, rank the genus as matter for the differentiae but they do not award differentiae the status of form, at least not officially. This raises a question about the relation between differentia(e) and forms of a genus; and because Z.4 correlates such forms with definitions that track essences, it also raises a question about the relation between differentia(e) and definition.

A passage in *Metaphysics Z.12*, addresses these questions and provides illumination on the nature of Z.4's form of a genus (γένους εἶδος).<sup>413</sup> In the course of discussing definitions obtained by division, Aristotle remarks that it makes no difference whether the constituents of a definition are few or many because in any case there will be only one primary genus fronted by a single differentia or several differentiae.<sup>414</sup> Consideration of the point begins at 1037b27 but is interrupted

<sup>412</sup> Following Code (1985*a*).

<sup>413</sup> The exact nature of and relations between parts of a definition is a complicated topic that receives extended discussion from Ch. VIII on.

<sup>414</sup> For example, *two-footed animal* and *wingless two-footed animal*.



at 1038a4 and resumed five lines later. The interposed lines, 1038a5–9, constitute the passage of interest:

If, then, the genus does not, in an unqualified sense, exist apart from the forms of the genus, or if it exists but only as matter (παρά τὰ ὡς γένους εἶδη, ἢ εἰ ἔστι μὲν ὡς ὅλη δ' ἔστιν <sup>εἰ οὖν τὸ γένος ἀπλῶς μὴ ἔστι</sup>, a5–6)—for voiced sound is the genus and the matter, and the differentiae make from this the forms of sound and the phonetic elements—then it is clear that the definition is just the formula composed of the differentiae (ὁ ὁρισμὸς ἔστιν ὁ ἐκ τῶν διαφορῶν λόγος). (1038a5–9, after Bostock)

I shall first provide some analysis of the passage as it sits and then address some broader interpretive issues. We are given two conditions, each sufficient for restricting definitions to formulae that are composed of differentiae only. Given the context it fits into, we must assume that Aristotle begins by supposing that a species will be represented in the standard way, namely,  $S =_{\text{def}} dG$ , where  $d$  may be single or several ( $d_1 \dots d_n$ ). Despite the possibility that Z.12 is a late addition to *Metaphysics* Z,<sup>415</sup> it employs the same notion of definition promoted in Z.4. As in Z.4, so here a definition,  $D$ , is about something unitary because it is the formula of a substance and a substance is a this.<sup>416</sup>

So far from correlating with a complex of differentia(e) *and* genus, only the differentia(e) is to be mentioned in a genuine definition. This, of course, is subject to the mentioned conditions, but they are conditions Aristotle embraces:

28.  $G$  does not exist, absolutely, apart from a γένους εἶδος  $\vee G$  exists only as matter  $\rightarrow D$  is the formula containing the differentiae,  $d_1 \dots d_n$ .

<sup>415</sup> So Frede and Patzig (1988) and Burnyeat (unpublished). This is compatible with the claim that Z.12 itself was an early composition. Bostock (1994: 183–4), for example, holds that Z.12 antedates Z.10 and 11, and possibly “several other portions of Z,” by several years. But this turns on his view that in H.6 a new style of definition takes center stage, a style that combines form and matter. This is supposedly different from definition in terms of differentiae and genus, which he finds in Z.12. The latter appears, however, to be false, for we have just seen that Z.12 *denies* that definitions are given by differentiae and genus. Moreover, we have given ample reason to assimilate standard form definitions, which apply to species, to universal form plus matter compounds, which constitute species. Finally, Bostock himself admits that Z.12 was intended as a contribution to the discussion on substance (citing 1037b10's οἱ περὶ τῆς οὐσίας λόγου). This implies, claims about early composition notwithstanding, that Aristotle found the chapter's message congenial to his argument. We are suggesting one way in which it is so. In Wedin (1996*b*) I consider Bostock's other claim that H.6 introduces a new style of definition.

<sup>416</sup> “But the things in a definition must in fact be a unity, for a definition is a unitary formula, and must be a formula of some unitary thing, since it is a formula of a substance, for a substance is a unitary thing, and signifies a this (καὶ γὰρ ἡ οὐσία ἐν τι καὶ τὸδε τι σημαίνει)” (1037b24–7, after Bostock).

We may think of  $G$  as the genus of the form of a genus (the γένους εἶδος) and as the subject of the differentiae,  $d_1 \dots d_n$ . Suppose that the γένους εἶδος of (28) is the same as Z.4's γένους εἶδος. Because the latter is the target of definition, it would follow that a γένους εἶδος is just the formal differentia(e) of a standard differentia(e)-cum-genus definition. In this case, it would not be the species or, presumably, any entity that contained matter. Nor need it be any kind of simple item. On the contrary, definitions are free to be as complex as the differentiae they contain, for although they may be predicated, severally or otherwise, of the genus, as (26') allows, no differentia is predicated of any other differentia—not *winged* of *two-footed* nor it of *winged*. So impredicability is preserved and with it the status of the γένους εἶδος as primary, more precisely, as *the* structurally primary feature (of a c-substance).

Admittedly, one could resist associating the γένους εἶδος of Z.4 with the formal differentia(e) by insisting that Z.12 operates with a different notion of γένους εἶδος. And, indeed, at first blush it appears that one could make sense of (28) on this basis. Here the idea would be that if a given genus does not exist on its own apart from its species, then the genus exists only as a differentiated item, that is, only insofar as an appropriate species exists. Hence, definitions must contain the differentiae that yield the species, but these can contain something more, namely, the genus. However, this makes Aristotle mean more than he says. That is, he must be taken to mean that a definition is a formula that contains *at least* the differentiae. He in fact says just that the definition is a formula composed *from the differentiae* (ἐκ τῶν διαφορῶν), and this casts doubt on the suggestion.

Even were the above point granted, a parallel passage at H.2, 1043a19–22 puts the issue beyond doubt. In part this is because the chapter professes to address “the nature of that which is the substance-of perceptible things as actuality” (τὴν ὡς ἐνεργεῖαν οὐσίαν τῶν αἰσθητῶν, 1042b10–11) and carries out the discussion for the matter, the form, and the compound of form and matter—the three internal structural components Aristotle has been tracking since Z.3. So he is wearing the same thinking cap when he says,

For it seems that the formula constructed from the differentiae is a formula of the form and the actuality (ὁ μὲν διὰ τῶν διαφορῶν λόγος τοῦ εἶδους καὶ τῆς ἐνεργείας), while the formula composed of the constituents is rather a formula of the matter (ἐκ τῶν ἐνυπαρχόντων τῆς ὕλης μᾶλλον). The definitions which Archytas used to approve are of this last sort, since they are of both combined (τοῦ συνάμφορος).

This passage distinguishes formulae containing differentiae from those containing material constituents as well as from those combining both.

The first is the formula of the form and the actuality, and this is pretty clearly the form and actuality *of* a compound, or, perhaps, of a c-substance. So the passage confirms that the form of Z.12's form of a genus is such a form and so also for the form of Z.4's form of a genus.

One might still worry that the Z.12 passage does not rate canonical status, in particular that its restriction of definition to the differentia(e) concerns definitions arrived at by division and that these are not the definitions that finally correlate with the essence or substance-of things. Rorty (1973) entertains this idea in urging that the last word on definitions in *Metaphysics* Z and H has them including the genus and so smuggling matter into the form. The latter idea, which is fundamentally mistaken, is addressed in Chapter VIII. Here I shall offer a shorter and a longer response to this attack on the reliability of Z.12.

The shorter response consists of two remarks. First, as pointed out above, the critical passage from Z.12, namely, 1038a5–9, interrupts the discussion of definition by division, and to this extent it gains independent status. Plus, the parallel passage in H.2 can hardly be dismissed on the grounds that it concerns only definition by division. Indeed, it promotes formulae of forms over those of compounds of form and matter. Second, the implied denigration of definitions reached by division presumes that Aristotle rejected division as a useful methodology. Although his distaste for *dichotomous* division is unambiguous, the evidence reveals a rather different attitude toward division itself and even suggests that, properly done, division can play a role in generating definitions.<sup>417</sup> There is room for debate on what role division plays, but this need not be settled here. For the moment we have enough to deny that division's prominence in the passages that flank 1038a5–9 undermines the reliability of the passage.

Finally, and this is the longer response, Z.12's restriction of definition to differentia(e) implicitly relies on a cluster of concepts that are at the center of Z.4's New Primacy Passage. We can see this by asking what the truth of (28) assumes. As it stands, something is left implicit. A plausible candidate is

29.  $G$  does not exist, absolutely, apart from a form of a genus ( $\gammaένου\varsigma$  εἶδος)  $\vee G$  exists only as matter  $\rightarrow G$  is not itself determinate [not a this (τόδε τι)].

Proposition (29) is certainly plausible in its bracketed portion. However, some might worry about the bracketed gloss, which employs a notion that plays a major role in the New Primacy Passage. By way of mitigating the worry, recall that Aristotle salutes the Platonist for granting that

<sup>417</sup> See the argument in Pellegrin (1986).

forms are thises, *if* they exist separately. In fact, they do not and, hence, we are not forced to hold that universals are individuals. This is the justly famous complaint against the Platonist for conflating suches and thises and thereby inviting the third man. But it is the praised point that is relevant here, for it shows that Aristotle takes the first disjunct in (29) to be sufficient for denying this-ness to the genus. Likewise, for something to exist only as matter is, presumably, for it to exist neither as a form nor as a compound of form and matter. If both of these are thises, the second disjunct also is sufficient for denial of this-ness to the genus. The case of form is straightforward but attribution of this-ness to the compound is more involved.

In section 5, we saw that *Metaphysics* Δ.8 and H.1 award this-ness, explicitly, to the form only and that Z.3's disenfranchisement of matter as substance requires only that substance be either a this or separate. Nonetheless, H.1 appears to extend the notion to compounds and it will be instructive to see how. Summarizing Z.3's trio of subjects—the form, the matter, and the compound—the passage characterizes matter as that which is not a this in actuality but is a this in potentiality. Form is explicitly said to be a this, a τὸδε τι, but the term is not used in describing the compound of form and matter. This does not rule out attribution of this-ness to the compound, but it does suggest that the attribution will come inferentially at two removes. First, it must be assumed that the matter which is potentially a τὸδε τι can constitute or become something that is actually a τὸδε τι and, second, that what the matter constitutes or becomes is a compound of form and matter rather than a form. So a compound is not a τὸδε τι (a this) in its own right because its this-ness comes to it thanks to something else that is a τὸδε τι in its own right, namely, the form.<sup>418</sup> In short, the compound is not a this *intrinsically*.

According to the New Primacy Passage nothing is a τὸδε τι (a this) in the strict sense unless it is a γένους εἶδος (form of a genus), and according to the Z.12 passage the γένους εἶδος is the formal differentiae. So the function of the τὸδε τι in determining matter should be paralleled by the function of the formal differentiae. Thus, the explanation

<sup>418</sup> Gill (1989, 31–4) has a useful discussion of this-ness. She suggests that the expression ‘τὸδε τι’ has two distinct and equally legitimate uses, namely, to indicate a particular of some kind (paradigmatically, a particular compound) and to indicate a determinate kind. In two respects this clashes with our account. First, if a determinate kind is a species, then Gill claims for this-ness a brand of determinacy different from ours. Second, she denies any priority relations between the two uses. So she must deny that the presence of one kind of determinate item (the form) is the cause of the determinate nature of a second kind of item (the enformed thing). For if this-ness of the first sort explains the this-ness of the compound, then it is a prior sort of this-ness. Whatever one makes of this principle, it is one Aristotle would be loath to surrender. For, in effect, this is to deny the explanatory role of form.

of (28) should bring differentiae into play by assigning them a determinative role. It is then plausible to suppose that the explanation involves something like

30.  $G$  is not itself determinate &  $G$  constitutes something,  $x$ , that is determinate (a  $\tau\acute{o}\delta\epsilon$   $\tau$ )  $\rightarrow$  ( $\exists y$ ) ( $y$  is determinate (a  $\tau\acute{o}\delta\epsilon$   $\tau$ ) &  $y$  determines  $G$  to be  $x$ ),

which says that something that is itself indeterminate can be determinate only in virtue of something else that is determinate. Letting  $x$  be a compound and  $y$  the appropriate differentia(e), (30) says that the differentia(e) is a  $\tau\acute{o}\delta\epsilon$   $\tau$  (a this). On pain of regress, the differentia(e) will have to be determinate in its own right and this is exactly what is required of a  $\tau\acute{o}\delta\epsilon$   $\tau$ . The Z.12 passage thus also appears to embrace autonomy on behalf of the differentia(e) and so, again, to operate within the same cluster of concepts that fuel the arguments of the New Primacy Passage—at least, this is a good way to make sense of the passage. This makes it all the more likely that in both chapters Aristotle thinks of the  $\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma$   $\epsilon\acute{\iota}\delta\omicron\varsigma$  (form of a genus) as the formal differentia(e) of a standard definition.

Hence, Aristotle's official position is that genuine definitions are just those formulae that contain the formal differentia(e) and not those that contain both the differentia(e) and the genus. As it stands, (30) does not quite say this because it does not mention definitions at all. Perhaps we should settle just for observing that Aristotle assumes that such formulae are the definitions, thereby completing the explanation of (28). But (30) also harbors a more interesting idea. For it suggests Aristotle thinks of what satisfies (28) as formulae that correspond to features or factors that confer determinacy, more precisely, as formulae that correlate with structures that determine given bunches of matter to be individuals of a given kind. And this is just to say that they correspond to what determines a given portion of matter to be a c-substance of the sort that it is. This gives the differentia(e) and  $\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma$   $\epsilon\acute{\iota}\delta\omicron\varsigma$  the kind of explanatory role required of what is to serve as the substance-of c-substances. Moreover, it anticipates the causal force extended to form and essence in Z.17.<sup>419</sup> In order to exercise such causal force all matter must be eliminated from the form. Accomplished in Z.10 and 11, this purification of form is the topic of Chapter VIII.

Before turning to purification, however, we address two issues that are corollary to our account of essence in Z.4. The first concerns Z.4's companion chapter, Z.5, and the second Z.6's thesis that each primary and *per se*, thing is one and the same as its essence. The latter—the Zeta

<sup>419</sup> On which see Ch. X below.

6 Thesis—contains an additional constraint on the explanatory role of form. Before getting to this in Chapter VII, it will be of use to look at Z.5's discussion of *snub* and its ilk, for this discussion turns out to confirm our account of primacy in Z.4.<sup>420</sup>

## 9. Per Se<sub>2</sub> Compounds and Compound Properties

The specification of primacy in Z.11 bears in an important way on the interpretation of *Metaphysics* Z.5. To see this it will be necessary to say something about the structure of the chapter. It begins (1030b14–18) with the statement of a problem, namely, that items that are not simple but coupled must be defined by addition (ἐκ προσθέσεως). These items—*snub nose*, *odd number*, and the like—I call *per se<sub>2</sub>* compounds. Here Aristotle also introduces what I am calling, barbarously, *per se<sub>2</sub>* compound properties. These are properties, for example *snubness*, that correspond to *per se<sub>2</sub>* compounds, for example *snub nose*. The second section (1030b18–28) then raises a difficulty about the definability of *per se<sub>2</sub>* compound properties and the third section (1030b28–1031a1) advances a quite different difficulty about defining *per se<sub>2</sub>* compounds. The final section (1031a1–14) concludes that only substances are definable and contains a crucial clarification of what Aristotle means by constructing a definition by addition. In what follows I shall not touch all the problems that have occupied the chapter's exegetes<sup>421</sup> but only what serves our immediate aim.

As several scholars have indicated, Z.5 is a natural extension of Z.4's program. But exactly how is not clear. Recall that Z.4 began by urging that the essence of a thing should be sought among its *per se<sub>1</sub>* attributes

<sup>420</sup> A final footnote is in order before leaving Z.4. We have made much of the fact that there, and in allied passages of Z and H, Aristotle denies primacy to the species because one part of it, the differentiae is predicated of another part (the genus). Friends of the *Organon* have protested that there, at *Topics* Z.6, Aristotle proscribes both predicating the genus of the differentiae and predicating the differentiae of the genus. On this basis, the species might still lay claim to primacy. But this overlooks the fundamental fact that *Metaphysics* Z operates in a quite different conceptual space, with its structural analysis of c-substances in terms of their form and matter. If nothing else is clear, at the heart of hylomorphic analysis is the notion that the form of a c-substance is predicated of its matter, but not the matter of the form. Thus, the differentiae–genus distinction must be reconfigured to fit the form–matter distinction; and this is precisely what we have seen Aristotle do in the above sections of this chapter.

<sup>421</sup> Principally, the regress argument that purports to establish the impossibility of defining *snub nose* and its ilk. In addition to the commentaries of Ross (1924), Burnyeat *et al.* (1979), Frede and Patzig (1988), and Bostock (1994), see also Hare (1979), Balme (1984) and (1987), Ferejohn (1994), and now Lewis (unpublished).

and not among its *per se*<sub>2</sub> attributes. Thus, *white* belongs *per se*<sub>2</sub> to *surface*, but a surface is not essentially white because the essence of white (*being for [a] white [thing]*) is not the same as the essence of surface (*being for [a] surface*) or even the essence of white surface (*being for [a] white surface*). The argument, to which I here merely allude,<sup>422</sup> thus uses what I shall call *per se*<sub>2</sub> compounds in arguing that a thing's essence does not lie among its *per se*<sub>2</sub> attributes. It does not, however, ask whether the compounds themselves have essences. Indeed, Z.4 proceeds to accidental compounds without further attention to their *per se*<sub>2</sub> counterparts. In fact, Z.4 concludes that, relative to the attribute *white* and to substance, *white man* has a definition in a reduced sense. As it stands, this final line of Z.4 has a provisional feel to it. First, it makes a weaker claim than is warranted by the argument of Z.4. For, as we saw in section 6, definitions of substances are prior to definitions of attributes and so the compound of a substance and an attribute will have a definition and an essence in a doubly reduced sense only. Second, *per se*<sub>2</sub> compounds are not mentioned at all in Z.4's conclusion.

One obvious reason for inclusion of *Metaphysics* Z.5, then, is its focus on snub noses and the like, for these are precisely the *per se*<sub>2</sub> compounds slighted in Z.4. Moreover, in pressing a number of arguments against the definability of such compounds, Aristotle is encouraged to end Z.5 on a bolder note: “It is clear now that a definition is the formula of the essence and that essence belongs to substance alone or to substance most of all and primarily and strictly (μάλιστα καὶ πρώτως καὶ ἀπλῶς)” (1031a11–14). With this, the provisional character of Z.4's conclusion is removed and so also, I submit, any doubt about treating the chapters as a unit.

How Z.11's specification of primacy bears on this is somewhat involved. We may begin with the observation that most commentators (Bostock [1994] and Ferejohn [1995], for example) assume that Z.5 rules against both *per se*<sub>2</sub> compounds and *per se*<sub>2</sub> attributes (compound properties), or at least those that behave as *snubness* does. More specifically, they assume that Aristotle's argument against the definability of *snub nose* is *ipso facto* an argument against the definability of *snubness*. I shall claim, on the contrary, that Z.5 treats them separately. Now Z.5 describes *snubness* as the sort of thing that cannot be expressed without mentioning the subject of which it is a *per se*<sub>2</sub> attribute. That is, *snubness* is defined as a certain quality of a *nose* just as *oddness* is defined as a certain quality of a *number*. Often missed, however, is the shape of

<sup>422</sup> I give it more attention in sect. 2.

Aristotle's strategy. Although, as we shall see, the definability of *snubness* is called into question in section two (1030b18–28), Z.5's fresh target of attack is rather the definability of *snub nose* and other coupled items—that is, *per se<sub>2</sub>* compounds.

The claim that *Metaphysics* Z.5 focuses separately on *per se<sub>2</sub>* compound properties and *per se<sub>2</sub>* compounds themselves is not without some textual support. To the opening statement of the problem,

Should one deny that a formula constructed from addition (ἐκ προθέσεως) is a definition, it will be a problem whether there are definitions of any of the things that are not simple but coupled<sup>423</sup> (τίνας ἔσται ὁρισμὸς οἷχ ἀπλῶν ἀλλὰ συνδεδυασμένων). For these must be explained from addition (ἐκ προθέσεως γὰρ ἀνάγκη δηλοῦν). (1030b14–16),

Aristotle immediately subjoins an explanatory gloss:

I mean, for example, that there is a nose (ῥίς) and concavity (κοιλότης) and snubness (σιμότης), a compound of the two expressed as a this in a that (τὸ ἐκ τῶν δυῶν λεγόμενον τῷ τόδε ἐν τῷδε); and it is not coincidentally but in its own right [*per se<sub>2</sub>*] that concavity (κοιλότης) or snubness (σιμότης) is an attribute (πᾶθος) of the nose. (1030b16–20)

The opening statement contains the following pattern of reasoning. If  $x$  is a coupled item, then  $x$  must be explained by addition. Since a thing's definition explains what it is,  $x$ 's definition will have to explain *what*  $x$  is. But to explain this,  $x$ 's definition will have to be a formula constructed from addition. So, if such formulae are not definitions,  $x$  will not have a definition. If the argument is clear (a point I stake nothing on), its scope is not. For it is not said explicitly what are to count as coupled items, in particular whether it covers both *per se<sub>2</sub>* compounds and compound properties. Nonetheless, in Z.5 coupled items (συνδεδυασμένα) are restricted to *per se<sub>2</sub>* compounds. This is made clear later, at 1031a5–7, where Aristotle contrasts *per se<sub>2</sub>* compound properties with *per se<sub>2</sub>* compounds and refers only to the latter as what are coupled (συνδυασζόμενων).

Because *per se<sub>2</sub>* compounds are constructed from a *per se<sub>2</sub>* compound property plus its subject, Z.5 appears committed to a principle linking the property and the compound. Where  $F_{ness}$  is a *per se<sub>2</sub>* compound property, such as *snubness*, and  $G$  is the subject it belongs to *per se<sub>2</sub>*, the principle is

<sup>423</sup> Bostock (1994) translates: “it will be a problem to say which of the things that are coupled and not simple have definitions.” However, this implies that some coupled things have definitions and some not. But nothing in the balance of Z.5 suggests such a liberal policy.



31. *Fness* belongs to *G* & *Fness* is explained only by mentioning *G* → there is a *per se*<sub>2</sub> compound, *FG* & *FG* has no definition.

As Aristotle says at 1030b25 by way of contrast, *whiteness* can be explained without referring to *man*. So compounds constructed from them cannot be the target of (31)'s proscription. In any case, they are the accidental compounds that were eliminated in Z.4.

Thus, not all compounds, but only the *per se*<sub>2</sub> brand, are Z.5's game—items such as *snub nose*, *odd number*, and *female animal*. Each of these can be thought of as generated by the corresponding *per se*<sub>2</sub> compound property—*snubness*, *oddness*, and *femininity*, respectively. As mentioned, Aristotle also argues against the definability of these compound properties. But this argument, which occurs in the second section of the chapter (1030b18–28), is different from the duplication and *reductio* arguments deployed against *per se*<sub>2</sub> compounds in the third section (1030b28–1031a1). Although the argument of the second section is of principal interest to us, something should be said about his attack on *per se*<sub>2</sub> compounds.

Aristotle begins the third section of the chapter by announcing that there is also a different difficulty (ἀμοργία ἑτέρω) regarding these things (περὶ αὐτῶν, b28) and he proceeds for the next nine lines to attack the definability of *per se*<sub>2</sub> compounds. But we need to be clear on Aristotle's strategy, for although these lines do give us a new and different difficulty, it is still advertised as a difficulty regarding *snubness* and the like, for these must be the reference of αὐτῶν ('these things') in 1030b28's περὶ αὐτῶν ('regarding these things'). In effect, Aristotle asserts that *per se*<sub>2</sub> compound properties generate corresponding *per se*<sub>2</sub> compounds and because a fresh difficulty faces the latter, it also faces the former. What is the fresh difficulty?

He begins by linking the sameness of compounds to the sameness of their correlated properties:

- 32a. *snub nose* = *concave nose* → *snubness* (τὸ σιμόν) = *concavity* (τὸ κοῖλον).

With Bostock (1994), I take the parenthesized expressions to designate *snubness* and *concavity*, respectively. But τὸ σιμόν could simply be *the snub*. This would give us an alternative version of 1030b28–30:

- 32a'. *snub nose* = *concave nose* → *the snub* (τὸ σιμόν) = *the concave* (τὸ κοῖλον).

But (32a') simply invites debate over two readings of 'τὸ σιμόν'—as signifying the abstract property *snubness* or *the snub* (*thing*). Here I would

opt for the first anyway and so I stay with (32a). The ambiguity is revisited below.<sup>424</sup>

The entailed identity of τὸ σιμόν and τὸ κοίλον is immediately subjected to worry because, given that τὸ σιμόν cannot be expressed apart from the subject whose *per se*<sub>2</sub> attribute it is, τὸ σιμόν just is *concavity* in a nose. Here τὸ σιμόν arguably must be the abstract property *snubness* because *concavity* is also an abstract property and so only it (as opposed to a snub nose) could be even a candidate for the second term of the identity. So we read 1030b30–2 as containing the following conditional:

32b. *Snubness* =<sub>at</sub> *concavity* in a nose *snubness* ≠ *concavity*.

Because *snubness* is identified only as a *certain sort* of *concavity*, it follows immediately that *snubness* is not the same as *concavity*. Presumably, it also follows that *the snub* cannot be the same as *the concave*, for a suitably strengthened notion of sameness. This would give us

32b'. *Snubness* =<sub>at</sub> *concavity* in a nose → *the snub* ≠ *the concave*,

but (32b') will depend on something like (32b), and so I enter it simply as an additional reading.

Assuming that *snubness* is to be defined as indicated, propositions (32a) and (32b) entail

32c. *snub nose* ≠ *concave nose*,

and (32c) leads to the main consequence of the third section of the chapter, namely, that coupled items can have no definitions. It is also

<sup>424</sup> Someone might also suppose that Aristotle is employing an analog of the deletion principle familiar from *Topics* A.15, 107a36–b5. If 'clear' means the same thing (is synonymous) in 'clear note' and 'clear body', then when 'note' and 'body' are deleted from the definitions of *clear note* and *clear body* what remains should be the same. But *being a note easily heard* and *being a surface of such-and-such color* yield, under the proposed deletion, *being easily heard* and *being of such-and-such color*, respectively. Because they have different accounts, then, the 'clear' in 'clear note' does not mean the same as (is not synonymous with) the 'clear' in 'clear body'. The analog principle tests for the synonymy of expressions of different types: If 'snub nose' and 'concave nose' signify the same thing then deletion of 'nose' from the definition of *snub nose* and *concave nose* should result in the same account for 'snub' and 'concave'. Well, suppose we say the starting definition for *snub nose* is *nose of such-and-such a shape* and that for *concave nose* it is *nose of such-and-such a shape*. In both cases the shape will be the same, so it looks as if 'snub' and 'concave' satisfy the condition for being synonymous. Putting aside the point that this is only a necessary condition, this cannot possibly represent reasoning that Aristotle embraces. For, if anything is clear in Z.5, it is that because *snubness* is defined as *concavity in a nose*, it cannot be the same as *concavity*. This means, effectively, that the *Topics* test is insensitive to the special sort of complexity found in *per se*<sub>2</sub> compound properties, namely, where the attribute is combined with a subject it has an especially intimate relation to.

with (32c) that our interpretive problems begin in earnest. Either, says Aristotle, it will be impossible to speak about a snub nose or the same thing will be said twice, namely, concave nose nose. In short, we are given the following dilemma:

32c'. *snub nose* ≠ *concave nose* → (a) *snub nose* cannot be mentioned ∨ (b) in mentioning *snub nose* the same thing is said twice.

Now (a) and (b) are supposed to initiate a destructive dilemma the upshot of which is that there can be no definitions of items such as *snub nose*, that is *per se*<sub>2</sub> compounds. Lying behind the explicit alternatives, (a) and (b) is, I suggest, the idea that the ‘snub’ in ‘*snub nose*’ either has or lacks semantic force, that it either makes or fails to make a semantic contribution to the containing expression. If it makes no such contribution, and if a snub nose is not just the same as a concave nose, then we cannot speak of a snub nose at all. For we cannot speak of it as a concave nose, and because it makes no independent semantic contribution we cannot speak of it in some other way. We simply cannot mention *snub nose* as such.<sup>425</sup> Presumably, we are encouraged to infer that this alternative rules out *snub nose* as a candidate for either essence or definition.

Suppose, on the other hand, that ‘snub’ makes a contribution to expressions it occurs in. Because of (32b) it cannot contribute *concavity*. Whatever contribution ‘snub’ makes will necessarily be connected to *rhinal concavity*. And this is what leads, as (b) reports, to saying the same thing twice. But how, exactly, does this duplicity emerge? On alternative (b), as we read it, I can mention *snub nose* as such; but when I do so, I am mentioning something other, or perhaps more, than *concave nose*. Well suppose that ‘snub’ adds *concavity in a nose* to whatever it occurs in. Then to mention *snub nose* would be to mention *concavity in a nose nose* and this does appear to involve mentioning the same thing twice. Now one might object that to mention *concavity in a nose* is not to mention *nose*. Even were this subtlety granted, it would probably not detract from the suggestion as a credible reading of Aristotle’s argument. But what does detract is the fact that Aristotle says something slightly, but importantly, different, namely, that a *snub nose* will be a *concave nose nose* (ἡ γὰρ ῥίς ἢ σιμῆ ῥίς ῥίς κοίλη ἔσται, 1030b33–4). This suggests that *in* the expression ‘snub nose’, ‘snub’ semantically contributes *concave nose*. Unfortunately, this is hardly an obvious truth.

One might try looking at this argument in another way. Suppose that

<sup>425</sup> The ‘as such’ rider signals that this entire argument runs through perilous territory, studded with distracting and difficult issues involving scope distinctions, *de re* versus *de dicto* readings of sentences, and the interpretation of modalities. I shall follow Aristotle’s lead and address none of this, unless it bears on directly on our reading of the chapter.

we think of *snub* as analogous to *cloak*, as the latter is used in Z.4. There the candidate definition of *cloak* was to mention *white* and *man*. So here we might think of the candidate definition of *snub* as mentioning *concave* and *nose*. So *being for snub* would be something like *being for (a) concave nose*. We might then suppose that Aristotle assumes that the most plausible definition we can supply for *snub* would be something like

32d.  $snub =_{df} concave\ nose.$

It is important to note that Aristotle does not explicitly include (32d) in his argument and that it is seriously ambiguous. Taken as a definition of *the snub*, it will identify *snub nose* and *concave nose* and hence run afoul of (32c), which is still in force in the argument. Taken as a definition of the abstract property, *snubness*, it is arguably false.

Suppose, on the other hand, that Aristotle is giving (32d) to a hypothetical, perhaps snub-nosed, opponent. Then it *would* follow that those mentioning *snub nose* say twice the sort of thing Aristotle says they say. At least, this would follow were they also to accept

32e.  $x\ mentions\ snub_A\ nose\ \&\ snub_N =_{df} concave\ nose\ \rightarrow\ x\ mentions\ concave\ nose\ nose.$

The doxastic proclivities of hypothetical opponents aside, the substitution of *concave nose* for *snub<sub>A</sub>* assumes that *snub<sub>A</sub>* and *snub<sub>N</sub>* have the same semantical roles and, again, this is false. *Snub<sub>N</sub>* is the sort of thing that is referred to by a substantive expression, but *snub<sub>A</sub>* is introduced abjectively as qualifying something referred to in the first way. What can be substituted for ‘snub<sub>A</sub>’ is an expression that introduces adjectivally a certain quality of a nose and this is certainly not achieved by ‘snub<sub>N</sub>’, which signifies the nose itself. This vacillation undercuts the argument as presented in the text, infecting in particular the alleged regress of noses that is intended to drive home the point that *per se<sub>2</sub>* compounds are without essences and definitions.<sup>426</sup>

<sup>426</sup> Ferejohn (1994: 297–300), for example, thinks that the unending parade of noses follows on the assumption (*a*) that *snub nose* = *concave nose* (the antecedent of [32a]) plus (32d), which he agrees is only implicit in the text. From (*a*) and (32d), if *x* mentions *snub nose*, then *x* mentions *concave nose nose*. But (*a*) sanctions replacing ‘concave nose’ with ‘snub nose’ and, thus, replacing ‘concave nose nose’ with ‘snub nose nose’. The ‘snub’ in the latter is replaceable by ‘concave nose’ and the cycle continues *ad noseum*. However, the ‘snub’ in ‘snub nose nose’ has a semantical role different from the ‘snub’ in (32d). So that substitution is just as illegitimate as the initial substitution in (32e). It is of no help, *pace* Ferejohn, to insist that Aristotle intends that ‘snub nose’ and ‘concave nose’ are strongly equivalent, that is, capable of sustaining a robust history of intersubstitutivity. For substitutivity between two terms assumes that the terms function in semantically like ways. Even if the expressions ‘snub nose’ and ‘concave nose’ work this way, ‘snub<sub>A</sub>’ and ‘snub<sub>N</sub>’ do not.

But Aristotle does not need a regress of essences to knock out *snub* or the other coupled items. For its most likely account, (32d), is a definition either of *snubness* or of *snub nose*. If the first, then we are given an improper *definiens*; if the second, then we are given a claim that Aristotle has already given reason to reject in (32c'). Of course, this assumes that there is no challenge to the definition of *snubness* as *concavity in a nose*. Used in the argument against coupled items, at (32b) and (32b'), the definition itself is not subject to scrutiny. However, as an item whose definition must be constructed from addition, it also comes under review. We shall get to this shortly but first must consider an objection to our claim that *snubness* is not addressed by the arguments in the third section of Z.5.

Immediately on closing the above argument Aristotle concludes that substance alone will have a definition because definitions of other items would have to be constructed from an addition (*ἐκ προσθέσεως*). As illustrations of the 'other' items, he offers, at 1031a3–4, "the definition of *oddness* (*τοῦ περιττοῦ*), which involves reference to number, and of *femininity* (*τὸ θήλυ*), which involves reference to animal." This reading, in essence that of Bostock (1994), makes the lines troublesome, given Aristotle's immediate gloss on what he means by construction of a definition *ἐκ προσθέσεως* (from addition):

By construction from an addition I mean those expression in which the same thing is said twice, as in these cases  
(δις τὸ αὐτὸ λέγειν ὡς περ ἐν τούτοις <sup>τὸ δὲ ἐκ προσθέσεως λέγω ἐν οἷς οὐμβίνει</sup>). (1031a4–5)

The cases Aristotle has in mind at 1031a5 (*ἐν τούτοις*) certainly include and are probably limited to those mentioned in the preceding sentence. If, as above, we translate that sentence (a3–4) with Bostock (1994), then Aristotle is being made to hold that definitions of *oddness*, *femininity*, and the like, are cases of saying the same thing twice. Likewise then for the definition of the parallel case of the *per se*<sub>2</sub> compound property *snubness*. Thus, it might appear that *snubness* falls within the scope of the arguments deployed against coupled items. But if this is Aristotle's procedure, he is saying something false and straightforwardly so. For at 1030b31–2 he asserts that *snubness* is *concavity in a nose* (*τὸ σιμὸν κοιλότης ἐν ῥίني*):

33. *snubness* =<sub>df</sub> *concavity* in nose;

but (33) does not license saying the same thing twice. Nor is it obvious how to force such duplicity from it.

I believe we can spare Aristotle this embarrassment. For one thing notice that Z.5 contains only two occurrences of 'σιμότης' ('snubness'), which admittedly would designate the abstract property or quality *snubness*,

and that both occur early in the chapter in setting up the problem of coupled items in section one (1030b14–18). As we have seen, the neuter description, ‘τὸ σμῶν’, on the other hand, can signify either an abstract property, *snubness*, or a thing having the property, *the snub*. Aristotle is not shy about exploiting this ambiguity to suit his purposes. Thus, at 1030b31–2 he takes it to signify the abstract property and so we get (33). But if ‘τὸ σμῶν’ (‘the snub’) stands for a snub thing, then because (we know from our grasp of *snubness*) snub things are noses, defining a snub thing will be defining a snub nose and, given (33), this can only amount to defining a snub thing (nose) (τὸ σμῶν) as a concave nose. And this does amount to saying the same thing twice.

Aristotle is pressing just this point, I submit, in the troublesome lines, a3–4, of the final section (1031a1–14). Bostock (1994), on the other hand, takes the neuter descriptions, ‘the odd’ and ‘the female’, to designate the abstract properties, *oddness* and *femininity*, respectively. The embarrassment thereby visited on Aristotle can be avoided by taking the descriptions to designate, rather, *an odd thing* and *a female thing*. So definitions of *the odd* (thing) (τὸ περιττόν) and of *the female* (thing) (τὸ θῆλυ) will involve saying the same thing twice. But the definitions of *oddness* (περιττότης) and *femininity* (θηλύτης) need not.

If our analysis is correct, then *snubness* is not eliminated as a definable item on the grounds that it implicates one in saying the same thing twice. *Snubness* is eliminated, in section two of Z.5 (1030b18–28), *simply* because its definition mentions the subject to which it belongs. Section two thus excludes *per se*<sub>2</sub> compound *properties* by the following principle:

34. *Fness* belongs *per se*<sub>2</sub> to *G* & *Fness* is explained only by mentioning *G* → *Fness* has no definition.

This is the only argument section two uses. In particular, it says nothing about constructing a definition from addition. Now some might urge that defining *snubness* by mentioning its subject amounts to defining *snubness* from addition. But the passage certainly does not say that the offending definitions are to be faulted for saying the same thing twice. Thus, the most we need to concede, even granting the urged point, would be that Aristotle has a broad notion of construction from addition (ἐκ προσθέσεως), only one case of which counts as saying the same thing twice. Alternatively, and perhaps preferably, one could take Aristotle to be saying that the properties defined from addition are just those that *lead to* the result that the same thing will be said twice.<sup>427</sup> They do so

<sup>427</sup> Here compare (34) with (31), which connects *per se*<sub>2</sub> compounds and compound properties but does not license inferring the nondefinability of the properties from the nondefinability of the compounds.

because the compounds corresponding to them, *snub (thing)*, *snub nose* and the like, cannot be mentioned without saying the same thing twice. Here he would have in mind not (33) but (32d) and its kind. On either reading, *snubness* itself is suspect simply because its definition must mention the subject it belongs to.

What, then, are we to make of this reason for rejecting *snubness* as a proper target of definition? First, we should be clear on the fact that Aristotle's backward reference at 1030b26–7 cannot be to Z.4's opening rule that a thing's essence be sought among its *per se*<sub>1</sub> rather than its *per se*<sub>2</sub> properties. This legislates against defining *surface*, for example, in terms of *white* or, with Z.5's examples, against defining *number* in terms of *odd(ness)* or *nose* in terms of *snub(ness)*. The question in Z.5, however, concerns defining *snubness* in terms of *nose*; and this looks like a proposal to define a first thing in terms of a second that belongs *per se*<sub>1</sub> to it. Moreover, this proposal appears to satisfy the informativeness condition laid down for definitions early in Z.4, namely (3). But (3) was only a necessary condition. Ultimately, Z.4 appeals to primacy and impredicability as the critical marks of definability. This appeal, I suggest, is at work in Z.5's second section as well. For to define *snubness* by mentioning its subject is to define it as in (33). But this is just to define it as an entity with internal features that stand in a predicative relation, or, as an entity one of whose internal features underlies another such feature as matter.

So here, finally, emerges the promised connection with the notion of primacy from our Z.11 passage. For we know from the text of Z.5 that *snubness* can be defined *only* by mentioning *concavity* and *nose*. These are its putative differentia and genus or, we saw above, its form and its matter. But the Z.11 passage denies primacy to any entity such that one feature in it underlies another feature in it as matter. And surely *nose* underlies *concavity* in just this way; so just as surely *snubness* has an internal structure that fails to qualify it as primary. Thus, even though *snubness* is not targeted by the regress arguments of Z.5 and even though its definition does not involve saying the same thing twice, it does not satisfy the primacy requirement spelled out at Z.11, 1037b3–4. Therefore, it is not a properly definable item.

Z.4's New Primacy Passage excludes species because they are combinations of form and matter. We now see that the same reasoning disqualifies *snubness* as a candidate for definition and essence. In both cases the argument is clinched by use of Z.11's specification of primacy. In effect, this specification is just a material version of Z.4's impredicability requirement, (16'). Therefore, logically speaking, *snubness* violates impredicability, even if one insists that this is only made clear in Z.11. Further, if one holds that *snubness* involves the matter characteristically

associated with a form, then Z.10 and 11 as a whole will defeat the claims of *snubness*.<sup>428</sup> The fact that the ‘material’ specification of primacy comes at the end of these chapters, at 1037b3–4, confirms our claim that it is *because snubness is not a structurally primary entity* that *snubness* neither has a definition or essence in its own right nor serves as a model or analog for something that does (for example, human beings). So even were one rankled over our use of the Z.11 passage to press a point about the scope of definition in Z.4 and 5, the end result is the same.

Finally, suppose we press the parallel between species and *snubness*, both of which involve matter and form. In the first case, the object of definition is to be identified, not with the complex of differentiae and genus, but with the form or formal differentiae only. Can we say, analogously, that the *form* of *snubness* is a definable object, even if *snubness* itself is not? In short, might not *concavity* qualify as a definable object and, hence, afford *snubness* a proper essence after all?

The trouble with this suggestion is that *concavity* will be the form of a wide range of items, differing in kind as well as in kind of matter. Thus, it cannot be the essence of any of them, certainly not of *nose*. More precisely, it cannot be the essence of an item whose form it is *simply because* it is the form of the item. Only by being appropriately constrained to a given kind of thing or to a given kind of matter is it even plausible to entertain the idea that *concavity* is the essence of things belonging to the kind. But now rather than *concavity*, we have latched onto something else—something suspiciously like *snubness*. This form of back-sliding will no longer strike anyone as an advance, but it does explain why *snubness* and its kind are downgraded as candidates for definition.

<sup>428</sup> This presumes that matter is to be eliminated from the essence and so from the form. For this see Ch. VIII.



# VII Zeta 6 on the Immediacy of Form

The extended argument of *Metaphysics* Z.4 and 5 ends with the bold claim that a definition is a formula that expresses the essence (ὁ τοῦ τί ἦν εἶναι λόγος) and that essence belongs properly to substance alone.<sup>429</sup> Central to the argument is the condition that the essence of a thing be sought among its *per se*<sub>1</sub> attributes<sup>430</sup> and the condition that there is a definition and essence only of what is primary.<sup>431</sup> These two conditions are reunited in the Zeta 6 Thesis,<sup>432</sup> the thesis that each thing that is primary and spoken of *per se*<sub>1</sub> is the same as its essence. So one might plausibly assume that the Zeta 6 Thesis addresses an issue concerning Z. 4 and 5's surviving candidate for essence, the γένους εἶδος. This is correct but unhelpful as it stands. For one thing, it remains silent as to the exact point of introducing the thesis. It also invites worry because Z.6, 1031b22–8, allows that the attribute *white*, as opposed to the *white thing*, is the same as its essence but Z.4 denies primacy to such items. These are signs that the strategy of Z.6 is less straightforward than usually supposed. In particular, we need illumination on the exact point addressed by the Zeta 6 Thesis and on the strategy for addressing it. I shall ultimately suggest that the Zeta 6 Thesis means to establish that a thing's essence cannot depend on another essence and that this is required if form is to *explain* the nature of the thing, or things, whose substance it is. But we need to begin modestly, with some attention to the structure of the chapter itself.

## 1. Setting the Problem

The place to begin is with the opening four lines of *Metaphysics*Z.6:

We must consider whether [?] each thing and the essence are the same or different (ταῦτόν ἐστιν ἢ ἕτερον τὸ τί ἦν εἶναι καὶ ἕκαστον).  
For this is of some

<sup>429</sup> By implication the conclusion confirms that definitions belong properly to substances alone.

<sup>430</sup> See Ch. VI, sect. 2.

<sup>431</sup> See the New Primacy Passage, sect. 6 of Ch. VI.

<sup>432</sup> Again, I here appropriate Code's idiom from his (1985*a*).

use (τι πρὸ ἔργου) to the investigation of substance, for [ii] each thing is thought not to be different from its substance (ἑκάστου τε γὰρ οὐκ ἄλλο δοκεῖ εἶναι τῆς ἑαυτοῦ οὐσίας), and [iii] the essence is said to be the substance-of each thing (τὸ τί ἦν εἶναι λέγεται εἶναι ἢ ἐκάστου οὐσίας). (1031a15–18)

There are some hints here about the general form of Aristotle's strategy and it would be well to say something about this before getting down to details. Notice, first, that the question to be considered is recommended on the strength of its *utility* for the investigation of substance. This might suggest that Z.6 need not be thought of as an intrinsic part of that investigation but as augmenting it in some way, and so it might be taken to lend support to Burnyeat's view (unpublished) that Z.6 is something of a detour from the direct line of argument, which leads from Z.4 and 5 to Z.10 and 11. Although sympathetic to the view's presupposition that Z.7, 8, and 9 are late insertions, I shall argue that Z.6 makes a philosophically important contribution to the extended argument that has been underway at least since Z.3.

Notice, second, that (i) contains an entirely general thesis to the effect that a thing is the same as its essence, and determining the range of the thesis is what is to be of use to the investigation of substance. Predictably, then, the balance of the chapter attempts to establish which items satisfy the general thesis and which do not. After the problem has been set in the opening section of the chapter, the second section (1031a19–28) argues that accidental compounds fail to satisfy the general thesis. Then comes the major section of the chapter (1031a28–1032a6), which appears to contain a number of arguments for the Zeta 6 Thesis. The chapter ends with the tantalizing remark that sophistical objections to the Zeta 6 Thesis submit to the same resolution as the problem whether Socrates is the same as the essence of Socrates.

We shall be concerned chiefly with the major section (1031a28–1032a6). Although all acknowledge that its arguments challenge interpretation at more than one point, less appreciated is the fact that the same can be said of the structure itself of the section. For example, it appears to mention the Zeta 6 Thesis four times, but by using formulations that are not obviously equivalent. We shall turn to this and related issues below. First, however, something should be said about the point at issue in Z.6. For this we must return to the chapter's opening lines.

The three marked propositions in the opening passage cited above shape the task of Z.6. Proposition (i) announces the task and reports that it will be of use in the investigation of substance for the reason given in propositions (ii) and (iii). Stripped of doxastic dressing, (ii) can be formulated as

2.  $y$  is the substance-of  $x \rightarrow y$  is not different from  $x$ ,

and (iii) can be formulated as

3.  $y$  is the essence of  $x \rightarrow y$  is the substance-of  $x$ .

From (2) and (3) we get

1.  $y$  is the essence of  $x \rightarrow y$  is not different from  $x$ ,

and, accepting the equivalence suggested in (i) between *being the same as* and *being not other than*, we get

- 1'.  $y$  is the essence of  $x \rightarrow y$  is the same as  $x$ .

This simple bit of reasoning makes clear one reason why determining whether each thing is the same as its essence will be of use to the investigation of substance: it is a necessary condition of something's being an essence (of something) and Z.6 is considering essence as a candidate for the title of substance. So it will be useful to see if this condition is satisfied by what Z.4 and 5 regard as the premier candidate for essence, namely, the γένους εἶδος, for this alone is both a *per se*<sub>1</sub> and a primary item. As we shall see, this turns out to be a condition on the explanatory role of form.

Now so far from setting the agenda of Z.6, one might suppose that (1') removes the need for inquiry. This is because (i) recommends investigating, of things that have essences, whether their essence is the same as the thing. It does not promise to investigate, of everything, whether it has an essence and, if so, whether this essence is the same as the thing.<sup>433</sup> Because (1') says that whatever has an essence is the same as it, someone might insist that, therefore, nothing is left to inquire about—indeed, that it is a necessary truth that a thing and its essence are the same.

Its editorial economy notwithstanding, such insistence overlooks the fact that (1') does not float free in conceptual space. It is derived from (2) and (3). Thus, allow  $y$  to be the essence of, but not the same as,  $x$ . This does not mean that  $y$  is not the essence of  $x$  after all but only that  $y$  is not an essence that is the substance-of  $x$  (i.e., the universal closure of [3] is false) *or* that the substance-of  $x$  need not be the same as  $x$  (i.e., the universal closure of [2] is false). Thus, there is room to wonder

<sup>433</sup> Here I agree with Frede and Patzig (1988) and Bostock (1994). I am, however, less comfortable with the reason the former give, namely, that Z.4 and 5 have already excluded certain candidates for essence. For one such case was that of *cloak* or *white man*, yet it is precisely the case addressed in the second section of Z.6. Indeed, if prior to Z.6 all but substance has been excluded as essence, then Frede and Patzig (1988) ought to find it odd that the chapter devotes any time to showing that certain items do not satisfy the general thesis announced in (i).

whether the essence of a certain *white thing* is the same as the thing. Aristotle's answer is, of course, clear—they are not the same. There may be such essences—*being for (a) white thing* and the like—but they will not be essences that are the substance-of anything; hence, they merit the appellative on reduced terms only. Unfortunately, Aristotle's case against the sameness of such things and their essences is carried out (in what I am calling section two) by arguments that can only be characterized as terminally difficult.<sup>434</sup> Fortunately, we need not deal with them here, although at the end of the chapter I shall have something to say about Aristotle's attachment to the conclusion.

But what does bear comment is the fact that (1') is cast as a necessary condition arising from investigation into the *substance-of* things. This is hardly surprising, if, as we are proposing, the central books take aim on what the form of a c-substance must be like if it is to serve as its substance. Introduced in Z.3 as one of the internal components of a c-substance, Z.4 and 5's discussion of form as essence yields a more refined notion of form and this is a notion of something that can serve as the substance-of a thing. Nothing in these two chapters suggests an interest in substance as a subject in anything like the sense of the *Categories*. So Z.6's opening reference to the investigation of substance (ἡ περὶ τῆς οὐσίας ἀκέραιος) is a reference to the investigation of the substance-of things, an investigation that has been underway in earnest since Z.3.

*Metaphysics*Z.6 does more than merely register a nominal commitment to the notion of substance as substance-of. It addresses an issue that might be thought to arise from the conception of substance as the substance-of a thing, in particular, the conception of substance as the substance-of c-substances. For it seems very plausible that

4.  $y$  is the substance-of  $x \rightarrow x \neq y$ ,

at least where  $x$  is a c-substance. But given (3) above, from (4) we get

5.  $y$  is the essence of  $x \rightarrow x \neq y$ .

Now suppose we hold also that the  $y$  in (5) is also a substance, perhaps on the strength of (3) plus what I shall call the naive inference:

6.  $y$  is the substance-of  $x \rightarrow y$  is a substance.

This will create a problem. For to construe substance as the substance-of a thing is arguably to construe substance as essence; in turn this is to

<sup>434</sup> The argument is formally flawed, as Aristotle knows, and it appears resistant to repair. See Burnyeat *et al.* (1979) and Frede and Patzig (1988) for details, and now, also, Dahl (1998).

construe substance as the essence of the thing. So if, thanks to the naive inference, (6), this essence is *a* substance, then we have something, namely *y*, about which it makes sense to ask whether it in turn has an essence. That is, one might move from the plausible principle (5) and the plausible principle

$$7. \quad x \text{ is a substance} \rightarrow (\exists y)(y \text{ is the essence-of } x)$$

to

$$8. \quad x \text{ is a substance} \rightarrow (\exists y)(y \text{ is the essence-of } x \ \& \ x \neq y).$$

Now (8) looks perfectly unproblematic where *x* is a c-substance. But because the essence of such a thing is also the substance-of it, by the naive inference, (6), it is also a substance and so we get

$$9. \quad y \text{ is the essence of } x \rightarrow (\exists z)(z \text{ is the essence-of } y \ \& \ z \neq y).$$

This pattern of reasoning can be repeated indefinitely, with familiar inflationary effects on the population of essences.

Thus, the opening section of the chapter does not merely address an issue arising for the conception of substance as substance-of; it also addresses the issue in a way that invites the two refutative arguments actually contained in the main section of the chapter: at 1031a31–b3 near the beginning and the regress argument at 1031b28–1032a4 toward the end of the section. Because my immediate aim is to stress that Z.6 brings forward an issue arising in the context of an investigation of substance as *substance-of*, I shall not now consider the arguments in detail. But it should be remarked that when we do consider them below,<sup>435</sup> we will want to bear in mind two propositions used in the above paragraph that deserve special scrutiny—the naive inference, (6), and the claim in (5) that a thing and its essence are different. One might, for example, reject (6) on the grounds that the substance-of a thing is not itself a substance, or at least not a substance that is of such a kind as to have an essence or substance of its own. And (5), of course, must be rejected, or at least its universal closure, if the Zeta 6 Thesis holds.

## 2. Formulating the Zeta 6 Thesis

The main section of *Metaphysics* Z.6 concludes at 1032a4–6 with what might be called the canonical formulation of the Zeta 6 Thesis:

<sup>435</sup> I shall consider only the second of these, the explicit regress argument.

In the case of things that are primary and spoken of *per se*<sub>1</sub> (ἐπὶ τῶν πρώτων καὶ καθ' αὐτὰ λεγόμενων) it is clear that the thing and the essence of the thing are the same (τὸ ἐκάστην εἶναι καὶ ἕκαστον τὸ αὐτὸ καὶ ἓν ἐστίν).

For ease of reference I shall write the thesis as

10a.  $(x)(y)(x \text{ is primary} \ \& \ x \text{ is } per \ se_1 \ \& \ y \text{ is the essence of } x \rightarrow x \text{ is the same as } y)$ ,

leaving undecided, for the moment, whether ‘ $x$  is the same as  $y$ ’ is to be read as ‘ $x = y$ ’. I also do not worry about the fact that the second conjunct in the antecedent is an ellipsis for something like ‘ $x$  is *per se*<sub>1</sub> $F$ ’, where  $F$  is connected with the essence mentioned in the third conjunct. For immediate purposes this will not matter.

Even when constrained to the main section, (10a) concludes a quite long stretch of argument and it is important to see how it emerges from this. The first part of this argument begins at 1031a28 with the question whether in the case of things spoken of *per se*<sub>1</sub> (ἐπὶ τῶν καθ' αὐτὰ λεγόμενων) it is necessary that they are the same as their essences, and ends at 1031b11–13 by declaring in favor of the sameness of goodness and the essence of good (τὸ ἀγαθὸν καὶ ἀγαθὸν εἶναι) and of beauty and the essence of beauty (τὸ καλὸν καὶ καλῶ εἶναι). Because τὸ ἀγαθόν (the good) and τὸ καλόν (the beautiful) are employed as examples of what is spoken of *per se*<sub>1</sub>, the arguments establishing sameness between them and their respective essences are presumed to settle the opening question. Thus, they appear to establish

11a.  $(x)(y)(x \text{ is } per \ se_1 \ \& \ y \text{ is the essence of } x \rightarrow y \text{ is the same as } x)$ ,

which is just a formal version of the principle introduced at 1031a28–9. However, (11a) says nothing about primacy and so cannot be counted as a strict version of the Zeta 6 Thesis.

Immediately after closing the argument for (11a), Aristotle attaches what he appears to regard as an additional result. His remark at 1031b13–14:

Generally, the same result will hold for anything that is primary and spoken of *per se*<sub>1</sub>, and not in virtue of something else ((καὶ) ὅσα μὴ καθ' ἄλλο λέγεται, ἀλλὰ καθ' αὐτὰ καὶ πρώτα) (after Bostock, 1994),

does contain an embellished version of the Zeta 6 Thesis. In fact, it is the only other uncontested occurrence of the thesis in Z.6:

10b.  $(x)(y)(x \text{ is primary} \ \& \ x \text{ is } per \ se_1 \ \& \ x \text{ is not [what it is] in virtue of something else} \ \& \ y \text{ is the essence of } x \rightarrow x \text{ is the same as } y)$ .

The fact that Aristotle regards this as an additional result suggests that he takes the opening round of argument to establish only (11a). So how

do we get (10b)? One answer is, ‘as a matter of logic’, for (10b) follows from (11a) by the trivial truth that if  $x$  is *per se*<sub>1</sub> &  $x$  is primary & . . . , then  $x$  is *per se*<sub>1</sub>. But this is misleading, since it fails to press the central role of primacy. It is more likely that Aristotle takes primacy itself to entail *per se*<sub>1</sub>-ness and essentiality. With this entailment in hand, (11a) can be used to generate (10b).

From the point of view of the developing account of *Metaphysics*Z, recall that Z.4 and 5 have established that the lead candidate for essence will be something that is *per se*<sub>1</sub> and primary, namely, the form of a genus. This gives us (10a). But as we saw in the last chapter, primacy is equivalent to impredicability and intrinsicness. This gives us the embellished version of the Zeta 6 Thesis that is contained in (10b). So we may think of Z.6 as drawing out a consequence of one feature of the notion of essence developed in Z.4 and 5 and, hence, as spelling out a necessary condition for anything that has that feature. One such thing is the essence that is equivalent to substance—the γένους εἶδος of the Z.4’s New Primacy Passage. This is captured in the Zeta 6 Thesis, whether in version (10a) or (10b). But other items have the feature of being *per se*<sub>1</sub> and so Z.6 extends to them the sameness of thing and essence. Thus, following a gloss on what I am calling the additional result, (10b) above, Aristotle sums up as follows: “These are some arguments to show that each thing and its essence are the same and not coincidentally” (1031b18–20). He obviously does not mean to suggest that everything is the same as its essence but is clearly proposing a version of (11a), namely,

11b.  $(x)(y)(x \text{ is spoken of not incidentally} \ \& \ y \text{ is the essence of } x \rightarrow y \text{ is the same as } x)$ .

Proposition (11b) is shorthand for (11a)<sup>436</sup> and like (11a) it contains no mention of primacy. Nor need it. But it does invite a misunderstanding that Aristotle clears up at 1031b22–8. Among what is said coincidentally, one must distinguish that to which an accidental attribute belongs from the attribute itself, for the latter alone satisfies (11b). Thus, the *white thing* will not be the same as its essence, should it have one, but the attribute itself will be the same as its essence. Thus, insofar as it signifies a *white thing*, τὸ λευκὸν is not the same as its essence; insofar as it signifies *whiteness*, it is.<sup>437</sup> Given that Z.4 denies primacy to accidental

<sup>436</sup> As in the case of (10a), I shall not worry about the elliptical character of ‘ $x$  is spoken of not incidentally’.

<sup>437</sup> I read this with Ross (1924) and Frede and Patzig (1988) but against Bostock (1994), who takes the passage to hold that the essence of a white thing is not the same as the man or the white man but is the same as the attribute. But this identifies the *white thing* and the attribute *whiteness* and so conflates the very distinction Aristotle is at pains to make.

qualities on the ground that they are what they are in virtue of something different,<sup>438</sup>Z.6 represents *whiteness*, appropriately, as satisfying (11a) and (11b) but neither (10a) nor (10b). So there is no worry that the Zeta 6 Thesis itself applies to items in a way that would challenge the γένους εἶδος as the sole claimant to the title of essence in the strict sense of the term.<sup>439</sup>

### 3. The Range of the Thesis

On our view, the principal target of Z.6 is the form (the γένους εἶδος) of the New Primacy Passage and its principal concern is whether this item is the same as its essence. This certainly fits the overall strategy of *Metaphysics Z*. For in investigating what a thing's form must be like in order for it to serve as the substance-of the thing, it is natural to expect the condition introduced in Z.6 to be a condition on such a form. But within Z.6 itself there are signs that form is the target of interest, and I would like to briefly consider this evidence. We shall then be in a position to address a difficulty with the proposed targeting.

Three pieces of internal evidence favor what I shall call the formal reading of the Zeta 6 Thesis. First, when Aristotle considers the more broadly formulated principles, (11a) and (11b), he insists that in the case of accidental compounds, such as *the white thing*, each thing is not the same as its essence. Insofar as we consider something strictly as a *white thing*, we may treat the attribute *whiteness* as the form of the thing.<sup>440</sup> So by parity of reasoning one would expect him to say much the same about substantial compounds, such as *this man*. Moreover, this seems correct on its own terms: because it is a compound of form and matter, such a thing cannot be *identified* with its form, and, therefore, cannot be the same as its essence. But the form of the thing could be.

The second run of internal evidence comes from Aristotle's expansion on (11a), the principle discussed in the opening argument of the main section of the chapter. Aristotle suggests that for items spoken of *per se*<sub>1</sub> we can expect that they will satisfy (11a) and thus that they will be the same as their essences. And this will be the case, he says,

<sup>438</sup> That is, they violate intrinsicness. See (23), and the adjacent discussion, from Ch.VI.

<sup>439</sup> Code (1985a: n. 26) also locates the Zeta 6 Thesis at 1032a4–6, our (10a), and 1031b11–14, our (10b). But he also finds it at 1031b18–20, which I take to house the weaker principle, (11b). This has no material effect on Code's analysis of the Zeta 6 Thesis itself. Burnyeat *et al.* (1979: 32) speak simply of “the thesis to be argued” and locate it at 1031b18–20, also our (11b).

<sup>440</sup> Of course, Aristotle would insist that it is a form in a reduced sense only.



if, for example, there are substances such that no other substance is their substance and no other nature prior to them (οἷον εἴ τινας εἰσὶν οὐσίαι ὧν ἕτεραίμη εἰσὶν οὐσίαι μηδὲ φύσεις ἕτεραί πρότεραι). (1031a29–30, after Bostock, 1994)

This passage gives a sufficient condition for something counting as an item that is spoken of *per se*<sub>1</sub> and, given the argument immediately following, for something counting as the same as its essence.

So Aristotle appears committed to the following:

12.  $(x)(x \text{ is a substance} \ \& \ \neg(\exists z)(z \neq x \ \& \ z \text{ is the substance-of } x) \ \& \ (\exists y)(y \text{ is the essence of } x) \rightarrow y \text{ is the same as } x)$ .

That is, if there are substances such that nothing else is their substance, and if they have essences, then these substances must be the same as their essences. It is important to call attention to the fact that sameness of thing and essence is put forward as a condition on substances that have no other substances. For such a substance it is, on reflection, inappropriate to ask what *its* substance is.<sup>441</sup> It, thus, appears that Aristotle would reject the naive inference, (6), one of the suspect propositions noted in our discussion of the opening lines of Z.6.

Careful readers will notice that 1031a29–30 does not mention essences at all. But this is inconsequential because Aristotle argues (12) for the case of the good and the essence of good. So we can assume that as far as this argument goes, *being the substance-of something* and *being the essence of something* are equivalent notions. If nothing else, this confirms yet again that Z.6 continues the investigation of substance as substance-of. Further, it appears that Aristotle does not intend to include c-substances in the range of bound ‘ $x$ ’. For this would equate Socrates and his form, not Socrates’ soul but Socrates the man. Whatever one might make of the proposed equation, it was rejected when Z.3 elevated form over both the matter and the compound of form and matter. By the same token, it would appear that the substances in question in (12) are rather more formal. Unsurprisingly, Aristotle confirms this, when he continues 1031a29–30 with the rider: “as some say holds of the forms.”

Against this, some might take the rider to undercut Aristotle’s commitment to forms in this passage on the grounds that the reference is to Platonic forms, both here as well as at the end of the section (1031b15–18). It would be a mistake to make very much of the point, supposing

<sup>441</sup> Alternatively, one might take (12) less strictly, as allowing the appropriateness of asking what a thing’s substance is, even for the substances characterized by (12). It is just that in these cases, a thing is the same as its substance, while in other cases it is not.

it correct, for his use here of Platonic forms is a philosopher's ploy in two ways. First, although any specimen case would do, by making that case Platonic forms he avoids any appearance of loading the argument in his favor. (Note that this presumes that he in fact takes forms to be the principle target of [12]). Second, all along Z.6 has been concerned only with a necessary condition for something's counting as the essence and substance-of things. So it would do no great harm should other things also satisfy the condition. Introduction of Platonic forms as the focus of the argument cannot, then, *undercut* Aristotle's commitment to (his) forms because they are beneficiaries of whatever success is enjoyed by their Platonic kin.

On the other hand, because (12) proposes a sufficient condition for the sameness of a thing and its essence, Aristotelian forms are not prevented from instantiating this relation just because of the failure of Platonic forms.<sup>442</sup> In short, as far as the argument for (12) is concerned, Platonic forms can help but not hurt. Ultimately, of course, this is to the good because Aristotle will reject the very existence of such putative entities. Even within Z.6 there are suggestions that he finds them difficult to account for. His complaint at 1031b3–6, for example, that separation of the good itself from the essence of the good results in the unknowability of the former echoes a similar complaint from the *Parmenides* (134) regarding the epistemic consequences of separation of forms from their worldly participants.<sup>443</sup>

Now the fact that Aristotle develops the argument by use of Platonic forms may suggest that he allows them to satisfy the Zeta 6 Thesis. But it does not establish this because Platonic ideas may simply be 'as if' examples. Plus, there are indications that he has worries about such permissiveness. At 1031b11 he summarizes the course of argument just discussed by remarking: "So it is necessary that the good and the essence of the good and the beautiful and the essence of the beautiful are the same." Immediately, he generalizes and gives us the Zeta 6 Thesis in the form of (10b). So the good and the essence of the good are at least illustrative examples of items that satisfy (10b). That Aristotle thinks of the good and the essence of the good as forms that satisfy (10b) is, perhaps, not controversial; that he thinks of them as Platonic forms is, perhaps, less settled. Our attitude here will depend on what we make of the line following the statement of (10b) at 1031b13–14. Frede and Patzig (1988) give us something like

<sup>442</sup> See now Frede and Patzig (1988: ii. 98–9), who take a similar view of the line.

<sup>443</sup> Whether there is more than an echo here is a quite complicated matter that I shall not go into.

this (τοῦτο) would be sufficient (καὶ γὰρ τοῦτο ἰκανὸν ἂν ὑπάρχηι), even if it does not concern forms (κἄν μὴ ἦ εἶδη), or, perhaps rather, even if it does concern forms (μᾶλλον δ' ἴσως κἂν ἦ εἶδη). (1031b14–15)

The τοῦτο ('this') that is sufficient is the antecedent condition in (10b), and what it is sufficient for is just the sameness of a thing and its essence. Further, Frede and Patzig (1988) take the line to concern Platonic forms—after all, they have just been discussed. The idea here is that one might object to using *the good-itself*, and its Platonic kin, as the allegedly neutral case for establishing the Zeta 6 Thesis. Even so, says Aristotle, the conditions specified in (10b) would still be adequate. Now this could mean that they are quite generally adequate: for anything that turns out to satisfy the antecedent conditions, that thing will be the same as its essence. But this leaves Aristotle's confidence in (10b) entirely ungrounded. It is, thus, likely that in the back of his mind is the comforting thought that at least his forms satisfy (10b).<sup>444</sup> The remainder of the line, which says that (10b) holds even if the items satisfying its antecedent condition *are* (Platonic) forms, can then be taken to bring home the point that the Zeta 6 Thesis holds independently of whether it is satisfied by Platonic forms or not. Clearly, Aristotle has an interest in making such a point, for he has just carried out the argument for (10b) by using Platonic forms—items neither he nor, very likely, his auditors even countenance. This explains the discernible touch of irony in his remark that (10b)'s conditions are adequate 'even if' they concern Platonic ideas. In any event, the Platonic standards were employed simply as specimen objects and, so, objections to them need not extend to (10b), and they certainly do not extend to the forms that are Aristotle's candidates for (10b). Although, strictly speaking, he maintains a posture of neutrality, there can be no doubt that attached to this first mention of the Zeta 6 Thesis is a rider that betrays a distinct uneasiness about counting Platonic forms as things that enjoy primacy and intrinsicness as well as *per se* status. Not so for his own forms, however, and these thus enjoy privileged claim to the Zeta 6 Thesis.

That 1031b14–15, the line inspiring the discussion of the above paragraph, is probably meant as an ironic allusion to those forms that are Platonic forms is suggested by the fact that he immediately presses a worry formulated explicitly in the language of ideas:

At the same time [as one says that the items satisfying (10b) are forms], it is also clear that if the ideas (αἰ ἰδέαι) are *as some people say*, what underlies will not be substance. For they must certainly be substances, but not because something underlies them; if that were so, they would exist only by being participated in. (1031b15–18, after Bostock, 1994)

<sup>444</sup> I notice now that Frede and Patzig (1988: ii. 99) agree with this.

Take the phrase ‘as some people say’ to repeat 1031a30–1’s ‘as some say holds of the ideas’.<sup>445</sup> Then because the latter refers to 1031a29–30, which we represented above as (12), the reasoning goes as follows. If (*a*) the ideas are substances such that no further substance is their substance, then (*b*) what underlies will not be substance because (*c*) such forms are substance but not for the reason that something underlies them. Let us assume for the moment that this is a piece of reasoning that Aristotle accepts, given the Platonic context. Note, then, that (*b*) does not assert that nothing can underlie such substances but only that no substance can underlie them. As far as (*b*) is concerned, it could turn out that something underlies substance, so long as it does not underlie *as substance*. This would allow Aristotelian forms, which are enmattered, to count as substances—and, of course, they would do so in agreement with (*c*), because they are not substances for the reason that something underlies them. To actually get (*b*) from (*a*) we need to assume that if a first substance underlies a second, then it is the substance-of the second. Since the notion of an idea expressed in (*a*) is incompatible with the latter, it is also incompatible with the notion that the substance-of a thing can be what underlies (τὸ ὑποκείμενον), and with this we get (*b*). So if Aristotle accepts this part of the argument, then he appears to hold that the ὑποκείμενον does not satisfy the Zeta 6 Thesis. Now, satisfying this thesis is a necessary condition of something’s being an essence and, hence, of something’s being the sort of substance that counts as essence. This could only be the substance-of something and so must be the form. Thus, we have additional evidence of his favoritism toward form, and rejection of the ὑποκείμενον, as substance.<sup>446</sup>

Immediately following the just-discussed swipe at those forms that are Platonic ideas, Aristotle adds another argument, this time explicitly for (11b). This is the third piece of evidence for restricting the range of the Zeta 6 Thesis to formal items. The argument, which I shall call the knowledge argument, proceeds from the premise that to know a thing just is to know its essence. Presuming that the knowing in question is knowing what a thing is, we can write the premise as:

13.  $a$  knows what  $x$  is  $\leftrightarrow (\exists y)(y$  is the essence of  $x$  &  $a$  knows  $y$ ).

For present purposes we can pretend that (13) is acceptable.<sup>447</sup> Aristotle represents (13) as directly yielding the identity of thing and essence:

<sup>445</sup> Compare Frede and Patzig (1988) who reject this back reference on the grounds that it cannot illuminate why the ὑποκείμενον should not be substance. My account attempts to provide just such illumination.

<sup>446</sup> Aristotle goes on to add an exclusively Platonic twist, namely, that this would result in ideas existing only by being participated in. But we need not press this here.

<sup>447</sup> Aristotle actually thinks of the argument as proceeding from cases. This would call for  $a$ ’s knowing what, say,  $F$  was if, and only if,  $a$  knows the essence of  $F$ . By exhaustion of cases we get (13), which I begin with. Some might want (13) to include the proviso that  $a$  knows that  $y$  is the essence of  $x$ . But such complications can be set aside for present purposes.

14.  $((a \text{ knows what } x \text{ is} \leftrightarrow (\exists y)(y \text{ is the essence of } x \ \& \ a \text{ knows } y)) \rightarrow y = x).$

Assuming the range of 'x' constrained to what is not spoken of incidentally, then (13) and (14) do indeed appear to support (11b).

Our immediate concern is with the range of the Zeta 6 Thesis, in particular its restriction to forms only. So if the knowledge argument supports the Zeta 6 Thesis it ought to show signs of favoritism to forms as well. This turns out to be the case. For let  $x$  be Callias and  $y$  the essence of Callias. If  $y$  is a general essence, then (13) is satisfied, but obviously  $y$  is not the same as  $x$ . If  $y$  is a particular essence, then one might argue that (13) is not satisfied—if knowledge is unflinchingly about what is general or universal—and we lose the argument. Even waiving the latter worry, perhaps accommodating it by means of an adverbial theory of generality,<sup>448</sup> the consequent of (14) is not satisfied. For Callias is a c-substance and, hence, is not identical with his form, even if the latter is construed as a particular form.<sup>449</sup>

So the knowledge argument won't work if  $y$  is a particular, non-formal item. Thus we restrict (13) to items that are neither c-substances nor compounds underlying such substances. In short, restricting the range of 'y' to forms is a necessary condition of (14), the crucial inference of the knowledge argument. This, of course, agrees with our story of the strategy of Z.4–6. It also makes entirely natural Aristotle's following remark, discussed above, that where  $x$  is an accidental *attribute*, as opposed to an accidental compound, thing and essence are the same. For presumably this is just an application of (14).

## 4. Having Versus Being an Essence

Globally speaking, *Metaphysics Z* asks which internal structural component of a c-substance—its matter, its form, or the compound of its form and its matter—is primarily responsible for explaining certain of its central features. As such it promises an investigation of which component is the substance-of the thing, and it delivers on the promise by developing an account of what form must be like if it is to serve as the

<sup>448</sup> As do Frede and Patzig (1988).

<sup>449</sup> Some might choose to finesse the identification of Callias and his form. But as I argued in Ch. IV, there is no conceptual or interpretive imperative for the identification and, in any case, the arguments for it are unsound. So I do not regard the finessing as a serious option.

substance-of a c-substance. Z.4 pursues this by proposing, in effect, that the form of a c-substance is its essence. A governing assumption of the project, then, is the following:

15.  $(x)(x \text{ is a c-substance} \rightarrow (\exists y)(y \text{ is the substance-of } x \ \& \ y \text{ is an essence}))$ ,

from which quickly follows

16.  $(x)(x \text{ is a c-substance} \rightarrow (\exists y)(y \text{ is the essence of } x))$ .<sup>450</sup>

Now Aristotle repeatedly argues that the form of a compound is different from the compound. We saw this at work, for example, in Z.3's argument for form's priority over both the compound and the matter. Because we are presuming that such forms are to function as the substance-of c-substances, we are committed to holding Aristotle to a further governing assumption:

17.  $(x)(y)(x \text{ is a c-substance} \ \& \ y \text{ is the substance-of } x \rightarrow y \neq x)$ .

Proposition (17), in effect the closure of (4) above, entails that no c-substance is identical with its essence:

- 17'.  $(x)(y)(x \text{ is a c-substance} \ \& \ y \text{ is the essence of } x \rightarrow y \neq x)$ .

But according to the Zeta 6 Thesis each thing and its essence are identical, or at least the same. Therefore, if the range of the Zeta 6 Thesis includes c-substances, the thesis will contradict (17) and so a governing assumption of *MetaphysicsZ* would conflict with one of its major corollaries. But this requires, as registered in (10b), that c-substances are spoken of *per se*, that they are primary, and that they are what they are not in virtue of something different. However, as we saw in the previous chapter, c-substances fail to meet at least the latter two requirements. So there is no contradiction.

So far from merely restoring consistency, there is an intuitive connection between (17') and the Zeta 6 Thesis. For (17') distinguishes the essence of a thing from the thing and the Zeta 6 Thesis, (10a)/(10b), isolates the essence distinguished. More precisely, (17') distinguishes the item that is the essence of a c-substance from the c-substance itself, while the Zeta 6 Thesis focuses just on the item. In both cases we have argued that the item in question is the  $\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma \ \acute{\epsilon}\lambda\delta\omicron\varsigma$  or form of the c-substance. Thus, Z.6 asks a question about what form, in the guise of essence, must be like if it is to function as the substance-of c-substances.

<sup>450</sup> By the principle  $(x)(y)(y \text{ is the substance-of } x \ \& \ y \text{ is an essence} \rightarrow y \text{ is the essence of } x)$ , thus rejecting that  $y$  could be the substance-of  $x$  and an essence, not of it, but of something else.

We may suppose, then, that the Zeta 6 Thesis concerns itself with the nature and identity of the essences themselves of c-substances. Such selective focus would fit naturally into an account of what the form of a c-substance must be like to serve as its substance, for such an account will be interested in what things *are* forms or essences not in what things *have* them. Thus, we saw above<sup>451</sup> that in Z.4 Aristotle asks whether *being for a cloak* is an essence, not whether a certain thing has this essence. Although he sometimes employs the idiom of *having* an essence, this arguably serves the cause of determining what essence *is*. For if *being for an F* is an essence, then *F*s will have essences; so if *F*s lack essences, *being for an F* will not be an essence. Of course, all this must be carefully couched to make certain that we are talking about *F*s *as such*, so that, for example, *that white man* does not have an essence as such (i.e., as a white man) even though the man that happens to be white does.

In the spirit of (17') we might say that the item, *y*, that *is* an essence is distinct from the item, *x*, that *has* the essence. So, at first glance, we might expect that the Zeta 6 Thesis asserts something like the following:

18.  $(y)(y \text{ is a form} \ \& \ y \text{ is primary} \ \& \ y \text{ is spoken of } per \ se_1 \rightarrow (\exists z)(z \text{ is an essence} \ \& \ z = y))$ ,

for (18) says that it is in the nature of a certain kind of form to be identical with an essence. Moreover, this appears to be what our account calls for: having begun a search for the substance-of c-substances, Aristotle looks at the candidacy of essence and argues that the sort of essence that will do as a candidate for the substance-of can only be the top-ranked candidate, namely, the  $\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma \ \acute{\epsilon}\tilde{\iota}\delta\omicron\varsigma$  therefore, he declares, as it were, that our candidate essence just *is* form, period. Hence, we get the identification in (18).

There is nothing wrong with the *story* behind (18). The trouble is with (18) itself, for careful readers will notice that Aristotle formulates the Zeta 6 Thesis with the help of possessive idioms. To be precise, he asserts, not (18), but

18'.  $(y)(y \text{ is a form} \ \& \ y \text{ is primary} \ \& \ y \text{ is spoken of } per \ se_1 \rightarrow (\exists z)(z \text{ is the essence-of } y \ \& \ z = y))$ .

Whereas (18) simply identifies a form with an essence, (18') identifies a form with the essence it *has*. Not only does this appear to threaten the claim that Z.6 is interested solely in what essence *is*, but also it runs against the intuitively appealing idea that a first thing that is the essence

<sup>451</sup> Ch. VI, esp. sect. 4.

of a second ought to be distinct from the second. This was just (5) above (i.e., if  $y$  is the essence of  $x$ , then  $x \neq y$ ), which is certainly true where  $x$  is a c-substance (as in [17']) but not, apparently, where  $x$  is a form or γένους εἶδος. So Aristotle does not endorse the universal closure of (5).

To ask why Aristotle does not accept the universal closure of (5) is to ask, in effect, why he holds (18'), that is, why a certain thing is the same as something it *possesses*? This is not uncontested territory. Owen, for example, detected here a response to the notorious third man argument and its alleged use of the so-called non-identity and self-predication assumptions.<sup>452</sup> In particular, Owen detected a later and more sophisticated response on Aristotle's behalf. The early theory of the *Categories* embraced nonidentity for all predications but the later theory of *Metaphysics*Z denies nonidentity for predications involving “primary subjects of discourse” (Owen, 1965*b*: 136–7). Such subjects are just the καθ'αὐτὸ λεγόμενα (*per se*<sub>1</sub> things) mentioned in the Zeta 6 Thesis. Thus, at bottom, the thesis is designed as a shield to the menace of the third man argument.

Owen's reading makes very complicated work of the Zeta 6 Thesis. *Metaphysics*Z does not merely involve a new level of analysis with a concomitant and new predicative relation between form and matter, but rather is made to call for outright rejection of the elegantly simple theory of the early ontology. Moreover, if the chief motive for introducing the Zeta 6 Thesis is escape from the dreaded regress of the third man argument, why is it not mentioned? Aristotle exhibits no such shyness in Z.13, where he *does* find it relevant (to the claim that the universal is substance). To be sure, Z.6 rehearses at least one card-carrying regress argument and may invite a second, but neither is the third man regress. Finally, there is in any case good reason to deny Owen's claim that the Zeta 6 Thesis was meant to avoid the third man argument by denying nonidentity.<sup>453</sup>

I shall not pursue detailed criticism of Owen's view. This has been done.<sup>454</sup> Rather I introduce the view to prompt interest in simpler and less ambitious explanations of the philosophical motivation for the Zeta

<sup>452</sup> Roughly, the assumptions, respectively, that participants in a form are different from the form they participate in and that the form itself has the property that participants get by participating in it. See Malcolm (1991) for excellent discussion of the issues surrounding this topic.

<sup>453</sup> Here I refer the reader to Code's important (1985*a*), which argues that the Zeta 6 Thesis cannot respond to the TMA by denying either nonidentity or self-predication, at least as these are formulated by Owen (1965*b*). For, Code persuasively argues, neither formulation is a premise of the TMA as Aristotle understood it. On this see also Driscoll(1981) and Lewis (1985*b*).

<sup>454</sup> In the acute studies by Driscoll (1981), Code (1985*a* and 1985*b*), and Lewis (1985*b*).



6 Thesis. One such account can be found in Code (1985*a*: 110), which locates the true motivation for introduction of the thesis in Aristotle's preoccupation with the notion of a properly definable object. Although there is much to be said for this, the preoccupation has been evident at least since Z.4. So the Zeta 6 Thesis may be addressing a narrower issue concerning the definable object. Here our account enters with the modest proposal that the thesis must be considered insofar as it arises naturally from the investigation of the substance-of a thing because it is necessary that a thing's substance be the same as its essence. This we have already set forth. What remains is to explain the possessive formulation of (18') without revisionism of the sort Owen championed.

The problem is that the possessive idiom suggests a difference where there is none. Now, it is correct that the Zeta 6 Thesis asserts a sameness of sorts between primary things and their essences. So what we need to explain is the presence of the possessive idiom in formulating the thesis (as well as its weaker relatives [11a] and [11b]). The explanation is to be found in how Aristotle 'derives' the thesis. For this, recall that he begins by looking at cases of items that have essences, but essences that are different from the items. Thus, for example, the essence of *white man* is different from it. So Aristotle's strategy of argumentation installs the possessive idiom from the outset. The payoff is to find a class of items where difference between thing and essence no longer obtains. Supposing such items to be the values of 'x', one way to express this would be:

$$19a. \quad (x)(x \text{ is primary} \ \& \ x \text{ is spoken of } \textit{per se}_1 \rightarrow (\exists y)(y \text{ is an essence} \ \& \ x \text{ does not have } y \ \& \ x = y)).$$

However, given the strategy of the argument, Aristotle must formulate the thesis by use of the possessive idiom, and so we get

$$19b. \quad (x)(x \text{ is primary} \ \& \ x \text{ is spoken of } \textit{per se}_1 \rightarrow (\exists y)(y \text{ is an essence} \ \& \ x \text{ has } y \ \& \ x = y)),$$

which identifies an essence and the thing that *has* it.

To see that *having* an essence need not imply distinctness of thing and essence, it will be useful to note that (19a) and (19b) are range-equivalent. That is, they are satisfied by the same items, namely, forms of a certain kind. Aristotle's preference for (19b) is a function of strategy. He begins with items that satisfy the relation '*x has y*' but not the relation '*x = y*' and works toward those satisfying both. On this view, *being* an essence turns out to be the limiting case of *having* an essence. Here the idiom of having operates at what might be called a formal level. To say that '*x has an essence*' is satisfied by *a* is to put *a* into a

certain formal class that legitimizes certain questions about it, in particular, whether it is the same as the essence it has. This sort of having was evident back in the New Primacy Passage, which concluded that essence will *belong* to nothing that is not among the forms of a genus but to these alone (  $\tau\acute{o}\ \acute{\tau}\acute{\iota}\ \eta\nu\ \epsilon\acute{\iota}\nu\alpha\iota$ ,  $\acute{\alpha}\lambda\lambda\acute{\alpha}\ \tau\acute{o}\acute{\upsilon}\tau\circ\iota\varsigma\ \mu\acute{o}\nu\omicron\nu$  οὐκ ἔσται ἄρα οὐδενὶ τῶν μὴ γένους εἰδῶν ὑπάρχον , 1030a11–13). Again, this sort of having puts forms of a genus into a certain formal class. Aristotle could as well have said that there will be essences only in the case of what *is* a form of a genus and here there is plainly no objection to identifying forms and essences.<sup>455</sup>

## 5. The Problem of Regress

I have argued that Aristotle's consideration of the Zeta 6 Thesis arises naturally from the conception of substance as the substance-of a thing. Such a conception of substance is tied, in Z.3, to the form of a thing and this in turn is explicated, in Z.4, in terms of a thing's essence. At the first level, where the thing in question is a c-substance, the thing and its essence are arguably distinct. Suppose we call such an essence a first-level essence and characterize it as follows:

20.  $(x)(y)(y \text{ is a first-level essence of } x \leftrightarrow x \text{ is not an essence} \ \& \ y \text{ is an essence of } x \ \& \ \neg(\exists z)(z \neq y \ \& \ y \text{ is an essence of } z \ \& \ z \text{ is an essence of } x))$ .<sup>456</sup>

A first-level essence manages to be an essence of something,  $x$ , directly, that is, without going through another thing that is an essence of  $x$ . Here there is no reason to enforce the Zeta 6 Thesis—quite the contrary, in fact. For (20) defines a first-level essence as an essence of something that is not itself an essence, and so it trivially follows that a thing is distinct from its first-level essence.

At the second level, however, the thing in question is the first-level essence itself,  $y$ , and problems arise if such items in turn have essences distinct from them. One problem is incompatibility with the characterization of the  $\acute{\epsilon}\nu\omicron\upsilon\varsigma\ \acute{\epsilon}\acute{\iota}\delta\omicron\varsigma$  (form) that Z.4 touts as the premier candidate for essence. For, as we saw in Chapter VI, this item must enjoy

<sup>455</sup> My account of the *having* involved in the Zeta 6 Thesis as a kind of formal operation avoids the need, felt by Burnyeat (unpublished) among others, to involve self-predication in the thesis, at least any self-predication that is recognizably Platonic. Such an account is useful in light of Code (1985a) 's arguments for distancing the Zeta 6 Thesis from self-predication, especially given the fact that he does not explicitly address the tension between *having* and *being* an essence.

<sup>456</sup> Compare (20) with Ch. I's (3), which was used to characterize the notion of a 0-level synonymy group.

primacy, impredicability, and intrinsicness. Thus, suppose, for example, that Socrates' essence itself had a second and distinct essence. Then the essence of Socrates could hardly count as primary, for it will be what it is in virtue of something else, namely, this second essence. Because Z.4's new primacy is a kind of explanatory primacy, on the current supposition a first-level essence cannot explain, by itself, why certain matter constitutes a man. For its success in this explanatory project just amounts to, or at least necessarily involves, introducing the second-level essence it supposedly has. Enforcement of the Zeta 6 Thesis thus preserves the primacy of those items that are the premier candidates for essence. A second problem is that allowing level-one essences to have their own distinct second-level essences invites an endless parade of essences. This strips explanatory power from the essence entirely and, hence, from the form. More dramatically, it undercuts the project of investigating the *substance-of* c-substances. By cutting off this sort of regress, the Zeta 6 Thesis keeps open an explanatory role for form and, thus, confirms the claim that *Metaphysics*Z undertakes an investigation of just this sort of form.

Note that proposition (20) excludes that a first-level essence can be the essence of  $x$  by going through another essence of  $x$ . It does not, however, address whether the first-level essence itself has an essence, and this is our immediate concern. So we need to augment the conditions that pick out a first-level essence. What is called for is something like this:

20a.  $(x)(y)(y \text{ is the essence of } x \leftrightarrow y \text{ is a first-level essence of } x \ \& \ \neg(\exists u)(u \neq y \ \& \ u \text{ is an essence of } y))$ .

So *the* essence of a thing is a first-level essence that has no further essence. In short, genuine essences are protected in both upward and downward directions. With (20a), then, Aristotle preserves the (explanatory) primacy of the  $\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma$   $\epsilon\acute{\iota}\delta\omicron\varsigma$  and stanches the flow of essences.

The Zeta 6 Thesis is installed as the guarantor of (20a). Thus, toward the end of Z.6, at 1031b28–1032a4, Aristotle asserts that it blocks the threatened regress. How it does this is not entirely transparent and, so, a closer look is in order. My aim here is to explore one way the thesis may be used to block the regress<sup>457</sup> and then to address a potential difficulty the argument raises for our view. So I shall devote less attention

<sup>457</sup> So I do not offer an exhaustive account; nor do I claim superiority for my account. Rather, I offer it as a way of viewing the argument that is at once plausible and friendly to our overall interpretation of Z.

to the details of the argument itself.<sup>458</sup> Here is how Aristotle presents the argument:

The [*iv*] absurdity [of their being different] would be apparent were one to give a name to each [first-level] essence; for [*v*] besides that there will be another essence (ἔσται γὰρ καὶ παρ' ἐκεῖνο ἄλλε). For example, [*v*] with respect to the [first-level] essence of horse there will be another essence of horse (τῷ τί ἦν εἶναι ὑπερ τὸ τί ἦν εἶναι ἕτερον)<sup>459</sup>. But [*vi*] as things are what prevents some things from being straight-away the same as their essence (καίτοι τί κολύει καίνων εἶναι ἓνα εὐθύς τί ἦν εἶναι)—since [*vii*] essence is substance (εἴπερ οὐσία τὸ τί ἦν εἶναι)? Moreover, [*ix*] not only are they one but also their formulae are the same, as is clear from what has been said. For it is not coincidentally that unity and the essence of unity are one. Further (ἔτι), [*x*] if they are different there will be an infinite regress.

This argument follows a stretch of text in which Aristotle argues that for a thing spoken of, not coincidentally, but *per se*, the thing is the same as its essence—(11a) or (11b). So the absurdity in (*iv*) concerns the separation of these items only from their essences. As such, it is consistent with (17)'s denial of sameness to a c-substance and its essence. Thus, where *a* is a given c-substance and *E* its level-one essence, (17) gives us

$$21. \quad a \neq E(a).$$

That is, *a* is different from its essence, the essence of *a*. Because Aristotle does not raise a problem with (21), the absurdity involves separating primary and *per se* things from their essences; and because Z.4 awards primacy only to the form (γένους εἶδος) and counts this alone as an essence in the proper sense, we can treat *E(a)* as the primary and *per se* item of interest. So the absurdity involves the separation of *E(a)* from its essence. Aristotle's way of putting the worry presupposes that *E(a)* has an essence. So the proposition to worry about can be formulated as follows:

$$22. \quad E_1 \text{ is the essence of } a \rightarrow (\exists E_2)(E_2 \text{ is the essence of } E_1 \ \& \ E_2 \neq E_1).$$

Here we may treat the subscripts as generating separate names for each essence—*E*<sub>1</sub> rather than *E(a)* and *E*<sub>2</sub> rather than *E(E(a))*. According to

<sup>458</sup> Nothing is lost by such inattention in light of the penetrating discussions in Code (1985*a*) and Lewis (1985*b*). Together these two studies provide a virtually definitive analysis of the argument.

<sup>459</sup> Ross (1924) and Jaeger (1957) follow Bonitz (1848 –9) in excising the second ὑπερ; Frede and Patzig (1988) reject excision. How this bears on reconstructing the argument is addressed below.

(iv), this is supposed to make the absurdity clearer. Perhaps, it does, but in any case I shall return to the point later.

As I am representing it, the argument begins with (22). Some might insist, on the other hand, that the argument is ignited by (21) and thus press the question of how Aristotle gets from (21) to (22). There is, I believe, no immediate answer to this question. For the inference is hardly acceptable on its own terms but presupposes that anything that is an essence has an essence that is distinct from it. This would be the universal closure of (9) above, namely,

$$9'. \quad (y)(x)(y \text{ is the essence of } x \rightarrow (\exists z)(z \text{ is the essence-of } y \ \& \ z \neq y)).$$

Now (9') would permit the generation of an infinite number of essences and that might be counted as a reason to find it in the background of the argument. But the threat of regress is not explicitly mentioned until the end of the passage, at (x). Moreover, (x) begins with an 'ἔτι' ('further'), which standardly marks a fresh start. So the regress is represented as a *further* problem with the separation. This, plus the fact that in working out the initial absurdity Aristotle does not explicitly appeal to (9'), recommends tabling it for the moment. First, we need to address (22) itself. Second, and related, we need to say something about the nature of the absurdity mentioned in (iv).

Suppose we focus on the presupposition behind the worry that  $E_1$  is different from its essence, namely, that  $E_1$  itself *has* an essence. As pointed out above, one way to cut short the parade of essences would be to insist that, although they *are* essences, first-level essences do not in turn *have* essences. But Aristotle does not do this. Rather he allows, at least for purposes of this argument, that they have essences. He does so, I suggest, because he allows, also for purposes of the present argument, that essence is substance.<sup>460</sup> This proposition, contained in (viii), together with the assumption that all substances have essences will yield the result that all essences have essences. That is, from

$$23. \quad (x)(x \text{ is an essence} \rightarrow x \text{ is a substance}),$$

which is contained in (viii), at 1031b32–3, and

$$24. \quad (x)(x \text{ is a substance} \rightarrow (\exists y)(y \text{ is an essence} \ \& \ x \text{ has } y)),$$

we may infer

$$25. \quad (x)(x \text{ is an essence} \rightarrow (\exists y)(y \text{ is an essence} \ \& \ x \text{ has } y)).$$

<sup>460</sup> On a possible difficulty with the rider, see the final section on the dilution of substance.

With (25) in hand, we can worry about whether the essence,  $y$ , that  $x$  has is different from  $x$ . If so, there will be a second essence, just as (22) requires and (v) reports.

This account, which for reasons soon made clear I call the double-dip account, does have some virtues.<sup>461</sup> First, it uses a principle that Aristotle includes in the text, namely, (23). Second, that essence is substance plays a role in the argument suggests that the additional assumption needed will involve substance. This lends credibility to our use of (24) as this assumption. Third, if at any stage we hold that a given essence is distinct from its essence, then we get not just a second essence but, in the fullness of time, an infinite run of them. So the account appears to track Aristotle's reasoning in the passage.

A perceived disadvantage of the account might be this. Proposition (23) is contained in (viii) but there its express purpose is to staunch the flow of essences right at the start. The idea appears to be this: if, as (viii) reports, essence is substance, then because each thing is the same as its substance, why not say straight off that a thing is the same as its essence? At least, says Aristotle, nothing blocks this for some things—presumably, primary and *per se*<sub>1</sub> things. The proposition that does the work here, that each thing is the same as its substance, has already made an appearance in the opening lines of Z.6, where it is used with equal confidence in setting the problem for the chapter. Whatever one makes of (2), as we there numbered the proposition, it is not the claim now in question and so its use here begs no questions.

Our present concern is with (23), which shuts off the flow of essences, and here is where the perceived disadvantage surfaces. For in reconstructing Aristotle's reasoning, we use (23) to *generate* the extra essence, that is, we employ the proposition to get a result that the proposition is introduced to defeat. We should be clear that this is not a *reductio* strategy, where one fingers for elimination the proposition that leads to the unacceptable result. There is an unacceptable result here and (23) plays a role in producing it; moreover, (23) might be ultimately objectionable in its own right. But *as far as this argument is concerned* nothing indicates that Aristotle counts (23) out. The double-dip account takes advantage of this fact, and simultaneously lives up to its name, by deploying (23) twice—first to get (25), which is benign by itself, and second to reject (22), which follows from (25) by adding the offending separation of thing and essence. Finally, just such double-dipping may be indicated by the fact that Aristotle introduces (viii) with 'εἴπερ' ('since') rather than the less assertive 'εἰ' ('if'). Translated "since [rather than 'if'] essence is substance," the line may be intended to suggest that

<sup>461</sup> The account owes its origins to reflection on remarks made in seminar by Patrick Findler.

proposition (23) has already been advanced. Thus, the line might bear the paraphrase: “since [the argument has already presumed that] essence is substance . . . what prevents some things from being straightaway the same as their essences?”

As far as the double-dip account goes, then, Aristotle takes a premise endorsed by the opponent and deploys it against him when he tries to extend his initial result (25) to include separation of thing and essence. That is, on the strength of (23) the Zeta 6 Thesis can be brought against

25'.  $(x)(x \text{ is an essence} \rightarrow (\exists y)(y \text{ is an essence} \ \& \ x \text{ has } y \ \& \ y \neq x))$ ,

and with this the duplication of essences is thwarted.

There is, however, a troubling point about this account. If Aristotle is firm about the claim that, for certain items, a thing and its substance are the same, then the opponent's acceptance of (25) ought to make him firm about the fact that, for the same range of items, a thing and its essence are also the same. But he suggests, more cautiously, that *nothing prevents* these things from being the same as their essences. In short, on the double-dip account Aristotle says less than he is entitled to say.

This suggests that the trouble may lie, after all, with the general policy of separating a thing from its essence, namely, (9'). The couched language of (vii) would, then, be traceable to the fact that for certain things, for example c-substances, sameness of thing and essence fails. But for other things nothing prevents the sameness from holding—so long as they are essences that count as substances. Because, as we have just seen, he remains firm on the sameness of a primary and *per se*<sub>1</sub> item and its substance, at any stage where one has such an essence the sameness of it and its essence can be asserted. Thus, implies Aristotle, why not assert this straightaway—for the first-level essence  $E_1$  and its essence  $E_2$ ? This story fails to explain, however, why one should suppose that the first-level essence,  $E_1$ , has an essence at all, let alone one that is distinct from it. This was accounted for on the double-dip version of the argument by adding the supposition that all essences are substances, and, so, it continues to make that version attractive, especially if the couched language of (vii) is measured ironically.

Finally, the absurdity alluded to in (iv) might refer to the infinite regress invited by unrestrained use of the separation principle, (9'), or it might refer to the initial duplication of the essence of  $a$ , or to both. Because, as indicated, the infinite regress is introduced as a ‘further’ difficulty, it is desirable that the absurdity cover the initial step in such a regress, even if it ends up covering the entire run. To make headway here will require revisiting (vi) of the text.

There are two received readings of (vi), depending on whether the

second ‘horse’ (ἵππος) is excised or retained. Bonitz's proposal (1848–9) to excise the second ‘horse’ has proven popular with subsequent editors, for example, Jaeger (1923/1948) and Ross (1924), who remarks that “excision of the second ‘ἵππος’ seems necessary.” Most recently, the one-horse reading or One Horse, as I shall call it, is adopted without comment by Bostock (1994). But, as Frede and Patzig (1988) emphasize, all transmitted manuscripts contain both occurrences of ‘ἵππος’. Thus, the manuscript tradition favors a two-horse reading of (ν). The grounds for excision must, then, be interpretive or doctrinal in nature. Although Ross presumably had this sort of necessity in mind, he neither explains nor justifies his remark.

So far from an interpretive embarrassment, the two-horse reading actually gives a better account of the argument. Only Frede and Patzig (1988) share this view. In particular, Two Horse, as I call this reading, makes better sense of the absurdity that (iv) pins on the separation of a thing from its essence. Recall that one constraint on interpretation is that the absurdity cover the initial duplication of essences, even if it also extends to the regress invoked at the end of the passage. With respect just to the initial duplication, there is a difference between the one-horse and two-horse readings. On One Horse, (ν) says, to follow Ross (1928): “e. g., to the essence of horse there will belong a second essence.” On Two Horse, (ν) yields, as we translate above: “for example, with respect to the [first-level] essence of horse there will be another essence of horse.”

Where  $f$  is a form or γένους εἶδος, the target of the Zeta 6 Thesis, the one-horse reading may be generalized as

$$26. \quad E_1 \text{ is the essence of } f \rightarrow (\exists E_2)(E_2 \text{ is the essence of } E_1 \ \& \ E_2 \neq E_1),$$

and its two-horse counterpart as

$$27. \quad E_1 \text{ is the essence of } f \rightarrow (\exists E_2)(E_2 \text{ is the essence of } f \ \& \ E_2 \neq E_1).$$

Proposition (26) says just that there are two essences— $E_1$ , which is the essence of  $f$ , and  $E_2$ , which is the essence of  $E_1$ . Proposition (27) also countenances two distinct essences but takes  $E_2$  to be an essence of  $f$ . Granted, on (26) we have one more essence than at the start, but what is so absurd about this? Nothing, I suggest. On the other hand, it would be an absurdity were it to turn out that  $f$  itself has two *distinct* essences. Although (26) neither says nor implies this,<sup>462</sup> proposition (27) engages

<sup>462</sup> Alexander (452, 5) appears to think that there is an immediate route from One Horse to Two Horse: if there is an essence of the essence of horse, then there will be two substances and natures of horse (εἴπερ ἔστι τοῦ τί ἦν εἶναι ἵππου ἄλλο τί ἦν εἶναι, ἔσονται τοῦ ἵππου δύο οὐσίαι καὶ φύσεις). One Horse does generate this result, so long as we assume (26):  $E_1$  is the essence of  $f$  &  $E_2$  is the essence of  $E_1$   $\rightarrow$   $E_2$  is the essence of  $f$ . I am assured that at least some readers find (26) acceptable.



in just such duplicity, for it forthrightly embraces a second essence *of f*. Thus, the two-horse reading gives a more satisfying account of the absurdity that (iv) announces. Of course, both readings can account for the ‘further’ problem reported at the end of the passage, namely, the problem of regress: for One Horse it is a regress of distinct essences; for Two Horse it is a regress of distinct essences of *f*, the initial primary and *per se*<sub>1</sub> item.

The two-horse reading also gives a better account of why the absurdity is made clearer by assigning separate names to each essence. On One Horse this amounts to assigning ‘*E*<sub>1</sub>’ to the essence of *f* and ‘*E*<sub>2</sub>’ to the essence of the essence of *f*. The result is supposed to be that the absurdity is plainer when worked out with “*E*<sub>1</sub> ≠ *E*<sub>2</sub>” than when worked out with “*the essence of f* ≠ *the essence of the essence of f*.” There may be a gain in economy of expression, but it is hard to see any gain in clarity. Two Horse, on the other hand, assigns ‘*E*<sub>1</sub>’ to the essence *of f* and ‘*E*<sub>2</sub>’ to another essence of *f*. Here there is a gain in clarity, for one might doubt that the first essence of *f* is distinct from the other essence of *f*—after all, they are both essences *of* the same thing. And here there is a risk of overlooking the effects of separation. By assigning distinct names to both essences, we keep these effects in focus.

## 6. Immediacy and Explanation

On our view the Zeta 6 Thesis is introduced as a necessary condition on the explanatory function of form. Socrates' essence, *E*, is supposed to explain how certain matter manages to constitute a man. Were it able to do this only because of another essence, *E*<sub>1</sub>, then *E* would suffer an unacceptable dilution in explanatory power. It would not, in short, qualify as explanatory bedrock. And this, of course, runs counter to the mandate of Z.17. Thus, Aristotle argues in Z.6 that *E* must be the essence of Socrates immediately or directly.

This preoccupation with explanatory adequacy can be discerned in the other cases considered in Z.4–6. Recall that at the end of Z.4 Aristotle declares that there will be a formula and definition even of (a) *pale man* but not in the same way as there is of *pallor* or of *man*. We may take this to extend the notion of essence, on reduced terms, to *pallor*, and, on doubly reduced terms, to (a) *pale man*. In the main section of Z.6, at 1031b22–8, Aristotle announces that the attribute, *pallor*, joins *man* in satisfying (11b), but what has the attribute does not. So this signals more than a mere reduction, even double, in *degree* of essentiality. The announcement itself comes as no surprise, for he has already entertained a pair of arguments purportedly establishing that (a) *pale*

*man* and the *essence of pale man* are different. Both arguments are fallacious and Aristotle knows that they are. Despite this, Aristotle displays no hesitation later in the main section when he matter-of-factly helps himself to the conclusion. Although this anomaly calls for an account, I am here interested only in the fact that Aristotle holds to the conclusion despite the failure of both arguments.<sup>463</sup> He is able to do so, I suggest, because of the connection between essence and explanation.

Begin with the point that the essence of  $x$  ought to explain, without appeal to additional essences, the nature of  $x$ . Thus, where  $x$  is a man, the essence will explain what it is for  $x$  to be a man. Of course, this is more complicated and will involve a long story about how the matter of  $x$  constitutes a man; but the short story is enough for the moment. Likewise, where  $x$  is the attribute, *pallor*, the essence explains what it is for  $x$  to be *pallor* or, perhaps, *a pallor*. And, again, the essence does this directly and without appeal to additional essences.<sup>464</sup> Moreover, this holds even granting, with Z.4, that *pallor* has an essence on reduced terms only. Now one might seize on the last point and insist that nothing prevents that which has an attribute from being the same as its essence. Thus, nothing blocks holding that *(a) pale man* is the same as *being (for) a pale man*. Aristotle admits, after all, that his arguments against such a sameness claim are fallacious. So how can he count it false in so routine a manner?

The answer, I suggest, is that such essences have no explanatory power in their own right but derive what explanatory value they have from two other essences—*being (for) a man* and *being for (a) pallor*. Thus, let  $a$  be a pale man and let  $E(a)$  be its essence. Were this essence to enjoy a genuinely explanatory role, then we must say that  $a$  is a pale man because of  $E(a)$ . But  $E(a)$  is just *being for (a) pale man*, and so we must say that  $a$  is a pale man because it has the essence *being for (a) pale man*. And here  $E(a)$  must do the job on its own. But this, Aristotle thinks, is patently false. Now I do not think that Aristotle has a direct argument against the stand-alone explanatory role of *being for (a) pale man*. But it is not hard to see what is unappealing about it. For if it has such a stand-alone role, then  $E(a)$  cannot be an essence that contains two other essences. This makes it doubtful that there can be any

<sup>463</sup> See now Dahl (1998) for analysis of the arguments.

<sup>464</sup> This will be seen as an oversimplification by those who argue that the so-called *pros hen* doctrine cuts against this by requiring that to be an accident is to be an accident of a substance and that this, in turn, means that the essence of an attribute always involves appeal to something outside its nature. I suspect that Aristotle's point can be recast to accommodate this worry. But, in any event, it is Aristotle's oversimplification, and at the moment we need to see the point of his claim that attributes satisfy (11b), whereas what has the attribute does not.

relation between *being for (a) pale man* and *being for (a) man* and *being for (a) pallor* and, hence, between, on the one hand, being a pale man and, on the other hand, being a man and being pale. Yet, surely, there is some relation. Beyond this, we suffer an unfortunate proliferation of essences. For every accidental compound or, in the idiom of the *Categories*, for every paronym, there will be a separate essence that explains what it is for that paronym to be a paronym of the sort that it is.<sup>465</sup> This will include essences of simple as well as complex paronyms: *being for (a) pale thing* and *being for (a) musical thing* as well as *being for (a) pale musical thing*, and so on. And, again, on pain of loss of explanatory power, the complex essence will not contain either of the single essences. So the possibilities for proliferation are robust indeed.

Thus, I suggest, Aristotle holds that  $E(a)$  is a kind of compound of two other essences—*being for (a) man* and *being for (a) pallor*. This gives a quite strong sense to his claim that it is an essence on doubly reduced terms only, for  $E(a)$  succeeds as an essence only because of its component essences. Thus, the explanation of why  $a$  is a pale man is not that  $a$  has the stand-alone essence, *being for (a) pale man*. On the contrary, the explanation involves *being for (a) man* and *being for (a) pallor* both of which satisfy the sameness condition and, hence, qualify as genuine *explicanda*.

There is a natural way to relate this to the notion, introduced earlier, of underlying ontological configurations. Thus, where  $a$  is a pale man, begin with the following idea, familiar from Chapter III:

28.  $a$  is a pale man  $\equiv (\exists x)(\exists y)(x$  is a primary substance &  $x = a$  &  $man$  is said-of  $x$  &  $y$  is a nonsubstantial individual &  $pallor$  is said-of  $y$  &  $y$  is in  $x$ ).

The *Categories* offers (28) as an account of what the world must be like for it to be true that  $a$  is a pale man. What *Metaphysics Z*, generally, adds is an explanation of what is involved at a structural level when the said-of relation holds—when, as here,  $x$  is sorted into the substance-species *man* and  $y$  into the ‘color-species’ *pallor*. What Z.6, specially, adds is that this account requires that the essence of *man* not depend on a further essence to explain what it is for  $a$  to be a man, and that the essence of *pallor* not depend on a further essence in order to explain what it is for the nonsubstantial individual,  $y$ , to be (a) pallor. Precisely this is the point of allowing that both substances and attributes are immediately connected with their essences and denying this for accidental

<sup>465</sup> Here I waive Ch. I’s worries about the equivalence between paronymy and inherence.

compounds. So the *Categories* theory of underlying ontological configurations is a beneficiary of Z.6's constraints on essence and immediacy. Were *being for (a) pale man* to do genuine explanatory work, it also would have to enjoy this same sort of immediacy with pale men. But it does no such work and, hence, merits no such connection. Aristotle marks this by advertising its failure to satisfy even (11b), the weaker relative of the Zeta 6 Thesis.

## 7. A Worry About the Dilution of Substance

More than one commentator has recognized that the sameness of thing and essence is satisfied by more than substances. In Z.6 Aristotle himself extends such sameness to whatever is spoken of *per se*<sub>1</sub>, and this includes nonsubstantial attributes.<sup>466</sup> It does not, however, follow that substances lose their claim to be the primary vehicles of essence. First, the sameness in question is entertained as a necessary condition of a thing's being an essence of something and, thus, a condition on whatever is the substance-of something—assuming that the substance-of a thing is just its essence. Second, the weaker thesis, formulated in (11a) and (11b), is sufficient for sameness of thing and essence. Although the weaker thesis ranges over all *per se*<sub>1</sub> items, the stronger thesis, in (10a) and (10b), constrains itself to those *per se*<sub>1</sub> items that are also primary. Aristotle keeps these quite distinct, and so it would be wrong to conclude that something gains claim to substantiality simply by satisfying the sameness condition.<sup>467</sup> Aristotle is not about to dilute the conception of substance he has been developing since Z.3.

Recently, however, Bostock (1994: 118) has detected signs of such dilution. Indeed, he reaches the rather bold conclusion that in Z.6:

<sup>466</sup> What in Ch. I we called the type-III and type-IV items of the *Categories* meta-ontology, MO.

<sup>467</sup> Contrast this with Code (1985a: 118–19), who holds that “since any definable object, whether a primary substance or not, is identical with its essence, the Z6 thesis can be extended to the extent to which the concepts of definition and essence can be extended to accommodate these derivative cases.” Code's general point is surely correct, but there is a slight worry. For he himself takes the Zeta 6 Thesis (his Z6 thesis) to range, not just over *per se*<sub>1</sub> items, but over items that are *per se*<sub>1</sub> and also primary. This suggests that items other than primary substances are *primary* in a derivative sense, and this, of course, is nonsense: they may have definitions and essences in a derivative sense but surely they do not have primacy in a derivative sense. I avoid this worry by distinguishing between the strong and the weak formulation of the sameness thesis. The strong formulation, which alone I christen the ‘Zeta 6 Thesis’, is not itself extended to derivative cases but entails a distinct and weaker thesis that covers them as well.

“every other definable thing will have an essence, hence be an essence, and hence also be in this sense a substance; but we must add ‘not in the primary way.’” Despite the final caveat, this is a startling claim. For it amounts to countenancing the breakdown of the very distinction between substance and accident. This result does not come from linking definability and substantiality and then granting that nonsubstantial items are definable in a lesser sense. For although Aristotle allows for the latter, he does not conclude from this that such items are to enjoy a reduced kind of substantiality. They remain just what they are, namely, accidents. Further, contrary to Bostock's suggestion, the alleged dilution of substantiality does not follow from the fact that both substances and nonsubstantial *per se*<sub>1</sub> items are the same as their essences. This is clear from the above paragraph. So what are the grounds for Bostock's startling claim?

So far as I can determine, the claim will have to depend on two occurrences of the phrase ‘essence is substance’. This is the only evidence the chapter provides. In both instances, however, the phrase occurs in a conditionalized clause: “if essence is substance” (εἰ τὸ τί ἦν εἶναι οὐσία ἐστὶ) at 1031b2–3 and “since essence is substance” (εἵπερ οὐσία τὸ τί ἦν εἶναι) at 1031b31–2. Bostock's problem could be dispatched easily were these merely to assert that being an essence was necessary for being a substance. However, both occurrences must be taken to say, at least, that being an essence is sufficient for being a substance. Now if this proposition is considered independently of context, then one might argue that Aristotle appears committed to the startling consequence Bostock hands him. However, the fact that both are entertained on a conditional basis only may be enough to derail the pair of claims. Moreover, their range appears to be locally restricted. The first occurs in an argument to the effect that a Platonic form, offered as a sample *per se*<sub>1</sub> thing, cannot be separate from its essence on pain of a regress of essences. In particular, it would turn out that there were *substances* prior to the original substances. It is this last consequence, which Aristotle appears to regard as especially damaging, that is forthcoming *if essence is substance*. The phrase occurs, secondly, toward the end of Z.6, at 1031b31–2 in what we called above the main regress argument for the Zeta 6 Thesis (1031b28–1032a4). Here Aristotle breaks the regress in essences by remarking, as we have seen, that nothing prevents some things from being the same as their essences, right from the start, *since essence is substance*. Presumably, this is because of the secure point that a (primary and *per se*<sub>1</sub>) thing will be the same as its substance. In both passages, then, Aristotle adds the phrase as a limiting condition, in effect, saying, “if essence is taken here in the sense of substance.” If so, then the proposition contained in the conditional

phrases will not enjoy global reach and neither, thus, will accidents be substances,<sup>468</sup> even of an attenuated sort.

Further, it is likely that the claim that essence is substance is to be worked out as the claim that the essence of a thing is the substance-of it, even in its two conditional appearances. Thus, what follows from Bostock's reasoning is, at the outer limit, that certain nonsubstantial items can be *construed* to be the substance-of something. For example, the type-IV item, *whiteness*, might be glossed as the 'substance-of' a certain type-III item, say the bit of nonrecurrent white in Socrates' nose. But to move from this to the claim that the bit of white is itself a substance is to engage in the sort of naive inference we fended off at the beginning of this chapter, namely, (6). Finally, recall that the double-dip version of the regress argument makes clear that without (23) there is no temptation to assume that a first-level essence has, itself, an essence. But (23) is just a formal version of the claim now in question. Thus, one could insist that Aristotle's commitment to the claim that essence is substance runs only as far as the generation of extra essences because that is its function in both of its occurrences. So by this account there is, again, no ground for giving the claim global reach.<sup>469</sup>

There is a final point of worry. I have argued that *Metaphysics* Z.6 considers a problem arising for those items which Z.4 and 5 ranks as primary and as the chief claimants to essence, namely, forms (of a genus), and that this is a problem naturally arising for the view that the substance-of a c-substance is to be located in its essence. One advantage of this is a uniform reading of 'primacy' in all three chapters, in particular, its restriction to what is substantial. It is, thus, somewhat inconvenient to find Aristotle asserting in Z.9, at 1034b7–10, that among what is primary (*τῶν πρώτων*) we may count not only a substance, but also a quality, a quantity, and any other item from a category. Bostock (1994: 140) takes this as a (another) sign that Aristotle applies 'substance' to items from all the categories. But this assumes that Z.6 establishes the requisite dilution of substantiality, and this proposition we

<sup>468</sup> It is, to revisit a point, no objection to this that just prior to the main regress argument containing the second occurrence of the phrase, Aristotle allows that a nonsubstantial attribute may be the same as its essence. For nothing follows about this attribute being a substance, even of a lesser grade. It merely satisfies the weak thesis, which substances also happen to satisfy.

<sup>469</sup> Concerning the troublesome phrase, "if essence is substance," Lewis has pointed out that the idiom is elsewhere well entrenched, without plausible hint of restriction, and, thus, that dilution is to be avoided simply by observing that Aristotle here means by essence top-drawer essences. Although welcoming the help, this solution will strike some as, perhaps, too convenient. Still, one might recall that Z.4 and 5 promote a privileged notion of essence and insist that just this is the notion at work in Z.6. In turn, however, this might raise the question whether Z.6 contains any thesis that both top-and lower-drawer essences satisfy—just what (11a) and (11b) were supposed to be.

have just rejected. Nonetheless, Bostock is right to call attention to the troublesome nature of the ZZ.9 passage. Frede and Patzig (1988: ii. 163) deal with this by suggesting, in effect, that at 1034b7–10 ‘primary’ is used relative to the coming to be of accidental compounds, such as a *white man*. Thus, because production of a *white man* presupposes that *white* and *man* are on hand as requirements of the producing, the latter count as primary *relative to such producing*. There is no reason to suppose that this sort of primacy will give *whiteness* itself primacy as essence.

This deflection of the Z.9 passage needs amplification and argument and, even then, it will no doubt be challenged by more than one reader. I shall not worry this point here for the simple reason that Z.9 lies outside the main argument of *Metaphysics Z*—at least as I read it. With Frede and Patzig (1988), Burnyeat (unpublished), and others, I take Z.7–9 as late insertions. So it would not be surprising to find primacy differently deployed in these chapters. We are tracking the grand theme of Z, and this resumes in Z.10 and 11. It is to these difficult chapters that I now turn.

## VIII The Purification of Form

*Metaphysics Z* devotes itself principally to an investigation of form, specifically the forms of those items that the *Categories* calls ‘primary substances’ and I have christened ‘c-substances’. The devotion is born of an interest in explaining what about c-substances is primarily responsible for their central features, features such as belonging to a single species and remaining the same while taking contraries. So the question “What is substance?” is transformed into the question “What is the substance-of a thing (a c-substance)?” Z.3 constrains the choice to the internal structural components of a c-substance—its matter, its form, or the compound of its matter and its form—and argues that form is the candidate of choice. The natural suggestion that form could serve as the substance-of something, if it is the essence of the thing, is pursued in Z.4 and 5 by arguing that the essence of a thing must be the *γένους εἶδος* or what corresponds to the formal part (differentiae) of the definition that applies to the thing; and Z.6 argues that this sort of thing must be the essence of something directly, with no dependence on other essences. Such directness is required by the explanatory demands placed on form in accounting for the central features of c-substances.

To consider a familiar such feature, a c-substance is associated, fundamentally, with one and only one species. Although asserted in the *Categories*,<sup>470</sup> explanation of the feature is left for *Metaphysics Z*. The book's final chapter, Z.17, requires that, ultimately, the explanation take the form of a certain answer to questions involving the matter of a c-substance. Asked, for example, why *this matter* is a man, the central-books metaphysician responds that the matter constitutes a man thanks to the presence in it of the appropriate form. Thus, primarily in virtue of his form does Socrates fall into the species *man*. The idea that the form is the reason for, or cause of, a given portion of matter constituting a c-substance of a given kind clearly endows form with a genuinely explanatory role.

<sup>470</sup> Actually, this is not entirely straightforward, at least not if the claim imputes to the *Categories* full-scale essentialism. For it is not obvious that the early work uses the technical notion of essence at all. On this basis Furth (1988) has argued against finding the familiar feature in the *Categories*.



The causal role of form, as I shall call it, will receive more exact attention in Chapter X. However, one claim I will be making must be previewed now. It is this: if form is to explain why a certain portion of matter is a man, then matter cannot already be contained in the form. In short, form's causal role presupposes its purity. Although detailed treatment of the claim is reserved for a following chapter, it shapes the overall strategy of *Metaphysics Z*, including Z.10 and 11. So it serves our purposes to mention the claim now. The idea is that the causal role of form is in the background of the entire discussion of Z. Thus, Aristotle's remark in Z.17 that he is making a fresh start may be taken to indicate that the entire previous discussion prepares for the causal role freshly announced there.<sup>471</sup> So we saw that Z.4–6 gives highest ranking to what corresponds to the formal part only of a definition, namely, the γένους εἶδος or formal differentiae. Although locating the form in the proper logical space, this does not address head-on whether the form has any material aspect or includes matter of any kind. Because any such material contamination will undercut form's causal role and, hence, compromise its explanatory power, Aristotle has good reason to exclude all matter and allusion to matter from the form proper. *Metaphysics Z*.10 and 11 accomplish this by what I call the purification of form.

On my view, then, these two chapters are absolutely critical to the developing argument of *Metaphysics Z*. The central position of the chapters is also evident from two other facts. For now, I merely mention them. First, the discussion of Z.10 and 11 is dominated by the presence of what we are calling the internal structural components of c-substances. For Z.10's recommendation to focus on the parts of a thing is a recommendation to focus on the parts *as substance*, and these parts are the thing's form, its matter, and the compound of its form and its matter. Second, the strategy of the chapters presumes that forms have parts and so makes no sense unless form is complex. The first fact makes Z.10 and 11 continuous with the discussion that has been ongoing since Z.3, at least if its account of what form must be like to count as the substance-of c-substances is aimed at the internal structural components of a c-substance. The second fact confirms that the primacy accorded to form by the New Primacy Passage is indeed compatible with form's complexity.<sup>472</sup> Not only does Z.11 reiterate Z.4's primacy condition,<sup>473</sup> but

<sup>471</sup> For example, Z.13 implicitly recognizes form's causal role because it pretends to investigate the universal's claim to be substance on the grounds that some think that the universal is most of all a cause (αἰτία) and principle (ἀρχή). This makes no sense unless he thinks substance is most of all a cause and principle.

<sup>472</sup> As suggested in Ch. VI.

<sup>473</sup> At 1037b3–4, on which see Ch. VI.

also the form that Z.10 and 11 allow to be complex is itself declared to be primary substance.<sup>474</sup> So primacy must be compatible with complexity.

Arguably, then, general considerations favor the view that Z.10 and 11 are at the center of the developing theory of *Metaphysics Z*.<sup>475</sup> If I am correct, they are assigned the task of purifying form. Roughly, Z.10 will argue that, of the three internal structural components, priority is awarded to the form and its parts; and Z.11 will add that these privileged parts cannot be material admixtures of any sort. But the protocol recommended for purification is complicated, and some even deny that, in the end, Aristotle comes down on the side of purification.<sup>476</sup> So we need to take a closer look at the chapters.<sup>477</sup>

## 1. The Structure of Z.10 and 11

Chapters 10 and 11 are the most daunting *Metaphysics Z* has to offer. They are fiendishly complex, their individual objectives are unclear, and their relation to one another is unsettled. Ross tried to make the best of this situation by declaring that their main interest “lies not in Aristotle's answers to the questions he explicitly asks but in the complicated set of entities which emerges in the course of the discussion.”<sup>478</sup> He then proceeded to list and comment on the different kinds of entities he found in Z.10 and 11. This estimate is doubly odd—first, because it recognizes no thematic difference between the two chapters;<sup>479</sup> and, second, because the cases provide the very materials for answering the two

<sup>474</sup> At 1037a5. This is the first explicit identification of form and primacy substance, exclusive of the intrusive chapters, Z.7–9.

<sup>475</sup> Compare Frede and Patzig (1988: ii. 241–2), who regard Z.10 and 11 as an excursus. They do so on the grounds that Z.13 begins, as they translate: “Da aber unsere Untersuchung die ousia betrifft, wollen wir wieder zu ihr zurückkehren (since, however, our investigation concerns substance, let us go back again to it).” This suggests, as does Ross's “Let us return to the subject of our inquiry, which is substance,” that the discussion has drifted away from substance and that we should, as Burnyeat (unpublished) puts their view, “go back to the inquiry *from* somewhere else.” Since Z.12 is agreed to be an insertion, Frede and Patzig conclude that the thematic drift occurs in Z.10 and 11. Hence, they are not part of the main argument of Z. Burnyeat (unpublished) has suggested the appropriate corrective: simply translate “Let us go back” and take this as prescribing a return to the start of the inquiry itself, namely, to Z.3's four initial candidates.

<sup>476</sup> For example, Whiting (1986) and (1991), and Irwin (1988), esp. ch. 11.

<sup>477</sup> Readers primarily interested in the argument for purification of form may wish to proceed directly to sect. 7.

<sup>478</sup> Ross (1924: i, pp. c–ci).

<sup>479</sup> On this point Burnyeat *et al.* (1979: 93) do little better, allowing that Z.10 “excels in subtlety” but that both chapters “seem to cover much of the same ground.” Bostock (1994), on the other hand, is of the opinion that much of Z.10 is rejected by Z.11, which he regards as later. But his reasons are less than persuasive (on which see Wedin, 1996b).

general questions that, by all appearances, are meant to govern the discussion.

The discussion itself makes extensive use of the apparatus of part and whole, and so this too needs to be explained. This apparatus, which frames virtually the entire argument of Z.10 and 11, has not previously appeared in *Metaphysics* Z, and so we have every reason to expect a new stage in the argument. Some might find this to lie in an incipient interest in mereology for its own sake. Although constituting a new turn, this would hardly advance the argument we have been following. Moreover, it completely misses the point of Aristotle's shift to the idiom of part and whole. In fact, the idiom suits perfectly Aristotle's way of assessing what might be called an object's general ontological make-up. This is to be done, at least in Z.10 and 11, on the basis of the object's parts. Thus, an object is material insofar as its parts are all material, nonmaterial insofar as its parts are all nonmaterial, and compound insofar as some are material and some nonmaterial.<sup>480</sup> The apparatus of parts and wholes then serves the cause of purification in the following way: a whole is purified (of matter) to the extent that its parts are purified (of matter); hence, a form is *purely* formal insofar as its parts are purely formal. To see how this gets worked out in Z.10 and 11, we need to say something about the overall strategy of the chapters.

Aristotle begins with a passage that promotes a certain kind of correspondence between a formula (λόγος) and the thing formulated:

Since [i] a definition (ὁ ὀρισμός is a formula (λόγος) and [ii] every formula has parts (πάντα λόγος μετέχει), and as the formula is related to the thing so is the part of the formula related to the part of the thing, [iii] the problem already arises whether the formula of the parts must be included in the formula of the whole (πρότερον δεῖ τὸν τῶν μερῶν λόγον ἐνυπάρχειν ἐν τῷ τοῦ ὅλου λόγῳ), or not. (1034b20–4)

In particular, suppose we focus on (ii), which I take to contain the following thesis:

1.  $(L)(O)(I)(L \text{ is the formula of } O \ \& \ I \text{ is a part of } L \rightarrow (\forall o) (o \text{ is a part of } O \ \& \ I \text{ corresponds to } o))$ .

There are some immediate worries about the Correspondence Thesis, as I shall refer to (1). For example, is (1) true for *every* part of  $O$  and, if not, for which parts? and what is the nature of the correspondence between the parts of the formula and the parts of the object formulated? But for the moment let us concentrate on (1)'s role in shaping the strategy of Z.10 and 11.

<sup>480</sup> Note that Aristotle is not attempting to give an account of what it is for something to be, for example, material or even a material object, but only of what it is to be a material whole.

The Correspondence Thesis appears to yield the first of two questions that guide the discussion of Z.10. Contained in (iii), it is this:

Q1. Are the formulae of the parts of a thing to be included in the formula of the thing?

The second question is represented as arising naturally from consideration of the Correspondence Thesis. Introduced shortly after (Q1), it concerns the relations obtaining among the parts themselves of a formula and the formula or, alternatively, among the parts themselves of the thing formulated and the thing.<sup>481</sup>

Q2. Are all parts prior to the whole or not?

Together, these questions set Z.10's agenda. Question (Q1) dominates the first half of the chapter (1034b32–1035b3), with (Q2) claiming the balance.

This, however, paints too neat a picture. Consider (Q2). Certainly, the stretch of text from 1035b3 to 1035b27 is devoted to questions of priority. And the conclusion at 1036a12–25 appears to flow naturally out of this discussion of (Q2). But the intervening lines, 1035b27–1036a12, do not explicitly mention priority. Rather, they take up so-called universal compounds (1035b27–31) and particular compounds (1035b31–1036a12), declaring that the first are not substances at all and that the second are not definable as such. No doubt the absence of priority talk is what led Ross (1924) to view the intervening lines as revisiting discussion of (Q1). In fact, Ross held this just for 1035b31–1036a12. So he appears to have regarded the discussion of the universal compound as part of the discussion of (Q2). But, then, as Burnyeat *et al.* (1979) point out, it is odd to find the discussion of particular compounds in 1035b31–1036a12 beginning with the continuative construction, μὲν οὖν ('now then').

The problem raised by Burnyeat *et al.* (1979) would be solved either by taking the discussion of particular compounds, beginning at 1035b31, to continue from the discussion of universal compounds or, more dramatically, by taking the discussion of universal compounds to be an insertion, thus allowing 1035b31 to continue directly from 1035b3–27's discussion of (Q2). Bostock (1994), for example, favors excision.<sup>482</sup> Even were one to share this view of the alien nature of the discussion of

<sup>481</sup> Here Aristotle betrays his usual disregard for the distinction between use and mention. But I do not think it will have adverse effects on his argument.

<sup>482</sup> Bostock (1994: 155) also worries that denial of substantial status to the universal compound contradicts Z.4's central claim that only the γένους εἶδος is substance. But this is because he takes the γένους εἶδος to be a standard species, such as *man* or *horse*. See Ch. VI for a number of objections to this 'species reading'.

universal compounds, we are still owed an explanation of the fact that 1035b31–1036a12's discussion of particular compounds is devoid of priority talk. Moreover, were this explanation also to account for inclusion of the universal compound, the proposal to excise 1035b27–31 would lose appeal. I shall suggest just such an explanation.

Notice, first, that in 1035b31–1036a12 Aristotle takes a hard line on the definability of particular compounds. No such items have definitions because all such items are compounds involving matter. Some involve perceptible matter (ὕλη αἰσθητή), for example a bronze circle, and some involve intelligible matter (ὕλη νοητή), for example a mathematical circle. This might suggest that a particular circle, a particular statue, or, for that matter, a particular man, cannot be regarded as anything other than a particular compound involving matter. But the passage also says that such particulars are to be known by means of the universal formula; and this, I shall argue, prepares the way for what I shall call the Sophisticated Position at the chapter's end. How?

Well, recall that we are trying to give a rationale for inclusion of the discussion of particular compounds as part of a discussion of (Q2). When Aristotle comes to the conclusion of Z.10 his penchant for subtlety surfaces. There are different ways to regard a given particular whole, and how the parts of a whole are prior or posterior to it will depend on how one regards the whole. He clearly has in mind here the parts of particular substances, such as a circle, a right angle,<sup>483</sup> and a man. Thus, different answers will be forthcoming depending on whether we regard *this circle*, for example, as combined with its matter or whether we regard it as the form or simply as having the form. If the latter is connected to the notion of knowing the particular compound by means of the universal formula, then the discussion of particular compounds at 1035b31–1036a12 can be viewed as preparing for the final Sophisticated Position.

What about the universal compound? Consider now our general view of *Metaphysics* Z as dedicated to developing a conception of form that can serve as the substance-of c-substances. Then Z.10's conclusion is tantamount to asserting that decision on which parts of a c-substance are prior or posterior to it depends on how one regards the c-substance—as a compound involving matter or simply as a form or form-possessing thing.<sup>484</sup> Given that his interest is in the substance-of c-substances, it is

<sup>483</sup> As I indicate below, examples such as the circle and the right angle are simple models that, in Z.10 and 11, stand in for substances.

<sup>484</sup> I shall return to this below but for now alert the reader to the fact that I take Aristotle's talk of a particular thing *being* the form as no more than a way of talking about the non-material component of the particular. This, I suggest, is precisely what he is asserting at 1035a7–8: “Each thing may be said to be the form or the thing having form (λεπτόν γὰρ τὸ εἶδος καὶ ἢ εἶδος ἔχει ἕκαστον).”

natural for Aristotle to include the passage dealing with universal compounds. Simply put, these are not the sort of entities that are relevant to this inquiry. For an investigation of the substance-of c-substances is an investigation of the substance-of a certain sort of compound. But these will be particular compounds and not the universal variety abstracted from them. So Aristotle mentions them to exclude them.

Here is a complementary way to understand the point of discussing universal and particular compounds in a chapter devoted to form. Up to 1035b27, where discussion of the universal compound begins, Z.10 has established, we may suppose, that the parts of the form of a c-substance are prior to the c-substance as well as to its other internal structural components—the matter and the compound involving the matter—as well as their parts, and, further, that the parts of the form just are parts of the formula. Now all this is ultimately in the service of determining how we should think about the structure of the object of definition. So far, however, Z.10 has not directly addressed the proposal that compounds have definitions, be they universal or particular compounds. All one could conclude, up to 1035b27, is that their material part(s) or matter-related part(s) are posterior to their formal part(s). From this one might conclude just that compounds have definitions in a reduced sense, perhaps hearing an echo of Z.4's concession that even accidental compounds are definable, if only in a doubly reduced sense. But if our general view of Z is correct, such tolerance is out of place in Z.10, for here Aristotle must establish beyond doubt that the proper object of definition is a pure form. Thus, the intervening passages declare that universal compounds, the erstwhile secondary substances of the *Categories*, are not substances at all<sup>485</sup> but combined wholes of a certain sort (ἀλλὰ σύνολόντι), and that particular compounds are not definable because “there is no definition of what is already a combined whole (τοῦ δὲ συνόλου ἤδη . . . τούτων δὲ οὐκ ἔστιν ὀρισμός). In both cases Aristotle opposes substance to what is already a combined whole. Hence, we may infer that the substance of interest to him is that which *explains* how such a whole is gotten in the first place, namely, the form or substance-of the whole. So the ‘intervening’ discussion of compounds also anticipates the causal role of substance and, hence, confirms Z.10's commitment to the purification of form.

Finally, how does Z.11 fit into this story? Well, suppose we are correct to find Z.10 concluding that the only thing that can be defined, properly speaking, is a form or formal entity and that the only parts that may be mentioned in a definition are formal parts. This still does not guarantee

<sup>485</sup> Pace Malcolm (1993), who argues that the exclusion is limited to status as primary substance.

that the object of definition is *pure* form because we have not said, at least not precisely, what counts as a part of a form, that is, as a formal part. Thus, Z.11 asks, again as a natural question, which parts of a thing are parts of the form and which are parts of the whole? This is an independent question, and precisely because of this independence one could consistently hold that the form of a thing has a material aspect. Indeed, a number of scholars argue just this on behalf of Z.11.<sup>486</sup> So far from lending material support to such claims, beginning from section 7 I argue that Z.11 is steadfast in urging extirpation of all matter from the form and so that it completes the purification begun in Z.10. But it is now time for some of Z.10's details.

## 2. The Correspondence Thesis

The Correspondence Thesis, as formulated in (1), is an entirely general thesis about the relation between the parts of a thing and the parts of its formula. In this regard Z.10 begins much in the style of Z.6. As the latter leads off with a general thesis about the sameness of each thing and its essence and then narrows the range of items that satisfy it, so Z.10 proceeds to weed out cases that fail to satisfy the Correspondence Thesis. Notice, further, that Z.10 treats the Correspondence Thesis as a necessary condition on definability: it is because definitions are formulae that they must satisfy (1). So far as this goes, Aristotle appears to allow that a formula could satisfy the Correspondence Thesis without being a definition.<sup>487</sup> This raises a slight worry. For the purification of form is achieved by establishing that form has no parts that are in any respect material; so if the Correspondence Thesis is only a necessary condition, it cannot achieve this by itself.

But, in any case, Aristotle does not put such weight on the Correspondence Thesis alone. We can see this by beginning with (iii)'s point that consideration of the Correspondence Thesis embroils one in asking whether the formula of the whole contains the formulae of its parts. Suppose, for the moment,<sup>488</sup> we write this as

2.  $(L)(O)(l)(o)(L \text{ is the formula of } O \ \& \ l \text{ is a part of } L \ \& \ o \text{ is a part of } O \ \& \ l \text{ corresponds to } o \rightarrow l \text{ is a formula of } o \ \& \ l \text{ is contained in } L).$

<sup>486</sup> For example, Whiting (1986) and (1991), and Irwin (1988), ch. 11.

<sup>487</sup> As he allowed in Z.6 that something can be the same as its essence without being a substance—e.g., items such as *redness*, which satisfy Ch. VII's (11a) and (11b) but not its (10a) or (10b).

<sup>488</sup> See (3) below for a final view.

Suppose further, for the sake of argument, that this is the sort of thing one might say just about those wholes that are forms. Although we might now imagine that (2) gives us a principle suited to assist in the purification of form, why should we expect to be embroiled in questions concerning (2) because of considering (1)? The worry is just that (1) is only a necessary condition and so might be satisfied by something other than forms and formal parts. So why should we expect it to yield anything that is of use in the purification of *form*?

Well, one point to notice is that Aristotle does not say that (2) arises just from (1). Rather, it arises from (1) and the claim that definitions are formulae. So we could take Aristotle to be saying that for those formulae that are definitions, (2) holds. In effect, this would be to regard him as entertaining

3.  $(L)(O)(l)(o)(L \text{ is the } \textit{definitional} \text{ formula of } O \ \& \ l \text{ is a part of } L \ \& \ o \text{ is a part of } O \ \& \ l \text{ corresponds to } o \rightarrow l \text{ is a formula of } o \ \& \ l \text{ is contained in } L).$

That is, the formulae of the parts of a *defined* whole are included in the definition of the whole defined. Unfortunately, this attempt to account for the move from (i) and (ii) to (iii) is hardly perspicuous. For (1) says simply that the parts of a formula *correspond* to the parts of the formulated thing. How is this sufficient to justify the stronger claim that these formulaic parts are also formulae of the parts of the thing defined—even granting that the thing is a proper object of definition? This worry resolves into two questions: Why, as (3) insists, should *l*'s correspondence with *o* make it a formula of *o*? and, Why, even granting this, should *l* be included in *L*, the formula of the whole of which *o* is a part?

Burnyeat *et al.* (1979: 78) and Frede and Patzig (1988: ii. 167–8) hold that Aristotle could simply have asked whether the formula of the whole must *mention* its parts, thus requiring only that *L mention o* and its kindred parts. Of course, as Aristotle is aware, not even this is plausible for the garden-variety parts of a thing. Indeed, just after introducing the lead questions, (Q1) and (Q2), Aristotle announces at 1034b32–4 that we may disregard those parts that are a measure of quantity and focus just on those that are parts of *O* insofar as *O* is a substance. These are none other than the matter of *O*, its form  $\epsilon\iota\delta\omicron\varsigma$ , and the compound of its matter and its form—what we have been calling the internal structural components of a c-substance. No doubt this restriction also rules out anything that is a part of *O* insofar as *O* is a qualified thing, a relative thing, a located thing, etc. Thus, the *white* of a *white man* is not a part of the relevant kind. He does not freshly argue for this restriction to substantial parts, and so we may read the restriction back into (3).



Nor is the above worry, raised by Burnyeat *et al.* (1979) and Frede and Patzig (1988), a mere slip, for several times Aristotle reinvokes the idea that the formulae of certain wholes contain the formulae of their parts (e.g., at 1035a9–10, a22–3). So what might he have in mind? Perhaps, Aristotle's thought is that one could define, for example, the syllable /undrelineαβ as, say, 'such-and-such an open vowel and such-and-such a labial arranged so'. This goes beyond mere mention of the letters α and β and, presuming that the 'such-and-such' phrases are in some sense formulae or partial formulae of the letters, the formulae of the parts would be involved in the formula of the whole. This is just what Aristotle affirms for the letters of a syllable and the syllable, but denies for the segments of a circle and the circle. One might also hazard that Aristotle's idea is motivated by the following consideration. Were the formula of a *cloak* given in terms of *white* and *man*, to revisit Z.4's invention,<sup>489</sup> the relevant 'parts' of a *cloak* would be mentioned. However, their formulae cannot be contained in the formula of the whole because, then, *to be a cloak* would be *to be a certain sort of animal and a certain sort of color*. But the latter is manifestly false. So if Aristotle thought that this problem does not arise for the parts of a substance *as such*, then we may have an additional rationale for his attraction to (3).<sup>490</sup>

There is, however, a more fundamental worry about (3), one inherited from (ii)'s apparent insistence that every formula has parts. For if *l* is a formula, as (3) concludes, then not only will it be included in *L*, the formula of the whole, but also it will have further parts that are included in it. But if these parts are also formulae, a regress of formulae is underway. It is unhelpful merely to insist that *L* mentions the parts of the defined object, *O*, as opposed to containing their formulae λόγοι.<sup>491</sup> For as long as the parts are mentioned by parts of the formula that are themselves formulae, we still have a regress of *mentioned* parts as opposed to a regress of *formulated* parts. Both regresses undercut the possibility of defining *O* and, hence, strip form of explanatory power.

Some commentators do not mention the threat of regress<sup>492</sup> and some regard it as not germane to the main argument of Z.10.<sup>493</sup> The latter are probably correct. Nonetheless, it is troubling to find the stuff of regress anywhere in Aristotle and so it is worth asking whether he is really committed to the regress. Here close attention to the text is critical. There is no doubt that (ii) asserts the general thesis

<sup>489</sup> See Ch. VI for discussion of this philosopher's device.

<sup>490</sup> I say nothing here about the rationale's ultimate success or conceptual appeal.

<sup>491</sup> *Pace* Burnyeat *et al.* (1979: 78), which seems to suggest that the regress would be avoided merely by insisting that the formula of *O* only mention the parts.

<sup>492</sup> For example, Ross (1924) and Frede and Patzig (1988).

<sup>493</sup> For example, Bostock (1994).

4.  $(x)(x \text{ is a formula} \rightarrow (\exists y)(y \text{ is a part of } x))$ ,

and also no doubt that (4) generates no regress. Something stronger is required, something like

- 4'.  $(x)(x \text{ is a formula} \rightarrow (\exists y)(y \text{ is a part of } x \ \& \ y \text{ is a formula}))$ .

But (4') is not something that Aristotle asserts, at least not as far as I can determine. For, rather than (3) above, he asserts the weaker principle

- 3'.  $(L)(O)(l)(o)(L \text{ is the } \textit{definitional} \text{ formula of } O \ \& \ l \text{ is a part of } L \ \& \ o \text{ is a part of } O \ \& \ l \text{ corresponds to } o \ \& \ l \text{ is a formula of } o \text{ is contained in } L)$ .

Propositions (3) and (3') are different, the first suggesting an inference of the form, ' $p \rightarrow q \ \& \ r$ ', and the second an inference of the form, ' $p \ \& \ q \rightarrow r$ '. Thus, according to (3), correspondence between a definitional part and a part of the thing defined is sufficient for counting the definitional part itself as a formula and for including it in the original definition. In this way, the parts of a whole unavoidably have formulae that are contained in the formula of the whole. On (3'), however, we do not get this result. Although proponents of both (3) and (3') could hold that correspondence between a definitional part and a part of the whole defined is sufficient for including the definitional part in the formula of the whole, these parts need not themselves be formulae. As (3') insists, to get this *deductively* we need to include in the antecedent the proposition that the parts of the definitional formula are themselves formulae. Indeed, the language of (iii) may suggest just this, for it may be taken to ask, of those parts that have formulae, whether they are to be included in the formula of the whole. Hence, (iii) need not imply that all parts of a formula are formulae.

So (3') allows a formula to satisfy the Correspondence Thesis, (1), and still be constituted by parts that are not themselves formulae. This reading has two advantages. First, it entails no regress, for nothing in (3') *requires* that a part of a formula be itself a formula. Second, the notion of formula ( $\lambda\acute{\omicron}\gamma\omicron\varsigma$ ) pertinent here is familiar from *De Interpretatione*, where a  $\lambda\acute{\omicron}\gamma\omicron\varsigma$  is a significant spoken sound some part of which is significant on its own. Thus,  $l$  will be a formula ( $\lambda\acute{\omicron}\gamma\omicron\varsigma$ ) just in case some part of it, say  $l_1$ , is significant on its own. But if  $l_1$ , in turn, has no such part, then  $l_1$  is not itself a formula. So  $l$  would be a formula whose parts correspond to the parts of the defined object without being themselves formulae. This sort of formula promises to halt, rather than hurry, the threatened regress.

The answer to (iii) may, then, be that the formula of a part is to be included in the formula of the whole just in case the whole is a proper

object of definition, namely a form, and the part in question corresponds to a linguistic expression that is a λόγος, that is, an expression some part of which is significant on its own. So although the Correspondence Thesis generates a question, (Q1), about inclusion of the formulae of parts in the formula of the whole, we are suggesting that (3)'s way of linking the question to the Correspondence Thesis restricts affirmative answers to (Q1) to forms and formal parts. To fully appreciate this restriction, we must, I fear, descend yet more deeply into the details of Z.10.

### 3. Varieties of Parts and Wholes

In effect, (Q1) asks which part–whole pairs satisfy schema

5a. The formula of  $p$  is contained in the formula of  $w$ ,

where  $p$  is a part and  $w$  its whole. Immediately after raising (Q1), Aristotle clarifies the question by giving a case that satisfies (5a) and a case that does not. The first case, which we have already mentioned, is the syllable. Its formula does contain the formulae of its letters. The formula of a circle, on the other hand, does not contain the formulae of its segments. So it fails to satisfy (5a). Then, following introduction of (Q2), along with two cases that highlight its importance, we get the announcement that the chapter is to focus only on the parts of substances. This was viewed favorably above, as confirming our view that Z.10 and 11 continue to focus on the substance-of c-substances. It is no objection to this that the syllable is Aristotle's lead example of a whole that satisfies (5a) and yet hardly counts as a paradigm substance. For Aristotle is putting forth the syllable, not as a paradigm substance, but as a perspicuous model for such substances, in particular, as a clear and simple model for reasoning about the relation between a substance and its parts. Much the same can be said for a number of other examples Aristotle enlists in Z.10.<sup>494</sup> So the worry can be set aside.

On our view Aristotle begins by asking which part–whole pairs satisfy (5a) and answers, finally, that only forms and their parts do. So we are holding him to

6a.  $(p)(w)(\text{the formula of } p \text{ is contained in the formula of } w \leftrightarrow w \text{ is a form} \ \& \ p \text{ is a part of } w)$ .

Aristotle also suggests that there is also a natural connection between the Correspondence Thesis and the second question (Q2), more precisely,

<sup>494</sup> For example, the right angle and the circle.

between (3') and (Q2). Now when Aristotle introduces (Q2), he again asks, in effect, which part–whole pairs satisfy a schema, this time schema

5b.  $p$  is prior to  $w$ ,

where, again,  $p$  is a part and  $w$  is the whole that contains it. Schemata (5a) and (5b), thus, determine the two main divisions of Z.10. So it is natural to expect some connection between them. In particular, we might wonder whether all part–whole pairs that satisfy the one satisfy the other. If so, then Aristotle would be committed to the further equivalence:

6b.  $(p)(w)$ (the formula of  $p$  is contained in the formula of  $w \leftrightarrow p$  is prior to  $w$ ),

and, thus, to the equivalence between formal parthood and formal priority:

6c.  $(p)(w)$ ( $w$  is a form &  $p$  is a part of  $w \leftrightarrow p$  is prior to  $w$ ).

Aristotle is happy with (6a) but his attitude toward (6b) is more guarded. Some parts, he implies, are neither prior nor posterior to their wholes, presumably the important ones such as the heart or brain. Nonetheless, he regards this principally as a point of caution and in the main Z.10 treats formal parthood and formal priority as equivalent notions. So it will do no harm to put (6b) in Aristotle's camp.

The caution inspired by (6b) may reflect a tension in the characterization of priority itself. Just after introducing (Q2), Aristotle raises a difficulty by way of two examples. A finger is part of a man but surely is not prior to it, nor is the acute angle prior to the right angle, for

in the formula, the former [the finger and acute angle] are explained in terms of the latter [the man and the right angle]) τῷ λόγῳ γὰρ λέγονται ἐξ ἐκείνων and are posterior also with respect to existing apart from one another<sup>495</sup> τῷ εἶναι δὲ ἀνευ ἀλλήλων πρότερα. (1034b31–2)

If it is clear that the man is prior to the finger and the right angle to the acute angle, it is less clear how to read the principle that enforces this result. We are given two conditions but no indication whether they are severally, or only disjointly, necessary and sufficient for priority. So Aristotle could be characterizing priority as

<sup>495</sup> Here I follow Ross's (1928) translation. Bostock's (1994) reading of the second clause, "and are posterior also in independent existence," implies that the prior item enjoys independent existence. Although arguably true in the case of man and finger, Aristotle needs a principle that allows the priority relation to hold between items, neither of which can exist independently, but only independently of the other. Such would be the case, for example, with a form and its parts.

7a.  $x$  is defined in terms of  $y$  &  $x$  cannot exist without  $y \leftrightarrow y$  is prior to  $x$

or as

7b.  $x$  is defined in terms of  $y \bar{x}$  cannot exist without  $y \leftrightarrow y$  is prior to  $x$ .

One might opt for (7a) on the grounds that (7b) would allow my father, for example, to count as prior to me or, more implausibly, the air I breathe, for this is hardly the sort of priority Aristotle is after. Such counterexamples can be set aside by assuming that  $x$  and  $y$  stand in the part–whole relation. (The question, after all, concerns which is prior.)

Decision between (7a) and (7b) is aided by reflection on Aristotle's caveat that certain material parts are not posterior to the whole. Parts such as the heart or brain are so central that the whole man cannot exist without them even as they cannot exist without the whole man—in contrast to the finger. Now we may assume that the heart is explained in terms of the whole animal by specifying its function within the organism as a whole. Thus, on (7b) the heart would routinely count as posterior to the man. But Aristotle finds just this to be problematic, and problematic for the reason that the man cannot exist without the heart. Indeed, this is just (7b)'s other sufficient condition for priority; and, so, on (7b) the heart is both prior and posterior to the whole animal. But Aristotle says, rather, that the heart is neither prior nor posterior to the whole animal (1035b25–7). This is exactly what follows from (7a) and so it emerges as the favored version of priority.<sup>496</sup>

But now we are in danger of getting ahead of ourselves, in particular, of overlooking the fact that by the chapter's end, Aristotle has decided that there is no simple answer to the question whether the parts of a whole are prior to the whole. It all depends on which parts are meant and on how they and their wholes are characterized. This is evident from his discussion of a wide range of cases—the discussion Ross took to be the principal contribution of Z.10 and 11. Since these cases serve to illustrate general principles and ultimately to promote the purification of form, I shall make rather selective use of them. Nonetheless, it is useful to have before us the full range of cases Aristotle considers in the two chapters. If nothing else, they signal his own view of the complexity and importance of the issue. For convenience, I arrange them in Table 1. (Parenthesized citations are to Z.10, citations in brackets to Z.11.)

<sup>496</sup> Assuming that posteriority is defined not simply as the negation of priority but rather as its complement, (7a):  $x$  is defined in terms of  $y$  &  $x$  cannot exist without  $y \leftrightarrow x$  is posterior to  $y$

Table 1.

Whole ( <i>w</i> )	Part ( <i>p</i> )	formula of <i>p</i> prior to <i>w</i> ?	<i>p</i> in form?
c1. circle	segments	N	N
c2. syllable	letters	Y	Y
c3. bronze circle (concrete)	bronze (35a25–7, 36a4–5)	Y	N
	bronze segments (35a9–10)	N	N
c4. bronze statue	bronze (35a6–7)	N	N
c5. mathematical circle (concrete)	noetic segments (35b8–9, 36a3–4 and 11–12)	N	N
	[36b33–37a4]		
c6. circle (formal) formal (34b33–5a1, 36a16–20)	formal parts	Y	Y
c7. right angle (34b28–31, 35b6–8)	acute angle	N	N
c8. syllable (formal) (4b27–8, 35a10–11)	formal letters	Y	Y
c9. physical syllable (concrete) (35a14–17)	audible/written letters	N	N
c10. line (35a17–18)	halves	N	N
c11. man (concrete)	finger (functional part) (34b29–31)	N	?
	flesh (remnant part) (35a18–20, 35a31)	Y	N
	[36b24–32]	Y	?
c12. snub (35a4–6)	flesh	?	?
c13. soul (formal) (35b14–20 and 36a16–20)	formal (functional parts)	Y	Y

On my view, Z.10 and 11 concern themselves with the purity of form. And this, we have suggested, is a concern about form's general ontological make-up.<sup>497</sup> Thus, form is pure to the extent that its parts are all

<sup>497</sup> See sect. 1 above.

formal. So from this point of view, what interests us from Table 1 is the nature of those parts that are to be included in the form—those marked by a ‘Y’ in the right-hand column. All such parts will be prior to their correlated wholes and will have their formulae included in the formulae of such wholes. However, this gloss on the examples deployed in Z.10 and 11 oversimplifies in at least two ways. First, certain scholars have suggested that in some cases the matter must be included in the form. Beginning at section 8, I argue against this; for the moment I simply acknowledge the debate by installation of question marks for the appropriate cases, (c11) and (c12). Second, and of more immediate concern, two cases that are represented as pure cases, one material and one formal, turn out to be stalking horses only. These are (c1) and (c2), the cases that open Z.10 and are used to press the force of (Q1). Aristotle says simply that the formula of the circle will not contain that of its segments and that the formula of the syllable will contain that of its letters. He does not say whether the circle or syllable is concrete or whether it is without matter.<sup>498</sup> But it is obvious that these distinctions are crucial. For in case (c9) the formulae of written or uttered syllables do not contain the formulae of their written or uttered letters, while in (c8) the formula of the syllable, as a formal item, does contain the formulae of its nonmaterial letters. Likewise, the formulae of the parts of the concrete circle, whether perceptible, as in (c3), or mathematical, as in (c5), are not contained in the formula of the circle; but in (c6) the formulae of the parts of the formal circle are contained in its formula. So it is clear that (c1) and (c2) are not introduced as determinate cases but as cases that invite reflection on the conditions under which they satisfy (5a), the schema attached to (Q1).<sup>499</sup> Thus, they are simply drawn cases designed to give way to more carefully crafted examples; and the latter are what lead to and support the Sophisticated Position reached at the end of the chapter.

## 4. The Sophisticated Position

At 1036a12 Aristotle announces, with evident satisfaction, that he has “now explained how matters stand concerning the whole and its parts and their priority and posteriority” and then quickly adds that the

<sup>498</sup> By a concrete object or entity, I here understand a particular compound of form and matter, whether the matter is perceptible or intelligible. This is somewhat more elegant than speaking of the ‘particular compound circle’, and so on. So neither the universal compound nor a particular form, should there be such, are concrete entities.

<sup>499</sup> Indeed, the circle *as a defined object* does not even have segments; only the concrete circle does.

answer is not simple. He means by this that there is not a single answer to the question of which part–whole pairs satisfy (5b). Now the first thing that ought to strike the reader about this introduction to the final Sophisticated Position is that it focuses entirely on (Q2), for (5b) is just the schema attached to this question. This suggests that (Q2) is the principle focus of Z.10 and, hence, that the chapter is concerned mainly with priority relations between various kinds of parts and wholes. I think this is correct and that we should view (Q1) as Aristotle's way of introducing the set of issues that lead to (Q2). We have already suggested in (6b) above that the questions are ‘materially equivalent’. Beyond that, (Q1)'s focus on formulae and the parts of formulae links it with the previous discussion of essence in Z.4–6, for there we saw that Aristotle's notion of form (the γένους εἶδος) accommodated both structural primacy and structural complexity. Thus, it is natural to suppose that this is reflected in a like complexity in the formulae standing for such items. So Z.10 begins with this idea and moves to the further question, (Q2), concerning the relation between the item thus defined and the parts that are mentioned in its formula. On this view, (Q2) does not open an entirely new issue but rather continues a discussion already proceeding under the governance of (Q1).

Several reasons favor our suggestion that formal parthood leads naturally to formal priority, i.e., that part–whole pairs satisfying (5a) satisfy (5b). For on this account (Q2) continues the investigation begun under (Q1) but adds an additional layer of analysis, and this fits nicely with Aristotle's claim at 1035b3–4 that (Q2) takes up the question again but in a form that is yet clearer. It also explains why the final Sophisticated Position can purport to summarize the discussion of parts and wholes (the results of [Q1]) as well as their priority and posteriority (the results of [Q2]) despite the fact that no mention is made of inclusion of the formulae of the parts in the formula of the whole.

What I am calling the Sophisticated Position makes much of the fact that terms such as ‘circle’ may apply to objects with quite different ontological make-ups. On the one hand, a circle may be a concrete whole, that is, a particular compound circle, some of whose parts are material, whether perceptibly or intelligibly so; on the other hand, it may be a purely formal whole, that is, a whole whose parts are exclusively formal. Not observed in the initial cases, (c1) and (c2), the distinction is carefully heeded in the final formulation. The formulation itself, however, is rather complicated and will require a look at the text. It reads:

If [z] the soul is the animal or living thing *ἔστι καὶ ἡ ψυχὴ ζῶον ἢ ἔμψυχον*, or if the soul of each thing is the thing *ἢ ἕκαστον ἢ ἐκάστου*, and if the circle is the essence of circle, and the right angle the essence of right angle and the



substance-of the right angle (ἡ ὀρθὴ τὸ ὀρθὴ εἶναι καὶ ἡ οὐσία ἡ τῆς ὀρθῆς), then [ii] we should say that the thing taken in one way is posterior to certain of its parts, namely to the parts in its formula and to the parts of the particular right angle (τῶν ἐν τῷ λόγῳ καὶ τινὸς ὀρθῆς). [iii] For this is so if it is taken with matter (ἡ μετὰ τῆς ὕλης), whether the bronze right angle or that formed by particular lines. But [iv] taken without matter (ἡ δ' ἄνευ ὕλης), [v] thought still posterior to the parts in its formula (τῶν μὲν ἐν τῷ λόγῳ), it is prior to the parts in the particular right angles (τῶν δ' ἐν τῷ καθ' ἕκαστα μορίων). So the answer is not simple. If, on the other hand, [vi] they are different and the soul is not the animal εἰ δ' ἕτερα καὶ μὴ ἔστιν ἡ ψυχὴ ζῴον, then we still must say that some parts are and some are not prior, as has been explained. (1036a16–25)

The passage is shaped by two distinctions. The first, announced in (i) and (v), contrasts the proposition that the soul (of an animal) just is the animal with the proposition that they are different. The second distinction, located in (iii) and (iv), cuts across the first and concerns two ways of regarding the whole, i.e., the animal, that is there 'identified' with, as in (i), or differentiated from, as in (v), the soul. In effect, this generates four different ways of regarding a whole and so four different ways of asking about the relation between a whole and its parts. Nonetheless, on each such way, the form and the parts of the form turn out to be prior to the whole. In effect, this shows us how to combine primacy and complexity. Although Z.4 awarded primacy to the form or γένους εἶδος and allowed for its complexity,<sup>500</sup> it offered no comment on how a complex item might enjoy primacy. The Sophisticated Position advanced at the end of Z.10 will provide for something more, namely, that the priority of form to whole is a function of the priority of the parts of the form to the whole. In short, form's structural primacy is eventually cashed in terms of the primacy of its parts. Moreover, because the form of interest in Z.10 is also the essence and substance-of a whole (according to [i]), Z.10's lessons are lessons about form as the substance-of c-substances. This claim is of obvious use to us. For these to be more than interesting points of speculation, however, we need to get a clearer grasp of the Sophisticated Position.

First, a remark about (i), which entertains the tantalizing claim that the soul *is* the animal. The claim is tantalizing because it is tempting to find in it some sort of identity thesis, perhaps an analog of the mind–body identity theories popular in more recent times. This would require that (i) *identify* an animal and its soul or, more generally, a form and the whole compounded of it and its matter. Unfortunately, this clashes with Aristotle's settled views—for instance, Z.3's argument for

<sup>500</sup> Pace Bostock (1994); see Ch. VI above.

the priority of form to the compound.<sup>501</sup> So we need an alternative reading of (i). One might attempt to provide this by pointing out that (i) simply considers a possibility, which Aristotle need not endorse. However, this still assumes that (i) is to be read as an identity thesis of sorts and this is just what is questionable.

That Aristotle is not of a mind to *identify* the soul and the animal or, more broadly, the form and the compounded whole can be seen from 1035a7–9, where, speaking in his own voice, he says:

Each thing may be said to be the form, or the thing *qua* having the form; but it cannot be said to be in its own right the material part καὶ ἡ εἶδος ἔχει ἕκαστον, τὸ δ' ὕλικόν οὐδέποτε καθ' αὐτὸ λεκτέον <sup>λεκτέον γὰρ τὸ εἶδος</sup> (following Bostock, 1994).

Here we get a more complete expression of the thesis contained in (i). So far from *identifying* a compounded whole with its form, Aristotle says that we can legitimately *regard* a whole in a certain way—*qua* having a form. This is certainly weaker than regarding a whole *qua* form. Indeed, to regard a whole *qua* having a form arguably presupposes the distinctness of the form and the whole that has it. So alternative (i) is not to be taken as identifying a whole with its form. Aristotle is thus spared the embarrassment of holding that the matter of a compounded whole is not part of the compound. Rather (i) is best read as a proposal simply to consider a whole from a certain perspective, namely, insofar as it is a thing that has a form. For this it is enough just to abstract from the matter *as such*, and so considering a whole *qua* having form allows us to consider just those of its parts that are non-material. This possibility will be important in explaining how definitions can apply to concrete wholes, even though, properly speaking, the object of definition is a pure form. At the moment, however, we need to focus on the role of (i) in the Sophisticated Position. For convenience I shall sometimes refer to (i) as the ‘constraining’ premise.

The passage has the following structure. Given that a whole is regarded *as* having a form, a certain posteriority relation holds between the whole and certain of its parts. This inference, which moves from (i) to (ii), is explained by (iii). That is, the particular relation mentioned in (ii) is forthcoming, if the whole mentioned in (i) is taken with matter. So the pattern of reasoning is: (i) & (iii) ↔ (ii). Section (v) asserts that we get a different posteriority relation between a whole and its parts, if, as (iv) reports, the whole is considered without matter. So this pattern of reasoning runs: (i) & (iv) ↔ (v). Finally, (vi) reports that even if (i) is false, some parts are prior to the whole and some are not. Moreover,

<sup>501</sup> See Ch. V, sect. 3.

(vi) says that this has been explained. So it appears that Aristotle also endorses both of the following patterns of reasoning:  $\neg(i) \ \& \ (iii) \rightarrow (ii)$ , and  $\neg(i) \ \& \ (iv) \rightarrow (v)$ . This means, of course, that the constraining premise is actually irrelevant to his conclusion.

So we can think of Aristotle as, in effect, saying that it simply makes no difference whether one regards an object that has a form simply *qua* having that form or whether one regards it as different from the form and not simply *qua* having it. In either case, the same priority relations hold: if the object is taken with matter, then it is posterior to the parts in its formula<sup>502</sup> and to the particular parts of the particular whole that it is; if the object is taken without matter, then it is still posterior to the parts in its formula but it is not posterior to the parts of the particular whole. Adapting our earlier formulation, we can write the first as

7.  $(L)(O)(l)(o)(O \text{ is taken with matter} \ \& \ L \text{ is the formula of } O \ \& \ l \text{ is a part of } L \ \& \ o \text{ is a part of } O \rightarrow l \text{ is prior to } O \ \& \ o \text{ is prior to } O)$ ,

and the second as

- 7'.  $(L)(O)(l)(o)(O \text{ is taken without matter} \ \& \ L \text{ is the formula of } O \ \& \ l \text{ is a part of } L \ \& \ o \text{ is a part of } O \rightarrow l \text{ is prior to } O \ \& \ O \text{ is prior to } o)$ .

Now (7) and (7') are supposed to provide a more sophisticated answer to question (Q2). How, exactly? Using Aristotle's example, to take a circle without matter could amount, simply, to considering the form or essence of circle or, perhaps more subtly, to regarding an actual circle in a certain way, namely, without heed to the material it is realized in. The fact that the circle so taken is said to be prior to the parts of the particular circle might suggest the latter reading. For by the particular circle Aristotle here means a particular compounded circle, that is, a circle realized in certain matter. Therefore, the *O* that is taken without matter is the very object that is prior to its parts. So it must have material parts and, hence, for it to be taken without matter is arguably for it to be regarded in abstraction from such parts. This was my suggestion three paragraphs back.<sup>503</sup>

<sup>502</sup> Here, again, I follow Aristotle in not observing the distinction between use and mention.

<sup>503</sup> It is more difficult to give a smooth reading of (7'), if *O* is simply the form, because it is unclear how the form can have parts that are material. Nonetheless, one might insist that for *o* to be a material part and to be a part of an *O* that is taken without matter is just for *o* to be a part of the compounded whole whose form *O* is. Although less plausible, this might be a possible reading. In any case, the upshot is the same: the object taken without matter is prior to the material parts of the compounded object and the parts of its formula are prior to it—just as (7') prescribes.

We may now collect in a more available way the various priority relations covered in the Sophisticated Position. They are four:

- 8a. The parts of the formula are prior to the object with matter;
- 8b. The parts of the formula are prior to the object without matter;
- 8c. The parts of the particular object are prior to the object with matter;
- 8d. The parts of the particular object are posterior to the object without matter.

In assessing this tally we need to be wary of several points. One is the weight to give here to the notion of a part of a particular object. Plainly, Aristotle does not mean to include the form of a c-substance but rather a material part of some sort. So one might suppose that he is simply revisiting 1035a17–22's point that the parts into which a particular object is destroyed are material and should be considered parts of the combined whole *ὡς ἐξ ἕλης, καὶ τοῦ συνόλου μέρη* but not parts of the form or of what has the formula *τοῦ εἶδους δὲ καὶ οὐ ὁ λόγος οὐκέτι*. These 'remnant parts,' as I shall call them, are then said to be parts and principles of objects taken with matter, that is, parts and principles of objects that are form and matter taken together *ὅσα συνειλημμένα τὸ εἶδος καὶ ἡ ἕλη ἐστίν*, 1035a25–6). Now this certainly fits (8c). So there the parts of the particular object appear to be its remnant parts.

But the parts of the particular object mentioned in (8d) cannot be remnant parts, for they are posterior to the object they are a part of. Here Aristotle has in mind something that is part of a particular compounded object but still posterior to the object. Aristotle's favorite example of such a part is the finger, which served at the outset of the chapter to press the force of (Q2). Such parts cannot be prior to their wholes because they are defined in terms of such wholes and cannot exist apart from them. It, thus, appears that to regard an object without matter is to regard its parts in relation to, or, better, as realizing, the form of the object. Such 'functional' parts, as I shall call them, remain posterior to their wholes. So there is no simple answer to the question whether the parts are prior to the whole.

The distinction between remnant and functional parts is an important piece of Aristotle's metaphysical theory. In rough terms, it appears to be clear enough. A functional part is capable of exercising certain characteristic function(s), and because it can do this only as part of an organized system, functional parts do not exist outside of their determinative organized wholes. Hands, eyes, and the other sensory organs are typical functional parts. Remnant parts are, then, those that can exist apart from such wholes and are no longer capable of exercising the characteristic

function(s) in question. These are such as the sinew, bone, and flesh of the once-functional hand. On reflection, however, the distinction proves to be rather trickier. First, it is unclear how we are to think of the relation between the matter that is organized into a functional part and the matter of its remnant counterpart. Is it the same matter, merely organized differently, or is it different matter entirely? Second, although the distinction plainly applies to parts that correspond to the characteristic functions of an organism, it is unclear whether it applies to all organic parts (including indispensable parts such as the heart). The latter question is particularly pressing because while *Metaphysics Z* unambiguously treats bones, sinew, and flesh as remnant parts, *Generation of Animals* B.1 insists that flesh and bone have soul in them and so appears to treat them as functional parts. And this suggests that all organic parts are indeed functional parts. How, then, can Aristotle use flesh and bone as stock examples of remnant parts? There is a difference here but not a discrepancy, for *Generation of Animals* is interested in fully functioning flesh and bone and not in the flesh and bone into which the animal is destroyed. The latter, which remain resolutely remnant, are the concern of Z.10 and 11. Of course, this difference highlights a number of interesting questions about the relation between varying attitudes toward flesh and bone and, in particular, about ‘how far down’ the form of the whole organism reaches. But these questions concern simply the range of material functional parts and so are not relevant to the project of Z.10 and 11, which is to establish the absolute priority of the purely formal (functional) parts to all other kinds of parts, including all material functional parts. This is the force of the distinction between (8c) and (8d).

This distinction has an important corollary. According to 1035a17–22, cited above, the remnant parts of an object are parts of the combined whole but not parts of the form or of what has the form. Presumably, it is the finger that is a part of the form or, more likely, of the thing *qua* having the form. This suggests that Aristotle thinks of the matter of a form + matter compound as remnant matter. For convenience I shall number this thesis

9. The matter of a form + matter compound is remnant matter.

According to (9), it would be a confusion to hold that a man, say, is a compound of form and functional matter. For this matter, in order to be what it is, must already be enformed. Moreover, it must be enformed by the very form that shapes the original compound. So (9) is a condition on the explanatory role of form, at least so long as (9) is taken to mention the matter that is ‘transformed’ by the form in the constitution of a given c-substance. (I shall make a good deal of this in Chapter X.)

As we have seen, Aristotle allows that remnant matter is a part and principle of those objects that are compounds of form and matter. Although both these parts and their functional counterparts are accommodated by the Sophisticated Position, in (8c) and (8d) respectively, nothing is said there about priority relations between these two types of parts themselves. Nor, as far as I can determine, is this addressed elsewhere in the chapter. What Aristotle does say, at 1035a17–22, is that it does not follow from the fact that men are destroyed into bones, sinew, and flesh that they are composed of these parts as parts of the substance (ὡς ὄντων τῆς οὐσίας μερῶν). Nor, we have seen, are these remnant parts allowed to be part of the form or of what has the formula. Hence, Aristotle concludes at 1035a21–2, they do not occur in the formula (οὐδ' ἐν τοῖς λόγοις). Since he immediately qualifies this with the remark that the formulae of some things will mention such remnant parts, the conclusion at 1035a21–2 must concern those formulae that are definitions or definitions in the primary sense. If so, his reasoning here is continuous with that of Z.4 and 5, where definitions attach primarily to the form or γένους εἶδος and to other items on reduced terms only. And as in Z.4 and 5, so also in Z.10 Aristotle is preoccupied with the notion of form, more specifically, the form or substance-of a thing. Remnant parts, whatever their claim to priority, enjoy no priority in substantiality and so are simply irrelevant to the priority that is of interest in *Metaphysics* Z. In short, they are discussed to be dismissed.

When the Sophisticated Position promotes the priority of parts of the formula, as in (8a) and (8b), it is talking about parts of the form. This is clear from 1035b31–4:

Now there are parts of the form (μέρος . . . τοῦ εἶδους)—by form I understand the essence (εἶδος δὲ λέγω τὸ τί ἦν εἶναι)—and of the compound of the form and the matter and of the matter itself. But only the parts of the form are parts of the formula (ἀλλὰ τοῦ λόγου μέρη τὰ τοῦ εἶδους μόνον ἐστίν),

which asserts the strong thesis that whatever is part of a formula is part of a form:

10.  $(x)(x \text{ is a part of a formula} \rightarrow x \text{ is part of a form}).$

In light of the above paragraph, we should understand (10) as ranging over formulae that are definitions or, perhaps, definitions in the privileged sense. So we can read (8a) and (8b) as asserting that the parts of a form are prior to the object associated with the form, whether that object is taken with matter or without matter. If the object taken without matter were the form itself, then (8b) would assert that the parts of the

form are prior to the form. But this is not a plausible reading of the text.<sup>504</sup>

The questions that guide the Z.10's discussion, (Q1) and (Q2), both concern the relation between parts and wholes. True to his word, Aristotle says precious little about the relation between the form itself and the object associated with it. One reason for this is that Z.3 has already argued for the priority of the form to the compound and Z.4–6 established that this form is *the* primary item. Now this is a sort of structural primacy suitable for a complex item, that is, an item with parts. Thus, we suggested above that Aristotle may conceive of the primacy of form in terms of the primacy of its parts. So it would not be surprising to find him focusing in Z.10 on the priority of parts of the form to the object as a way of explicating the priority of the form itself to the object. Nowhere explicit, the idea is certainly invited by what Aristotle does say in Z.10. Take, for example, his remarks at 1035b14–21:

Now in animals the soul, which is the substance of the living thing (οὐσία τοῦ ἐμψύχου), is the substance specified by the formula (ἡ κατὰ τὸν λόγον οὐσία),<sup>505</sup> i.e., the form and essence of bodies of this sort (τὸ εἶδος καὶ τὸ τί ἦν εἶναί τῷ τοιῷδε σώματι, b16) . . . Accordingly, [i] the parts of the soul (τὰ ταύτης μέρη), some or all of them, will be prior to the animal as a combined whole (τοῦ συνόλου ζῴου, b19) and similarly for individuals, whereas [ii] the body and its parts will be posterior to this substance (τὰ δὲ σῶμα καὶ τὰ τούτου μέρη ἕτερα ταύτης τῆς οὐσίας, b20–1).

Cast generally, Aristotle first says, in (i), that, where *F*s are compounded wholes and *x* is the form of an *F*, the parts of *x* are prior to *F* *qua* compounded whole. Then, by way of contrast, he says in (ii) that the body and its parts are posterior to *x* ('this substance' at 1035b21 picks up the form or εἶδος already mentioned at 1035b16). Assuming that the body (σῶμα) at b20 in the contrastive case, (ii), is the same as the combined whole at b19, we can safely conclude that Aristotle holds that the form

<sup>504</sup> In fact, the priority of parts of the form to the form itself is nowhere explicit in Z.10 and it is only implicit in Z.11, at 1036b7–10, where lines and continuity are listed as parts of the form *circle* and said to be the terms with respect to which the *circle* is defined. For by Z.10's characterization of priority, (7a) above, these parts are prior to the form itself. Reading the implicit point back into Z.10, some might find this to be the upshot of case (c6).

<sup>505</sup> In *Metaphysics* H.1 Aristotle refers to both the compound and the form as substances that are specified by a formula (Δατὰ τὸν λ1f79;εON). But this occurs in a summary remark where it is appropriate to characterize both the compound and the form as substances. In Z.10, on the other hand, he clearly means to be singling out the items that are primarily substance, that is, the substance-of *c*-substances and these are forms—the items specified by those formulae that are definitions in the privileged sense. This selectivity is additional testimony for the general claim that Aristotle's preoccupation in the central books, including Z.10, is with the substance-of *c*-substances.

and its parts are prior to the animal *qua* compounded whole, and generally that he holds

11.  $x$  is the form of  $y \rightarrow x$  is prior to  $y$  and to the parts of  $y$  & the parts of  $x$  are prior to  $y$  and to the parts of  $y$ , where  $y$  is a compounded whole.

Note that the priority of the *form* to the body is made explicit just in the contrastive case, (ii). For in (ii) Aristotle says that the *parts* of the form (i.e., soul) will be prior to the body (i.e., the combined whole), and this leads us to expect him to say, in the contrastive case, that the body and its parts will be posterior to the parts of the form. But he says that it will be posterior to the form itself. Yet (i) mentioned only *parts* of the form. This suggests that he holds, informally,

12. The parts of the form are prior to the whole  $\equiv$  the form is prior to the whole and its parts.

Proposition (12) legitimizes glossing the priority of form to whole in terms of the priority of the parts of the form to the whole. If we further add that the parts of the form are prior to the form, then proposition (12) enables us to say something stronger, namely, that the priority of form to whole is to be *explained* in terms of the priority of the parts of the form to the whole.

Since the form of interest in (11) and (12) is the essence and substance-of the body that constitutes the whole, there is no doubt about the fact that we are talking about the chief candidate for primary substance and the parts of this. In two respects, however, (12) is not a finished proposition. First, it does not yet enforce the distinction between taking a whole with matter, on the one hand, and taking it without matter, on the other. As we have seen, these are the distinctions that shape the Sophisticated Position at the chapter's end. But it is to be noted that the evidence for this distinction is located just following the text backing (11) and (12), at 1035b21–7. Second, the text backing (11) and (12) makes no distinction between compounded wholes that are particular and those that are not. That is, it does not distinguish particular compounds from so-called universal compounds. This is quickly remedied—at 1035b27–31, with its telling remark against universal compounds, and at 1035b31–1036a12, with its singular interest in particular compounds.

It is worth saying something about this last point. Reflect on the fact that, as far as (11) and (12) are concerned, the species is not excluded as an item whose substance is the target of *Metaphysics Z*'s analysis. This would, of course, clash with our view that *Z* develops an account of the form of c-substances. But, in any case, it is difficult to see why this



proposal would interest Aristotle. What, for example, would be the point of investigating the substance-of the *species* of the *Categories*? Certainly, not an interest in species for their own sakes. And, if the point of such an investigation is to cast light on the nature of the substance of c-substances, then these rather than universal compounds are the wholes of interest. So the target remains the substance-of c-substances. This is so, even if it turns out that the form of the particular man is just the species form, that is, the form figuring in the universal compound of form and matter.<sup>506</sup> For the *target of explanation* is still the form of the c-substances that happen to fall into the species correlated with a given such universal compound. Besides, the universal compound enjoys wider range than the species, including standard *Categories*-style genera. So the alternative proposal can hardly be sold on its ability to clarify just the substance-of c-substances. For *Categories* genera are too broad to count as a thing's substance and, indeed, Z.13 rules against them on precisely such grounds. Still, the proposal is not explicitly ruled out in 1035b14–21, the text backing (11) and (12). It is partly for this reason that Aristotle moves quickly to declare that universal compounds are not substances at all. For this declaration clearly signals that his interest lies in the nature of the forms of particular compounds because these wholes are the ones that are relevant to an analysis of the substance-of c-substances.

## 5. Definability and Particular Compounds

The ultimate section of Z.10, which contains the Sophisticated Position, is preceded by some sixteen lines of Bekker text devoted to the particular compound. This penultimate section begins by distinguishing three kinds of parts and awarding special status to one kind. There are parts of the form, of the compound of the form and the matter, and of the matter itself, but only parts of the form are parts of the formula. This much of the text has been cited above.<sup>507</sup> Then he says,

and the formula is of the universal (ὁ δὲ λόγος ἐστὶ τοῦ καθόλου) . . . But of what is already a compounded whole (τοῦ δὲ συνόλου ἤδη), for instance of this circle (κύκλου τουδὶ), or of any other perceptible or intelligible particular (τῶν καθ' ἕκαστά τινος ἢ αἰσθητοῦ ἢ νοητοῦ), . . . there is no definition. (1035b34–1036a5).

<sup>506</sup> Here I follow authority, e.g., Code (1984). In fact, however, it is not entirely obvious that the species-form, that is, the form in virtue of which Socrates and Callias belong to the species *man*, is identical with the form that is part of the abstract entity that results by abstraction from a particular compound.

<sup>507</sup> 1035b31–4, five paragraphs back.

This passage begins by saying that a formula is of the universal or, picking up the previous reference to the form, that a formula, whose parts are, or mention, parts of the form, is a formula of the universal. Either way, the universal is contrasted with a concrete entity, which has no definition because it is already a compounded whole.

Now it is clear that Aristotle here restricts the domain of discourse to *particular* compounded wholes. He is free to do this because the universal compound has just been eliminated from consideration. Had he not done so, one might have supposed that, as a nonparticular item, it is a suitable object for definition. But it is not. Elimination of the universal compound has an additional payoff. Despite the fact that definitions are *of* the universal, they apply in some sense to particular compounded wholes. This is, I suggest, because the object of definition just is the form of a particular compound, on our view the form of a c-substance.<sup>508</sup> With the elimination of the universal compound, we can set aside even the question whether definitions *apply* to them.

Aristotle's attitude toward particular compound wholes is, then, quite different. Although they have no definitions,

[i] they are known by thought or by perception (μετὰ νοήσεως ἢ ἰσθήσεως γνωρίζονται, and when [ii] they depart from this actualization (ἐκ τῆς ἐντελεχείας) [iii] it is not clear whether they are or are not (εἶσιν ἢ οὐδ' εἶσιν), but [iv] they are always known and talked about by means of the universal formula (ἀλλ' αἰεὶ λέγονται καὶ γνωρίζονται τῷ καθόλου λόγῳ), for [v] matter is in itself unknowable. (1036a5–9)

When, as (i) asserts, a compound particular whole is known by thought or perception, it is, as (ii) implies, the object of an occurrent episode or act of thinking or perceiving. The latter is what *De Anima* counts as the actual exercise of a faculty (actual<sub>2</sub> thinking or perceiving).<sup>509</sup> Actual<sub>2</sub> thinking or perceiving is caused by the object thought or perceived. Therefore, as (iii) suggests, their existence is presupposed by their being actually<sub>2</sub> thought or perceived. Moreover, this is to presuppose the existence of a particular whole compounded of form *and* matter—whether intelligible or perceptible matter. So when such an object ceases to be the object of an actual<sub>2</sub> act of thinking or perceiving, it is not clear that it exists. This point, which is reported in (iii), is sometimes taken to deny the existence of the object or to state a more cautious brand of skepticism. But this is mistaken. For (iv) maintains, with evident comfort, that

<sup>508</sup> This might suggest that the form of a c-substance is general because the text uses the expressions, “the formula is of the universal” and “the universal formula.” Despite such usage, I take no position here on the question whether the form of a c-substance is particular or general.

<sup>509</sup> See Wedin (1988) for extended remarks on this notion.

in the absence of actual<sub>2</sub> perception or thought they are known and talked about (by means of the universal formula).

Now some might insist that (ii) registers a reduced sense in which absent particular wholes are grasped. This is unlikely. First, as with their perceived and thought counterparts in (i), so in (ii) are absent particular compound wholes said to be *known*. And the same verb, γινώσκονται, occurs in both places. Some might urge that, nonetheless, the passage has little to do with the applicability of definitions to particular compound wholes, whatever else it is up to, for the reason that such applicability is mentioned only in (ii), which discusses absent wholes only. So, of course, the urging goes, *they* must be grasped by having formulae that apply to them.

This suggests two ways to read (ii):

13a. Whenever particular compound wholes are known, they are known by means of the universal formula,

or

13b. Whenever absent particular compound wholes are known, they are known by means of the universal formula.

Two reasons favor (13a) over (13b). First, the absence of a particular compound engenders nothing more than unclarity about whether it exists or not (what we have already explained). But settling whether or not a thing exists tells us virtually nothing about what is involved in having knowledge of the thing. We still need more powerful cognitive equipment—including, evidently, some kind of general concepts. That this is exactly Aristotle's point in the passage is secured by (ii)'s report that particular compounds are *always* (ἀεὶ 1F77;) known by the universal formula. There is no hint of qualification in this remark; indeed, after mentioning that it is not clear whether absent particulars exist, Aristotle introduces (ii) adversatively, with ἀλλ (‘but’), and, thus, suggests the following paraphrase: “we may not know whether absent particulars exist but this is of no concern because in all cases (present or absent) the particular whole is known by means of the universal formula.”

To have knowledge of a particular compound by means of the universal formula is explained in (v) by the fact that matter cannot be known in its own right. This enables us to draw a critical link with the Sophisticated Position. For (ii) and (v) suggest that talking about a concrete object by means of the universal formula is equivalent to talking about a particular whole *taken without matter*. And the latter is one of the crucial distinctions of the Sophisticated Position. Further, if I can know a particular compound by means of its universal formula, then surely I can talk about a particular whole, without heed to its matter,

and not be talking about the form itself, as opposed to the object *qua having form*. This, too, is a point central to the Sophisticated Position. In short, talking about something by means of its universal formula does not require shifting to a new subject, the form itself, but only regarding an old subject from a different perspective, in this case, the particular compound whole regarded from the formal perspective.

## 6. From Priority to Purity

It is clear, then, that the discussion of particular compound wholes prepares for the Sophisticated Position Aristotle offers at the end of Z.10. Less clear is how the Sophisticated Position bears on the purification of form that preoccupies Z.11. We can shed light on this question, which concerns the relation between the priority and the purity of form, by reflecting on several considerations we have already advanced and suggesting how they serve as points of transition to Z.11.

Now the Sophisticated Position that closes Z.10, and answers question (Q2), awards priority, above all, to the parts of the form. Moreover, as (8a)–(8d) above make clear, the position is formulated for *parts* only. This is because, as in (12), the priority of *form* to whole is to be explained in terms of the priority of the *parts of the form* to the whole, and the Sophisticated Position contains the *explanans*. The second term of the priority relation is the whole that has the form, not the form itself. So the Sophisticated Position concerns which part(s) of such wholes are to be accorded priority most of all.

The *priority* of the parts of the form is required by the fact that the form itself that is prior to the whole, whose form it is, is complex. Indeed, it is the latter fact that spawns the need for Z.10 in the first place. Further, with this priority form is established as the chief explanatory factor in accounting for the central features of c-substances.

Grant, then, where  $w$  is a compound of a form,  $f$ , and certain matter,  $m$ , that  $f$  is prior to  $w$ : Can we conclude from this that  $f$  is without material admixture, that is, that  $f$  is pure? This would be to adopt

14.  $w$  is a compound of  $f$  and  $m$  &  $f$  is prior to  $w \rightarrow f$  is pure of  $m$

on Aristotle's behalf. An attraction of (14) is its suggestion that the priority of form, secured in Z.10 by the priority of its parts, is sufficient grounds for maintaining its purity, urged as we shall see in Z.11. Now Aristotle holds what is registered in the consequent of (14), but (14) itself is problematic.

In Chapter V we looked at what I called the Priority Argument. This argument, located at Z.3, 1029a5–7, takes it as fact that form is prior to

matter. Supposing that Aristotle continues to hold this, we might take it that (14) is supported by

14'.  $m$  is a compound of  $f$  and  $m \rightarrow f$  is prior to  $m$ , so long as we also endorse

14''.  $f$  is prior to  $m \rightarrow f$  is pure of  $m$ .

But (14'') itself needs support. Some might find this in the idea that if a first thing is prior to a second, then it can exist without the second. Moreover, they might impose the idea on Aristotle by reminding us that at the outset of Z.10 a first thing was said to be posterior to a second if defined in terms of it and unable to exist independently of it. And surely that form should exist without matter would be one way of explaining (14'')'s conclusion that  $f$  is pure of  $m$ .

But if Aristotle had such a direct route in mind, why would he devote virtually the whole of Z.11 to *investigating* whether any material admixture is allowable in the form? This question ought to be settled by (14), backed by (14') and (14''). So there must be something wrong here. Since (14') enjoys Aristotle's favor, the trouble must lie with (14'') and the allegedly Aristotelian idea that supports it. This seems correct, for we earlier formulated the characterization of priority at the outset of Z.10 as

7a.  $y$  is prior to  $x \leftrightarrow x$  is defined in terms of  $y$  &  $x$  cannot exist without  $y$ ;

but (7a) does not entail that  $y$  can exist without  $x$ . From the fact that a first thing cannot exist without a second, it does not follow that the second can exist without the first. Of course, *were* the priority of  $y$  to  $x$  formulated *only* in terms of  $x$ 's ontological dependence on  $y$ , then (14'') would be forthcoming because otherwise  $y$  would be posterior to  $x$ . But this is not what (7a) says.<sup>510</sup> So (14'') is blocked.

Now it seems right, on some reading of the relation, that form's independence from matter should explain how it is pure of matter. So I am not challenging this reading when I say that (14'') is blocked. Nor do I mean that the consequent of (14''), so read, is blocked. I mean only that the *inference* from form's priority to its independence from matter is blocked. Nothing here excludes the possibility that the form is, as a matter of fact, independent of matter. What is excluded is that this can be obtained deductively from form's priority. Such purity will have to be established by other means. But the issue arises directly from the fact that form is prior to the matter and to the compound, as the Sophisticated

<sup>510</sup> It is, however, allowed by the rejected reading (7b).

Position provides. So Z.10 ends by, in effect, raising an issue that cannot be settled within the terms available to it. It is for this reason that Aristotle must pursue the question independently in Z.11.

A dialectical consideration also recommends inclusion of Z.11. Reflect on the fact that Aristotle has excluded universal compounds from competition for the title of substance. This amounts, in effect, to excluding an entity that contains general matter. Now a clever disputant might point out that it is one thing to disqualify an entity containing general matter when that entity is a *compound* of form and such matter. But, the point continues, it is quite another thing for general matter to be part of the form itself. Faced with such insistence, whether ultimately coherent or not, it would be natural for Aristotle to proceed to the question whether the parts of the form, as such, resist this maneuver and, hence, whether the form remains in its general ontological make-up a purely formal item.

## 7.Z.11 on the Purification of Form

Aristotle opens *Metaphysics* Z.11 by asking what sort of parts are parts of the form (ποῖα τοῦ ἕιδους μέρη), and what sort are not parts of the form but of the compounded whole (ποῖα οὐ, ἀλλὰ τοῦ συνειλημένου). This is the third of the questions that govern Z.10 and 11, and I shall designate it accordingly:

Q3. Of what sort is the part that is the part of a form and of what sort is the part that is a part of the compound?

First, we need to say something about (Q3) itself, specifically about how to understand its reference to parts of the form. It appears that (Q3) is asking about the nature of the two kinds of parts targeted in Z.10's final position, namely, those mentioned in (8a)/(8b) and (8c)/(8d) respectively. Thus, the object of Aristotle's interest remains the same but his question has changed. It is a question that commands our attention, he says, because without a clear answer to it we shall not be able to provide successful definitions. So it is at least clear that Aristotle's attention remains focused on the nature of the object of definition—as it has been since Z.4. But the immediate source of (Q3) is Z.10's declaration, at 1035b33–1036a1, that only parts of a form are parts of a formula and that the formula itself is *of* the universal (ὁ δὲ λόγος ἐστὶ τοῦ καθόλου).<sup>511</sup> For together these imply that a definition is of the form and universal and this is exactly Z.11's justification for pressing (Q3):<sup>512</sup>

<sup>511</sup> As indicated above, Aristotle must here mean what is a formula in the most strict sense, that is, a definition.

<sup>512</sup> Assuming:  $x$  is part of a formula  $F$  &  $x$  is a part of a form  $f \rightarrow F$  is about  $f$ .

for definition is of the form and of the universal (τοῦ γὰρ καθόλου καὶ τοῦ εἰδους ὁ ὀρισμός), so unless it is clear which sorts of parts are parts as matter and which are not (ποῖα οὐκ ἐστὶ τῶν μερῶν ὡς ὕλη καὶ ποῖα οὐ), the formula of the thing (ὁ λόγος ὁ τοῦ πράγματος) will not be clear. (1036a28–31)

I shall offer three remarks about this passage.

Notice, first, what is a familiar point, that the passage provides a rationale for Aristotle's elimination of the universal compound and so makes trouble for those, such as Bostock (1994), who would urge its credentials as the premier candidate for definition. Precisely because it is universal and so might pretend to be the object of definition, the universal compound must be eliminated as any kind of substantial item. Further, because it contains matter, or at least the abstracted correlate of matter, the universal compound runs afoul of the suggestion that no part of the object of definition can be a part as matter.

Second, (Q3) gets its bite precisely from the fact that certain parts of the thing of interest are material and certain are not. Therefore, as in the Sophisticated Position, so here Aristotle must have in mind two sorts of parts *of compounded wholes*. So he is concerned about the nature of the parts of the form that applies to a thing—a thing that is not just form, but a combination of form and matter. Thus, Aristotle appears to be entertaining something along the lines of

15.  $f$  is the form of  $c$  &  $m$  is the matter of  $c$  &  $F$  is the formula that applies to  $c \rightarrow$  the parts of  $F$  mention only parts of  $f$ .

That is, although a definition is *of* a form in the sense that its parts mention only parts of the form, it applies to the compound whole having the form. So when the passage suggests that the formula of the thing is made clear by answering (Q3), it is talking about the formula that applies to a compounded whole and recommending that an answer to (Q3) will allow us to see that the formula mentions only parts of the thing's form despite the fact that the thing also has material parts. At least, I shall argue that this is the unmistakable message of Z.11.

A third comment on the passage concerns the distinction between those parts of a thing that are parts of the form and those that are parts as matter. It appears to be formulated as a dichotomy and so would appear straightforwardly to entail that form is entirely without material admixture and, hence, that it is pure. Although Aristotle believes this, two considerations must be addressed. First, divergent and, perhaps, nonstandard readings of what it means to be a formal or material part could yield results that are decidedly at odds with Aristotle's own view. This is one reason for seriously considering (Q3). A second reason, apparently, is that proponents of such nonstandard readings were at

large in Aristotle's philosophical neighborhood. I mention some of these below, but first a final 'introductory' remark on Z.11.

We argued at the end of the last section that from the fact that form is prior to the matter of a thing and its material parts one could not *infer* that form is pure, and, hence, there is no *inference* of the suggested sort to the claim that form can exist independently of matter. But neither is this excluded. Indeed, it is one way to explain what it would mean for form to be pure. Now the independence in question is relational rather than absolute. So the possibility does not concern the *separate* existence of form but rather concerns the relation between the form and the compounded whole. Ultimately, this is a question about the parts of the form and the parts of the compounded whole that has the form, namely, the material parts. So one way to think about the purity of form is in terms of its independence from the matter it, or its parts, happens to be realized in. On this view, a given form may exist in matter of a certain kind but could be realized in different matter, and, in this sense, the form is capable of existing independently of matter. Putting matters this way gives the issue a younger look, for it appears to entertain the suggestion that form enjoys what is now called compositional plasticity. Roughly, this is the idea that a given (kind of) form, psychological state, mental event, or whatever, can be realized in different kinds of matter. Although not equivalent to purity, compositional plasticity is a sufficient condition of it. This, at least, is Aristotle's position. So an argument that form is compositionally plastic would boost the claim that form is pure of material parts. So in what follows, I shall sometimes make use of this younger notion. Predictably, however, my main focus is on the purity of form. Nonetheless, I shall begin on a more flexible note.

## 8. Aristotle's Thought Experiment

In two passages of *Metaphysics* Z.11 Aristotle appears first to raise, and then to dash, hopes for a compositionally plastic reading of form's relation to matter. They are also the key passages for assaying the proposal that matter is to be included in the forms of natural things. The first of these, 1036a31–b7, I call, for reasons soon to be apparent, the Thought-Experiment passage; the second, 1036b24–32, is the notorious Young Socrates passage.

If any forms are candidates for inclusion of matter, it will be forms of natural organisms. Aristotle is often found to urge this on behalf of the form of man, for example. Promoting the compositional plasticity of the form of man would be one way to deny this. It is, of course, not the only way, but it is a standard response to those who would include matter in



the form of natural things. Now it is well known that *De Anima* connects the forms of natural organisms to their functions. Moreover, the notion of form at work in *De Anima* B.1 and 2, where the canonical view of the soul is introduced, is arguably the same notion that is under investigation in *Metaphysics* Z. So it will do no harm to cast form in a psychological role; indeed, Z.11 does just this when it suggests at 1036b28 that animals must be defined by reference to their developed capacities<sup>513</sup> and announces at 1037a5 that the soul of man is his primary substance.<sup>514</sup>

We may, then, safely begin with the uncontroversial claim that psychological functions ( $\psi$ ings) are linked to forms in something like the following way:

16.  $x\psi$  there is a form or definable structure in virtue of which  $x\psi$ s.

Now even if the form in question is the structure of a certain portion of the matter of  $x$ 's body, it does not follow that (16) entails compositional plasticity. At least not according to Code and Moravcsik (1992),<sup>515</sup> who insist that such plasticity requires attributing to Aristotle the more controversial thesis that *whatever* enables a subject to  $\psi$ , regardless of its material realization, is the functional equivalent of, say, the organ of sight,<sup>516</sup> and that this differs in no fundamental way from a 'natural' eye. But this thesis "threatens to undermine Aristotle's own conception of the bodily organs" (1992: 133–4). It is, therefore, anachronistic to attribute compositional plasticity to Aristotle. The trouble, according to Code and Moravcsik, is that debates about compositional plasticity, in anything approaching contemporary guise, proceed largely by means of thought experiments, a device alien to ancient disputation.

In one critically placed passage, however, Aristotle appears to don modern dress, namely, in what I am calling the Thought-Experiment passage. This passage appears to embrace the compositional plasticity of forms and, so, many find that it conflicts with the Young Socrates passage because the latter explicitly denies all such plasticity. Against this, I shall argue that there is no conflict because the Young Socrates

<sup>513</sup> See the discussion below.

<sup>514</sup> For the argument that here the soul is form, see Wedin (1991).

<sup>515</sup> Indeed, they deny (1992: 133) that "(a) the elements that enter into the specification of the form and structure are properties . . . of matter that (b) can exist outside of the realization of some enlivening potential." On this basis, they would deny that (16) is materialist at all. This is a telling point for them because of their view that some sort of materialism is required for compositional plasticity. I shall have more to say on this later.

<sup>516</sup> Note that (16) allows that there be more than one form or definable structure in virtue of which something  $\psi$  s. So  $\psi$ ing could be compositionally plastic for this reason or for the reason that the single form that enables  $\psi$ ing can have diverse material realizations. Only the latter is available as an option for the compositional plasticity of the form itself.

passage is consistent with compositional plasticity. Philosophically, the stakes are high and so we must proceed carefully, beginning with the Thought-Experiment passage:

[TH] Whatever is found to occur in things that are specifically different (*ἐφ' ἑτέρων τῶ εἶδει*), as the circle is found to occur in bronze and stone and wood, it seems to be clear that these are no part of the substance of the circle (*οὐδὲν τῆς τοῦ κύκλου οὐσίας*), neither the bronze nor the stone, because it is separated from them (*τὸ χωρίζεσθαι αὐτῶν*). Whatever is not seen to occur separately, nothing prevents things from being similar in these cases, just as were all circles that had been observed bronze; for it would no less be the case that the bronze is no part of the form (*ὁ γὰρ κὼς οὐδὲν τοῦ εἶδους*). But it is hard to separate this in thought (*χάλειπὸν δὲ ἀφελεῖν τοῦτον τῇ διανοίᾳ*, b3, b3). For example, the form of man (*τὸ τοῦ ἀνθρώπου εἶδος*) is always found in flesh and bones and parts of this sort. Are these, therefore, parts of the form and the formula (*ἀρ' οὐδὲν καὶ ἐστὶ ταῦτα μέρη τοῦ εἶδους καὶ τοῦ λόγου*)? No, rather, they are matter (*ὁ οὐδ', ἀλλ' ἄλη*, b5) but because it [the form] does not also occur in something else we are unable to separate it (*ἐπιγίγνεσθαι ἀδιαιτούμεν χωρίῳ*). (1036a31–b7)

As it stands, the Thought-Experiment passage appears designed precisely to make the point that a form is not to include matter, not even that matter, if any, in which it is always and characteristically realized. The pure reading, or PURITY as I shall call it, takes “*ἢ οὐ*” at 1036b5 to initiate an answer to the original question rather than to continue it. So I read it in the above translation (“No, rather, they are matter . . .”). Here I follow Ross (1924) and Frede and Patzig (1988). But if the question continues to the end of the passage, a quite different reading suggests itself. Burnyeat *et al.* (1979: 88–9), for example, paraphrase 1036b5–7 as follows: “Are the flesh and bones in which we always find the form of man themselves part of the form and the definition, or are they (inessential) matter which, like the bronze of the hypothetical bronze circles, we find ourselves unable to separate because it is never actually found separate?” This paraphrase will prove inviting to proponents of the impure reading. For IMPURITY, as I call their view, has Aristotle rejecting the claim that the matter characteristically realizing a form is mere matter and accepting the claim that it is part of the form.<sup>517</sup>

The pure reading is also more likely, for three reasons. First, the impure reading appears to reverse, or at least to occlude, the order of explanation indicated in the text. For now the thought experiment (all circles being bronze) serves to explain a case that is hardly in need of this sort of analogical explication. On IMPURITY itself, the form of

<sup>517</sup> As court reporter to the London Reading Group, Burnyeat himself is under no obligation to engage in their impurity. Indeed, as he made clear at the 1993 Oriel Aristotle Conference, he is in substantial agreement with my reading of the passage.

man is already and unproblematically realized in a specific sort of matter, namely, flesh and bones. To explain this it would hardly make sense to appeal to a hypothetical, indeed, counterfactually hypothetical case. So on IMPURITY the analogy has no real work to do, contrary to Aristotle's indication. Second, the impure reading says that flesh, bones, and the like are not mere matter but belong to the form. But if any matter is fit to be smuggled into the form, it would have to be functional matter—fingers, legs, and the like. But in *Metaphysics* Z.10 and 11 this matter is *contrasted with* flesh and bones and these are remnant matter, the matter into which an organism resolves upon passing away. This matter can exist without the form and, hence, can hardly be part of the form, as IMPURITY requires. Finally, it should be pointed out that the impure reading is not required, even if “ἦοὔ” at 1036b5 of (TH) is taken to continue the question.<sup>518</sup> For the question could be, simply, whether flesh and bones are part of the form or whether, rather, they are matter but we are unable to separate the form from the matter because the form does not occur in any other matter. On PURITY the first is answered negatively and the second affirmatively. Moreover, the affirmative answer is made on the strength of the hypothetical case and, so, unlike the impure reading, PURITY gives the thought experiment itself a central role in the argument. For these reasons the pure reading of the passage is to be preferred.

According to the Thought-Experiment passage, compositional plasticity is sufficient for purity. Its opening line commits Aristotle to

17.(a) The circle is found in various material realizations → (b) the matter is not part of the form of circle,<sup>519</sup>

and compositionally liberal purists might, in addition, commit him to

18. The matter is not part of the form of circle → (c) the form of circle can exist without a specific (kind of) material realization.

The difference here is not slight, for the generalization of (18) is equivalent to

18'. A form cannot exist without a specific (kind of) material realization → matter is part of the form,

<sup>518</sup> Here I have been prompted by a remark of John Malcolm's.

<sup>519</sup> Aristotle actually says that the matter (bronze, stone, wood) will not be part of the substance-of the circle. But the passage goes on to make it clear that he is talking about the form, so this merely installs form in its familiar role as the substance-of the circle. There is, I believe, an intervening step in the reasoning behind (17), namely, that the circle is variously realized only if its form is variously realized. So Aristotle must be assuming that the form,  $f$ , of an  $F$  is compositionally plastic if, and only if,  $F$ 's can be realized in different kinds of matter and that, if  $f$  is compositionally plastic, then  $f$  is pure of matter.

and this will be rejected by certain purists<sup>520</sup> even if affirmed by others.<sup>521</sup> Nonetheless, if nothing in the Thought-Experiment passage blocks (18), the analogy between man and circle would allow us to move to

c'. The form of man can exist without a given material realization,

which will please the compositionally liberal purists.

Now Aristotle says that even were (17[a]) to fail, (17[b]) could hold—after all the first is only a sufficient condition of the second. And he seems to say just this about the form of man, that is, he seems to assert something like

18\*.  $\neg(\text{The form of man, } f_m, \text{ is realized in } m_m \text{ only} \rightarrow m_m \text{ is part of } f_m).$

Notice that (18\*) does not contradict (18!) because the antecedent of the negated conditional in (18\*) is weaker. So it might be thought that

18! The form of man,  $f_m$ , can be realized in  $m_m$  only  $\rightarrow m_m$  is a part of  $f_m$

holds. But Aristotle doesn't assert (18!). Indeed, he says that even if we *can't* separate  $f_m$  from  $m_m$ , the matter is still no part of the form. That is, he maintains

18\*\*.  $\neg(\text{The form of man, } f_m, \text{ can't be conceived to be in anything but } m_m \rightarrow m_m \text{ is a part of } f_m).$

Proposition (18\*\*) gives the cash value of the Thought-Experiment passage. Despite our inability to conceive of men being constituted of something other than flesh and bones, such matter is no part of man's form. And this is shown by the analogy with the circle. To put the point generally, even if one can't conceive of a different (kind of) material realization for things of a given kind, still the matter will be no part of the form(s) of such things.<sup>522</sup>

So far I am in agreement with purists such as Frede and Patzig. But the matter is slightly more complicated with respect to Code and Moravcsik. As purists, they ought to be attracted to (18\*\*). But (18\*\*) is taken to clash with (18!), which they find contained in the Thought-Experiment passage. In response they claim, first, that the Thought-Experiment

<sup>520</sup> For example, Code and Moravcsik (1992) and Frede and Patzig (1988).

<sup>521</sup> For example, Shields (1989).

<sup>522</sup> Proposition (18\*\*) gives a strong reading to Aristotle's 'we are unable ( $\delta\delta\nu\nu\alpha\tau\omicron\upsilon\eta\mu\epsilon\nu$ ) to separate', and it will be noted that he might have intended to say just that it is 'hard to separate' the form. This installs a weaker antecedent in (18\*\*), giving us:  $\neg(\text{It is hard to conceive of } f_m \text{ as being in anything but } m_m \rightarrow m_m \text{ is a part of } f_m)$ . But if it is impossible to conceive of  $X$  apart from  $Y$ , then it is hard to conceive of  $X$  apart from  $Y$ . So (18\*\*) can be left standing as it is.

passage is thoroughly aporematic and, hence, that Aristotle is not speaking in his own voice. Thus, presumably, he is setting up but not endorsing (18'). Further, they hold that when Aristotle does speak in his own voice, namely, in the Young Socrates passage, he officially rejects compositional plasticity. To some extent, then, the aporematic reading of the Thought-Experiment passage feeds off the perception of conflict between it and the Young Socrates passage. So if this perception can be removed, so can much of the motivation for the aporematic reading. One might do this by tinkering with the Young Socrates passage or by expelling (18') from the Thought-Experiment passage.

Before the proposed tinkering, what can be said about (18')? Well, one thing that is clear is the central position of (18\*\*). Strictly speaking, however, it is not clear that it contradicts (18'), as Code and Moravcsik seem to assume. For this requires the existence of an entailment, in either direction, between the impossibility of  $x$ 's existing without  $y$  and the impossibility of conceiving of  $x$ 's existing without  $y$ . And it is not obvious that there is such an entailment. Although this undercuts the attraction of the aporematic reading, it will not please those purists who object to (18').<sup>523</sup> Such compositionally rigid purists, as I shall call them, can, however, challenge (18) itself. For if all agree that (18\*\*) plays a central role in the Thought-Experiment passage, it is not clear that (18) even makes an appearance there. Throughout, they may insist, Aristotle is concerned with what is conceptually possible not with what is metaphysically possible. This at least appears to be the explicit force of his remarks and, accordingly, (18), and so (18'), may be set aside. Therefore, the Thought-Experiment passage appears to come down on the side of PURITY, albeit compositionally rigid purity, concerning the relation of form to matter.

Notice, however, that compositionally rigid purity, as here represented, is compatible with compositional plasticity. For in rejecting (18), compositionally rigid purists simply deny that there is an *entailment* from matter's not being part of the form to the possibility that the form exist without that specific sort of matter. This leaves it open whether the possibility might be urged, or rejected, on other grounds. And, indeed, this is exactly where the possibility remains when we arrive at the Young Socrates passage.<sup>524</sup>

<sup>523</sup> For example, Frede and Patzig (1988).

<sup>524</sup> Moreover, this is precisely where it ought to remain. Shields tries to get more out of the Thought-Experiment passage. Despite the fact that we do not see the form of man in material other than flesh and bone, nothing hinders it from being like the form of circle, which (we see) is realizable in various kinds of material. Shields routinely concludes that human beings are compositionally plastic. Although this passage may be consistent with compositional plasticity, much more needs to be said. For, as we have seen, when Aristotle says that "nothing hinders them (i.e., the things that are not seen in separate matter) from being similar to these (i.e., the things that are seen in separate matter)" he may just mean that in both cases the matter does not belong to the form, despite the fact that this is difficult to grasp in the case of human beings. And this, we saw, is consistent with denial as well as affirmation of compositional plasticity. Furthermore, even were the form of man compositionally plastic, it would not follow that *human beings* "can be realized in any functionally suitable matter" (Shields, 1989: 23) but only that there could be functionally similar creatures, arguably, of an entirely different species. See below for more on this.

## 9.Socrates the Younger on the Soul of Man

If the Thought-Experiment passage is neutral on compositional plasticity, the Young Socrates passage is decidedly not. This, at least, is the dominant opinion among Aristotle's commentators. For impurists this is unsurprising: inclusion of matter in the form is deemed sufficient to exclude the form's compositional plasticity. But as we have just seen, compositionally rigid purists could join the ranks on this point, arguing that matter's exclusion is consistent with denial of form's plasticity. Despite such agreement, it seems to me that the text establishes neither the impurist nor the purist case against compositional plasticity. To this extent, the Young Socrates passage is an accomplice in the cause of PURITY.

The Young Socrates passage is introduced by four lines that claim to summarize some portion of the preceding discussion falling between it and the Thought-Experiment passage. Here is the Summary text, as I shall call it, followed by the Young Socrates passage itself.

[SU] That there are some difficulties concerning definitions, and why this is so, we have discussed. Hence (διό), to reduce everything in this way (σό πάντα ἀνάγειν οὔσω, b22) and to leave out the matter (ἀφαρφαίνε τὴν ἕλην, b23) is useless (περιεργον), for some things are probably (ἴσως) a this in a that (τόδ' ἐν τῷ ἐ) or [the] that in a particular state (ὡδὶ ταδὶ ἔχοντα). (1036b21–4).

[YS] And the comparison (παροβολή) that Socrates the Younger used to make in the case of animal is not happy (οὐ καλῶς ἔχει), for it leads away from the truth (ἀπάγει ἀπὸ τοῦ ἀληθοῦς) and makes one suppose that there could be a man without the parts (ἀνθρώπον ἄνευ τῶν μερῶν <sup>ποιεῖ ὑπολαμβάνειν ὅς ἐνδεχόμενον εἶναι τὸν</sup>), as there can be a circle without the bronze. But these are not similar, for an animal is a certain perceptible thing (αἰσθητὸν τι τὸ ζῷον, b28–9)<sup>525</sup> and cannot be defined without movement (ἄνευ κινήσεως οὐκ ἔστιν ὁρίσασθαι) nor, thus, without the parts being conditioned in a certain way (διὸ οὐδ' ἄνευ τῶν μερῶν ἐχόντων πῶς). For not in any old way is a hand

<sup>525</sup> I comment below on the fashionable substitution of αἰσθητικόν (that which is capable of perceiving) for αἰσθητόν (that which is perceived/perceivable) at b28.

a part of man but only when it is capable of exercising its function (ἡ δυναμένη τὸ ἔργον ἀποτελεῖν), thus, only when it is ensouled. If it is not ensouled, it is not a part (μὴ ἔμψυχος δὲ οἷ μέρους). (1036b24–32)

I shall raise two questions about the pair of passages. First, (QA), do they show, as many hold, that Aristotle's official position is that the matter of man is part of the form of man? If not, (QB), does it follow that the form of man is after all compositionally plastic?

We may begin by noting that the ‘διὸ’ (hence’) at 1036b22 in the Summary text suggests that the mentioned difficulties for definitions are connected with a distinct antireductionist sentiment on Aristotle's part. That is,

A1. Reducing everything in this way and eliminating the matter,

is useless because

A2. Some things are no doubt a this in a that or a that in a certain state.

So it appears that (A2) is sufficient to defeat (A1). But what exactly is the target of attack? This will depend, in part, on how we read ‘in this way’ (οὕτω) at 1036b22. Where, in short, has the (A1) reduction occurred? At first glance, it would not seem to be in the Thought-Experiment passage, for that passage says nothing about eliminating matter. Even supposing its “separation in thought” (ἀφελεῖν τῆ διανοίᾳ at 1036b3) to match the notion of elimination in the Summary text (ἀφαίρειν τὴν ἔλην at 1036b23), the Thought-Experiment passage presses the difficulty of separating the form from the matter but the Summary text worries about separating or eliminating the matter.

More likely, the reference is to the Pythagoreanizing underway in the intervening text, 1036b7–20. If so, then (A1) probably is not to be taken as a unit. Rather, its first part, the reduction of everything “in this way,” would refer to the intervening text's reduction of all things to numbers (note the parallel language at 1036b12: ἀνάγουσι πάντα εἰς τοῖς ἀριθμοῖς—“they reduce everything to numbers”) and, presumably, to the extension of this to all things' being one in form and, hence, to everything's being one. How, then, does the second part of (A1), the elimination of matter, fit into the picture? Well, if we assume that numbers, as mathematical objects, are nonmaterial, then the reduction of all things to numbers would entail the elimination of at least perceptible matter and this latter is precisely the stuff of human beings.<sup>526</sup>

<sup>526</sup> It may be worth noting that, as Frede and Patzig (1988) nicely show, the reduction of all things to numbers happens in part because some take certain parts that are in fact material parts to be formal parts and, in this way, they eliminate the matter. The existence of such views provides the cash value of Aristotle's admonition to address (Q3).

Code and Moravcsik, on the other hand, accommodate the worry about eliminating matter by reading it as a worry about eliminating matter from the definition. The implicit endorsement here, that form is to include matter, will please impurists, but it can hardly be sustained in view of the fact that Aristotle's worry about (A1) is based on (A2) alone and this is simply not enough for the wanted endorsement.<sup>527</sup>

In effect, Aristotle's qualms about (A1) amount to the point that both form and matter are needed to account for at least some things, saliently, of course, natural things. Hence, no more than one could get by simply with matter can one get by simply without matter.<sup>528</sup> But this does not require that matter be mentioned in the definitions of such things or that it be part of their form(s). So far as the Summary text is concerned, then, a negative answer to (QA) is still open. Thus, purists are free to read the Thought-Experiment passage as eliminating matter from the definition without threat from the Summary text.<sup>529</sup> Of course, this will amount to little, if the requirement is established in the Young Socrates passage proper. So we come finally to it.

Socrates the Younger suffers mention elsewhere,<sup>530</sup> but only *Metaphysics* Z.11 addresses his philosophical views. And here we are told precious little, only that he was fond of a certain comparison involving animal (the YS-comparison):

19. Animal is compared to something,  $\alpha$ .

We are also favored with Aristotle's opinion of the view, namely,

19a. The YS-comparison leads away from the truth,

and

19b. The YS-comparison makes one suppose there could be a man without the parts.

<sup>527</sup> This is not a problem for Code and Moravcsik because they take Aristotle still to be operating in the dialectical mode and, hence, not committed to the implicit endorsement that matter is to be included in the definition.

<sup>528</sup> It should be noted that Ross's translation at (A1), "And so to reduce all things thus to forms and to eliminate the matter," reads form into the phrase "to reduce all things in this way" ( $\tau\acute{o}$  πάντα ἀναγεῖν οὕτω: *sche*), whereas I take it to refer, in the first instance, at least, to the intervening reduction to numbers. It is in this way that the nonmaterial enters the story.

<sup>529</sup> This should counter Woods (1991a: 87), who implies that Frede and Patzig (1988) neglect (SU) because it suggests that "some definitions *do* require mention of matter or material parts." Pace Woods, (SU) does not threaten PURITY.

<sup>530</sup> A fellow mathematician and contemporary of Theaetetus, he is mentioned by Plato at *Theaetetus* 147D, *Sophist* 218B, and, possibly, at 358D in the *XI Letter*. He also takes the stage as an interlocutor in the *Statesman*.



Now, presumably, (19b) explains (19a). Our question, then, concerns the intended value of  $x$ , in (19), such that (19b) results. Although not explicit on the point, the text does provide grounds for an educated guess because Aristotle expands (19b) as

19b'. The YS-comparison makes one suppose there could be a man without the parts as there could be a circle without the bronze.

We may plausibly infer from this that the  $x$  in the YS-comparison is the, or a, circle. So (19) is completed as

19'. Animal is compared to  $x$  &  $x$  is the/a circle.

As it stands, (19') has three interpretations, all attested at different places in *Metaphysics* Z.10–11:  $x$  may be a perceptible circle, a mathematical (noetic) circle, or a purely formal item, namely, the form itself. Because (19b)'s anomalous result concerns the existence of *a man* without parts, Aristotle is not even entertaining the question whether the *form* could exist without parts, let alone without matter. So the comparison in (19') must be to the perceptible or to the mathematical circle, both of which are concrete particulars. But since the parts that are mentioned are bronze segments (presumably) rather than noetic segments, the YS-comparison is clearly to the bronze circle.

We may begin, then, by asking how the circle can exist without the bronze. And here there are two possibilities:

A. The circle may exist as a concrete circle in some perceptible matter other than bronze;

and

B. The circle may exist as a concrete circle in noetic, rather than, perceptible matter (such as bronze).

On (A), bronze is a specific determinate kind of perceptible matter; on (B), it stands in for any perceptible matter whatever. So if (A) is the contrasting case, then it would appear that Socrates the Younger is faulted for suggesting that the form of man is compositionally plastic. If, however, (B) is the contrasting case, then the fault would lie with the implication that the form of man could exist in something like noetic matter. In faulting this, nothing need be said about the form's compositional plasticity (in any interesting sense), but simply about its being in perceptible rather than noetic matter. But note, further, that on option (A) it still does not follow that matter is part of the form. For the most this option inveighs against is that *a man*—a concrete particular—should exist without its parts.

It is quite natural for Aristotle to continue by saying that an animal

is a *perceptible thing*, thereby enabling us to retain 1036b28'αἰσθητόν (that which is perceivable) rather than adopting Frede and Patzig's popular emendation, αἰσθητικόν (that which is capable of perceiving).<sup>531</sup> More to the point, an animal is that sort of concrete thing that, unlike the concrete circle, can only be a perceptible thing.<sup>532</sup> This suggests that (B) is the intended point of contrast and, thus, that the Young Socrates is to be faulted for suggesting that a man could exist without his perceptible material parts. So this would be the first dissimilarity between men and circles. Moreover, man is the sort of perceptible thing that is defined by a certain kind of motion. This, I take it, is the second and more critical dissimilarity.

So we get

20.  $\neg\Diamond(x \text{ is an animal} \ \& \ x \text{ is defined without mention of motion})$ ,<sup>533</sup>

or, perhaps more perspicuously for our purposes,

20'.  $\Box(x \text{ is an animal} \rightarrow x \text{ is defined by reference to motion})$ .

Propositions (20) and (20') record unusual brevity, even by Aristotle's standards. But it is not unreasonable to suppose that in mentioning motion, they in effect bring in *De Anima's* notion of a second actualization (actualization). Then (20) and (20') amount to the claim that an animal is defined by certain characteristic activities or exercises of functions or movements involving these. On this reading, for the parts to be in a certain state is just for them to be capable of exercising these actual<sub>2</sub> functions. Aristotle gets this by, in effect, extending the consequent of (20'):

21.  $x \text{ is defined by reference to motion} \rightarrow x \text{ has parts} \ \& \ x \text{ is defined by its parts being in a certain state}$ .

From (20') and (21) we get

22.  $\Box(x \text{ is an animal} \rightarrow x \text{ is defined by reference to } x\text{'s parts being in a certain state})$ .

Now if we take (22), reasonably, to contrast with (19b) above, then we get

<sup>531</sup> Also proposed by Irwin (1988: 569, n. 39), and Whiting (1991: 627).

<sup>532</sup> By a concrete thing I mean, again, and perhaps nonstandardly, a particular compound of form and matter—be the matter perceptible or noetic.

<sup>533</sup> Getting to (20) in this way gives us what Frede and Patzig want out of the emendation, αἰσθητικόν (that which is capable of perception), namely, a connection with the discussion of motion and, implicitly, perceptual functions. The motivation for emendation is certainly correct, so I would be happy to follow Frede and Patzig should the current proposal fall short.

23.  $x$  is defined by reference to  $x$ 's parts being in a certain state  $\rightarrow \neg\Diamond(x$  is an animal &  $x$  can exist without its parts),

as something like the grand upshot of the passage.

Were the consequent of (21) to assert only *that*  $x$ 's parts are to be in a certain state, the definition of an animal would not need to mention the parts at all, but simply the characteristic functions. If, on the other hand, the parts' being in a certain state is actually *mentioned in* the definition, then it is incumbent on Aristotle to say something about *how* an animal is related to its parts, such that they are mentioned in the definition. The fact that Aristotle proceeds to address just this point suggests that he prefers this second alternative, which is encoded in (21).

But notice that, even if the parts are somehow included in the definition, (23) still does not say that matter is to be included in the form nor that Young Socrates' mistake was to exclude it. In fact, it does not even say that a man cannot exist without matter, although this is doubtless true. So exactly how matter enters the picture is somewhat unclear.<sup>534</sup>

Now (22) is supposed to distinguish the case of the circle from that of man. But clearly the consequent, as it stands, does nothing in this service. For one could argue that the segments of a thing, treating these as its parts, must be in a certain state if the thing is to be a circle. Now, of course, one might point out that the circle is not defined in terms of its segmental parts being in a certain condition. This is simply because the circle is not defined in terms of its constituent segments at all. But from this it would not follow that man and circle are contrasted on the point that the first is defined in terms of certain *perceptible* material parts and the second in terms of *nonperceptible* material parts. Rather, the crucial point is that the parts be *conditioned* in some way. So we must understand the clause in the way we have suggested, as saying that the parts must be in a state that enables the animal to move, that is, that enables the animal to exercise its characteristic functions. The parts of a man, so characterized, do follow from the definition, but the parts of the circle, whatever their make-up or characterization, do not.

This allows room to argue that (23) doesn't have the impure consequence that matter belongs to the form. For there are two versions of the claim that is crucial to (23):

- 23a.  $x$  is defined by reference to  $p_1 \dots p_n$  &  $p_1 \dots p_n$  are remnant parts  $\rightarrow x$  cannot exist without  $p_1 \dots p_n$ ,

and

<sup>534</sup> Certainly, it seems to me, less clear than as represented in Burnyeat *et al.* (1979), where (20') is held to require that matter be mentioned in the definition. (Bear in mind here n. 48).

23b.  $x$  is defined by reference to  $p_1 \dots p_n$  &  $p_1 \dots p_n$  are functional parts  $\rightarrow x$  cannot exist without  $p_1 \dots p_n$ .

Thesis (23a) is pretty clearly false. A given, localizable portion of matter, part of Smith at a given moment, may, at some later time, exist apart from Smith without prejudice to Smith's existence. So long as, of course, other suitable matter has, in the appropriate manner, found its way into Smith's body.<sup>535</sup> Thesis (23b), on the other hand, may well be true. In any case, it is the version Aristotle wants. This is clear from the support offered for (22).

The support does not amount simply to reiterating the familiar cant that the hand separated from the man is a hand in name only. Aristotle says, more emphatically, that it is not a part at all of the man. In short order, we get

24.  $x$  is a hand and a part of a man  $\rightarrow x$  is capable of functioning in hand-like ways,

24'.  $x$  is capable of functioning in hand-like ways  $\rightarrow x$  is ensouled,

and, so,

25.  $x$  is a hand and a part of a man  $\rightarrow x$  is ensouled.

According to (25), nothing can be both a hand and a part of a man unless it is ensouled because no such thing can function in its characteristic ways unless it is ensouled. In effect, Aristotle here follows the practice, familiar from the psychology, of defining faculties (and antecedently their organs) in terms of functions and explicating the latter in terms of the form of the system as a whole. On my reading, (24') commits Aristotle to just this.

Now, however, we face a slight anomaly. For (22) insists that an animal is to be defined in terms of its parts being in a certain state. Suppose, as purists, that we enforce here Z.10 and 11's insistence that only the form and formal parts are to be mentioned in definitions (adding, perhaps, that definitions be allowed to apply to concrete particulars because these are definable insofar as their forms are definable). Then it ought to follow, as (22) reports, that man is defined in terms of his parts so long as these are something like formal parts. So, by (22), man is defined by reference to certain parts; but, by (25), these parts themselves are defined by reference to the whole system (the form of the man). This has the look of an uncomfortably close circle.

Perhaps, however, the idea behind (22) is that when one has properly

<sup>535</sup> Actually this turns out to be rather complicated. On the connection between hylomorphism and the migration of matter, see Fine (1994).

specified *all* the parts that are definable in the sense of (24)–(25), then one has, in effect, given a specification of the form of man. Propositions (24)–(25) concern only particular parts or functions. While the form is not defined in terms of any single such part or function, when all have been properly specified, so has man's form. So what looked like a circle might turn out to be only a closed curve in semantic space, particularly if the individual functions can be specified without actually mentioning *man*.<sup>536</sup> This solution works, of course, only because the parts mentioned in (22) are functional parts.<sup>537</sup> So regardless of our preference for (A) or (B) above as the official reading of the YS-comparison in (19'), we are stuck with parts that are functional parts.<sup>538</sup>

How, then, does (22) bear on our question (QA)? Does form include matter after all? We have already seen that a number of more global considerations make it convenient for Aristotle to answer this question negatively. Principally, these have to do with the kind of explanatory role he assigns to form. Here, however, my concern is with the possibility of a pure reading of just the Young Socrates passage. On one quite attractive suggestion, due to Frede and Patzig (1988), in the Young Socrates passage Aristotle continues to hold

26a. The definition (of man) does not include matter,

and so champions a purist reading of the relation of form to matter. Closeness of fit between form and matter is, then, to be explained by

26b. The definition (of man) displays, by itself, what kind of matter can realize the form.

As something of a corollary to (26b), they add

27. Only one kind of matter can realize the form (of man).

So they are clearly compositionally rigid purists. For purists, the general thrust of Frede and Patzig's solution will be hard to resist, particularly (26a) and (26b). The corollary, (27), seems to me to be another matter, and I turn to it below in considering an argument against Frede and Patzig's position.

<sup>536</sup> As is suggested by Aristotle's fondness in the biology for accounts of faculties and functions that apply across species.

<sup>537</sup> The solution also avoids a potential conflict with the Sophisticated Position advanced at the end of Z.10. For the latter's (8d) rated the functional parts of a thing posterior to the thing because such parts are to be defined in terms of their wholes. But, like le20(24)–(25), (8d) ranges over particular parts and their wholes. Such parts are severally posterior to their wholes, but nothing requires that they be jointly so.

<sup>538</sup> I return to this point in the final section of Ch. IX.

## 10. In Defense of Purity

Not all commentators see PURITY in the soul of Socrates the Younger. Indeed, for some the Young Socrates passage is prime evidence for form's IMPURITY. So a closer look at the impure reading is in order. It will be useful to begin with Whiting's recent critique of Frede and Patzig's purist reading.<sup>539</sup> I shall argue that the attack fails to touch the heart of their position and, to that extent, that it does not advance the cause of IMPURITY. Although on some points I shall part company with Frede and Patzig, in the end PURITY emerges unscathed.

Suppose we begin with Whiting's worries about (26a). Purists go wrong in failing to appreciate the parallel between *Metaphysics* Z.11 and E.1. So Whiting begins with

28. Z.11 parallels E.1.

She next looks at *Metaphysics* E.1's distinction between objects of physics and objects of mathematics: "Aristotle distinguishes the objects of physics (which include souls) from the objects of mathematics by arguing that the essences of physical objects contain perceptible matter in a way in which the essences of mathematical objects do not" (1991: 627). Let us enter this as

29. The way essences of objects of physics contain perceptible matter differs from the way objects of mathematics contain perceptible matter.

Now there does appear to be some support for (29). Concerning the objects of physics, Aristotle says, at 1026a2–3, that "none of them can be defined without reference to motion . . . rather, they always have matter (οὐθενὸς γὰρ ἄνευ κινήσεως ὁ λόγος αὐτῶν, ἀλλ' αἰεὶ ἔχει ἔλην)." Moreover, he goes on to say that all objects of physics, including animal in general (ἄλλως ζῶον), are to be defined like the snub (τὸ σιμόν). This gives the cash value of his admonition that we should not overlook *how* their essences and their definitions are (δεῖ δὲ τὸ τί ἡγεῖναι καὶ τὸν λόγον πῶς ἔστι μὴ λαθάνειν, 1025b28–9).

From (29), thus supported, and (28), Whiting concludes

30. Z.11's form contains matter.

Whatever its eventual success, (30) is not established by the parallel between *Metaphysics* Z.11 and E .1. This is not to deny that there is a parallel between the two chapters, for just as *Metaphysics* E .1,

<sup>539</sup> In her helpful and stimulating review (Whiting, 1991) of Frede and Patzig (1988) and Furth (1988). Other advocates of IMPURITY include Rorty (1973), Irwin (1988), and possibly Mansion (1979) —see below, n. 79.

1025b31–2, distinguishes between the *σί ἐστι* (what) and definition of the snub (τὸ σιμόν), on the one hand, and concavity (τὸ κοιλόν), on the other hand, so *Metaphysics* Z.11 distinguishes concavity (ἡ κοιλότης) from the snub nose and says that the latter is the sort of thing that contains matter (οἷον ῥινὶ σιμῆ . . . ἐνέσται καὶ ἡ ὄλη, 1037a32–3). But this parallel does not advance the impurists' cause. For the snub that, in E .1, is an object of physics because of containing matter must be what Z.11 opposes to concavity (ἡ κοιλότης). But in Z.11, at 1037a27–33, concavity deputizes as the sort of form that is the primary substance and it is likened to the soul, whereas both the snub nose and snubness are barred from this role. So (30) can hardly be thought to follow from Z.11 and E .1. Moreover, *Metaphysics* Z.4 and 5 concede only that the snub and its ilk have definitions in a derivative sense but remains adamant in denying them definitions in the sense required for primary substance.<sup>540</sup> Since the form under discussion in Z.10–11 is primary substance, (30) renders Z itself internally inconsistent.<sup>541</sup>

Fortunately, we need not swallow such bitter tonic. Note, first, that Aristotle contrasts, as in (29) above, the way objects of physics and objects of mathematics contain matter. Neither of these, however, are objects of first philosophy. So it is unclear how (29) bears at all on the identity of those forms that are the objects of metaphysical inquiry. Second, and related, recall that E .1 says that we must not overlook *how* or *the way* (πῶς) the essence is, and notice that the question is asked in the course of discussing how the student of physics ought to proceed. This allows room for the possibility that the essence of *x*, *qua* object of physics, will be investigated differently from the way the essence of *x*, *qua* object of metaphysics, is investigated.<sup>542</sup> In short, *Metaphysics* E .1 articulates a notion of definition and essence that will be of use to the physicist, and such definitions are not meant to enjoy the full metaphysical reach of their purely formal counterparts. So there need be no clash between it and a strictly pure reading of Z.10–11.

If the attack on (26a) can be met, how does (26b) fare? Whiting

<sup>540</sup> This is abundantly clear from Ch. VI and VII.

<sup>541</sup> This consequence cannot be avoided by supposing that Z.4–6 operate with a different notion of primacy. For Z.11 understands by a primary thing what is not expressed by one thing being in another which underlies it as matter (1037b3–4) and, as already pointed out in Ch. VI, this formulates in the material mode what Z.4 formulates, in the formal mode, as “what is expressed without predicating one thing of another” (1030a10–11—see [vii] of the New Primacy Passage, Ch. VI, sect. 6). Thus, throughout the discussion of form as essence, Aristotle remains committed to impredicability as a condition on the primacy of form.

<sup>542</sup> There is a parallel to this in the treatment of embodied passions (such as anger) in *De Anima* I.1, where one and the same form may be investigated, once, *qua* object of physics, in which case the material realization is ineliminable, and, once, *qua* object of metaphysics, in which case the material realization, if any, is eliminable. See Wedin (1995).

objects that Aristotle doesn't alert the reader to the distinction between what is explicitly mentioned in a definition and what is only implied by what is mentioned. If this is essential to sustaining (26b), then Frede and Patzig's version of PURITY is not yet out of the woods. Here, I think, purists can respond that 1036b29's constraint against the definition of man proceeding ἄνευ κινήσεως (without mention of motion) signals just the sort of implication Whiting is looking for. But what isn't fully explained on Frede and Patzig's account, and what Whiting wants an account of, is how Aristotle could have held both (26a) and (26b), for the latter ties form to *matter*.<sup>543</sup>

Whiting herself rejects (26a) in favor of (26b) on the grounds that the forms of natural things just contain characteristic matter. With the purist camp, we would argue that this line of interpretation fails. But Whiting is quite correct to press for the purist explanation of (26b). One response will not work. Suppose that matter is introduced by the notion of something's having parts that are in a certain state (e.g., in [21] above). Suppose, further, that the '→' in (20)–(22) marks some kind of entailment. Then it would appear to follow that the definition *entails* that the form involve a certain sort of matter—supposing that definitions contain nothing but form. Moreover, if, with Frede and Patzig, one holds (27), then it is hard to see why matter shouldn't be included in the definition. It won't do to say that (20) doesn't mean to *define* animals in terms of motion. For Aristotle uses ὁρίσιν (“is defined”), which surely has canonical force in this context. So the problem is that on one account of what it means to say that *A* entails *B*, *B* is contained in *A*. Moreover, this account is not without some attraction for Aristotle. One might, for example, say that the conclusion of a syllogism is contained in the premises or that a superordinate element in an essence (e.g., animal) is contained in a subordinate element (e.g., man) and so is ‘entailed’ by it. So if we allow that specific characteristic matter is ‘entailed’ by a given form, how can we bar the form from containing matter?<sup>544</sup>

Purists are advised, then, not to hold both that (20)–(22) express entailments and that the consequent of (21) mentions matter. So (20)–(22) cannot be where (26b) is located. Nonetheless, Frede and Patzig are, I believe, on the right track. The crucial move is to deny that

<sup>543</sup> Propositions (26a) and (26b) are difficult to reconcile, only if (26b) makes matter part of the definition. But, as Lewis has reminded me, this is not obvious.

<sup>544</sup> The force of this difficulty might be thought mitigated by an example from *Topics* 102a18–19, where Aristotle says a proprium is “that which, while not revealing the essence [of the subject], belongs to it alone and is counterpredicable of it.” But this says nothing about the connection between the proprium and the definition. Indeed, the exact nature of this relation is notoriously difficult to specify.



(20)–(22) mention matter at all.<sup>545</sup> Thus, let the definition,  $D_f$ , specify the functions anything is to have should it instantiate the form  $f$ . This agrees with my proposal at the end of the previous section for reconciling (22) and (25). On my suggestion, (22) alludes to a definition in the strict sense but the parts in question are functional parts and these are specified at a sufficiently abstract level of description to count as nonmaterial parts—in the sense that the materials in which such parts are realized is neither needed for nor relevant to the fully articulated definition of the form of the animal in question.

Roughly, the idea is that these functions, which are somehow aspects or parts of the definition, exhaust the constraints on matter but do not, by themselves, say anything about what specific sorts of materials might realize the functions.<sup>546</sup> And, of course, we are talking about the material that constitutes a  $c$ -substance. So we get

31.  $c$  is a  $c$ -substance &  $c = f + m$  &  $D_f$  is the definition of  $f \rightarrow m$  is not mentioned in  $D_c$  &  $D_f$  specifies the functions of  $c$ .

On this view, specifying  $c$ 's functions amounts to specifying  $c$ 's functional parts. To describe a part as a hand, for example, is already to locate it at a comfortably abstract level (for purists, that is), namely, at a level where mention of realizing material is as inappropriate as mention of stone or iron would be in the case of an ax. So far as (31) is concerned, then, form constrains matter by way of the functions that constitute the form. The most that follows from this, however, is the relatively weak

32.  $D_f$  constrains  $m$  to *whatever* can realize the functions of  $c$ .

Because there is no 'entailment' relation from form-constituting functions to matter, the form cannot *by itself* establish specific material constraints on its realization. And it is especially difficult to see what grounds there are in Z.11 for holding (27). Had form contained matter of a sufficiently specific sort, then it might have been plausible to argue that only this matter can realize the form. By suitably neutralizing (26b),

<sup>545</sup> I note now that Frede (1990) assumes that the parts alluded to in (20)–(22) would have to be material parts. Therefore, he denies (20), preferring to read, more weakly, that an animal is to be defined "in such a way that it is clear from the definition that they are the kind of thing which is in motion or subject to change and has material parts of a certain kind" (1990: 121). This weakened reading seems less natural, for the Greek is straightforward in saying that the animal is not to be *defined* without motion ( $\delta\epsilon\upsilon\kappa\alpha\lambda\eta\sigma\epsilon\omega\varsigma$  οὐκ ἔστιν ὀρίσασθαι) nor without its parts being conditioned in a certain way ( $\alpha\upsilon\tau\epsilon$  οὐδ' ἄνευ τῶν μερῶν ἐχόντων πῶς). So it is better, I think, to give up the assumption that the parts in question are material parts and that the motion in question adverts to anything other than the animal's exercise of its characteristic functions (this last addressing Frede's worry that Aristotle would not include motion in the definition).

<sup>546</sup> *Pace* Frede and Patzig (1988: ii. 213).

we can, as purists, accept (26a) and, so, (32). But we must do so without thinking that (27) comes along for the inferential ride. Rather, cashing (32) is an empirical matter or, to use more current jargon, a production problem. For even if it is a deep natural fact about the world that the form of man is realized in flesh, sinew, and bone, the matter still is no part of the form itself. Exactly this is what Aristotle believed. So question (QA) is to be answered negatively, and with this we have our answer to the third of our governing questions, (Q3). The parts of the form are purely formal, and hence, the form itself is purely formal. So much, then, for its general ontological make-up. Finally, to return to our question (QB), nothing here excludes compositional plasticity; nor, on the other hand, is compositional plasticity entailed. It is simply left as an open question.<sup>547</sup> But then the thesis of compositional plasticity must be consistent with the Young Socrates passage as well as with the Thought-Experiment passage. If consistency of the latter sort is unsurprising, consistency of the first sort is not.

This raises anew the question of how the Young Socrates passage could have been meant to answer the Thought-Experiment passage, as some assume. The question is sharpened by the realization that the former speaks of defining *man*, whereas the Thought-Experiment passage speaks of defining the *form* of man. Of course, if these amount to the same thing, someone could insist that the PURITY of the Thought-Experiment passage transfers to the material claims put forward on behalf of the definition of man in the Young Socrates passage. But, as we have seen, these claims are not obviously and unproblematically to be found there, whereas it is clear that form's purity is well advertised in Z.11. So *if* we favor assimilation of the two definitions, the

<sup>547</sup> Shields (1989) tries out two additional arguments in favor of the compositional plasticity of form. First, he offers *De Anima* 414a25–7: “For the actuality of each thing comes about naturally in what holds in potentiality and in the appropriate matter, <sup>ἢ ἐντελέχεια ἐν τῷ δυνάμει ὑπάρχοντι καὶ τῇ οἰκείᾳ ὅλη πέφυκεν ἐργίνοσθαι</sup> ἐκαστοῦ γάρ.” This is held to establish that the only constraint on the matter of a thing is that it be functionally suitable. But, without further argument, the lines are neutral on compositional plasticity. For as it stands, the passage is consistent with holding that capacities are irreducible and essential properties of certain quite specific kinds of matter. Reading “appropriate matter” this way would appear to give us a version of 414a25–7 that does not require compositional plasticity. So, again, more needs to be said. The second argument depends on facts about thought. Thus, while my thought of Socrates is achieved by way of images, God's thought of Socrates is not. Hence, concludes Shields, Aristotle must accept the multiple realizability of the mental. But this presupposes that Aristotle's God thinks of the same things we think of. This is hardly obvious. Indeed, it is not even clear that God's thought is propositional (see Wedin, 1988, esp. App. C, “The Return of the Unmoved Mover”). Besides, insofar as Aristotle is offering a psychology adequate for persons, appeal to the behavior of transcendent entities is not of much interest. What we need to see is whether compositional plasticity is a feature adopted from within Aristotle's naturalistic stance

weight of evidence tells in favor of extending PURITY to the definition of man.

In arguing above that (20)–(22) need not be taken to mention matter, I have in effect committed the Aristotle of *Metaphysics* Z.11 to the bold claim that the definition of man does not mention matter. It may, of course, still be the case that man is always and only found in characteristic sorts of matter. So there are two ways in which man might be tied to specific material parts: (a) the entailment view, according to which such parts may be mentioned in or may be entailed by the definition of man, or (b) the production view, according to which such parts may follow from certain facts about the natural world. I have argued that Z.11 fails to establish the entailment view and so leaves us with nothing stronger than the production view. However, if giving the form of man is just to give the definition of man, then something stronger can be said. For now not only is option (a) not established in the Young Socrates passage, but also it appears to be excluded at the outset of Z.11. There definition is *of* the form (τοῦ εἶδους) and it is this notion that is said to be involved in defining *each* thing. So Z.10 and 11's extirpation of matter and material parts from the form would seem to imply that the *definition of man* cannot contain anything of a material nature.<sup>548</sup>

Notice, finally, that even were the entailment view, (a), embraced by Aristotle, it still would not follow that the *form* of man contains material parts. This is because one could grant that to be a human being is

<sup>548</sup> Mansion (1979) holds that Z.10 and 11 commit Aristotle to the view that *man* cannot be defined without matter. But she appears not to distinguish this from the question whether the *form* of man must include matter, if it is the object defined in defining *man*. Her argument for including matter in the definition of *man* rests heavily on 'la modèlle mathématique', which she takes to govern Z.10 and 11's discussion. (We, on the other hand, take the mathematical examples simply as illustrative cases—and so they figure above in our list of cases.) By this she means (1979: 199) that the definitions of geometrical objects, for example, must contain matter in the sense of spatial extension. Admittedly absent from Z.10 and 11, the idea is injected into the discussion on the basis of *De Anima* Γ.4, 429b18–19's remark that "the straight corresponds to the snub, for it involves extension." Mansion takes this to imply that extension is to be included in (the definitions of?) all geometrical objects. There are three objections to this use of 'la modèlle mathématique'. First, from my own Ch. VI it is clear that *the snub* does not have a definition at all, or at least none suitable to model that of *man*. Second, Z.10 and 11 distinguish between mathematical particulars, which have intelligible matter (ὑλη νοητή), and mathematical forms, which are purely formal. Only the former could correspond to Mansion's mathematical models, yet, as particulars, they are denied definitions. Third, *contra* Mansion, the *De Anima* passage does not imply that matter is to be included in the definitions of the straight. Indeed, the passage goes on to report that, whatever is the case with the straight (τὸ εὐθύ), the essence (τὸ τί ἦν εἶναι) will be different, if, as is surely the case, the straight and the essence of the straight (τὸ εὐθεῖ εἶναι) are different. The latter is the target of definition, at least as far as Z.10 and 11 read; so, if anything, the *De Anima* passage suggests, against Mansion, that matter is not to be included in the definition because it is not included in the essence.

just to be a member of a determinate biological species and so to have a very specific material nature, and yet insist that the form of such creatures be realizable in quite different sorts of matter. Creatures so constituted would not be human beings but they would be entities with similar functional capacities and states. In short, they would still be persons. From the point of view of philosophy of mind, for example, what matters are the psychological capacities, functions, and states characteristic of persons. Just what these are is determined by a form—the form that happens to be realized in human matter. (It is this latter that will exercise the Aristotelian physicist.) So even were *man* itself defined in terms of such material, the *form* of man would not be and, thus, would retain its PURITY and possibly even its plasticity.<sup>549</sup> But the proffered definition of man would take the form of specifying a universal compound and, from Z.4 onwards, we have seen Aristotle display little sympathy for this notion. In any case, it will not count as the substance-of the various c-substances that fall under it. For this will be the form of the c-substance and this has been purified of any material admixture whatsoever.

## 11. A Transitional Remark

Toward the end of Z.3, in what Chapter V called the Priority Argument, Aristotle concluded that the form of a c-substance is prior to its matter and to the compound of its form and its matter. We can take Z.10 to be revisiting this issue when it argues that the parts of the form are prior to the object and its parts, for this amounts to explaining the priority of form in terms of the priority of the parts of form. Appeal to parts is required by the fact that form is complex and the complexity of form is required by the causal role spelled out for form in Z.17. There the form is charged with explaining how a given portion of matter constitutes a c-substance capable of exercising a complex array of functions. This would hardly make sense were form simple. In short, functional complexity in the c-substance must be matched by a like complexity in the form, and this calls for the form to have parts. Precisely this requirement is subjected to scrutiny in the canonical cluster that begins with Z.13. In the next chapter we take this up under the rubric of form's 'compositionality'.

As we shall confirm in Chapter X, Z.17's causal role also requires that form be pure of material admixture. For it is by the presence of the form

<sup>549</sup> That is, even if (26a) turns out to be false, we can remain purists about form, and compositionally minded ones at that.

that matter constitutes a c-substance. Given form's complexity, this requirement must extend to the parts of form. So it is not surprising to find Z.11 turning to the project of clarifying the nature of the parts of form and arguing that none of these parts can be material in any measure. So Z.11's purification of form, as we have called it, serves its causal role.

But this causal role is also an *explanatory* role and, for Aristotle, explanation and generality are fellow-travelers. This suggests that the cause that turns out to be the substance-of a thing, on our account its form, is itself general and, hence, that it might be a universal. So it is natural for Aristotle to proceed to this topic in Z.13. Further, universals are arguably devoid of matter and this might also suggest that the form that has undergone purification in Z.11 is a certain kind of universal. This is another reason for Aristotle to place a discussion of the universal next on the 'canonical' agenda, especially because it is not obvious to him how something (namely, form) can be both universal to and the substance-of a group of c-substances. This is the second of Z.13's worries about form, and it is taken up in the next chapter as the problem of 'generality'.

# IX Generality and Compositionality: Z.13's Worries About Form

Scholars have devoted more attention to *Metaphysics* Z.13 than to any other chapter from the central books.<sup>550</sup> There are several reasons for this. It has been declared “the most vexing chapter in the whole of book Z” not merely on account of its difficulty but also because it appears to promote doctrines that contradict much of what is said elsewhere in the book.<sup>551</sup> Thus, an impressive and important literature has devoted itself to reconciling Z.13's apparent claim that no universal is substance with the claims that substance is form and that form is universal, the latter of which is inherited from Z.10 and 11. Further, it has been deemed the decisive chapter for the interpretation of *Metaphysics* Z as a whole on the grounds that its arguments promote the individuality of forms and, contrary to tradition, eliminate species and genera entirely from Aristotle's mature ontology.<sup>552</sup> Thus, scholars have approached the chapter as the chief arena in the debate over particular forms<sup>553</sup> and as the *locus classicus* for Aristotle's alleged late nominalism. Here, too, the results have been impressive, and in what follows I shall have occasion to join the debate on certain points.

<sup>550</sup> In making Z.13 the next stop on the grand tour of *Metaphysics* Z, I confess to be tracking its ‘canonical’ chapters only. As earlier with Z.7–9, so now Z.12 is set aside as an insertion. This is hardly a novel thought. Ross (1924) was impressed with Jaeger's (1912) arguments for the inserted status of Z.12. The view continues to enjoy reputable support. Frede and Patzig (1988: i. 25) and Burnyeat (unpublished), for example, take Z.12 to be an insertion, and I shall follow suit. This is not to deny relevance to Z.12—after all, its insertion is not merely fortuitous. Indeed, we have already made use of it in Ch. VI, and Z.12 will make an appearance in sect. 7 of this chapter. Nonetheless, Z.12 is not the place to track the grand theme of *Metaphysics* Z. Chapter 13 is. This, of course, is to say little, for on the question of how, and even whether, Z.13 and its canonical fellows, Z.14–16, contribute to the book's ongoing discussion, there is broad and spirited divergence. A number of interesting positions have been staked out, especially on Z.13, and I shall make free use of them in constructing my own account.

<sup>551</sup> Bostock (1994: 185).

<sup>552</sup> Frede and Patzig (1988).

<sup>553</sup> A notable exception is Burnyeat (unpublished), who thinks its role in this regard is widely overestimated. The interpretation developed in this chapter is consistent with Burnyeat's estimate.

I shall, however, be promoting a rather different interpretation of Z.13, one that emphasizes its contribution to the program of Z as a whole and, hence, one that contributes to our over all compatibilist account of the book. At the heart of this interpretation is, predictably, the idea that Z.13–16 continues to develop the notion of a form able to serve as the substance-of c-substances. It should add to the notion of form as essence, drawn in Z.4–6 and purified in Z.10–11, a further constraint on what such a form must be like if it is to perform the causal role spelled out in Z.17. As even a casual reader knows, the constraint will involve a worry about the claim that such a form cannot be universal. But it also involves a worry about the claim that a thing's substance or form cannot be composed of parts that are actually present in it. Although less famous than its companion worry, the worry about compositionality may be more fundamental. At the very least, Z.13 worries as much about it as about form's generality. Moreover, both claims are intimately linked to the explanatory demands that Aristotle places on form in Z.17.

We shall get to these claims below and to the arguments summoned on their behalf. But there is a prior question concerning Aristotle's purpose in even discussing the universal, namely, how such a discussion would advance the developing account of *Metaphysics Z*. The causal role of form provides a clue here, for appeal to form as an explanatory factor brings with it commitment to generality in explanation. This need for generality, in turn, exerts pressure on Aristotle to address the possibility that substantial form is universal, and at the same time it cautions against adopting an unalloyed reading of its conclusion that nothing said universally can be substance. The question of fit, as I am calling our prior question, will receive specific treatment two sections below, but it arises already in connection with the chapter's introductory paragraph. So we begin with it.

## 1. Worries About Fit: Continuity Versus Autonomy

*Metaphysics Z*.13 opens with eight lines that appear designed to fit it into the main course of the book's discussion:

[i] Since our subject is substance, let us go back. [ii] As the subject (that which underlies, τὸ ὑποκείμενον) and the essence (τὸ τί ἦν εἶναι) and the compound (τὸ ἐκ τούτων) are said to be substance, so also is the universal (τὸ ἀθόλου). Now [iii] two of these have been discussed, the essence and that which underlies; and it was explained that [iv] something underlies in two ways—by being a this (τόδε τι), as an animal underlies its attributes (ὥσπερ τὸ ζῷον τοῖς

πάθεισιν) or as matter underlies the actuality (ὡς ἡ ἄλη τη ἐντελεχεία). It is thought by some, however, that [*υ*] the universal is most of all a cause (αἴτιον) and a principle (ἀρχή). So we must also consider this, for [*υ*] it seems impossible that anything predicated universally is substance (ἔοικε γὰρ ἀδύνατον εἶναι οὐσίαν εἶναι ὅτιοῦν τὸν καθόλου λεγομένον). (1038b1–9).

At first glance, the passage seems to accomplish its apparent goal. It prefaces the up-coming discussion of the universal with a reference to a previous discussion, in (*i*); provides a gloss on what has been accomplished so far in *Metaphysics Z*, in (*ii*)–(*iv*); and gives an independent reason for looking at the candidacy of the universal, in (*v*)–(*vi*). The latter then leads directly into the chapter's main argument, what below I call the Master Argument. What could be more straightforward?

Unfortunately, as often with Aristotle, what appears straightforward is not. Troubles begin with (*i*), which recommends a return to something earlier in the investigation. For there are at least two readings of (*i*) and each leads to a quite different position on the question of fit. On most translations, the line calls for a return to the subject itself of the entire book. Thus, Ross (1928) and Bostock (1994) have, “Let us return to the subject of our inquiry, which is substance,” and Furth (1985) has, “Since the inquiry is about substance, let us come back to that.” Frede and Patzig (1988) follow suit (“Da aber unsere Untersuchung die ousia betrifft, wollen wir wieder zu ihr zurückkehren”) but they are alone in owning up to a possible consequence of this reading. For the reading invites the thought that Z.13 is returning to the main theme of Z from a discussion that is not *περι τῆς οὐσίας*, that is, that does not concern substance and, therefore, lies outside of subject of the treatise as a whole. Since Z.12 is an insertion, Z.10 and 11 must be the target of the remark and, thus, Frede and Patzig (1988) must conclude that these chapters are a detour from Z's main course of argumentation. So, on their view, the question of Z.13's fit with Z.10 and 11 does not even arise. This, of course, is completely at odds with the view we are developing, and so we need to say something about the matter.

Notice that the text does not say that we are to return to the *subject* of the treatise or even that we are to return to *substance*. It says simply that since our investigation concerns substance, we must go back again (πάλιν ἐπανέλθωμεν). This might mean simply that we must go back in order to *continue* the investigation of substance. On this view, Aristotle may be recommending that we go back to Z.3's original list of four claimants to the title of substance, for purposes of targeting the universal for investigation. This proposal, due to Burnyeat (unpublished), avoids Frede and Patzig (1988)'s marginalizing of Z.10 and 11. As so far represented, the proposal also reinstates the question



of fit between these chapters and Z.13. To this extent I am happy to follow it.<sup>554</sup>

But Burnyeat (unpublished) holds, further, that the call to go back to Z.3 is also a call for an *entirely* new start. On his account, there are three fresh starts in *Metaphysics Z*, each fronting a different group of thematically linked chapters. Two of these ‘canonical clusters’, as I call them, are initiated by back-references to Z.3's original list and one is simply announced as a fresh point of departure. Thus, Z.4's back-reference opens a discussion of essence that runs through Z.4–6 and 10–11; and Z.13's back-reference initiates Z.13–16's discussion of the universal; but Z.17 simply starts freshly from the claim that substance is a cause and principle. In calling these fresh starts Burnyeat means that the three clusters proceed independently of one another. No canonical cluster depends on or makes use of the results of earlier or later canonical clusters. *Metaphysics Z* is not thereby rendered a collection of unrelated discourses because each of the three clusters argues for the same conclusion, namely, that “substantial being is form” (Burnyeat, unpublished). But with respect to argumentation, the canonical clusters are mutually independent. Unstitched by common argument, the book's claim to unity rests solely on the fact that its several clusters argue for a single conclusion.

It is important to be clear on the force of Burnyeat's proposal. Begin with the claim that each canonical cluster provides an independent argument, or arguments, for the same conclusion. Presumably, this means, at least, that one could reject or uphold the soundness of an argument from one cluster without rejecting or upholding the soundness of an argument from another. Soundness, rather than validity, is the operative notion here because Burnyeat holds that Aristotle's aim in each canonical cluster is to *establish* that substantial being is form. Thus, the truth or falsity of the premises of one argument can have no effect on the truth or falsity of those of another argument. This situation will obtain only if the premises in question are *deductively isolated* from one another. So on Burnyeat's view Z's canonical clusters are ‘probatively autonomous’, as I shall say, and *Metaphysics Z*, as a whole, is ‘probatively fragmented’.

For Burnyeat, then, *Metaphysics Z* counts as a unified treatise in a quite attenuated sense. Although many will perceive this as a disadvantage, the attenuation itself hardly qualifies as a criticism. For Burnyeat's very aim is to deny that a connected strain of argument runs through Z's canonical chapters.<sup>555</sup> Moreover, his proposal rests on a

<sup>554</sup> Although I shall offer a modified version of Burnyeat's proposal seven paragraphs below.

<sup>555</sup> Like me, recall, Burnyeat finds Z.7–9 and 12 to be insertions.

detailed analysis of the argumentation and structure of *Metaphysics Z* as a whole, and any serious challenge will have to deal with this. Fortunately, I need not supply this now. For at the moment my interest is chiefly in the view's utility for highlighting my rather different view of the structure of the canonical chapters. With Burnyeat we see Z.4–6 and 10–11, Z.13–16 and Z.17 as making distinctive contributions, but against Burnyeat we see these as progressive. Thus, for us, but not Burnyeat, the question of fit does arise for Z.13 and its canonical predecessors, Z.10 and 11. It will be enough now to indicate an especially salient way in which our differences emerge. For me, the causal role spelled out for form in Z.17 controls a good deal of the argumentation in the earlier sections. In particular, I have suggested that from Z.4 onwards Aristotle is developing a notion of form that can function as the substance-of a c-substance and that Z.17 is to be seen as setting down a major constraint on such a notion. Thus, for example, Chapter VIII suggested that the particular explanatory role demanded of form in Z.17 requires that form be pure and, hence, explains the presence of Z.10 and 11, where the purification of form occurs.

Without entering into details, there are at least two worries about the general form of Burnyeat's proposal. One worry concerns the fact that some of the arguments deployed in Z's allegedly distinct canonical clusters appear to share premises or, at least, to share deductive entailments between the premises. Even were all such shared premises, or entailments, to have the same truth values, it would be false to claim that the clusters are probatively autonomous. But the situation is actually somewhat worse. For Burnyeat (unpublished) thinks it is illegitimate to attempt to support the claim that the γένους εἶδος of Z.4's New Primacy Passage is the form as opposed to the species by coupling the remark from Z.11's summary that only primary substances have essences with that chapter's evident commitment to form as primary substance. Burnyeat, who holds the species reading, invokes probative autonomy, and takes this as sufficient to deter the threat of inconsistency. Some will find its invocation here odd, at least those who share Burnyeat's view that Z.4–6 and 10–11 count as a single cluster. This is a local problem, for which there may be a local solution. But there is a much more global worry. It is this: if probative autonomy is invoked as insulation against contradictions of the above sort, then it borders on incoherence. For it can no longer be supposed that the various arguments have *probative* weight because one cannot accept, as sound, two arguments, one of whose premises is at odds with a premise of the other. To accept an argument as sound is, at least, to accept its premises as true. Thus, it is no longer plausible to claim that *all* the canonical clusters *establish* their conclusions, whether the same or not. In the face of this, one might resort

to the thesis that arguments in at least some of the clusters are dialectical in nature and, hence, do not require the premises actually to be true. But Burnyeat, rightly, rejects the idea that Z's arguments are dialectical to any substantial degree.<sup>556</sup>

The second worry about the general form of Burnyeat's proposal serves, if nothing else, to underscore the difference between our views. It is this: if *Metaphysics Z* is probatively fragmented, then it should make no difference whatsoever how we order its allegedly independent canonical clusters. Thus, for example, Z.17 might have come first, followed by Z.13–16, followed by Z.4–6 and 10–11. For there is, to repeat, no connection between the clusters. Those whose credulity is tested by the prospect of such revisionism will no doubt seek an alternative. One would be my view, which takes very seriously the order of the canonical chapters and offers a philosophical account of it. Of course, merely voicing this worry hardly disqualifies Burnyeat's 'Map of Zeta' as projectively unsound, but it may sharpen interest in an alternative and, perhaps, more appealing map. In effect, I am providing just this. As far as the immediate chapter is concerned, it will be sufficient to show that there are principled reasons for following the discussion of form-as-essence with a discussion of form-as-universal. Moreover, if the latter contributes to Z's ongoing development of the requisite notion of form, then at least one cluster of chapters will presuppose an earlier cluster. So it is possible to follow Burnyeat on what Z.13 means when it entreats us, in (i), to 'go back', without adopting his view that *Metaphysics Z* is probatively fragmented. Shortly, we shall show that Z.13 has principled links to its surrounding (canonical) chapters. First, however, more needs to be said about the introductory section of Z.13.

Assuming, with Burnyeat, that (i) returns the discussion to Z.3's initial list of candidates for substance, we have every right to expect the next candidate to be extracted from that list. And, indeed, this is almost what happens in (ii) and (iii). I say 'almost' because, despite the fact that (ii) reports a truth, the compound (τὸ ἐκ τοῦτων) was not a separate entry on the initial list. Rather, it emerged from division of one of the original entrants, namely, the subject or that which underlies (τὸ ὑποκείμενον). So how can (i) be a recommendation to return to Z.3's original list? To this first worry commentators add a second.

<sup>556</sup> Some might urge that the argument of *Metaphysics Z* has the form of an extended disjunctive argument. Four exhaustive alternatives would be spelled out in Z.3 with the balance of the book then excluding all but one—presumably, the essence. Apart from uncertain intrinsic merit, this would hardly appeal to Burnyeat (who, incidentally, gives a number of considerations that would tell against it). For probative autonomy requires that each canonical cluster contain an independent argument for the same conclusion.

Although it is quite true that the compound may be said to be substance, it is odd to find it characterized as in (ii). The compound frequently is indicated by the phrase ‘τὸ ἔκ τοῦτων’, which literally means something like ‘what is from them’. In Z.3, for instance, we get as things that are substances, the matter, the form, and τὸ ἔκ τοῦτων (what is from them, i.e., the compound). Here it is perfectly clear that we are speaking about a compound of form and matter; and in general what is compounded—the τοῦτων of τὸ ἔκ τοῦτων—is form and matter. In the immediate environment of (ii), however, the only items cited are the essence and the subject. The first causes no problems because by the time we reach Z.13 it is quite clear that we are investigating form as essence.<sup>557</sup> But the second is troublesome because it is unlikely that Aristotle would characterize the compound as a compound of form and *the subject*.

These are two reasons commentators have given for excising καὶ τὸ ἔκ τοῦτων (‘and the compound’) at 1038b3.<sup>558</sup> But they are not conclusive. With respect to the first, there is a natural way to take the back-reference contained in (i) that does not imply that the compound was included in Z.3’s original list. Begin with the point that Burnyeat (unpublished) reads πάλιν ἐπανέλθωμεν as “let us go back again” and claims that this is “a plain literal translation of the Greek”. Here the πάλιν (‘again’) does not imply that we have been *outside* of a discussion of substance but only that we have *already* been someplace that was integral to the investigation of substance—namely, Z.3’s original list of candidates. So if there is here an invocation to take up *substance* again, it amounts to a reminder that once before a course of argument was begun by drawing on the original list, at the beginning of Z.4’s discussion of essence. Thus, at the outset of Z.13 we have nothing more than a recommendation to return to the original list in order to pursue, on a new basis, the investigation of substance. This neither implies that the compound was on the original list nor suggests that we have been outside a discussion of substance. Thus, the back-reference in (i) poses no threat to the central status of Z.10 and 11.

As for the second concern, it will help to bear in mind that τὸ ἔκ τοῦτων (literally, ‘what is from them’) is virtually canonical for the compound of form and matter. Even when occurring in isolation, for example, it is naturally understood in this way. In short, it gets along perfectly well without the explicit mention, in its neighborhood, of the compounded items. The occurrence of τὸ ἔκ τοῦτων in (ii) might very well

<sup>557</sup> This may, however, be a problem for Burnyeat (unpublished) because probative autonomy bars us from using the results of Z.4–6 and 10–11 to finesse interpretation of Z.13–16.

<sup>558</sup> For example, Frede and Patzig (1988) and Burnyeat (unpublished).

be just such an isolated occurrence.<sup>559</sup> In this case Aristotle need not be found talking about the compound of form and *the subject*. But even were he saying this, might one not simply insist that here he means by τὸ ὑποκείμενον (what underlies) Z.3's matter, rather than its compound or form? One might then add that the confusion invited by (ii)'s admittedly loose manner of speaking is remedied in (iv), where Aristotle distinguishes two ways in which something underlies, only one of which could be the item compounded in (ii).<sup>560</sup>

If the two standard reasons for excision of καὶ τὸ ἕκ τοῦτων ('and the compound') are not decisive, Frede and Patzig (1988) offer a third difficulty that may be. This is that (iii) remarks that *two* of the items mentioned in (ii) have been discussed—the essence and that which underlies. Since Aristotle goes on to indicate that what remains to be discussed is the universal, (iii)'s remark implies that (ii) originally mentioned only three candidates and so did not include the compound at all. Despite flying in the face of manuscript unanimity, there is something persuasive about this suggestion.<sup>561</sup> But there is an additional moral to be drawn concerning the compound, namely, that the compound has not been discussed. For if Aristotle in fact wrote καὶ τὸ ἕκ τοῦτων ('and the compound'), then he clearly thought that the compound had not been discussed. And if the phrase is an insertion, then he is simply revisiting the original list and reporting that two of its members, that which underlies (τὸ ὑποκείμενον) and the essence (τὸ τί ἦν εἶναι), have been discussed. And, in fact, this seems correct. For if there is to be any force to 'discussed', as there is, for example, when Z.3 discussed the ὑποκείμενον and Z.4–6 discussed the τί ἦν εἶναι, then the compound has not been discussed as such, at least not in the canonical chapters.<sup>562</sup> On our view it is very easy to see why the compound suffers such neglect: *Metaphysics Z* is devoted to an investigation of the substance-of c-substances, and the compound does not merit consideration. Thus, Z.3 dismisses it as posterior to the form and so Aristotle is freed from any obligation to consider it further. Quite the contrary, of course, for the form of a c-substance.

Another worry about the reference to Z.3 is generated by (iv), where Aristotle distinguishes two ways in which something can be a subject (ὑποκείμενον). One kind of subject, call it the subject,<sup>563</sup> is a τὸδε τι and

<sup>559</sup> Lindsay Judson has reminded me of *Metaphysics* Λ.5, 1071a9, where the compound is referred to as 'what is from both' (form and matter), even though there has been no recent mention of matter.

<sup>560</sup> Namely, what two paragraphs below I call the subject<sub>2</sub>.

<sup>561</sup> I have been helped to see the persuasiveness of this consideration by Burnyeat's (unpublished). Bostock's suggestion (1994: 191), that when Aristotle "says 'two' he means 'three,'" seems less happy.

<sup>562</sup> One might argue that it emerges in the inserted chapters, Z.7–9.

<sup>563</sup> To invoke the idiom of Ch. V, sect. 4.

underlies in the way that an animal underlies its attributes. The other kind of subject, the subject<sub>2</sub>, underlies as matter underlies the complete reality. This appears innocent enough, but for those who take the introductory section of Z.13 to rely on Z.3 the distinction is troubling. For the earlier chapter distinguished not two, but three kinds of subject, adding the form to the matter and the compound. Some will be quick to pin this omission on carelessness. But this, like appeal to developmental hypotheses, should be a last resort.

Frede and Patzig (1988) preserve agreement with Z.3 by giving a two-case reading to the subject<sub>1</sub>: something is a subject<sub>1</sub> if it is a particular compound of form and matter *or* the form itself. One might point out in support of this proposal that Z.3 counts both the form and the compound as superior to the matter on the grounds that they are both separate and thises. But, as we argued in Chapter VI,<sup>564</sup> the crucial passage at 1029a27–8 can be read differently. The upshot of our earlier discussion was that while both the form and the compound are thises, the second is so in a derivative way. And this may be exactly the point of *(iv)*'s gloss, 'as an animal underlies its attributes'. On this view, then, a subject<sub>1</sub> is a τὸδε τι thanks to its form, which is immediately a this, but the form itself is not a subject<sub>1</sub>. This result is forthcoming, even without such interpretive finesse, so long as the function of the gloss 'as an animal underlies its attributes' is restrictive. For in this context it manages to limit this-ness, whether derivative or not, to compounds of form and matter, that is, to c-substances.

Frede and Patzig (1988), on the other hand, must insist *(a)* that τὸδε τι covers both c-substances and their forms and *(b)* that the gloss indicates *how* they are thises, namely, as subjects for accidents. This is congenial to their overall view of *Metaphysics Z* as centrally concerned to install a new item as the subject of accidents—not the c-substances of the *Categories* but rather their forms. Unfortunately, in Chapter IV most of the arguments produced on behalf of this proposal were found wanting. For this reason the best course is to reject *(b)* and take the gloss as restricting Z.13's subject<sub>1</sub> to c-substances. The course is also recommended by the fact that *(ii)* contrasts the subject (τὸ ὑποκείμενον) with the essence. It would be odd, indeed, were Aristotle to turn around in *(iv)* and smuggle the essence in as a subject under the heading of a τὸδε τι. Surely, *(iv)* intends to explicate the notion of a subject introduced in *(ii)*. We thus agree with Bostock's estimate that form is "no longer counted as a subdivision of what underlies" (1994: 190). If taken no further, however, this merely raises anew worries about the consistency of Z.13 and Z.3. Nor does the estimate alone explain why Aristotle shortens the tally of subjects from three to two.

<sup>564</sup> Ch. VI, sect. 5.

Something can be said on both points. Assume, then, that a subject<sub>1</sub> is a c-substance and that what it underlies are standard categorial properties, such as color and height. Assume, next, that a subject<sub>2</sub> is matter and that what it underlies, the actuality, is the form rather than the c-substance itself, that is, rather than the whole animal. Although the proposal that what the matter underlies is the whole animal is by no means incoherent, it is not the proposition Aristotle here expresses. I say this despite Burnyeat (unpublished)'s argument to the contrary. He asks where Z.3 made the distinction between subject<sub>1</sub> and subject<sub>2</sub> and proposes to find the answer at 1029a23–4, which “does describe a two-tier structure of predication and casts matter as subject to substantial being (τῆς οὐσίας)”. But this passage, which occurs in what Chapter V called the Auxiliary Argument, is hardly without its complexities. In particular, Burnyeat's reading of τῆς οὐσίας as the actuality *rather than the form* must mean that it is the whole animal that is predicated of matter. Although this might be proposed as a way of saving the validity of the Auxiliary Argument in Z.3,<sup>565</sup> it requires that the whole animal, i.e., the compound, be predicated of the matter. But there is little independent appeal to this option—after all, the compound already is the result of such predication. So I see no reason to alter my earlier reading of Z.3's Auxiliary Argument or to adopt Burnyeat's proposal.

Rather, with Frede and Patzig (1988), ἐντελέχεια here takes the place usually reserved for εἶδος, as at *Metaphysics* M.3, 1078a30. This means that the operative notion of ὑποκείμενον in Z.13 is that of a subject of *predication*, in the sense that

1.  $x$  is a subject for  $y \exists y$  is predicated of  $x$ ,

holds for both subjects<sub>1</sub> and subjects<sub>2</sub>. Where  $x$  is a subject<sub>1</sub>,  $y$  is a categorial predicate; where  $x$  is a subject<sub>2</sub>,  $y$  is form.<sup>566</sup> Thus, Z.13 is concerned only with subjects that underlie items predicated of them.

<sup>565</sup> By finding a uniform reading of what would be its crucial transitivity principle, namely, (18) in sect. 5 of Ch. V.

<sup>566</sup> That (1) represents Aristotle's considered position in the central books is confirmed by *Metaphysics* Θ.7, 1049a27–36, where Aristotle acknowledges the same two kinds of ὑποκείμενον one being a this and one not. The first is that which is the subject of (accidental) properties and the second is that of which form is predicated. Although Frede and Patzig (1988) take the subject of properties, again, to be either a particular compound or a form, Lewis (1991) takes it as the compound of form and matter only. The text, οἷον τοῖς πάθεσι τὸ ὑποκείμενον ἄνθρωπος, καὶ σῶμα καὶ ψυχὴ, I translate, following Ross, “for example, that which is the subject of properties is a man, i.e., body and soul.” Frede and Patzig's preference for leaving open the possibility that the form is countenanced as a this that is the subject of accidents (as opposed to a this that is only predicated of matter) requires reading the first καὶ as a standard conjunction, rather than as an exegetical gloss. But, *pace* Frede and Patzig (1988), this would seem to require that all *three* of the form (= soul), the matter, and the compound are subjects of properties in precisely the same way. This seems doubtful.

Two points are immediately suggested by (1). The first is that Aristotle drops form as a ὑποκείμενον because form does not underlie anything that is predicated of it. In short, form is not a proper subject of predication—not even, it can be argued, when the form in question is the soul. As *De Anima* A.4, 408b13–15 has already reminded us, the presence of form may *explain* why Socrates is courageous, but it is Socrates, and not his soul, that is, properly speaking, the thing that is courageous.<sup>567</sup> This, in turn, confirms our view that Z.3's triple division of the ὑποκείμενον serves other ends. Indeed, as I have been at pains to argue, it is Aristotle's way of introducing and considering which internal structural component of a c-substance is to count as *its* substance and explain its nature and characteristic features. Thus, to say that the form underlies the c-substance is just to say that it is such an internal structural component. As such, form will have an explanatory role at an underlying level but not one that asks it to serve as the *subject* of any sort of predication. From Z.3's original list only matter and the compound enjoy such roles; hence, only they are included in Z.13's tally. A second, and related, point is this. In Z.13 the notions of universal and subject go hand in hand. Its main argument, as we shall see, concerns whether universals can be the substances-of something they are predicated of. Forms may be predicated of certain such subjects, but they are not themselves subjects for such predication. So the very strategy of argumentation in Z.13 has no place for forms as subjects. This, of course, takes us in the direction of the chapter's substantive arguments. We shall get to this four sections below. But first there is more of an 'introductory' nature.

*Metaphysics* Z.13 does not target the universal simply because it is one of Z.3's initial claimants to the title of substance. Were Z.13–16 probatively autonomous, as Burnyeat (unpublished) claims, this is what we would expect to find. But we do not. In (v) Aristotle gives an additional reason for considering the universal, namely, that it is thought to be a principle and cause. Moreover, it is only this that explicitly parades as the reason for examining the candidacy of the universal. So Aristotle appears, first, to pull a name from Z.3's initial list and, then, to offer a fresh reason for investigating it. Now it is true, as Chapter V pointed out, that Z.3 gives a reason for considering the universal, namely, that it is thought to be the substance-of (certain) things. So we can assume, I think, that (ii) revisits precisely this point and, hence, that Aristotle's concern with substance remains a concern with the notion of the substance-of something. But this is quite different from the reason listed freshly in (v).<sup>568</sup>

<sup>567</sup> For more on this see Wedin (1988).

<sup>568</sup> I do not mean to deny that the substance-of a thing is a principle of it, in some sense, but only to point out that the claim that something is a principle involves a new notion with its own distinctive 'logic'—in this case features that concern explanation and causation.



Advocates of autonomy might use the fact that (v) gives a fresh reason to bolster their claim that Z.13 initiates a discussion that is independent of its flanking canonical clusters. This, however, turns out to be self-defeating. For (v)'s invocation to investigate the universal because it is thought to be a cause and principle presupposes that substance is a cause and principle. In light of the above paragraph, this is to presuppose that the substance-of something is a cause and principle. Here there is a subtle back-reference to Z.10 and a plainer forward-reference. With respect to the first, recall, from Z.10, that a compound of form and matter has as (one of) its *principles* the matter into which it is destroyed, that is, its remnant matter. Such a principle is disqualified as the substance-of the thing. Presumably, the form is also a principle, and so this would provide a bridge to the discussion of the universal in Z.13. I shall revisit this subtlety later. The plainer reference is to Z.17's announcement to start anew from the fact that substance is a cause and principle. We have just seen that Aristotle's reason, in (v), for investigating the universal presupposes precisely this fact. So, in the forward direction, Z.13–16 cannot be probatively autonomous with respect to the argumentation that begins in Z.17.<sup>569</sup>

## 2. Links TOZ.10 and 11

The introductory lines of Z.13 list two reasons for considering the universal as a candidate for substance. The first reason, spelled out in (i)–(iv), does little to explain *how* Z.13 connects to the preceding discussion of form as essence. And this lends an appearance of plausibility to Burnyeat's thesis of probative autonomy. But, as we have also seen, a more emphatic ground for turning to the universal is its claim to be a cause and principle, and here we have detected links to flanking chapters. On my way of thinking, Z.13–16 worries how form as essence can serve as the substance-of a c-substance, and this presumes that Z.13–16 contributes to the account of form developed in Z.4–6 and 10–11. Since this is just what has been called into question by Burnyeat (unpublished), we need to say more in defense of the claim that there is a principled link between these canonical clusters.

Aristotle begins Z.13 with a back-reference, arguably, to Z.3's listing of the universal as a candidate for substance. Whatever one makes of this, it would be false to conclude that the reader is otherwise unprepared

<sup>569</sup> Whether that is limited to Z.17 or extends into book H.

for the emergence of the universal in Z.13. For the universal makes a salient appearance in both Z.10 and Z.11, at 1035b33–1036a1 and 1036a28–9. The first was translated by Ross as

But only the parts of the form are parts of the formula (ἀλλὰ τοῦ λόγου μέρη τὰ τοῦ εἶδους μόνον ἐστίν), and the formula is of the universal (ὁ δὲ λόγος ἐστὶ τοῦ καθόλου),

and the second, at the outset of Z.11, as

definition is of the universal and of the form (τοῦ γὰρ καθόλου καὶ τοῦ εἶδους ὁ ὀρισμός).<sup>570</sup>

Neither passage occurs in an unimportant context. The first plays a crucial role in isolating the proper object of definition from the particular compound, which has no proper definition,<sup>571</sup> and the second functions as a reason for Z.11 to pursue (Q3), the third governing question of Z.10 and 11, concerning the nature of the parts that are parts of the form.

So it is clear that Z.10 and 11 see the universal as pertinent to a discussion of form. But how is unclear. For one thing, despite its two conspicuous appearances, the universal does not play an explicit role in the actual arguments of Z.10 and 11. This is particularly true of Z.11, where the universal is mentioned at the outset but immediately dropped in favor of the form. But this point can be enlisted in the cause of linkage. For the task assigned to Z.10 and 11 can be accomplished without making essential appeal to the status of form as universal. Whether forms are general or particular, something I take no stand on at the moment, one can ask whether they are pure or impure. And it is the purification of form that is taken up by Z.10 and 11. This does not imply that discussion of the universal is irrelevant, for it may turn out that special problems arise when forms are construed as universals or, at least, universals of a certain kind. Thus, it would be quite natural to reserve them for a separate cluster of canonical chapters, and so there would be a programmatic reason for attaching Z.13–16 to Z.10 and 11.

This programmatic argument is supported by a more detailed look at the passages we have cited. Suppose we begin with a possible worry.

<sup>570</sup> Ross is followed at both places by Furth (1985) and Frede and Patzig (1988). Bostock (1994), on the other hand, reads the Z.10 passage rather differently: “But only the parts of the form are parts of the formula, and this is a formula of what is universal.” This implies that only certain formulae are of what is universal, namely, those whose parts are parts of the form. Presumably, the point of this is to preserve Bostock’s view that *Metaphysics* Z and H end up promoting a new sort of definition, whose form is that of the universal compound. For a critical appraisal of this proposal, see Wedin (1996*b*).

<sup>571</sup> As we saw in Ch. VIII, sect. 5.

This is that only the second passage explicitly links forms and universals. So, one might insist, only it could anticipate a worry about form's status as a universal. Thus, support for linkage to Z.13 is reduced by half. But this is blind-eyed insistence. For if the first passage, 1035b33–1036a1, is explicit only in tying the universal to a formula, it implicitly connects it with the form. At least, it does so if we adopt the plausible principle

2. The parts of the form,  $F$ , are parts of the formula,  $L$ , &  $L$  is of the universal,  $U \rightarrow$  the parts of  $F$  are parts of  $U$ .

This links form to universal by way of the parts of each and, indeed, it comes very close to identifying form and universal. Full identification requires that we assume

- 2'. The parts of a form,  $F$ , are parts of a universal,  $U \rightarrow F = U$ .

It is, I think, not clear what attitude we should adopt toward (2'). Although it is certainly doubtful that a given item can be a part of only one thing, (2') claims to identify form and universal on the grounds that all parts of the first are parts of the second. This may enjoy more plausibility, but it is nonetheless a metaphysically interesting proposition rather than a logical truth.

Some might think that the second passage, at 1036a28–9, identifies form and universal, for it forgoes mention of parts and asserts straightaway that a definition is *of* the form and the universal. But, again, whether this amounts to identification will depend on how we formulate 1036a28–9. The identity would appear to be forthcoming from something like

3.  $x$  is the definition of  $y \rightarrow y$  is a form &  $y$  is a universal,

which takes the  $\kappa\alpha\iota$  ('and') at 1036a28 epexegetically, but not from something like

- 3'.  $x$  is the definition of  $y \rightarrow y$  is a form  $y$  is a universal,

which takes the  $\kappa\alpha\iota$  simply to introduce the two sorts of things that definitions are about. Nor would identification be forthcoming on

- 3".  $x$  is a definition  $\rightarrow (\exists y)(\exists z)(y$  is a form &  $z$  is a universal &  $x$  is of  $y$  and  $z$ ).

Like forms, universals have a close connection with formulae and definitions. But where one might have expected straightforward identification, we may find something less.

By no means am I claiming that Aristotle is denying that forms are universals. The point is, rather, that Aristotle favors more cautious language

that does not close discussion of the issue. And even if we read Z.10 and 11 as straightforwardly identifying forms and universals, but leaving the latter undiscussed, there still would be ample reason to proceed to the discussion in Z.13–16. Although some will worry that such an identification would be contradicted by the very discussion it recommends, the apparent contradiction may amount rather to a call for refinement. Perhaps there is a reading of (3) that escapes it. Indeed, as we shall see, on one reading of Z.13's main argument, the Master Argument as I call it below, what is excluded is only that a universal be the substance-of what it is predicated of. This would allow the form of a c-substance to be its substance and to be universal, so long as this form is not predicated of the c-substance.<sup>572</sup> But here we get ahead of our story. The point to bear in mind for now is that the relation between form and universal is couched in language that suggests more is involved than plain identification. To this extent, also, Z.10 and 11 appear written with Z.13–16 in mind.

This appearance is enhanced by an additional reflection on the reason Aristotle gives for including the universal at Z.11, 1036a28–9. The fact that definition is of the form and universal parades as a *justification* for pressing the question that occupies the chapter. This question, (Q3), asks of what sort is the part that is a part of a form and of what sort is the part that is a part of the compound. Considered at length in Chapter VIII, I here note two points about (Q3) relevant to the issue of linkage. First, a familiar point, Z.11's actual consideration of (Q3) makes no use at all of the claim that definition is of the *universal*. The entire analysis is carried out for form and its parts. Second, (Q3) itself makes no mention of the universal. Therefore, if justification is required, it would be sufficient to promote (Q3) on the grounds that definition is of the form. In short, for this purpose the universal need not be mentioned at all.

So why does Aristotle say that definition is of the form *and the universal*? Well, suppose Aristotle thinks that tying definition to the universal gives a *presumptive reason* for holding that definition cannot mention anything material. Only parts that are nonmaterial will correspond to parts that are mentioned in definitions. So, the thought runs, we need to be clear on what these parts are and this just means that we need to distinguish what sort of parts are parts of the form and what sort are parts of the compounded whole. Is there, then, any basis for the supposition? Here we may help ourselves to a passage in Z.16. Coming to the end of his discussion of the universal, Aristotle makes the following, quite interesting, remark:

<sup>572</sup> Lewis (1991) holds just such a view.

Further, one thing cannot be in many places at once (τὸ ἐν πολλαχῇ οὐκ ἀνεῖη ἅμω), but what is common is present in many places at once (τὸ δὲ κοινὸν ἅμα πολλαχῇ ὑπάρχει), so clearly no universal exists apart from the particulars<sup>573</sup> (ὥστε δῆλον ὅτι οὐδὲν τῶν καθόλου ὑπάρχει παρὰ τὰ καθ' ἑκάστα χωρίε). (1040b25–7)

What is common, obviously, is the universal and this, says Aristotle, may be present in many places at one time. He does not have in mind nonstandard options, for example, that the white things may be regarded as a scattered object somehow located in many places at once (namely, all the places where there are white things). Anxiety over anachronism aside, such an item would not itself be *common* to many particulars but rather is constituted by them.

Aristotle holds, then, that a universal is the sort of thing that is, or may be, present 'as a whole' at different places. Matter, on the other hand, enjoys no such reach. Indeed, this is the source of its claim to serve as a principle for individuating particulars. Thus, were form to contain matter, it would not be such as to occur in many places at one time. Hence, it would not be universal. So to point out that definition is of the universal is to suggest that the object of definition contains no matter. Just this may be conveyed by Z.11, 1036a28–9's declaration that definition is of the form and the universal. Put this way, inclusion of the universal *does* sharpen interest in (Q3), for it suggests that, *if* form is universal, it had better well be free of material admixture. It also provides for natural linkage between Z.10–11 and Z.13–16: because universals cannot be material admixtures, they are one sort of thing that might count as a pure form. Hence, we are well advised to consider them closely.<sup>574</sup>

<sup>573</sup> The final line here reminds us that the passage is part of a campaign against separately existing Platonic forms. It contains a very interesting piece of reasoning. First, Aristotle endorses, in effect, (*a*) *x* is common to *y* and *z* & *y* and *z* are different → (*b*) *x* can exist where *y* is & *x* can exist where *z* is. The consequent, (*b*), in turn entails something like (*c*) *x* cannot exist apart from *y* and *z*. I say the consequent entails 'something like' (*c*) because, obviously, *x* can exist apart from the two items, *y* and *z*, so long as it is 'common to' something else. Some of these issues surrounding this brand of dependence were dealt with in Chapter III. What I wish to highlight here is Aristotle's explanation. It is the fact that a thing exists (can exist) as a whole at different places that makes its existence dependent on particulars. This adds a new layer of explanation to the claim that universals depend for their existence on particulars and so enjoy only a reduced kind of existence.

<sup>574</sup> Some might insist that abstracted matter might be immune to this argument. If this option can be made out, it must, presumably, involve the claim that, although Socrates' matter cannot be present at many places at once, Socrates' matter *taken abstractly* can be. Presumably, this would involve regarding *this matter* (i.e., that of Socrates) ὡς καθόλου, i.e., universally. But this merely resurrects the universal composites that Z.10–11 twice lays to rest.

On our view, Z.13–16 picks up the argument where Z.10 and 11 left it, and so continues the argument begun in Z.3. Thus far we have produced textual support for this claim and offered some philosophical backing for reading the texts in this way. Besides this, there is a further programmatic reason for paying attention to the universal as well as a reason internal to the argument itself of Z.10 and 11. Recall that at the end of Z.10, in what we have called the Sophisticated Position,<sup>575</sup> Aristotle holds that the parts of the form (formula) are prior to the parts of the object without matter. We took this to mean that the parts of the form of a c-substance are prior to the c-substance construed simply as having a form. So it is not obvious that an object without matter *is* a form. But in any case we granted<sup>576</sup> that the parts of the form are arguably prior to the form. This is recommended, in part, because the notion of priority spelled out at the outset of Z.10 makes the parts of the *definiens* prior to the *definiendum*. So if, as seems likely, a form is defined in terms of its parts, the parts will be prior to the whole.

Why should this raise interest in the universal? The answer involves the fact that priority and generality are often fellow-travelers. Thus, a first thing prior to a second will be more general than the second. In *Posterior Analytics*A.2 this sort of priority concerns what is prior by nature, rather than what is prior to us. What is nearer to the senses and better known to us counts as prior to us, while what is further from the senses and better known without qualification counts as prior by nature. Priority by nature is a kind of explanatory priority and, as such, is the brand Aristotle needs for his theory of scientific explanation. Extended to the premises of a scientific or demonstrative syllogism, the idea is that each premise can be known independently of knowing the conclusion but the conclusion cannot be known independently of knowing the premises. So from the point of view of knowledge and explanation, the premises are more general than the conclusion. At 72a4–5 the point is explicit: “the most universal causes are furthest from sense and particular causes are nearest to sense.” Aristotle, in short, appears committed to an asymmetrical model of explanation, according to which what does the explaining—whether proposition, fact, or ‘entity’—is prior and, hence, more general than what gets explained.

Now, of course, we ourselves are arguing that the form of a c-substance is the chief explanatory factor in accounting for the nature and characteristic features of the c-substance. And few doubt that Aristotle regards form as prior to the compound of form and matter. So this would provide a programmatic reason to reflect on whether form is universal and, if so, whether it is disqualified as the substance-of a c-substance.

<sup>575</sup> See Ch. VIII, esp. sect. 4.

<sup>576</sup> Ch. VIII, sect. 4.

What I am calling Z.10 and 11's internal reason arises from a different, but related, worry. Suppose we are able to preserve form's claim to substantiality, even in the face of qualms about its universality. Still, the parts of a form are prior to the form itself, at least according to Z.10 and 11. But, now, the parts of the form would appear to be more general than the form and, thus, the form would, after all, be compromised by association with the universal. Moreover, this is not merely a nominal consequence of the argument of Z.10 and 11, for, as Chapter VIII showed,<sup>577</sup> appeal to generality enabled us to dodge an annoying anomaly. For Aristotle asserts, on the one hand, that an animal (e.g., man) is to be defined in terms of its parts being in a certain state and, on the other hand, that such parts are themselves defined by reference to the (form of the) whole animal. The solution involved, first, supposing that when one has specified *all* appropriate parts or functions, one has specified the form and, second, supposing that, individually, these functions can be specified without referring to the specific animal up for definition, for example, man. Even if not jointly so, the defining parts and functions would be severally more general than the whole they define. It is not hard to see how this would inspire an interest in the claims of the universal to be substance. Moreover, it raises an issue that is explicitly addressed in Z.13, namely, whether a part of the essence might be universal (even if, presumably, the essence as a whole is not) and also explains why Aristotle combines, as parts of the same problem (in what I call the End Dilemma), the question whether the substance-of a thing is universal and the question whether it consists of parts that are substances. These considerations suggest, it seems to me, an internal reason for following the discussion of form with a discussion of the universal. To fully appreciate this, and to avoid getting too far ahead of ourselves, we need to turn, finally, to the argumentation proper of Z.13–16. I begin with a comment about the structure of the chapters.

### 3. The Role OF Z.13 (–16)

We have already remarked on Z.13's popularity among commentators. Before engaging the details of its argument, it will prove useful to say something about the sources of the chapter's popularity and its role in the canonical cluster it heads. To some extent Z.13's allure is due to appearances, specifically to the appearance that it houses a relatively self-contained argument. Despite being a commonplace among commentators, this is a misleading way to read the chapter. Even if Z.13 is

<sup>577</sup> Toward the end of sect. 9.

single-minded in its target, the propositions that no universal is substance and that no substance is composed of substances are promoted by arguments of uneven quality and land us in a fundamental dilemma at the end of the chapter. The closing line of Z.13 then promises to solve the dilemma “in what follows.” So we need to take seriously the fact that Z.13 is the first of four chapters that constitute a canonical cluster. By no means does this suggest that the arguments of Z.13 are to be taken lightly. But it does suggest that in assessing them we cannot afford to neglect Z.14 and 15, and, especially, Z.16. So a word about the structure of the chapters is not out of place.

As reported, Z.13 argues for some version of the claim that no universal can be substance and the claim that no substance can be composed of substances; and, after suggesting (in the End Dilemma) that the claims threaten the definability of substance, the chapter ends by promising a solution in the following chapters. The solution is not immediately given, for Z.14 merely extends the results of Z.13's argument to the theory of Platonic forms. The following chapter, Z.15, then presses, in two directions, the point that particulars are not capable of definition. First, combined wholes cannot be defined because they contain matter and, hence, are capable of being destroyed (1039b20–31). This first point is supported by appeal to the fact that knowledge (*ἐπιστήμη*), demonstration (*ἀπόδειξις*), and definition (*ὄρισμός*) are about what cannot be otherwise and so cannot have anything destructible as their objects (1039b31–1040a7).<sup>578</sup> Second, Platonic forms cannot be defined despite the fact that they are supposedly indestructible (1040a8–27); nor can any eternal particular, such as the sun and the moon (1040a27–b4). Nothing here looks much like a solution to Z.13's End Dilemma. This comes only with the following chapter, Z.16.

Not all commentators agree. Frede and Patzig (1988) and Burnyeat (unpublished), for example, take the promissory note in the final line of Z.13 to be cashed in Z.15,<sup>579</sup> and Burnyeat appends an explanation. The explanation appeals to the fact that after lamenting that not even

<sup>578</sup> Note, incidentally, that this passage has a parallel in Z.10, 1035b31–1036a12's discussion of particular compounds. The latter are denied status as objects of definition *because* they are combined wholes and status as objects of knowledge because they contain matter which is unknowable. Both points are revisited in Z.15, as is the point that they are known and spoken of by means of the universal formula. Z.15 puts this in the psychological mode: “destructible things are not clear to those who have knowledge when they are no longer perceived, and even though the same formula be retained in the soul there is no longer any definition or demonstration of them” (1040a2–5). This parallel counts, *pace* Burnyeat (unpublished), as another link between Z.10–11 and Z.13–16. On Z.10–11's treatment of the particular compound, see Ch. VIII, sect. 5, and Wedin (1991).

<sup>579</sup> Frede and Patzig (1988: ii. 263) add H.6, which Burnyeat also finds relevant (unpublished).



substance appears to be capable of definition, Aristotle retreats in familiar fashion to a more nuanced position: “or perhaps there is a way in which it can be defined and a way in which it cannot” (1039a21–2). Burnyeat explains that by distinguishing two different kinds of substance, the compounded whole and the formula (i. e., the form), and by allowing the latter alone to serve as the object of definition, Z.15 provides the distinction that dissolves Z.13's End Dilemma. Although this does suggest one way to cash Z.13's nuanced position, it is rather less clear that this is the best way to do it. If Z.13's arguments already focus on substance as form, then the End Dilemma ought to cause problems for this notion and, hence, the distinction called for in the nuanced position ought to apply to substance as form. Of course, all this depends on how one reads the End Dilemma, from which the nuanced position promises escape. On our view, it is rather Z.16 that offers final escape from the End Dilemma, and, we shall suggest, it is the distinction between actuality and potentiality, as applied to the parts of the form, that is the chief vehicle of escape. This may not be obvious at a first glance, and so we must build the point with some care. I shall be concerned mainly with the relation between Z.13 and Z.16.

#### 4. The Arguments OFZ.13 and Their Target(s)

In my view, *Metaphysics* Z.13 falls into three main sections: (I), 1038b1–8, the introductory section we have already discussed; (II), 1038b8–1039a14, the main section containing five arguments against the claim of the universal to be substance and the claim that a thing's substance has parts; and (III), 1039a14–23, the section housing the End Dilemma and promising a solution in the following chapters. The introductory section leads naturally to the first argument of section (II), at 1038b8–15. This argument, (IIa), which I shall call the Master Argument, is the major argument of the chapter. Then follows (IIb), at 1038b15–16, a quick-hit argument that relies on the fact that substance is not said of any underlying thing whereas a universal always is. The third argument, (IIc), at 1038b16–34, considers an opponent who accepts the results of the Master Argument but suggests that the universal could, perhaps, be at least a part of substance, even if it cannot be substance in the same way that the essence is. The suggestion is rejected on the grounds that it violates the Master Argument. I shall call this the No-Part Argument.<sup>580</sup> Then comes another quick-hit argument, (IId), at 1038b34–

<sup>580</sup> Note that in characterizing this argument, Aristotle in effect makes the conclusion of the Master Argument a conclusion about substance as essence or, as I would put it, substance as form-as-essence. This provides a clear point of linkage to the preceding canonical cluster, Z.4–6 and 10–11, and confirms that Aristotle is concerned with substance in the sense of substance-of. Hence, it makes Z.13–16 part of the developing story of *Metaphysics* Z as a whole.

1039a3, warning against treating what is predicated universally as a substance because this treats a such as a this and, hence, invites the infamous third man. The section closes with an argument, (IIe), at 1039a3–14, that claims to clarify the issue by arguing that it is impossible for a substance to be composed of substances that are present in it as actual things. I shall argue that (IIe) is concerned, not with the status of substance as a universal, but with its compositionality. So I shall refer to (IIe) as the Contra Compositionality Argument. It will prove especially important for interpretation of the End Dilemma in the final section of Z.13 and, hence, for our reading of the chapter as a whole.

For convenience I list the arguments:

- IIa. (1038b8–15): the Master Argument;
- IIb. (1038b15–16): the first quick-hit argument;
- IIc. (1038b16–34): the No-Part Argument;
- IId. (1038b34–1039a3): the second quick-hit argument;
- IIe. (1039a3–14): the Contra Compositionality Argument.

An account devoted simply to Z.13 would no doubt contain a complete analysis of each of these arguments. But we are looking at the overall contribution made by the chapter to the analysis of form that has been underway since Z.3. This permits us to make more selective use of Z.13's arguments. In particular, we are interested in two issues. First, are they unqualified in barring the universal as substance or does the bar extend only to the universal as the substance-of what it is predicated of? The first alternative I call 'strong proscription', the second 'weak proscription'. A sub-issue here is whether the chapter's arguments concern the one-place or two-place use of 'substance', that is, 'is (a) substance' versus 'is the substance-of'. Having urged that so far the argument of *Metaphysics Z* focuses on the latter, I shall argue that Z.13 calls for nothing different. The second issue of interest focuses on the nature of the End Dilemma and its relation to the arguments. Since the latter are supposed to lead to the dilemma, they will require some measure of joint illumination. We begin with (IIa).

If Z.13 is the most storied chapter of the central books, the argument contained at 1038b8–15, (IIa), is its most intensely scrutinized argument. I call it the Master Argument because it establishes a result that is used in subsequent arguments, most importantly, in (IIc). Exactly what this is, however, is a matter of contention. For some, (IIa) claims to establish what I am calling the 'strong proscription', that *nothing* universal can be (a) substance; for others it establishes the 'weak proscription',

that no universal can be the substance-of what it is predicated of. Strong proscription might be favored by scholars who find in Z.13 Aristotle's commitment, generally, to nominalism, and, specifically, to the thesis that primary substance is particular form (PART, as I call it).<sup>581</sup> For proponents of weak proscription, on the other hand, the chapter naturally urges that primary substance is nonparticular form, whether a universal<sup>582</sup> or a general item that is not technically a universal.<sup>583</sup>

Assessing the relative merits of strong and weak proscription requires a look at the text of (IIa) and the argument it contains.<sup>584</sup> I shall turn to this below. But something should first be said about the general form of the argument's conclusion. Here it will be helpful to begin by recalling that the introductory section of Z.13 informs us that the universal enjoys some claim to be a cause and principle. This is one reason to investigate it. But the sentence announcing this also introduces a second, and nonprogrammatic, reason, namely, that it seems impossible for a universal to be substance. This is just the conclusion of the Master Argument:

for [ $\nu\iota$ ] it seems impossible that anything predicated universally is substance  
(ἔοικε γὰρ ἀδύνατον εἶναι οὐσίαν εἶναι ὅτιοι τῶν καθόλου λεγομένων). (1038b8–9)

Aristotle immediately proceeds with the argument for ( $\nu\iota$ ), which we get to in the next section, but first a word about the force of the conclusion contained in ( $\nu\iota$ ).

An unalloyed reading of the line suggests that

4. ( $x$ )( $x$  is predicated universally  $\rightarrow x$  is not [a] substance)

is the conclusion of the Master Argument and, thus, that Aristotle favors strong proscription of the universal. On this reading, nothing that is universal qualifies as a candidate for substance. Proponents of (4) might also find Aristotle principally interested in the 'one-place' notion of substance. For example, this would be congenial to Frede and Patzig's (1988) view that *Metaphysics Z* moves to center stage a notion of substance that combines features of both the one-place and two-place notions (this part of their view I call BLEND<sup>585</sup>). For they claim that substance now serves both as subject, indeed, as a subject for accidents, and as what explains the being of a thing. The latter is the notion of the

<sup>581</sup> For example, Frede and Patzig (1988) and Bostock (1994).

<sup>582</sup> Lewis (1991).

<sup>583</sup> Code (1984) and Driscoll (1981).

<sup>584</sup> My main objective here is to bring the Master Argument into line with our overall interpretation of *Metaphysics Z* as an account of what form must be like to serve as the substance-of a c-substance. So I am not claiming to produce a definitive analysis of the argument itself. For this I refer the reader to the acute studies in Code (1978), Driscoll (1981), Frede and Patzig (1988), and Lewis (1991), esp. ch. 11.

<sup>585</sup> As in, for instance, Wedin (1991).

substance-of a thing—the sole object of Aristotle's attention on our interpretation. Although I have already worried about other texts that have been summoned in support of BLEND,<sup>586</sup> it would be unsettling to find it resurrected in (4).

But this worry can be allayed. For, as we shall see, the argument for (v) is couched entirely in the idiom of substance-of, and something can count as the substance-of, only if it is the substance-of *something*. This recommends that (v) be formulated as

5.  $(x)(y)(x \text{ is predicated universally of } y \rightarrow x \text{ is not the substance-of } y)$ .

With (5), the Master Argument is turned in the direction of our general view that *Metaphysics Z* aims to develop a notion of form that can serve as the substance-of c-substances. This, I shall presently argue, is all the argument itself establishes.<sup>587</sup>

Now some might agree with this constraint on the Master Argument but discount it as something of an anomaly and, hence, as precisely what calls for explanation. Presumably, this would rely on the claim that other evidence makes it certain that Aristotle's settled view is caught by the strong proscription of (4), rather than by (5). A recent such advocate is Bostock (1994: 189), who holds that in addition to (v), strong proscription is championed in a number of other passages. He adds from Z.13:

- a. Nothing predicated universally of an underlying thing is a substance (1038b15),

and

- b. Nothing that belongs universally is a substance (1038b35);

and from ZZ.16,

- c. Nothing that is common to many things is a substance (1040b23),

and

- d. Nothing predicated universally is a substance (1041a4).

Finally, from H.1's summary he gives us

- e. The universal is not a substance (1042a21).

<sup>586</sup> Ch. V, as well as in Wedin (1991).

<sup>587</sup> One might keep the two-place notion and get strong proscription by adopting something slightly different from (5), namely, (5'):  $(x)(y)(x \text{ is predicated universally of } y \rightarrow \neg (\exists z)(x \text{ is the substance-of } z))$ . But, as we shall see, the argument itself does not call for this.

“In the face of this,” Bostock concludes, “one cannot feasibly maintain that there are only *some* universals that Aristotle *says* are not substances.” In short, he takes the passages, severally, to assert strong proscription of the universal and, jointly, to have a *cumulative* probative weight that overwhelms the constraint of argumentation we have imposed on one passage, (v).

How good is this argument? Some might recommend it on the strength of the fact that (e) contains an ‘absolute’ occurrence of ‘universal’. Because it *summarizes* the argumentation of Z.13, (e) thereby implies that Z.13 pursues strong proscription of the universal. Whatever its surface appeal, this suggestion fails for two reasons. First, H.1's summary says, more fully: “neither the universal nor the genus is substance.” Here Aristotle clearly gestures toward the original list of candidates in Z.3, where universal and genus did occur ‘absolutely’, and this is what explains the ‘absolute’ occurrence of the universal in (e). Second, the suggestion puts the cart before the horse. Precisely because (e) figures in a summary, we must defer to Z.13 for an assessment of the exact force of what it summarizes. Hence, (e) can add no independent weight to the case for strong proscription.

When we turn to (a)–(d), the passages that occur in Z.13 (–16), none speak absolutely of the universal but rather of what belongs universally, what is predicated universally, and what is common. But what belongs *to something*, what is predicated is predicated *of something*, and what is common is common *to something*. Thus, (a)–(d) appear to endorse a relativized notion of universal and, hence, to invite the question whether the notion of substance is also to be relativized. We would then have, corresponding to (b), (c), and (d):

- 5b.  $(x)(y)(x \text{ belongs universally to } y \rightarrow x \text{ is not the substance-of } y)$ ,
- 5c.  $(x)(y)(z)(x \text{ is common to } y \text{ and } z \rightarrow x \text{ is not the substance-of } y \ \& \ x \text{ is not the substance-of } z)$ ,

and

- 5d.  $(x)(y)(x \text{ is predicated universally of } y \rightarrow x \text{ is not the substance-of } y)$ .

Here ‘ $x$  is predicated universally of  $y$ ’ abbreviates something like ‘ $x$  is predicated of  $y_1 \ \& \ . \ . \ . \ \& \ y_n$ ’, where  $y_1 \ \& \ . \ . \ . \ \& \ y_n$  exhaust the items in the predicate range of  $x$ . Although I shall not bother with a more precise formulation, the idea is that even if a term is predicated of only one thing, it may still count as universally predicated so long as it *would* be predicated of other things as well. This is quite in keeping with Aristotle's argument in Z.15 that even were a definition in fact to *apply* to only one thing, in principle it applies to more than this single item

because the individual terms of the definition enjoy this broader range.<sup>588</sup> So I shall feel free to speak of ‘predicating universally of *y*’, ‘belonging universally to *y*’, etc.

Passage (a) deserves special notice. It is a paraphrase of the implicit conclusion of the first quick-hit argument, (IIb):

Further, [xiii] a substance is said to be what is not predicated of any underlying thing (οὐσία λέγεται τὸ μὴ καθ’ ὑποκειμένου); but [xiv] a universal is always predicated of some underlying thing (τὸ δὲ καθόλου καθ’ ὑποκειμένου τινὸς λέγεται αἰεί). (1038b15–16)

There is nothing surprising about the characterization of the universal in (xiv). But it is slightly odd to find (xiii) asserting that substance is not predicated of any underlying thing. Even odder for us because we hold that in Z.13 Aristotle continues the analysis of form *and* that this prepares for Z.17; yet in Z.17 substance *qua* form is predicated of matter. There is, however, a reading of the lines that preserves the chapter’s internal consistency. Thus, read (xiii) as saying

5a'. (x)(y)(x is the substance-of *y* → ¬ (x is predicated of *y* & *y* is the underlying subject of *x*)),

and (xiv) as

5a". (x)(y)(x is universal with respect to *y* → x is predicated universally of *y* & *y* is the underlying subject of *x*).

From (5a') and (5a'') all that follows is that no universal can be the substance-of what it is predicated of as an underlying subject. The fact that this is the only way to get a consistent reading of the passage augurs well for proponents of weak proscription.<sup>589</sup>

Finally, it is false that (a)–(e) are cumulative in impact. They must, of course, express the same proposition. So although this proposition is deployed in other arguments, it must bear the sense required by the first of these arguments. Arguably, then, the sense of the proposition is fixed by the Master Argument.

<sup>588</sup> Failure to heed this point leads Irwin (1988: 78–80) to invent a distinction between what is predicated of only one thing and what is predicated of at least two things, only the second of which qualifies as a universal. Among other things, this conflates what it means for something to be a universal with the conditions that govern the existence of a universal.

<sup>589</sup> Some might assume that (IIb) works only for substance as a c-substance, and so restricts substance to what is a subject<sub>1</sub>. But in restricting (IIb) to what (*iv*) of the introductory section calls a ‘this’, the suggestion omits entirely the actuality that is predicated of subjects<sub>2</sub> and this is just the form that is predicated of matter. So the assumption gives the first quick-hit argument a premise, (xiii), that is rendered false by Z.13’s opening distinction between two kinds of subjects.

## 5. The Master Argument

The passage containing the Master Argument first announces its conclusion, which we have already taken a look at:

[*vi*] it seems impossible that anything predicated universally is substance  
(ἔοικε γὰρ ἀδύνατον εἶναι οὐσίαν εἶναι ὅποιόν τῶν καθόλου λεγομένων);

and then proceeds to the argument for it:

for, first, [*vi*] the substance of each thing is peculiar to it (οὐσία ἢ ἐκάστου ἴδιος ἐκάστου),<sup>590</sup> and does not belong to something different (ἢ οὐχ ἕπαρ χει ἄλλα); but [*viii*] the universal is common (τὸ δὲ καθόλου κοινόν), for that whose nature is to belong to many things is called a universal (τοῦτο γὰρ λέγεται καθόλου ὁ πλείοσιν ὑπάρχειν πέφυκεν). [*ix*] Of which of these, then, will this be the substance (τίνος οὖν οὐσία τοῦτ' ἔσται)? [*x*] It must be the substance of all or of none (πάντων ἢ οὐδενός), but it cannot be the substance-of all (πάντων δ' οὐχ οἷόν τε). However, if [*xii*] it is the substance-of one, then all the others will be this one (ἐνός δ' εἰ ἔσται, καὶ τὰλλα τοῦτ' ἔσται), for [*xiii*] things whose substance is one and whose essence is one are themselves one (ὅν γὰρ μία ἡ οὐσία καὶ τὸ τί ἦν εἶναι ἓν, καὶ αὐτὰ ἓν).

Whether in the guise of strong or weak proscription, we are assuming that the conclusion excludes the universal as a candidate for substance. In calling the argument for (*vi*) the Master Argument, we are not only acknowledging that the argument is to be taken seriously but also registering the opinion that it fixes the sense of one of the chapter's two central claims.<sup>591</sup> A rather different estimate can be found in Hughes (1979), who denies that Aristotle intended the proposition contained in (*vi*) to be the conclusion of a serious piece of argument, let alone a conclusion that governs much of Z.13. Rather, (*vi*) merely expresses a worry to be overcome, namely, that it *appears* impossible for anything predicated universally to be substance. This requires a like downgrading of the argument. Its function now is “simply to indicate in a preliminary manner why it . . . seems out of the question” (Hughes, 1979: 112). In fact, it turns out, according to Hughes, that some universals are substances, namely, *man*. Skirting details, and waiving other reservations,<sup>592</sup>

<sup>590</sup> Ross reads ‘οὐσία ἐκάστου ἢ ἴδιος ἐκάστου’ and thus takes the subject of the sentence to be ‘that which is peculiar to each thing’ and the predicate to be ‘the substance of each thing’. This entails that whatever is peculiar to a thing is its substance and, hence, that risibility, for example, would count as the substance of man. *Pace* Ross (1924: ii. 210), this hardly “gives the reading which sense and idiom seem to require.” See Frede and Patzig (1988) for additional discussion of the line.

<sup>591</sup> The other being the claim that no substance can consist of substances that exist in it as actual parts.

<sup>592</sup> Frede and Patzig (1988), followed by Burnyeat (unpublished), point out that ἔοικε does not suggest, as would δοκεῖ or φαίνεται, that what follows is merely a worry to be removed.

two concerns are relevant here. First, because Hughes takes *man* to be the sort of thing that may be predicated of Socrates, the universal that turns out to be substance would have to be the species *man*, rather than the species-form.<sup>593</sup> We have already given reason to doubt this. Second, Hughes says simply that “It is mistaken . . . to suppose that Aristotle subscribes to the argument without qualification” (114); and, thus, he appears to conflate taking a proposition without qualification and taking the argument for it without qualification. On my view, the argument is to be taken without qualification, that is, as *establishing* a result that Aristotle remains committed to. But the result established may be qualified, and it most certainly will be qualified if it turns out to promote weak proscription.

It will be useful to begin with an observation about the structure of the passage. Grant that it is a matter of dispute what shape to give the conclusion. Still, however we formulate the conclusion contained in (v), it would appear to follow from like-minded formulations of (vii) and (viii). For (vii) appears to assert that substance cannot be anything that is common and (viii) certainly seems to hold that the universal is common. From these it should follow that substance cannot be (a) universal. So (v) appears to be established in the first phase of the argument. Why, then, does Aristotle pursue the argument further, as he does in (ix)–(xii)?

One might try out the idea that (vii) and (viii) do not so much provide an independent argument as isolate a central feature of substance and stipulate what is to count as (a) universal. Hence, (v) is, in effect, true by stipulation, and so would benefit from independent support. But this idea, whatever its initial appeal, does not survive scrutiny. For one thing, the argument pursued in (ix)–(xii) continues to assume that a universal belongs to many things. It also continues to exercise the reasonable assumption that the substance-of a thing is peculiar to it. So (ix)–(xii) could hardly provide independent grounding for (vii) and (viii).

Suppose, however, that Aristotle addresses (ix)–(xii) to a particularly refractory listener who thinks he has spotted a way to circumvent the conclusion in (v). In particular, this listener supposes he can get away with honoring (vii) and (viii) without giving up his cherished view that a universal can be substance. We need only allow, he intones, that a universal be common to many things but be the substance-of one of them only. Examination of the argument suggests that there is much in favor of this proposal.

As suggested, then, (vii) and (viii) appear to contain an argument for proscription. The first contains two propositions that place constraints on what may count as (a) substance:

<sup>593</sup> Hughes, in fact, appears to be insensitive to this distinction.



6a.  $(x)(y)(x \text{ is the substance-of } y \rightarrow x \text{ is peculiar to } y)$ ,

and

6b.  $(x)(y)(x \text{ is peculiar to } y \rightarrow \neg (\exists z)(x \text{ belongs to } z \ \& \ z \neq y))$ .<sup>594</sup>

The second, (viii), then adds constraints on what counts as a universal. It begins with what is virtually a conceptual truth, namely, that to count as a universal is just to count as something whose nature it is to belong to many things. The fact that (viii) alludes to the *nature* of the thing that is called a universal means that Aristotle's constraint is modally laden and, hence, would be properly formulated as

7a.  $(x)(x \text{ is said to be a universal} \rightarrow \diamond (\exists y)(\exists z)(x \text{ belongs to } y \ \& \ x \text{ belongs to } z \ \& \ y \neq z))$ ,

or, requiring that a universal belong to at least one thing, perhaps to soothe anti-Platonist tempers, as

7a'.  $(x)(x \text{ is said to be a universal} \rightarrow (\exists y)((x \text{ belongs to } y) \ \& \ \diamond (\exists z)(x \text{ belongs to } z \ \& \ y \neq z)))$ .

On (7a) and (7a') it is not necessary, as Irwin held,<sup>595</sup> for a universal to belong to at least two things.

Having exercised their polemical effect, modal formulations may be dropped in what follows—they would only complicate the account. Now (7a)/(7a') is what explains why the universal is common, and so Aristotle must be assuming

7b.  $(x)(y)(z)(x \text{ belongs to } y \ \& \ x \text{ belongs to } z \ \& \ y \neq z \rightarrow x \text{ is common to } y \text{ and } z)$ ,

or its strengthened biconditional. Now from (7b) and the non-modal component of (7a)/(7a'), we get (viii)'s claim

8.  $(x)(x \text{ is a universal} \rightarrow (\exists y)(\exists z)(x \text{ is common to } y \text{ and } z \ \& \ y \neq z))$ ;

and from (8) and (6b) we get something like

9.  $(x)(x \text{ is a universal} \rightarrow \neg y)(x \text{ is peculiar to } y)$ ,

assuming that  $x$  is common to  $y$  and  $z$  entails  $x$  belongs to  $z$ , different from  $y$ .

From (9) and (6a) we are to get our conclusion that no universal is substance. What the argument appears to license is this:

10.  $(x)(x \text{ is a universal} \rightarrow \neg y)(x \text{ is the substance-of } y)$ .

<sup>594</sup> I formulate (6b) with nonidentity principally as a notation convenience. See the end of the chapter for a more restrained version of the principle.

<sup>595</sup> Irwin (1988: 78–80); see n. 39 above.

One might maintain that (10) supports strong proscription of the universal, for it appears to say that no universal can be the substance-of anything. But if we look at the argument for (10), it is clear that such a claim is too bold. For in light of (8), which is essential to the argument, (10) must be replaced by something like

11.  $(x)(y)(z)(u)(x \text{ is a universal} \ \& \ x \text{ is common to } y, z, \dots, u \ \& \ y \neq z \ \& \ y \neq u \ \& \ \dots \ \& \ z \neq u \rightarrow \neg (x \text{ is the substance-of } y \ \& \ x \text{ is the substance-of } z \ \& \ \dots \ \& \ x \text{ is the substance-of } u))$ .

Now (11) is an interesting proposition. Although it bars the universal from serving as the substance-of all the things it applies to, it does not bar the universal from serving as the substance-of *one* of them. This is just the case proposed four paragraphs back on behalf of Aristotle's refractory listener; but, in any case, it is a position left open by (11). For this reason Aristotle continues the argument in (ix)–(xii) because only these lines rule out the refractory listener's attempt at circumvention.

Suppose, then, that someone asserts, consistently with (11), that

12.  $(x)(y)(z)(u)(x \text{ is common to } y, z, \dots, u \ \& \ y \neq z \ \& \ y \neq u \ \& \ \dots \ \& \ z \neq u \ \& \ x \text{ is the substance-of } y \rightarrow \neg (x \text{ is the substance-of } z \vee \dots \vee x \text{ is the substance-of } u))$ .

On (12),  $x$  can be the substance-of one thing only. If this thing is  $y$ , then  $x$  cannot be the substance-of anything else in the domain; likewise, if it is  $z$  or  $u$ . In any case, whichever it is the substance-of,  $x$  will be the substance-of this alone and, in this sense, the thing's substance,  $x$ , will be peculiar to it—despite the fact that  $x$  is universal. So, at least, Aristotle's listener urges.

This line on the argument's strategy is encouraged by the fact that Aristotle continues in (ix) by pressing a question that is invited by (12). Of which of  $y, z, \dots, u$ , he asks, is  $x$  the substance? The force of the question becomes clear immediately, for he goes on to introduce a dichotomy, in (x), that appears designed precisely to counter the proposal behind (12). The dichotomy, which enjoins that the universal must be the substance of all or of none of the things it belongs to, I write as:

13.  $(x)(y)(z)(u)(x \text{ is common to } y, z, \dots, u \ \& \ x \text{ is the substance-of something} \rightarrow [a] \ x \text{ is the substance-of all of } y, z, \dots, u \vee [b] \ x \text{ is the substance-of none of } y, z, \dots, u)$ .

Now a range of commentary echoes the well-known worry that (13) is not logically exhaustive. As contraries rather than contradictories, (13[a]) and (13[b]) do not represent exhaustive possibilities. For this, (13[b]) should be paired with (a'):  $x$  is the substance-of *at least one* of  $y,$

$\zeta \dots u$ ; or (13[a]) should be paired with (b):  $\neg (x \text{ is the substance-of } y \ \& \dots \ \& \ x \text{ is the substance-of } u)$ . Aristotle knows the difference between contrary and contradictory opposition, so it is not likely that he means (13) to function as a logical truth.

On the view I favor, (13) is something like a penultimate step in the Master Argument, introduced precisely to ward off the proposal that something might be common to many things but be the substance-of one of these only. Since (13[a]) will be rejected and since we are given only alternatives (13[a]) and (13[b]), the universal cannot be the substance of anything it applies to. Thus, we close the loophole in (11) that gave hope to Aristotle's refractory listener. But (13) cannot function as an independently acceptable premise of the argument. Were it to, from rejection of (13[a]), (13[b]) would follow as a matter of logic.<sup>596</sup> But it does not, and Aristotle knows that it does not.<sup>597</sup>

So we must assume, I think, that Aristotle rests (13) on a further assumption. Frede and Patzig (1988: ii. 248) suggest that (13) is acceptable on the assumption that a universal must bear the same relation to everything it belongs to. This uniformity principle for universals, as I shall call it, may be formulated as

13\*.  $(x)(y)(z)(u)(x \text{ is common to } y, \zeta \dots u \ \& \ x \text{ stands in relation } R \text{ to } y \rightarrow x \text{ stands in relation } R \text{ to each of } y, \zeta \dots u)$ .

On the basis of (13\*) we can constrain our alternatives to just (13[a]) and (13[b]). For if  $R$  is *being the substance-of*, then  $x$  will be the substance-of all it belongs to; and if  $R$  is *not being the substance-of*, then  $x$  will be the substance-of none of the things it belongs to. The uniformity principle leaves no room for  $x$  to be the substance-of one, but of no other, of the items it belongs to.

As represented by Frede and Patzig (1988: ii. 248), (13\*) is imported from outside. It turns out, however, that a logical relative of (13\*) is implicit in  $(xi)$ – $(xii)$ , and so some sort of uniformity principle may be attributed to Aristotle with some degree of confidence. We can see this

<sup>596</sup> Cherniss (1944: 318, n. 220) takes  $(xi)$  to support the *dichotomy* in (13) and  $(xii)$  to lead eventually to rejection of alternative (13[a]). Frede and Patzig agree that  $(xii)$  leads to rejection of alternative (13[a]) but deny that  $(xi)$  can support the entire dichotomy, partly on the grounds that this requires taking 'substance-of one to mean 'substance-of some'. Burnyeat *et al.* (1979: 131) represents Aristotle as reasoning quite loosely—first, speaking as if “two answers are available” and, then, going on to add, “as by afterthought,” that it cannot be the subject of one. But this is no better than Cherniss in supplying the alternative that completes the (13[a])–(13[b]) disjunction. What is still needed is the case where the universal is the substance-of *some* of the things it belongs to—not the substance-of one.

<sup>597</sup> Otherwise, *De Interpretatione*'s square of opposition collapses and with it much of the logic itself.

by pursuing the argument further. Thus, let  $x$  be common to  $c_1 \& \dots \& c_n$ , and, with  $(xi)$ , let  $c_k$  be ‘the one’ whose substance  $x$  is. According to  $(xi)$ ,  $c_k$  will be identical to each of the remaining  $c_1 \dots c_n$  because,  $(xii)$  reports, things whose substance and essence are the same are themselves the same.<sup>598</sup> So  $(xii)$  supports  $(xi)$ , which in turn supports rejection of alternative (13[a]). Somewhat more canonically,

14.  $(x)(y)(x \text{ is the substance-of and essence of } y \rightarrow x \text{ is the same as } y)$ ,

which formulates  $(xii)$ , is held to entail

15.  $(x)(y)(z)(u)(x \text{ is common to } y, z \dots u \& x \text{ is the substance-of } y \rightarrow z \text{ is the same as } y \& \dots \& u \text{ is the same as } y)$ ,

which is contained in  $(xi)$ . But (14) entails (15), only if the following holds:

16.  $(x)(y)(z)(u)(x \text{ is common to } y, z \dots u \& x \text{ is the substance-of and essence of } y \rightarrow x \text{ is the substance-of and essence of } y \& x \text{ is the substance-of and essence of } z \& \dots \& x \text{ is the substance-of and essence of } u)$ .

For from (16) and (14) we may infer that  $x$  is the same as each of  $y, z \dots u$ ; and from this it presumably follows that  $y, z \dots u$  are the same, which is just the consequent of (15). But (16) is an instance of (13\*), the Frede–Patzig uniformity principle for universals. So some such principle might be involved in the argumentation of  $(xi)$ – $(xii)$ .<sup>599</sup>

The elimination of alternative (13[a]) now appears imminent. For if any two things that  $x$  applies to must be the same, how could  $x$  be the substance-of all such things? Appearances notwithstanding, there is a way for this to occur. For the argument, as reconstructed, does not prevent  $x$  from being the substance-of all things it belongs to, so long as  $x$  belongs to only one thing. Of course, it remains effective against the refractory listener's claim that  $x$  could be universal to *many* things but the substance-of one only of them, and this may be enough of a result. This, however, makes ascription of a thing's substance dependent on

<sup>598</sup> Here, and in the above translation of the passage, I follow Ross (1924) and Frede and Patzig (1988) rather than Bostock's (1994) “things whose substance is one have the same what-being-is [i.e., essence], and are themselves one.”

<sup>599</sup> The hint of reservation here is due to the fact that (13\*) may be too general to be a plausible principle. For one thing, it rules out cases where a term has clear and less clear cases and so is differently related to its instances. It might also rule out terms that apply with systematic ambiguity to their instances. Thus, for example, *being* is common to all categorial items but is differently related to substances and to accidents. To avoid this, one might say that R is to be a univocal relation, one case of which would be *being the substance-of and essence of something*. This would be enough to get us to (16).

purely contingent external matters, so that *animal*, say, could be the substance-of something, were there but a single animal. But Aristotle will reject this in the No-Part Argument, (IIc), and it is hard to believe that he intends this result to stand on such infirm ground. In fact, the worry is avoided entirely by Aristotle's modal characterization of the universal. For (7a) and (7a') bar  $x$  from being the substance-of  $y$ , to which it belongs, if it is possible that  $x$  belongs to something different from  $y$ . So a universal cannot be the substance-of all things it belongs to, even in this limit case, and, hence, we reject alternative (13[a]). By the uniformity principle we may conclude, with alternative (13[b]), that the universal is the substance-of none of the things it belongs to.<sup>600</sup>

With the establishment of (13)'s alternative (b), we are able, finally, to assert the conclusion of the Master Argument:

11\*.  $(x)(y)(z)(x \text{ is predicated [universally] of } y \text{ and } z \ \& \ y \rightarrow z \rightarrow \neg (x \text{ is the substance-of } y \vee x \text{ is the substance-of } z))$ ,

assuming, of course, that  $x$  *being predicated universally* and  $x$  *being in common* are interchangeable.<sup>601</sup> Moreover, proposition (11\*) appears to yield weak proscription only of the universal and so the Master Argument appears to set this as the target of attack in Z.13.

Note that in reaching (11\*) very little is left to the reader. In particular, we need not suppose with Frede and Patzig (1988: ii. 250) that the proof of (13[b]) is left entirely to the reader. For we have shown that a uniformity principle for universals, which enables the move to (13[b]),

<sup>600</sup> It is interesting to note that had Aristotle not included  $(xii)$  in the text of the Master Argument, we could get from  $(xii)$  an argument against (13)'s alternative (b). By way of encouraging this, we might take Aristotle's rebuttal of alternative (13[a]), in  $(x)$ , not as leading into an argument against (13[a]) but as dismissing (13[a]) immediately on grounds that have been given earlier in the argument—specifically in (11). At any rate, let  $x$  be common to  $c_1 \ \& \ \dots \ \& \ c_n$ , and, with  $(ix)$ , let  $c_k$  be 'the one' whose substance  $x$  is. According to  $(xii)$ ,  $c_k$  is identical to each remaining  $c_1 \ \dots \ c_n$  from the domain of  $x$ . How could this tell against alternative (13[b])? Well, it shows that  $c_k$  cannot be the item that is the value of 'y' in the refractory listener's already-cited formula:  $(12) (x)(y)(z)(u)(x \text{ is common to } y, z, \dots, u \ \& \ x \text{ is the substance-of } y \rightarrow \neg (x \text{ is the substance-of } z \vee \dots \vee x \text{ is the substance-of } u))$ , because (12) allows a universal to apply to different things ( $y, z, \dots, u$  are all different) and to be the substance-of just one of these. Our ever-refractory listener now wonders whether  $c_k$  might not be the value of 'y'. This leads to the same result and so disqualifies another member of the domain. By exhaustion, all of  $c_1 \ \dots \ c_n$  are eliminated as possible values for 'y' in (12). Hence,  $x$  can be the substance-of nothing to which it applies. So nothing can be common to many things but the substance-of just one. With this, we defeat the option that escaped the first phase of argumentation that ended with (11). However, this way of reading  $(xii)$  makes no use at all of  $(xii)$ . It is hard to see how  $(xii)$  could give support to this deployment of  $(xii)$ . So if we want  $(xii)$  to be relevant to the argument, then  $(xii)$  is best taken to aim at alternative (13[a]).

<sup>601</sup> That Z.13 is comfortable expressing proscription of the universal in alternative idioms is clear from (a)–(d), the formulations we considered in the previous section.

is actually involved in the argument. In the same vein, we should be wary of their claim that it is also left to the reader to conclude on the basis of (11\*) that nothing at all that is a universal can be the substance-of anything at all. If Aristotle intended his audience to *infer* strong proscription on the basis of weak proscription, as opposed to being simply mistaken about what the Master Argument *proves*, then we must suppose that Aristotle took them to be in possession of the following strengthening assumption:

17.  $(\forall x)(x \text{ is a universal} \ \& \ x \text{ is substance [at all]} \rightarrow (\exists y)(x \text{ is the substance-of } y \ \& \ x \text{ is predicated [universally] of } y))$ ,

or, as Frede and Patzig (1988: ii. 250) put it, “that whose substance the universal is, must be counted among the things, to which the universal belongs.”<sup>602</sup> According to (11\*), the conclusion of the Master Argument, there can be nothing that is both the substance-of a thing and universally predicated of it. So the right side of (17) is false and, hence, nothing universal can be substance at all. In this way the Master Argument is made to serve the cause of strong proscription.

Such servitude should be viewed, as most servitude, with principled intolerance. If the argument demands nothing beyond weak proscription and other factors are neutral, then we should be bound by the constraints of the argument. In a moment, I will turn to some of these other factors and argue that they support ascription of weak proscription. First, something more needs to be said about the strengthening assumption, (17), in particular, about its apparent use of the absolute notion of substance—that corresponding to the one-place predicate, ‘\_\_\_ is a substance’. On our view, *Metaphysics Z*’s chief aim is to provide an account of what a thing’s form must be like if it is to serve as its substance. Here the two-place notion of substance dominates. The strengthening assumption, on the other hand, appears to suggest that the two-place notion is of interest because it allows us to draw a conclusion about the one-place notion. So for us it would be odd, and perhaps even a point of embarrassment, to find Z.13 trafficking in absolute οὐσίαι (substances).

In fact, however, this is more than proponents of strong proscription are entitled to. For one thing, (17) is loosely formulated and may not survive tightening up. It appears to support a claim about the absolute notion of substance by appealing to an argument concerning the relative notion. But on this basis the appropriate strengthening principle should be something like

<sup>602</sup> “das, dessen ousia das Allgemeine ist, zu den Dingen zählen muss, denen das Allgemeine zukommt.”

- 17a.  $(x)((\exists y)(x \text{ is a universal} \ \& \ x \text{ is the substance-of } y \rightarrow (\exists z)(x \text{ is the substance-of } z \ \& \ x \text{ is predicated [universally] of } z)),$

and (17a) says that if the universal is the substance-*of* something, then it is the substance-of something it is predicated (universally) of. Again, the right side is knocked out by the conclusion of the Master Argument, (11\*). But what follows now is just that the universal is not the substance-*of* anything at all. So the notion of substance-*of* still dominates the discussion of Z.13.

To get absolute proscription for the one-place notion requires assuming, further, that something is (a) substance at all, only if it is the substance-*of* something. This amounts to a second, and stronger, strengthening principle,

- 17b.  $(x)(x \text{ is a substance} \rightarrow (\exists y)(x \text{ is the substance-of } y)).$

Frede and Patzig (1988: ii. 250) appear to endorse (17b) when they suggest that the universal can be the substance of nothing and *therefore* cannot be substance at all. For this just asserts the contrapositive of (17b). Now it may turn out that Aristotle holds, finally, that no universal is (a) substance at all, but he ought not to urge this on the basis of (17b). For (17b) puts the Master Argument at loggerheads with the central tenet of the theory of the *Categories*. According to (17b), nothing can be a substance unless it is the substance-*of* something. *Categories* primary substances (c-substances) unabashedly fail to meet this condition. Hence, attaching (17b) to the Master Argument provides more than a doubly strengthened proscription against the universal. It eliminates c-substances themselves as claimants to the title. This, of course, clashes dramatically with my view, on which *Metaphysics Z* aims to explain the structure and central features of c-substances.

In holding (17b) Frede and Patzig, in effect, simply refuse to admit that the distinction between ‘substance’ and ‘substance-*of*’ is operative in *Z*. But there is no principled reason to adopt (17b). It is neither contained in the text nor required to account for the argument that the text does contain. Admittedly, one might argue, on independent grounds, that *Metaphysics Z* does eliminate Socrates, Secretariat, Madame Curie, and their ilk as primary substances. Frede and Patzig (1988) do just this in urging that in the central books Aristotle searches for a new subject for accidents because of his disenchantment with the ability of the early work's erstwhile primary substances to perform this role. And, of course, something like (17b) might be less unacceptable were one to hold, as they do, that this new subject for accidents must also explain the nature or being of the thing (what I have called BLEND). But these considerations can no longer be considered persuasive. In previous chapters we

have given good reasons for rejecting these and similar views, and I see no cause for resurrection here.<sup>603</sup>

As for the weaker strengthening principle, (17a), our policy of principled intolerance is also recommended by factors internal to Z.13. The idea that a universal, if it is to be substance, must be the substance-of something it is predicated of fails to take account of Aristotle's distinction in the introductory section between subjects<sub>1</sub> and subjects<sub>2</sub>. By the same token it fails to take account of two corresponding notions of predication: subjects<sub>1</sub> will be c-substances, which take standard categorial predicates, and subjects<sub>2</sub> will be portions of matter, which take forms as predicates. This plainly allows the universal that is the substance-of  $x$  to be predicated, not of  $x$ , which as a subject<sub>1</sub> takes only categorial predicates, but of  $x$ 's matter, which as a subject<sub>2</sub> takes form as a predicate. This is consistent with the conclusion of the Master Argument, but it is exactly what the strengthening assumption (17b) tries to exclude. The fact that the distinction between subjects<sub>1</sub> and subjects<sub>2</sub> counsels against the maneuver<sup>604</sup> and that it occurs in the section of Z.13 leading into the Master Argument plainly shifts the burden of proof onto proponents of the strengthening assumption. As it stands, the Master Argument shows neither that a universal cannot be the substance-of something nor that it cannot be substance at all. Weak proscription is alive and well.

A final comment is due on our use of the 'refractory listener' in interpreting the Master Argument. In having him put forward (12), he is not merely floating a logically possible position that keeps open the option that the universal is the substance-of something—namely, that it is the substance-of one only of the things it applies to. For on his proposal the substance-of a thing is stripped of explanatory force. According to Aristotle, whatever serves in the role of substance-of must be suited to play an *explanatory* role and, hence, it must enjoy *generality*. (In particular, it must explain the nature of the c-substance, whose substance it is.) Thus, there is a presumption that form, as the chief candidate for substance-of, must be capable of supporting the sort of generality required for genuine explanation. This would make Aristotle especially eager to rebut his refractory listener, for the listener holds that  $F$  could be the substance-of  $a$  only, despite the fact that, in all relevant respects,

<sup>603</sup> I agree that *Metaphysics* Z does not count Socrates as a primary substance because its primary substances are forms of such things. But, to be abundantly clear, this does not mean that they are rejected as *Categories* primary substances, for 'primary' itself is deployed differently in the late ontology, where it is a kind of explanatory primacy. Socrates never was primary in this sense.

<sup>604</sup> It is odd to find this implicit in Frede and Patzig's (1988) account because they are committed to the view that form is predicated of matter and not, at least not properly, of the compound of form and matter.



$F$  bears the same relation to  $b$ ,  $c$ , and their ilk, as it does to  $a$ . Surely, then, if  $F$ 's relation to  $a$  is genuinely explanatory, so also should be  $F$ 's relation to  $b$ ,  $c$ , and their ilk. So the refractory listener's proposal denies explanatory force to the substance-of  $a$ .

Further, even were we to grant that  $F$  is the substance-of  $a$  only, of the things it belongs to, the refractory listener has got the wrong *relata*. For Aristotle may insist, and with considerable plausibility, that where  $F$  is a universal predicated of  $a$ ,  $F$  cannot explain the nature of  $a$  and so could not be the substance-of  $a$ . What explains the nature of  $a$  is, rather, something that is predicated of the *matter* of  $a$ . This is precisely the constraint imposed on form in Z.17 and precisely what is violated by the refractory listener's proposal.

## 6. The No-Part Argument

The Master Argument concludes at 1038b15. However, to continue our conceit, Aristotle's refractory listener has not quit the field. Chastened but not silenced, he surfaces at 1038b16, following the quick-hit argument discussed in section 4, and wonders whether

perhaps, the universal, although it cannot be substance in the way that the essence is (οὐκ ἐνδέχεται ὡς τὸ τί ἦν εἶναι), can be present in the essence (ἐν τούτῳ δὲ ἐνυπάρχει), as, for example, *animal* is present in *man* and *horse*. (1038b16–18)

It is not surprising that this idea should occur to our listener, for in establishing that no universal can be the substance-of anything it belongs to, the Master Argument says nothing about the *parts* of the substance-of a thing. As far as that argument goes, it is possible that some part of a thing's substance be universal, even though the substance *as a whole* belongs to the thing alone and so is not universal. But Aristotle finds this unacceptable and deploys the No-Part Argument, (IIc), to show why.

The No-Part Argument resides in the largest block of text in the chapter, 1038b16–b34. The argument proper occupies the opening stretch, 1038b16–23. Then comes a rebuttal of the misguided suggestion, to avoid the argument's clutches, that a part of a thing's substance might be a quality rather than a substance and a this, 1038b23–9. This is followed in 1038b29–30 by the observation that the proposal would make the part in question the substance-of two things. Finally, we get, at 1038b30–4, a set of general remarks against the substantiality of these universals, remarks that also link the No-Part Argument to Z's earlier discussion of form as essence.

My primary concern is to bring the No-Part Argument into agreement with our view that Z.13 contributes to Z's developing notion of form as the substance-of c-substances. So I shall make rather selective use of the text in arguing four points. These are (A) that the Master Argument remains in force; (B) that substance still appears as substance-of; (C) that substance-of is conceived as essence; (D) that *man* is not treated as the species *man* but as the species-form.

The first three points figure in the argument proper, so let us begin with this. Our refractory listener reluctantly agrees with the conclusion of the Master Argument, (11\*), but proposes that (11\*) is consistent with his new claim that a *part* of the substance-of a thing can be universal. What he, in fact, agrees to is that the universal cannot be the substance-of a thing in the way that the *essence* is the substance of the thing. So he holds something like the following:

18.  $(x)(y)(x \text{ is the substance and essence of } y \rightarrow \diamond (\exists z)(z \text{ is a part of } x \ \& \ x \text{ is not [a] universal} \ \& \ z \text{ is [a] universal}))$ .

In asserting (18) the listener is clearly alluding to the Master Argument's conclusion and, hence, granting that the argument is about essence. Moreover, we saw in the previous section that the crucial premise of the portion of argument contained in (xi)–(xii), namely (14), construed the substance-of a thing as its essence. This is not merely a fortuitous gloss, for the section needs to establish that things whose substance is one are themselves one. By reading substance as essence, (14) gains the support of the Zeta 6 Thesis. For that thesis promotes the sameness of a primary and *per se*<sub>1</sub> thing with its essence and the substance of concern in Z.13 is just such a primary item. Thus, if such a thing is the same as its essence, then two things with the same essence would themselves be the same. So the very formulation of the proposal that is the target of the No-Part Argument implies that Aristotle remains focused on the notion of substance-of (point [B]) and conceives of the substance-of something as the essence of the thing (point [C]).

The refractory listener is represented as holding that a universal might be part of the essence of something in the way that *animal* is part of *man* and *horse*.<sup>605</sup> But Aristotle's argument against (18) focuses on *animal* as a part of just *man*. This is because he allows for the sake of argument that *animal* belongs to both *man* and *horse* and, so, that it is a universal. The question is whether it can be common to these and yet be the substance-of just one of them. So he selects *man* as the value of 'x' in (18).

<sup>605</sup> I render Aristotle's "being present in" as "being a part of." This is quite harmless in its own right and is recommended by the fact that the No-Part Argument prepares for the End Dilemma, which explicitly concerns the *parts* of substance.

Now, says Aristotle, there will be a formula of this part of *man*.<sup>606</sup> What is the point of this remark? Well, so far nothing has been said about *animal*, the value of ‘ $\zeta$ ’ in (18), being a substance of any kind. But Aristotle's audience has just finished reading Z.4–6 and 10–11. So they are quite aware of the connection between having a formula and being an essence or substance. Hence, if there is a formula of  $\zeta$  whatever it is, then there are grounds for regarding  $\zeta$  as a substance. The latter point is essential to the refractory listener's position. It is not, however, essential that this sufficient condition actually obtain,<sup>607</sup> for in any case the position under attack holds that  $\zeta$  merits the title of substance. Thus, whether or not it has a formula, *animal* must be the substance-of what it is a part of, for example, *man*.

But *animal* obviously cannot be the whole substance-of *man*, but only part of the substance-of *man*.<sup>608</sup> This, of course, is what the refractory listener proposes in (18). The trouble with this sort of part is that it must satisfy Aristotle's requirement that the substance-of a thing be peculiar ( $\acute{\iota}\delta\iota\omicron\varsigma$ ) to it. Formulated in (6a) of the Master Argument for the whole substance-of a thing, the requirement is now extended to parts of the substance-of the thing. Thus, when Aristotle asserts at 1038b22–3 that, on the view under attack, *animal* will be the substance-of what it is a part of as something peculiar to it,<sup>609</sup> I take him to be endorsing

6a\*.  $(x)(y)(x \text{ is the substance-of } y \vee x \text{ is part of the substance-of } y \rightarrow x \text{ is peculiar to } y)$ .<sup>610</sup>

As we saw in the previous section, the refractory listener attempted to preserve the claim that a thing's substance may be universal and yet peculiar to it by arguing that it can be universal to many but be the substance-of one only. There he was defeated. The No-Part Argument

<sup>606</sup> With Frede and Patzig (1988) and Bostock (1994), and against Ross (1928): “clearly it is a formula of the essence.” See Frede and Patzig (1988) for commentary.

<sup>607</sup> Perhaps, he hints, on the grounds that not everything in the substance has a formula. Scholars have divined here a threat of infinite regress, but I see Aristotle as simply covering the bases. See Frede and Patzig (1988: ii. 253–5) for more extensive discussion of the point.

<sup>608</sup> See Frede and Patzig (1988: ii. 255) for further discussion of this point.

<sup>609</sup> Following the suggestion of Brandis (1823–37), I bracket εἶδει in 1038b23: ἐν ᾧ εἶδει ὡς ἴδιον ὑπάρχειν. Frede and Patzig (1988) and Bostock (1994) follow Brandis. Although Frede and Patzig (1988: ii. 256) rightly report that Jaeger (1957) retains εἶδει, it does not appear to be correct that this is the reading of Ross (1924 /1953).

<sup>610</sup> As written, (6a\*) might be found implausible. Why, some will wonder, should every part of the substance-of a thing be peculiar to it? If this means that the parts of the substance-of Socrates belong to him and him alone, then there are grounds for worry. For this appears to compromise the explanatory power of the form as the substance-of a thing. But there is a weaker, and more satisfactory, reading of the claim that the parts of a thing's substance are peculiar ( $\acute{\iota}\delta\iota\omicron\nu$ ) to it. I introduce this at the end of the chapter.

contends with his attempt to salvage something for his proposal, by limiting it to the parts of the substance-of a thing. So understood, (6a\*) does not so much defeat the refractory listener as invite the same round of argumentation witnessed in the Master Argument, now applied to the parts of the substance-of a thing. This, I submit, is precisely what Aristotle means at 1038b22–3 when he says that if one holds (6a\*), then the same thing will happen again (ὥστε τὸ αὐτὸ συμβεβήσεται πάλιν).

On this view, Aristotle is not simply adverting to the conclusion of the Master Argument. Rather, he seems to be saying, the argument itself may be redeployed to give us a new conclusion:

11\*\*.  $(x)(y)(z)(x \text{ is predicated [universally] of } y \text{ and } z \ \& \ y \neq z \rightarrow \neg (x \text{ is part of the substance-of } y \vee x \text{ is part of the substance-of } z))$ .

Thus, *animal*, which is predicated of *man*, cannot be part of the substance-of *man*; nor, by the same token, can it be part of the substance-of *horse*. In general, no universal can be part of the substance-of anything that it (the universal) is predicated of.<sup>611</sup>

With (11\*\*) we get weak proscription of the universal as a part of the substance or essence of something. On this point (11\*\*) mirrors (11\*). It is also like (11\*) on the point that so far nothing disqualifies the universal as a part of the substance-of a thing, so long as it is not predicated of that thing. But (11\*\*) does not assert this. So this option would have to be excluded, or established, by other means.

It will be useful at this point to contrast our account of the argument proper, in 1038b16–23, with that of Bostock (1994: 193–8), which takes it to be an argument *in favor* of the thesis that the universal (i.e., genus) is a substance because it is present in the species and the species is a substance. This must be so, he reasons, because, if it is an argument against the thesis (that no universal can be substance), then it is a “ludicrously bad one.” The ludicrously bad argument, which is Ross's, leads with the premise that nothing can be the substance of many things. This knocks out the genus because the genus is like the species and the species holds of many things; “yet even Ross does not think that Aristotle means here to disqualify the species.” But, as we have shown, this is not the only way to read the No-Part Argument as a *proscriptive* argument. And, even reading as Ross, we have already seen that in

<sup>611</sup> Weak proscription of the universal as a part of the substance-of a thing is not merely the result of logical reconstruction of the No Part Argument. It is prepared for by the way Aristotle puts the motivating worry that invites the argument. For in wondering, at 1038b16–18 (see the opening paragraph of this section), whether a universal could be present in the essence as *animal* is present in *man* and *horse*, Aristotle enlists the example to illustrate the *wrong* way to include a universal in the substance-of something. Room is left open for a correct way of doing this, and weak proscription fits the bill.

earlier chapters of *Metaphysics Z*, Aristotle consistently rejects the claims of the species to be the substance-of a c-substance. Moreover, in Z.13 itself the Master Argument establishes that nothing predicated universally of  $x$  and  $y$  can be the substance-of either. The species will be just such an item.

Bostock (1994) arrives at his estimate of the argument proper by first looking at the next section of the No-Part Argument, 1038b23–9, which he maintains must be taken as an argument in favor of the thesis that some universal is substance. He then urges that the first section, the argument proper, should be read in the same way. Worries about such interpretive finesse aside, Bostock seems wrong anyway about the second section. On his view, if the species is substance, so surely is the genus, because the genus is prior to the species. He aims to support this by appealing to additional texts where Aristotle appears to grant some sort of priority to the genus over the species. Bostock is of the opinion that this puts his reading beyond doubt. But the reasoning here is flawed. For one thing, nowhere in 1038b23–9 do we find any talk about the genus, *as a substance*, being prior to the species. So none of the additional textual evidence is even relevant. What we find, rather, is the thought that the parts of the substance-of something might be a *quality rather than a substance*. The point of this should be obvious by now. Our refractory listener has just suffered defeat in his attempt to hold that at least a part of the substance-of a thing can be universal. Now we need to be clear that his proposal was that a part of the substance could itself be something *substantial* and universal. Although this has been defeated, he might think that the genus can still be part of the substance of something so long as it is not itself substantial in nature. Thus, we see him doggedly insist that the genus might be part of the substance-of something so long as it is not a substantial part but only a qualitative part. In this way something is salvaged on behalf of the universal. So, at least, he imagines. Aristotle makes short work of this by noting that qualities in general are always and in every way posterior to substances, and so to essences. Hence, the genus, conceived of as qualitative in character, would be a part of the substance as a whole but, unacceptably, posterior to it. And the basis for this rests entirely on considerations about the relation between substances and qualities. Nothing is said about the genus conceived as substantial in nature.

Now I do not deny that Aristotle is worried about the possible priority of the parts of the substance-of something. For in Z.10 and 11 he appears committed to the priority of the parts of the form to the form itself and, thus, to the possibility that such parts are more general than the forms that ‘contain’ them. Indeed, we took this to be one motivation for investigating, in the first place, the claims of the universal to be

substance. But the exact shape of the worry is what is in doubt. If, as I maintain, Aristotle's program in *Metaphysics Z* requires a new way of conceiving the relation between a form and its parts and if, as I also maintain, form is not the species, then what he says in a variety of other contexts about the relation between genus and species will not be of obvious relevance. But what he says in Z.13 is relevant because the chapter's End Dilemma feeds on the claim that substance, and so form, has parts. The End Dilemma must be approached by way of the argument that immediately leads into it, the Contra Compositionality Argument, as we have dubbed it. This argument begins with the broadly directed promise that “it will be made clear also from the following” (ἔτι δὲ καὶ ὧδε δῆλον, 1039a3). What is to be made clear, presumably, is the upshot of the No-Part Argument, in particular, its general conclusion in the final, fourth section, at 1038b30–4.<sup>612</sup>

Here is the general conclusion of the No-Part Argument:

It follows, generally, that if [*xv*] *man* and whatever is spoken of in this way are substances (ἔστιν οὐσία ὁ ἄνθρωπος καὶ ὅσα οὕτω λέγεται), then [*xvi*] nothing in the formula of such things can be the substance-of anything (μηθὲν τῶν ἐν τῷ λόγῳ εἶναι μηδεὶς οὐσίαν); [*xvii*] nor can it exist apart from them or in something else (μηδὲ χωρὶς ὑπάρχειν αὐτῶν μηδ' ἐν ἄλλῳ). I mean, for

<sup>612</sup> Although I shall not address it in detail, something might be said about the third section of text at 1038b29–30. I take the line to say that something universal, for example, *animal*, will be the substance-of two things, for example, *man* and Socrates. Frede and Patzig (1988: ii. 257–9) give good reasons for rejecting other readings, especially one holding that Socrates is the substance-of two things. But I am less sympathetic with their estimate of the point of the line. They remark (1988: ii. 259) that the result that one thing will have two substances is inconsistent with the principle that each thing can have only a single substance only on the assumption that the substance-of *man* and the substance-of Socrates are two different substances. And this is something the Platonist assumes. This may be true, but it does not address the point of the passage. What Aristotle is out to rebut is the claim that a universal could be part of the substance-of something, where the part itself is conceived of as substantial in nature. This requires that *man* and Socrates be two distinct substances, but it does not require that the *animal* that is a part of *man* be different from the *animal* that is a part of Socrates. On the contrary, this would defeat the point of the argument. As I read the line, it gives an additional reason to reject the refractory listener's claim that a part of the essence or substance-of something might be universal. The first part of the line maintains that *animal* is part of (present in) Socrates. Presumably, on grounds familiar from the *Categories*, this is acceptable given that *animal* is a part of *man* (which, as the position under scrutiny, may be granted for the sake of argument) and that *man* is part of Socrates, i.e., the individual man (which enters at 1038b21–2 as an elaboration of the position). For, by transitivity, these yield that *animal* is a part of Socrates. So *animal* is a substance in a substance, namely, in Socrates. But the part in question was supposed to be a part of the essence and substance itself of Socrates (and his ilk, perhaps). Hence, this part will be the substance not only of Socrates but also of *man* and, so, it will be the substance-of two things or, more precisely, a substantial part of the substance-of two things. With this, the refractory listener is defeated again. For by (11\*\*) nothing can belong to many things, e.g., *man* and Socrates, and be a (substantial) part of just one of them, e.g., *man*.

example, that [xviii] there is not some animal existing alongside the definite kinds of animal (οὐκ εἶναι τι ζῷον παρὰ τὰ τινά); and the same holds for all other such parts in the formula. (1038b30–4)

The overall conclusion of the No-Part Argument is given in (xv) and (xvi). By “whatever is spoken of in this way” Aristotle adverts to items coordinate with *man*, that is, species. Focusing on the plural ‘τῶν’ (‘of such things’), I take (xvi) to say that nothing that is in the formula of all such things is the substance-of anything. So I formulate the conditional as

19. (x)(y)(z)(x is a species & y is a species &  $x \neq y$  & z is mentioned in the formula of x & z is mentioned in the formula of y  $\rightarrow \neg$  (z is [in] the substance-of  $x \vee$  z is [in] the substance-of y)).

Now *animal* does belong to both *man* and *horse*. So one could take (19) to prohibit the genus from serving as any part of the substance-of what it belongs to. This would give us weak proscription of the genus, and anything else that behaves in like manner. Hence, it might seem to allow that *animal*, for example, could serve as part of the substance-of something it does not belong to. But this is a vacuous possibility, and in any case it is excluded by (xvi), which bars *animal* from belonging to something else.

Some commentators find that (IIc)'s general conclusion rejects the genus as a substantial item but not the species. Indeed, Bostock (1994) holds not only this but also that the No-Part Argument clashes with the Master Argument because the latter also rejects the species as a candidate for substance. We have already argued that the No-Part Argument relies on the Master Argument, and so we find no cause for clash. But Bostock is particularly worried about the concluding section of (IIc), and this we have not yet addressed specifically. Perhaps it will give cause to change our view of the No-Part Argument.

Now it is true that, in isolation, (19) does not doom the species. But (19) summarizes the entire No-Part Argument and the target of this argument is not *man* but at most a part of *man*. Moreover, as Bostock (1994) himself says, the species falls to the Master Argument. So it would be odd to find it resurrected in the general conclusion of the No-Part Argument, especially since it relies on the Master Argument. In fact, however, Aristotle's closing remark in (xviii) effectively excludes the species. For in denying that there is an animal existing apart from the definite kinds of animals, (xviii) echoes *Metaphysics* Z.12's remark, at 1038a5–9, that the genus does not exist apart from the forms of a genus (παρὰ τὰ ὡς γένους εἶδη). And as we saw in Chapter VI,<sup>613</sup> this passage

<sup>613</sup> Ch. VI, sect. 8.

concluded that, therefore, the proper definition is the formula that contains the formal differentiae only. The genus is explicitly excluded on the basis of its material or potential nature. But in Chapter VIII we saw that the species is just a universal compound of form and matter. So what results from (*xvii*)'s expulsion of the genus from the formula cannot be *man* the species but only the corresponding species-form—precisely what the Z.12 passage counts as the formal differentiae.<sup>614</sup> Thus, *pace* Bostock (1994), the general conclusion of the No-Part Argument is consistent with the Master Argument's exclusion of the species. This establishes our promised point (D). So if there is any sense in which *man* survives the argument's cut, it will not be the species *man* but the species-form. For by carefully specifying that we are to exclude only those parts of the formula that are common to different species, (*xvii*) protects the argument from excluding the species-form as the substance-of something. Indeed, it protects the No-Part Argument from excluding *parts* of the species-form as parts of the substance-of something. And it is this that Aristotle takes up in the Contra Compositionality Argument when he promises to “make it clear also from the following.”

## 7. Complexity Lost: Z.13's End Dilemma

The No-Part Argument establishes that no universal can be a part of the substance-of something it is predicated of. This provides one of the two conditions that yield the End Dilemma. The other is provided by (IIe), the Contra Compositionality Argument, which aims to show that no substance can be composed of substances that are present in it in actuality. Exactly what this claim comes to will depend on what we make of the argument, but it is clear that Aristotle makes the claim (for example, at 1039a7–8). Again equating *being present in* and *being a part of*, what is to be established is that it is impossible for a substance to be composed of substances present in it in actuality (ἀδύνατον γὰρ οὐσίαν ἐξ οὐσιῶν εἶναι ἐνυπαρχουσῶν ὡς ἐντελεχείᾳ, 1039a3–4). This remark might concern the composition of a c-substance, such as Socrates, or the composition of its substance. The latter is favored by the fact that (IIe) begins by promising to clarify an issue already placed on the table by the No-Part Argument<sup>615</sup> and that argument is devoted to worries about the make-up of the essence or substance-of c-substances.

<sup>614</sup> It goes without saying, perhaps, that this provides yet another link between Burnyeat's allegedly autonomous canonical clusters.

<sup>615</sup> It also concludes by again pointing out that the same point has been established by different means (see καὶ κατὰ τοῦτον τὸν τρόπον . . . , at 1039a7–8).



So I shall take it that the Contra Compositionality Argument aims to establish something like

20.  $(x)(x \text{ is the substance-of something} \rightarrow \neg \diamond (\exists y)(\exists z)(y \neq z \ \& \ y \text{ exists as an actual thing in } x \ \& \ z \text{ is a part of } x \ \& \ z \text{ exists as an actual thing in } x))$ .<sup>616</sup>

The argument for (20) is a quick inference from two premises. The first connects substantiality with unity:

21.  $(x)(x \text{ is the substance-of something} \rightarrow x \text{ is in actuality one thing})$ ;

the second issues a stricture on the composition of actual unities:

22.  $(x)(x \text{ is in actuality one thing} \rightarrow \neg \diamond (\exists y)(\exists z)(y \neq z \ \& \ y \text{ exists as an actual thing in } x \ \& \ z \text{ is a part of } x \ \& \ z \text{ exists as an actual thing in } x))$ .

Formulation (22) is dry canonicalese for Aristotle's catchier idiom: “what is in actuality two things cannot also be in actuality one thing” (τὰ γὰρ δύο οὕτως ἐντελεχείᾳ οὐδέποτε ἐν ἐντελεχείᾳ, 1039a4–5). This is sharpened further by an example already pressed into service in Z.10: the ‘halves’ of a line can exist in actuality, only if existing as separate lines. But they can exist as separate lines only if their parent line is destroyed into them. Hence, the parts of a line cannot actually exist in the line. I return to this point in the final section of this chapter and put it to important use in the next chapter.

Now I am claiming that the arguments of *Metaphysics* Z.13 lead to the End Dilemma and, therefore, that they fix the force of that dilemma. Of particular importance are the No-Part Argument and the Contra Compositionality Argument. So it is natural to ask what common ground they claim. The fact that Aristotle does not link the Contra Compositionality Argument to the Master Argument suggests that the chapter as a whole is not concerned just with the claims of the universal to be the substance-of things. It appears, in fact, to focus more on the idea that the essence or substance-of a thing has parts, and so it welcomes a worry about the notion of form inherited from the analysis in Z.10–11. This is borne out in (IIc) and (IId). Although the No-Part Argument focuses on universals, it focuses on universals as *parts* of the essence or substance-of something; and although the Contra Compositionality

<sup>616</sup> The nature and structure of the parts of the essence *of* or substance-*of* a c-substance is still at issue, even were we to grant that the argument aims to establish a one-place version of (20). For the explanation of why no *c-substance* can consist of substances present in it in actuality will appeal to the form of the c-substance. If the parts of the form exclude this, there will be an analog principle for them and it will look very much like (20). But this gets ahead of our story.

Argument focuses on parts, it does not mention universals at all. So it is the notion of a *part* (of the substance-of something) that provides the common focus of the two arguments. The End Dilemma is drawn from these two sources, thus reinforcing my view that the main worry of Z.13 is a worry about the structure of form, conceived as the essence or substance-of c-substances.

Here is the text containing the End Dilemma:

But there is a problem with this result. For if [xix] no substance can be composed of universals (μήτε ἐκ τῶν καθόλου οἰόν τ' εἶναι μηδεμίαν οὐσίαν) because a universal signifies a such but not a this and if [xx] no substance can be composed of substances existing in it in actuality (μήτ' ἐξ οὐσιῶν ἐνδέχεται ἐντελεχείᾳ εἶναι μηδεμίαν οὐσίαν σύνθετον), then [xxi] every substance must be incomposite (ἀσύνθετον ἂν εἴη οὐσία πάσα); and therefore (ὥστε, a18) [xxii] no substance would have a formula (οὐδὲ λόγος ἂν εἴη οὐδεμιᾶς οὐσίας). But everyone thinks . . . [xxiii] that substances only, or most of all, can be defined. Now it appears that [xxiv] not even substances can be defined and therefore [xxv] that nothing can be defined. (1039a14–21)

The entire discussion of *Metaphysics* Z.13 leads to this End Dilemma. So it is reasonable to conclude that its chief concern is the chief concern of the chapter as a whole. And, indeed, the concern appears to be voiced in (xxvi) and (xxvii), which fret over the definability of substance. Admittedly, definability was evident in the No-Part Argument, when it was used to motivate interest in the parts of the substance-of a thing by suggesting that these will correlate with parts of the formula of the thing.<sup>617</sup> Apart from this, however, the arguments of Z.13 do not mention definability. So it is somewhat surprising to find at the chapter's end that definability was all along the main concern—at least for those who take Z.13 (–16) to comprise an autonomous discussion. But the salience of definability will not surprise those who see Z.13 as pursuing Z.10–11's investigation of form. For these earlier chapters link form both with the universal and with definition. Moreover, they make much of the correspondence between the parts of a formula and the parts of the form. Thus, they endow form with just the sort of structural complexity that the End Dilemma appears to challenge.

We can view the End Dilemma as the refractory listener's revenge. For in the wake of the Master Argument, he hazarded the claim that the parts of the substance-of a thing might be universal and substantial in nature. This came to grief in the No-Part Argument, which concludes in (11\*\*) that no universal can be a part of the substance-of anything it is predicated of. But part of his claim remains intact, for it might at least

<sup>617</sup> At the outset of (IIc), 1038b18–20, and in its conclusion at 1038b30–4, for which see the previous section.

be the case that the parts of the substance-of a thing are substantial in nature. This, of course, is defeated by the Contra Compositionality Argument. So it is the rejection of both parts of the hazarded claim that spawns the End Dilemma. Thus, (xix) and (xx) begin by supposing

23. No substance can consist of universals,

and

24. No substance can consist of substances existing in it in actuality.

From these, (xxi) reports, it follows that

25. Every substance is incomposite,

and, according to (xxii), (25) in turn implies

26. No substance has a formula,

which is the real troublemaker. For according to (xxv), (26) commits us to the darkening proposition that nothing is definable.

As early as Z.1, substance parades as the primary target of definition and Z.4–5 marshal a number of arguments for the subtler claim that substance is exclusively or ‘most of all’ the object of definition. So (xxiii) appears to be reaching back to this material in reporting the received view that (26) flouts. Moreover, (xxiii) must be taken to assert that if anything is definable, then substance is definable. Only in this way can it ground the claim, in (xxiv)–(xxv), that (26) commits us to the proposition that nothing at all is definable. With this, the flouting of (26) aspires to paradox. Surely, it seems, something is definable; and, in any case, Aristotle must preserve his pet thesis that substance is definable.

Aristotle is under no illusion that something is wrong here. The End Dilemma is advertised as an ἀπορία (puzzle) and so we are entitled to expect a resolution. Indeed, relief is indicated in the closing lines of the chapter, which propose that “in a way substance can be defined, in a way not” (ἢ τρόπον μὲν τινα ἔσται τρόπον δὲ τινα οὐ, 1039a21–2) and promise to make this clearer “in what follows” (ἐκ τῶν ἑσπερον). Where exactly this ‘nuanced position’, as I call it, is made clear is itself not entirely clear. I have already suggested<sup>618</sup> that the promissory note is not to Z.15’s distinction between substance as compounded whole and substance as form but to Z.16’s distinction between actuality and potentiality, as applied to the parts of the form of a thing. To see how this works we first need to say something more about the structure of the End Dilemma.

<sup>618</sup> Sect. 3 above.

The reasoning moves in two stages. In the first, (25) is said to follow from (23) and (24). I shall turn to this shortly. The second stage, in which (26) is added as a consequence of (25), merits immediate comment. If one reads ‘ὥστε’ (‘therefore’) at 1039a18 as connecting  $(xxi)$  to  $(xx)$ , then (26) is represented as a direct consequence of (25). This means that Aristotle regards the incomposite nature of substance as sufficient for denying that substance has a formula. This is because every formula consists of parts that correspond, in the appropriate way, to parts of the defined thing. So the End Dilemma presupposes the Correspondence Thesis that was seen to be fundamental to the analysis of form in Z.10 and 11. Note also that in taking the move from (25) to (26) to be a *direct* inference, Aristotle reveals that his worry about the definability of substance rests less on failure of universality than on failure of compositionality. This should not surprise us, for (23) is just an informal version of (11\*\*), the conclusion of the No-Part Argument, and no more than (11\*), the conclusion of the Master Argument, does (11\*\*) issue a strong or absolute proscription against the universal. Moreover, the fact that Z.13 is committed to weak proscription only will be exploited in Z.17, where form's predicability of matter gives it a crucial role in explaining the nature of c-substances. We turn to this in the next chapter.

In Z.13's End Dilemma, however, compositionality is the chief topic of interest. How, we may imagine Aristotle asking, can substance be composite given (23) and (24)? Now this dilemma has bite only on the assumption that compositionality comes in one of two varieties. More precisely, the assumption is this:

27.  $(x)(y)(z)(x \text{ is the substance-of something } \& y \text{ is a part of } x \& z \text{ is a part of } x \& y \neq z \rightarrow (y \text{ is predicated universally of } x \& z \text{ is predicated universally}^{619} \text{ of } x) \vee (y \text{ exists as an actual thing in } x \& z \text{ exists as an actual thing in } x))$ .

Bostock (1994: 202) complains about (27). First, it is “surely very implausible” that (23) and (24) are “exhaustive of all possible ways of being composite.” This is correct, but it would be a cause for complaint only if Aristotle intended to produce an argument that is effective as a *proof*. But by promoting it as an ἀπορία or puzzle, he clearly indicates that the ‘argument’ sets up a problem that is to be resolved.

Aristotle often resolves an ἀπορία by showing that a crucial thesis bears different readings, at least one of which avoids the problematic result, or that it harbors a presupposition, whose removal avoids the dilemma. In the present case the crucial thesis is not (23), but (24), and so the presupposition is the second of (27)'s two ways of being

<sup>619</sup> As earlier in the chapter, I here mean by “predicated universally of  $x$ ” nothing fancier than the predication of a universal of  $x$ .

composite. Aristotle clearly rejects this brand of compositionality and so he holds:

27\*.  $(x)(y)(z)(x \text{ is the substance-of something } \& y \text{ is a part of } x \& z \text{ is a part of } x \& y \neq z \rightarrow \neg (y \text{ exists as an actual thing in } x \vee z \text{ exists as an actual thing in } x))$ .

Aristotle has no quarrel with (27\*). Indeed, it is reaffirmed without reservation in the final line of Z.16. But trouble arises when (27\*) is combined with the assumption that there is only one way to be a part of the substance-of something, namely, by existing in it as an actual thing:

27a.  $(x)(y)(x \text{ is the substance-of something } \& y \text{ is a part of } x \rightarrow y \text{ exists as an actual thing in } x)$ .

So the trouble must lie with (27a). In short, I shall suggest that the End Dilemma is resolved by rejecting (27a). If so, Aristotle must show that there can be parts of the substance-of something that do not exist as actual things in the substance.<sup>620</sup>

## 8. Complexity Regained: Z.16 on Dual Complexity

We have seen that Aristotle does not end Z.13 on an entirely pessimistic note. Although indefinable in one way, in another way substance will be definable. This ‘nuanced position’, as I have called it, he promises to make clear ‘in what follows’. Now worries about the indefinability of substance derive from (26)’s more general result that substances have no formulae, and (26) is a direct inference from (25)’s apparent commitment to the non-compositionality of substance. So one way to cash Z.13’s promissory note is to provide a companion nuanced reading for (25). If, despite its being in one way incomposite, substance is in another way composite, then the definability of substance might be restored after all.

Restoration is to occur downrange, presumably, somewhere in the balance of the canonical cluster. With Frede and Patzig (1988) and Burnyeat (unpublished), I do not see this happening in Z.14. For Z.14 aims to block restoration (for those who believe in separately existing ideas and take them to consist of genus and differentiae, namely the Platonists). Further, it does not appear that Z.15 can be the scene of

<sup>620</sup> This appears to be in agreement with Code’s remark that, although predicated of matter, form is not predicated of any actual thing (1984: 12).

restoration. For, as we have already argued,<sup>621</sup> although the chapter distinguishes between substance as form and substance as the compound, it is not clear at all how this distinction breaks the dilemma. Z.15 appears, rather, to use the distinction to advance the thesis that no particular thing, for example a compound of form and matter, can be defined. I see nothing in the chapter that could be used to show an acceptable way in which the *substance-of a thing* can have parts (although it does suggest unacceptable ways in which this occurs for Platonic ideas). So we are left with Z.16.

*Metaphysics* Z.16 ends by returning to the central conclusions of Z.13–16 and declaring that it is now clear (δηλον): “that nothing predicated universally is substance and that no substance can consist of substances, this is now clear.”<sup>622</sup> What is affirmed here is to be read in agreement with Z.13. So we may take Z.16 to conclude by confirming Z.13's results: (11\*), weak proscription of the universal as the substance-of something; (11\*\*), weak proscription of the universal as a part of the substance-of something; and (27\*), withholding of actual existence to the parts of the substance-of a thing. The trick, of course, is to hold onto these results without falling prey to the End Dilemma's disastrous outcome that nothing at all can be defined. It is by fulfilling Z.13's promise to provide a way in which substance can be defined that Z.16 endows the central conclusions with indemnity against the dilemma. Without (27a), (23) and (24) cannot be presumed to establish (25); nor, thus, to imperil the definability of substance. So we take it that Z.13's promissory note is cashed by rejecting (27a), the assumption that there is only one way for something to be a part of the substance-of a thing.

Now Z.16 could merely reject (27a) and declare the End Dilemma factitious. Aristotle might have done this had he held that form is structurally simple. But he does not hold this.<sup>623</sup> Besides, resolution of an Aristotelian ἀπορία is designed to advance understanding, in the immediate case our understanding of how a thing's substance can be complex without containing actual parts. Since on our view this substance is conceived of as the essence or form of a c-substance and since in Z.17 form so conceived will be assigned the role of explaining the nature and salient features of the c-substance, Aristotle appears to regard the complexity of form as central to its explanatory or causal role. With respect to Z.16, then, what needs to be shown is that he rejects (27a) and does so with an eye to form's explanatory role.

<sup>621</sup> Above, sect. 3.

<sup>622</sup> ὅτι μὲν οὖν οὔτε τῶν καθόλου λεγομένων οὐδὲν οὐσία οὐτ' ἐστὶν οὐσία οὐδεμία, 1041a3–5.  
ἐξ οὐσιῶν, δηλον

<sup>623</sup> As we argue above, esp. Ch. VI.

Commentators have not been happy with *Metaphysics* Z.16. It divides pretty comfortably into three sections: (I), 1040b5–16, a proposal concerning the nature of parts of animals; (II), 1040b16–25, an argument against unity and being as the substance-of things; (III), 1040b25–1041a3, a critique of the Platonists' separation of forms.<sup>624</sup> The trouble, rather, is seeing how these fit together. Frede and Patzig (1988: ii. 297) sound a common cord when they say: “Es is nicht leicht, einen sofort erleuchtenden Zusammenhang der drei Abschnitte . . . zu erkennen.”<sup>625</sup> They find the connection between (I) and (II) especially vexing. This is echoed by Bostock (1994: 224), who lumps (II) and (III) together as an argument ‘once more’ against the universal as substance, and takes the pair to be mutually independent with respect to (I). Burnyeat (unpublished) groups (II) and (III) together as comprising an extended anti-Platonist polemic. Section (I) then serves mainly to par down the list of initial answers to Z.2's question about which things are substances.

I view the structure of Z.16 differently. Section (I) shows how the substance-of something can be acceptably complex by proposing what I shall call Dual Complexity for an animal and its form: the parts of an animal exist only potentially in the animal and the parts of the souls of animals that correspond to these parts exist only potentially in the soul. The account makes crucial use of the fact that an animal and, by Dual Complexity, its soul, are a unity. This suggests the possibility that *unity*, and its coeval *being*, might be the substance-of such unified things. Section (II), appropriately, disabuses the audience of this notion as well as of the notion that principle, element, or cause itself could be the substance-of a c-substance. By this Aristotle means to deny that *being for a principle*, *being for an element*, or *being for a cause* could be the substance-of a c-substance (i.e., its form or essence). He is not disputing that a thing's substance is a principle and cause, although in Z.17 he will dispute that it is an element; rather, he is admonishing against treating what is a formal property of a thing as if it were the thing itself. It should be noted that this clarification guards against at least one possible misreading of Z.17's asseveration, only twenty lines later, to start freshly from the proposition that the substance-of a thing is a principle and cause. Section (II) utilizes the distinction between *unity* and *a* unity, in particular, the fact that the former, but not the latter, can be in many

<sup>624</sup> Compare Frede and Patzig (1988: ii. 297), who take b25–7 as part of section (II). But the lines begin with an ἔτι (‘further’), which usually introduces a new point, and lead naturally into the criticism immediately made of the Platonists' desire to have forms separate and common.

<sup>625</sup> “It is not easy to discern an immediately illuminating connection between the three parts.”

places at once and, hence, cannot exist apart from particular things. The latter is then picked up by allowing the Platonist to have his forms separate but not both separate and common.

On my view, then, sections (II) and (III) of Z.16 address, at increased remove, issues that are only associatively connected with the theory of Dual Complexity espoused in section (I). There is much of value in the details of sections (II) and (III), but from the point of view of the overall program of *Metaphysics Z*, the principal contribution of Z.16 resides in section (I). This fact, so far as I know unappreciated by commentators, recommends that we focus on this first section of the chapter.

Let us begin with a look at the text and then move to problems. Slightly redacted, section (I) of Z.16 reads:

It is clear that [xxviii] even of those things that are generally thought to be substances, most are potentialities. This [xxix] holds for the parts of animals, because none of them exists when separated (οὐδὲν γὰρ κεχωρισμένον αὐτῶν ἐστίν) (and whenever separated they also then all exist as matter [ἔστιν δὲ χωρισθῆ, καὶ τότε ὄντα ὡς ἕλη πάντα]), and for earth, fire, and air. For [xxx] none of these is unified (οὐδὲν γὰρ αὐτῶν ἓν ἐστίν) but is as it were a heap, until they have been worked up and some unity is produced from them (πρὶν ἢ πεφθῆ καὶ γένηται τι ἐξ αὐτῶν ἓν). Now some might hold that most of all [xxxii] the parts of ensouled things and the closely correlated parts of the soul turn out to be both (τὰ τῶν ἐμψύχων ὑπολάβοι μέρη καὶ τὰ τῆς ψυχῆς παρέργως ἄμφοι γίνεσθαι), existing in actuality as well as in potentiality (ὄντα καὶ ἐντελεχεῖα καὶ δυνάμει) . . . but in fact [xxxiii] all exist only in potentiality (ἀλλ' ὅμως δυνάμει πάντ' ἔσται), that is, when they are by nature unified and connected (ὅταν ἢ ἐν καὶ συνεχῆς φύσιν). (1040b5–15)

For Burnyeat (unpublished), this section of Z.16 is devoted chiefly to ontological house-cleaning. Thus, (xxviii)'s promise to par down Z.2's list of things that are substances is delivered by eliminating the parts of animals and elemental stuffs in (xxix) and (xxx). True enough, but this leaves the balance of the section without comment. But comment is needed, for in (xxxii) Aristotle proceeds to an entirely plausible rejoinder, namely, that the parts of ensouled things are both potentialities and actualities. This is plausible if only because Aristotle's psychology characterizes faculties of the soul both as actualities and as potentialities, that is, as so-called first actualities (actualities,) or second potentialities (potentialities,). Since it is unlikely that he means to relinquish his settled position, it is likely that something more than ontological tidiness is at issue. And, of course, on our view this additional factor involves rejection of (27a), the assumption that gives bite to the End Dilemma. One might push this thought away by supposing that faculties of the soul are not parts of the ensouled *thing* but only of the *soul* of the ensouled thing. Its independent merits aside, this will not help because



(*xxxv*) includes within its scope the parts of the soul that correlate with the parts of the thing that has the soul. So it appears that Z.10's Correspondence Thesis is alive and well.<sup>626</sup>

Now Burnyeat is absolutely correct to insist that at the end of Z.16 Aristotle has clarified and vindicated the major results of Z.13—what we take to be (11\*), (11\*\*), and (27\*). But vindication of (27\*) he locates not in section (I) of Z.16 but in Z.15's distinction between substance as form and substance as the compound of form and matter. The former alone has a formula. Hence, Burnyeat argues that (26) is to be split into

26a. No substance (= compound of form and matter) has a formula,

which is true, and

26b. No substance (= form) has a formula,

which is false. It is the falsity of (26b) that promises escape from the End Dilemma. I agree that (26b) is to be rejected, but not that Burnyeat has shown how. For the End Dilemma just was a dilemma for the substance-of a thing. But this is just form, and so the End Dilemma cannot be resolved simply by insisting that form is definable. Moreover, even were this regarded as a resolution, we need to address the proposition that led to (26) in the first place, namely (25). Now (25) is a worry that derives from (24), which concerns *parts* of substance. So (25) also is a worry about parts. However, Z.15 ties the indefinability of the compound to the fact that it contains matter and matter is capable of being and not-being. No use is made of any claim that even appears to indict the compound on the grounds that it has parts.<sup>627</sup> So Burnyeat's account does not address (25) at all. It seems, then, that Burnyeat's reconstruction gives us no reason to think that substance, especially substance as form, remains anything but noncomposite. But, then, substance as form will be indefinable and we are ensnared anew.

So there is an advantage to a solution that provides for the compositionality of form. On my view, this is achieved when Aristotle denies, in (*xxxv*), that parts of the form exist both actually as well as potentially and affirms, in (*xxxvii*), that all exist potentially only. Most commentators voice little concern over potentiality's application to the parts of the animal, but worry about its extension to the parts of the form. But if we grant the first, it should not come as a surprise to find parts of the form

<sup>626</sup> See (1) of Ch. VIII.

<sup>627</sup> Nothing, that is, that Burnyeat could use—he appeals to the opening part of the chapter. Components or parts are mentioned later in the chapter but they are components or parts of Platonic ideas (the *ἐξ ἰδέων αἱ ἰδέαι* at 1040a22) and so could not support Burnyeat's reconstruction.

included. Not, at least, for those who have been following the development of form in *Metaphysics Z*. For if Z.13–16 constrains form so as to enhance its fitness for serving as the substance-of a c-substance, then the End Dilemma ought to pose a problem for form, so constrained, and, thus, the solution ought to be a solution for form. So if the distinction between potentiality and actuality is involved in the solution, then the distinction will apply to the form. Dual Complexity says that it applies to the parts of the form. This is not entirely surprising in light of Z.13's statement of the Contra Compositionality Argument. For one thing, the argument's conclusion, (27\*), is couched in the idiom of actuality: no substance can consist of parts (substances) present in it in actuality. Moreover, this conclusion, which leads to the End Dilemma, is illustrated by a case that also suggests a solution. For although not actually present, says Aristotle, the halves of a line are potentially present in the line. The implication is that there is no objection to countenancing parts of the substance-of a thing so long as these parts exist, as parts, only potentiality.

There are at least two worries about this use of the illustration from Z.13. The first challenges its application even to the parts of an animal. Bostock (1994: 225), for example, remarks: "Aristotle cannot mean us to apply this line of thought to the parts of an animal, for he is insisting that a separated hand, not capable of fulfilling the natural function of a hand, is *not* actually a hand. What, then, is it that is merely 'potential' about a fully functioning hand that is part of a man?" The mentioned insistence is, of course, a familiar point from Z.10 and 11. So Bostock's remark, if allowed to stand, also draws Aristotle into a clumsy contradiction. In any case, it is not quite clear what the complaint amounts to. Perhaps the worry is that a fully functioning hand is a first actualization, an actualization, and so could not be a first potentiality, a potentiality. Thus, it could not exist *merely* potentially as Aristotle seems to require in section (I).

Of course, Bostock is correct about separated hands. But so far from withdrawing this doctrinal standard, Aristotle is making a different but compatible point. He is, I suggest, rejecting a certain conception of the relation between an animal and its parts, what might be called the modular model. According to this model, a complex system is simply a collection of separate modules each of which is capable of independently exercising its function. It continues to do this when incorporated into the system and in this sense it exists in the system much in the way it exists in separation from the system. This is what I take Aristotle to mean in (27\*)'s talk of parts that exist as an actual thing (*ἐντελεχείῳ*) in something. This, of course, is precisely the preferred mode of existence for parts of heaps and so it is not surprising that Z.16's section (I)

makes contrastive use of them. But it is rejected for parts that are parts of a unified whole, the parts of an animal as well as the halves of a line. For in denying that a hand is a modular part, Aristotle need not deny that it is an actualization<sub>1</sub>. To say that a part does not exist ἐντελεχείᾳ (in actuality) in the thing is to say that it does not exist, as a *complete* unit, in the thing. This is fully consistent with its existing as a part of something else that is a complete unit, for example, the animal as a whole. Here there is no clash with the notion of the hand as an actualization<sub>1</sub>. For let anything that can perform its characteristic function *on its own* be an actual\* thing. Then it is clear that one can hold

28.  $(x)(\exists y)(x \text{ is a hand} \rightarrow x \text{ is the actualization}_1 \text{ of certain physical structures of } y \ \& \ y \text{ is an actual* animal} \ \& \ x \text{ is not an actual* thing}),$

without logical anxiety or threat to fully functional hands.

The second worry concerns  $(xxxz)$ 's extension of potentiality to the parts of the form (i.e., the soul). Frede and Patzig (1988: ii. 300) object that, because they are capacities (*Vermögen*), the parts of the soul can exist in no other way than in actuality, citing *De Anima*B.1's characterization of the soul as the first actuality of a physical body. The cited passage does not, on its own, entail the urged point, for nothing prevents holding that the form (i.e., soul) of an animal is actual even though the parts of the soul are not. Skeptics of faculty psychology might, for example, promote this. Of course, the entailment is forthcoming on assumption of

29.  $(x)(y)(x \text{ is a soul} \ \& \ y \text{ is a part of } x \ \& \ x \text{ exists as an actualization}_1 \rightarrow y \text{ exists as an actualization}_1).$

Despite not being an obvious conceptual truth, (29) probably represents Aristotle's view and, in any event, he clearly regards parts of the soul as actualizations<sub>1</sub>. Moreover, the point is publicized in  $(xxxz)$  when Aristotle recognizes parts of the soul as at once potentialities and actualities. It would be odd, indeed, were he to deny this only a few lines later. This leaves Aristotle not just with an irritating doctrinal aberration but also with a virtual self-contradiction.

Bostock (1994: 227) leaves Aristotle to his own devices here. Frede and Patzig (1988: ii. 300) suggest, more responsibly, that the 'καί' ('and') at 1040b11 is exegetical and, so, that  $(xxxz)$  does not focus both on parts of the soul and on parts of the animal; rather, it focuses only on parts of the animal, namely, those that are closely correlated with the parts of the soul. The fact that Frede and Patzig are alone in this reading may suggest that it is recommended principally on interpretive grounds. Although it appears to resolve the contradiction, it merely

removes it one step. For Aristotle goes on to say in (xxxii) that all the parts exist only in potentiality. On Frede and Patzig's reading this cannot be an indiscriminate reference to parts of the animal; it must refer just to those parts of the animal that are closely correlated with parts of the soul. However, these are what, in Chapter VIII's discussion of Z.10 and 11, we called functional parts, as opposed to remnant parts. Parts of this sort must exist, one and all, as actualizations, contrary to (xxxii)'s report. So avoidance of contradiction is not a persuasive reason to read 'καί' ('and') epexegetically in (xxx).

From a more programmatic perspective, also, it is unclear that much advantage attaches to Frede and Patzig's proposal. For they grant that (xxx) countenances parts of the form. So if, as we have argued, Z.13's End Dilemma concerns the parts of the substance-of something and if, as we have urged, the substance-of a thing is its form, then the dilemma still strikes at the thesis that the parts of a form can exist as something actual in the form. On their interpretation, section (I) fails to solve this problem, indeed, it does not even address it.

In any case, contradiction can be avoided by adopting a parallel to (28), namely,

28\*.  $(x)(y)(\exists z)(x \text{ is a soul} \ \& \ y \text{ is a part of } x \rightarrow y \text{ is the actualization}_1 \text{ of certain physical structures of } z \ \& \ z \text{ is an actual* animal} \ \& \ y \text{ is not an actual* thing}).$

No more than parts of an animal can parts of the soul exist as actual\* things in the soul; and no more than before does this pose a threat to the status of a part as an actualization<sub>1</sub>. Rather, it denies that a part of the form is to be thought of as an independently functioning module that is inserted, as it were, into the soul with the result that the soul is merely a collection of complete such modules.

Perhaps in favor of our account is that (28) and (28\*) make it quite clear that the parts of the animal and the corresponding parts of the form are, indeed, closely linked, as 1040b11 reports. Again, this should not be surprising for those who have been following Aristotle's overall argument in *Metaphysics Z* because the correspondence between (28) and (28\*) recalls the analysis of Z.10 and 11, in particular, what we called the Correspondence Thesis.<sup>628</sup> For that thesis promotes a correspondence between the parts of a definitional formula and the parts of what is formulated. Since the former is just one way of talking about a form, we can say that the Correspondence Thesis promotes a correspondence between parts of the form and the parts of the thing that takes the form, what Z.10 calls parts of the thing taken without matter. These we took

<sup>628</sup> See (3') of Ch. VIII.

to be so-called functional parts and, although Z.11 goes on to say something about the relation between these parts and their wholes, considerably less is said about the relation between the corresponding parts of the form and the form itself. Further, nothing is there said that would help us understand how the form can produce a unified thing, that is, a thing whose parts that are related as functional parts.

The brief account of Dual Complexity contained in section (I) of Z.16 suggests how this works. Briefly, the idea is that the unity of a natural, or appropriate other, entity is explained in terms of the relations that hold between the parts of the thing and between the parts and the thing. A mark of this unity lies in the fact that parts cannot exist, as functional parts, separate from their wholes. As Z.17 will make clear, it falls ultimately to the form to explain all this. Assume, for the moment, that a thing's form can explain its unity only if the form itself is a single unified thing. If, however, this form is structurally simple, it will fail to operate at the required level of explanation. For what needs to be explained is how the parts of the animal are related to one another and to the whole animal. Hence, the form must be complex, but not modularly complex. This requires that the parts of the form stand to each other and to the form itself in relations that parallel those holding between the parts of the animal, whose nature and features the form explains, and between these parts and the animal itself.

The fundamental idea behind Dual Complexity is that the form of a system must be as structurally complex as the (relevant) functions of the system, whose nature and features it explains. Were, for example, the form of *man* structurally simple, then nothing in the form would correspond to the physical structures that underlie and enable sight, touch, hearing, locomotion, etc. It would be mere hand-waving to claim that such a form *explains* these articulated functions. In discussing Z.10 and 11, we suggested that specifying all the parts of the form may amount, for Aristotle, to fully specifying the form.<sup>629</sup> So where  $O$  is an appropriately unified entity and  $o_1 \dots o_n$  its parts, and where  $F$  is the form of  $O$  and  $f_1 \dots f_n$  its parts, the complexity characteristic of  $O$  reflects the complexity of  $F$ :

30.  $F$  is the form of  $O$  &  $f_1 \dots f_n$  are parts of  $F$  &  $o_1 \dots o_n$  are parts of  $O$  &  $o_1 \dots o_n$  correspond to  $f_1 \dots f_n \rightarrow o_1 \dots o_n$  cannot exist apart from  $O \equiv f_1 \dots f_n$  cannot exist apart from  $F$ .

Now (30) hardly gives a complete picture of the relation between an animal, say, and its form. Correspondence is, of course, not enough. We would also need a finer account of how parts of the form,  $f_1 \dots f_n$ , are

<sup>629</sup> See the end of Ch. VIII, sect. 9.

themselves interrelated as well as a parallel account for  $o_1 \dots o_n$ , the parts of the animal. For the latter must constitute an entity that enjoys more than modular unity and the former must explain this.

Now it is well known that *De Anima*B.3 represents the soul as a complex of ordered faculties, where each so-called ‘higher’ faculty depends on and so contains its lower level complements. This clearly aims to provide form with more than modular unity and so supports this aspect of Dual Complexity. But Z.16's section (I) itself suggests how to get beyond mere modular unity. For the proposal that the parts of a thing are present in the thing only potentially is in fact a proposal about the structural unity of the thing. To see this, return to Z.13's example of the parts of a line:

For example, a double line is composed of two halves, in potentiality; for the actuality of the halves separates them (ἡ διπλασία ἐκ δύο ἡμίσεων δυνάμει γὰρ ἢ γὰρ ἐντελέχεια χωρίζεται). (1039a6–7)

Aristotle claims, not that a part of a line cannot exist in the line, but that it cannot exist ἐντελέχεια or in actuality. This is because for  $l_1$ , a half of  $l$ , to exist in  $l$  in actuality is for it to exist in  $l$  as a complete unit. But for this it must exist in  $l$  in the same way it would exist outside of  $l$ . In short, it would have to exist in  $l$  as a complete line. But this is impossible, for  $l_1$  exists as a complete line only when it is separated from its complement,  $l_2$ —that is only when  $l$  is bisected. Thus, a line consisting of  $l_1$  and its erstwhile complement,  $l_2$ , both now complete lines, can enjoy only modular unity. Rather than a single continuous line, we have two lines laid end-to-end.

What holds for the line and its parts appears to hold for the form and its parts as well as for the animal and its parts. In all cases, Aristotle contrasts modular unity with the sort of unity he highlights in (xxxiii) of section (I), what I shall call structural unity. Thus, something is a structural unity only if it is a unity of parts that cannot exist apart from it and that exist in it only potentially:

31.  $(x)(x \text{ is a structural unity} \rightarrow (\exists y_1) \dots (\exists y_n)(x \text{ consists of } y_1 \dots y_n \& \text{ none of } y_1 \dots y_n \text{ can exist apart from } x \& \text{ each of } y_1 \dots y_n \text{ exists only potentially in } x))$ .

So it is because an animal is a structural unity that its parts exist only in it and in it only potentially.

Attribution of structural unity is intensionally laden, and (31) would have to be refined to reflect this. Thus, suppose that some portion,  $y_k$ , of an animal is described, correctly, both as a hand and as so much bone, sinew, and flesh. In terms familiar from Z.10 and 11, the first counts as a functional part and the second as a remnant part(s). An animal, then,

will be a structural unity of  $y_k$  *qua* hand but not of  $y_k$  described in the mundane material terms of bone, sinew, and flesh. Here it is important to be clear on the import of Aristotle's remark that "the actuality of the two halves separates them" (ἡ γὰρ ἐντελέχεια χωρίζει). Bostock's translation expands this: "for the actuality of the two halves separates them from each other [sc. and so destroys the line]." Notice that Aristotle does not actually say that the line is destroyed, although it doubtless is. This is because, *pace* Bostock, the point of Aristotle's remark is that the actual existence of  $l$ , say, removes it from the whole of which it was a functional part. Sometimes this is accompanied by the demise of the whole itself, and very likely this happens in the case of lines and their parts. But it is rather less clear that this happens in the case of complex structural unities such as animals. Where  $y_k$  is particularly important, say the heart or brain, then as Z.11 suggested the whole will not survive removal of the part. But there is no reason to expect this in the case of a finger. Indeed, we might even imagine that as one finger is shed, so another somehow emerges. In no detail does the whole here suffer denigration of existence. Its erstwhile functional part,  $y_k$ , actually registers a gain in (actual) existence, but not as a part of the whole, that is, not as a functional part.

Dual Complexity, as so far represented, holds that the complexity of a thing's form must parallel the complexity of the thing itself. This is spelled out by requiring that the parts of the form be related in ways that parallel the relations obtaining between the functional parts of the thing. This amounts to a kind of correlation between the form and the enformed thing—the sort of correlation registered in (30). And although the form must be structurally unified to match the structural unity of the thing, nothing in Z.16 tells us how to get beyond (30)'s correlation. In short, we do not have (30)'s *causal* analog:

30\*.  $F$  is the form of  $O$  &  $f_1 \dots f_n$  are parts of  $F$  &  $o_1 \dots o_n$  are parts of  $O$  &  $o_1 \dots o_n$  correspond to  $f_1 \dots f_n \rightarrow o_1 \dots o_n$  cannot exist apart from  $O$  *iff and because*  $f_1 \dots f_n$  cannot exist apart from  $F$ .

Correlation is neither causation nor explanation and it is the latter that are rightly called for in (30\*). But if we as yet have no account of how the form can serve as the *cause* of the unity of the c-substance whose form it is, Dual Complexity takes us to the edge of explanation. For it invites the thought that the form accounts for the structural unity of a c-substance by being realized in the matter that constitutes the c-substance, and, by Dual Complexity, by the parts of the form being realized in particular portions of matter that constitute the functional parts of the c-substance. It is, I think, no accident that Aristotle leaves us with

this thought at the end of Z.13–16. For just this causal role is the central idea of the next and final chapter of *Metaphysics Z*.

In representing Z.16 as confirming the results of Z.13, I take the canonical cluster as a whole to address substance in the guise of substance-of and to urge only weak proscription of the universal as such a substance. This fits Z.13–16 naturally into Z's overall project of developing a notion of form suited to serve as the substance-of c-substances. What is surprising is that nowhere in our account of Z.13–16 did it seem particularly relevant to engage in debate over the status of form as particular or general.<sup>630</sup> This will be especially surprising to those who neglect the fact that these four chapters comprise a canonical cluster and so are to be read cooperatively. That such neglect is risky is clear from Bostock's account of a passage in Z.16, where it has disastrous consequences.

In section (II) Aristotle argues against taking any of *being, unity, principle, cause, and element* to be the substance-of a thing, making use of the following passage:

not even these [*being, unity, etc.*] are substances since [xxxiii] nothing common to something else is a substance (εἴπερ μηδ' ἄλλο κοινὸν μηδὲν οὐσία); for [xxxii] a substance belongs to nothing but to itself and to that which has it—that of which it is the substance (οὐδενὶ γὰρ ὑπάρχει ἢ ἄλλ' ἢ αὐτῇ τε καὶ τῷ ἔχοντι αὐτὴν κοινὸν μηδὲν οὐσία—οὐ ἐστὶν οὐσία). (1040b22–4)

This is hardly alien territory. For (xxxii)'s two cases are by now quite familiar. The idea that substance belongs to itself harks back to the Zeta 6 Thesis, where the notion of a primary and *per se*<sub>1</sub> thing being the same as its essence was treated as the limiting case of having an essence. Now I have argued that Z.4–6 investigates form as essence because it is interested in developing a notion of form that works as the substance-of c-substances. So the first case mentioned in (xxxii) revisits the Zeta 6 Thesis in the guise of substance-of. Further, the syntax of the line suggests that the substance that belongs to itself is the substance that belongs to things that have it. And here we encounter my working notion of substance as the substance-of a c-substance. Aristotle even appends a last word to make this unmistakably clear. So there can be no doubt that the passage reinforces my claim that *Metaphysics Z* pursues an investigation of the substance-of c-substances.<sup>631</sup>

Bostock (1994: 229) holds, perhaps compatibly with this, that (xxxii)

<sup>630</sup> Here I fully endorse Burnyeat's estimate (unpublished) that “to regard Z.13 as the crucial test for the particularity of form is a total misunderstanding of its role in the overall structure of Z.” On the overall structure itself we, of course, differ significantly.

<sup>631</sup> I am pleased to note that Burnyeat (unpublished) appears to have some sympathy with this line of argument.



allows the species-form to be substance. So far so good. But (xxxiv) is also held to support (xxxiii) and the latter to exclude species-forms because it excludes anything belonging to many things. In short, for Bostock (xxxiii) requires that particular forms alone can be substances, while (xxxiv) denies this. This leads him to object that “the supporting argument fails to support what it is meant to.” The situation is actually worse, for Bostock has Aristotle supporting

32.  $(x)(y)(z)(x \text{ is common to } y \text{ and } z \rightarrow x \text{ is not a substance})$

on the basis of the claim that the species-form is a substance and, in particular, by finding buried in this claim an implication, namely,

33.  $(x)(y)(z)(x \text{ is the substance-of } y \text{ and } z \rightarrow x \text{ is common to } y \text{ and } z),$

that has a disastrous consequence. For from (32) and (33) it follows that  $x$  is the substance-of distinct  $y$  and  $z$  only if  $x$  is not a substance.

Diagnosing the cause of this disaster is relatively easy. By failing to read Z.16 in light of the results of Z.13, Bostock misconstrues (xxxiii). Rather than (32), it simply reaffirms weak proscription of the universal and, hence, is to be read as:

32'.  $(x)(y)(z)(x \text{ is predicated of [is common to]} y \text{ and } z \ \& \ y \neq z \rightarrow \neg (x \text{ is the substance-of } y \ \& \ x \text{ is the substance-of } z)).$

Proposition (32') is nothing more than a notational variant of (11\*), the conclusion of Z.13's Master Argument. Here, as there, nothing suggests that only particular forms are substances. As with (xxxiii), so also must (xxxiv) be read in concert with earlier results. When read this way, the implication Bostock reports in (33) simply drops out.

Because (xxxiii) and (xxxiv) look back to the earlier chapters, we can formulate them in a trouble-free way. But they also look forward to Z.17 insofar as they keep open a possibility that lies at the heart of that chapter's argument. For (xxxiv) naturally invites the following, rather interesting, proposition:

33'.  $(x)(y)(z)(x \text{ is the substance-of } y \text{ and } z \ \& \ y \neq z \rightarrow x \text{ is predicated of [is common to] the matter of } y \ \& \ x \text{ is predicated of [is common to] the matter of } z).$

In this (xxxiii) and (xxxiv) follow the theory of Dual Complexity in section (I) of Z.16. For as Dual Complexity intimates, in (30\*), that form's explanatory role is to lie in its relation to matter, so (33') is happy to locate explanatory force in the predicability of form of matter. Both are central topics of *Metaphysics* Z.17.

Some final remarks before proceeding to the closing chapter of *Metaphysics* Z.

The Master Argument allowed that a universal might be the substance-of a c-substance so long as it is not predicated of the c-substance; and the No-Part Argument and Contra Compositionality Argument allow a part of the substance-of a c-substance to be universal so long as that part is neither predicated of the c-substance nor present in it as an actual thing. Now there can be no doubt about Aristotle's resolve to bar universals such as *animal* from constituting even a part of the substance-of a c-substance. But is this just arbitrary line-drawing? After all, the species-form, and presumably its parts, are not confined to a single c-substance. So why is it not also barred? In short, does Aristotle have a principled reason for stopping short of strong proscription?

I believe that he does and that the answer lies in the fact that much of Aristotle's philosophical discourse is governed by the notion of a thing's *nature*. This is certainly true of the *Categories* where it enters under the guise of what a thing is (its τί ἐστίν), and the notion provides the very subject matter of the *Physics*. In the *Metaphysics* the notion of a thing's nature takes on explicitly modal trappings. *Metaphysics* Z gives expression to this by requiring that the substance-of a given c-substance cannot be, or contain, anything that is outside its nature—anything that is included in the nature of a c-substance of a manifestly different kind. Parts belonging to two things thus distinct are not proper parts of the essence or substance of either. We can express this with an idea introduced in our discussion of the *Categories* in Chapter I, by saying that  $x$  and  $y$  have the same nature if, and only if, they are in the same 0-level synonymy group. Thus, Socrates and Callias have the same nature because they are in the same 0-level synonymy group, namely, the  $\langle \text{man} \rangle$  synonymy group, i.e., the species *man*. Any property that belongs to Socrates by virtue of his belonging to a higher-level synonymy group will not be part of the nature of Socrates. The genus *animal* would be such a group, and *being an animal* or *being for an animal* would be such a property. Such properties are not restricted just to members of the species *man* but will range over members of species such as *horse* and *dog*. Hence, to say that *being (for) an animal* is part of the nature of Socrates is to say that his nature contains something that is part of the nature of horses and dogs. In short, the property is *not peculiar* to him because it is not a proper part of his nature.

So the notion of a thing's nature guides the program of weak proscription in Z.13–16. It should be no surprise that a *Categories*-based notion is useful in explicating Aristotle's strategy in these chapters. For, as I have argued at length, *Metaphysics* Z as a whole aims to explain, among other things, the fact that a c-substance falls into a species or 0-level synonymy group. Weak proscription is well suited for this purpose: because they have the same substance (form or essence), Socrates and

Callias fall into the same species but the form or essence is not predicated of them. Moreover, weak proscription does not introduce any ‘improper’ parts or properties into the substance-of a thing. Hence, Socrates and Callias need not have particular forms in order to have natures that are properly theirs and theirs alone. Aristotle may lean heavily on the notion of a thing's nature,<sup>632</sup> but the program of weak proscription is not engaged in arbitrary line-drawing.

This leads, finally, to a word about the thesis that a thing's substance is peculiar (*ἴδιος*) to it. In reconstructing the Master Argument we represented this, in (6b), as denying that  $x$  is peculiar to  $y$  if  $x$  belongs to a  $z$  different from  $y$ . Formulated as a non-identity (i.e.,  $x \neq y$ ), (6b) might suggest that the form or essence of a c-substance is, after all, particular and so that form cannot be universal even in the restrained sense spelled out by weak proscription. But, as earlier indicated, nonidentity was used as a formulaic convenience only. The Greek says that  $x$  “cannot belong to something other” (*οὐκ ὑπάρχει ἄλλῳ*), and this could mean that a thing's substance cannot belong to something of *another nature*. Rather than (6b), this gives us

6b\*.  $(x)(y)(x \text{ is peculiar to } y \rightarrow \neg (\exists z)(x \text{ belongs to } z \ \& \ z \ \& \ z \ \text{and } y \text{ are in different 0-level synonymy groups}))$ .

(6b\*) harbors no commitment to particular forms and so would allow us to construe the species-form as peculiar to Socrates and Callias so long as it contains nothing alien to the nature of either, that is, nothing that is also part of the nature of something belonging to a different 0-level synonymy group. Now, of course, one might argue, on independent grounds, that particular forms are required, and required as primary substances.<sup>633</sup> Although this requirement does not emerge from Z.13–16, some might make it a condition of the causal role of form, appealing perhaps to the fact that form is to explain why particular bunches of matter make up *individual* c-substances—why, for example, a certain bunch of matter is *this* man. This thought brings us, again, and finally, to Z.17.

<sup>632</sup> This is confirmed by the fact, now noticed, that Z.17 ends by embracing the proposition that the substance-of a thing is its nature, at least for things that are formed naturally (*Φύσει συνεστήκασα*) (1041b28–31).

<sup>633</sup> Both requirements are called for because one might grant that the central books countenance particular forms but insist, correctly, that this, by itself, does not install them as primary substances. For more on the question of particular forms, see Wedin (1991).

# X Form and Explanation

The analysis of form comes to head with Aristotle's announcement in Z.17 that substance is a cause and principle. We have come a long way since *Metaphysics* Z launched its exploration of substance in Z.3 by focusing on the internal structural components of a c-substance—its form, its matter, and the compound of its form and its matter. There, after declaring form the most promising of the three, Aristotle confesses that it is also the most puzzling. As we have seen, the balance of Z testifies that this is not an idle aside but a call for serious reflection on what a thing's form must be like if it is to be the substance-of the thing. Thus, subsequent canonical chapters developed a series of constraints that form must satisfy, if it is to play this role: Z.4–6 took up what is involved in holding the form to be essence; Z.10–11 added that form must be purified of matter; and in Z.13–16 we learned that form cannot be a certain kind of universal or consist of actual parts. Each of these constraints has been subjected to detailed discussion in previous chapters. A key feature of this discussion was our proposal that the constraints are required by the explanatory role assigned to form in Z.17. We now need to see how this is so.

## 1.Z.17's Fresh Start

The lines that open *Metaphysics* Z.17 call for a fresh start in the investigation of substance:

Let us say [i] what, i.e., what kind of thing, substance should be said to be, again taking another starting point, so to speak (οὐσίαν, πάντων ἄλλων οἷον ἀρχὴν ποιησάμενοι λέγομεν <sup>τί δὲ χρὴ λέγειν καὶ ὁποῖόν τι τῆς</sup>). For [ii] from this, perhaps, we will gain clarity also about that sort of substance that is separated from perceptible substances. Since, then, [iii] substance is a principle and cause of some sort (ἢ οὐσία ἀρχὴ καὶ αἰτία τις), let us start from this. (1041a6–10)

On my view (i), along with (iii), is a call to press, finally, the explanatory role of form. This, I have suggested, is what guides much of the argumentation of Z. As the substance-of a c-substance, the form must be the cause and principle of the c-substance. So the canonical chapters leading

up to Z.17 develop a notion of a form that is suited to function as the cause and principle of a c-substance. As suggested, this form must be the essence of the c-substance (Z.4–5) and, as such, it must not depend on another essence (Z.6); it must be free of material admixture (Z.10–11); it must exhibit structural complexity without sacrifice to unity (Z.13–16); and it must convey generality but not at the price of explanatory power (Z.13–16). Shortly, I shall say more about how these constraints are evident in the final chapter of Z, but first we must consider a rather different view of Z.17's call for a fresh start.

Burnyeat (unpublished) reminds us that Z.4 starts by referring back to Z.3's original list of candidates for substance and that this was “the last thing called ἄρχή” in the sense of the term as used in (i). The original candidates have been exhausted, so (i) cannot be calling for a return to Z.3's list. Burnyeat argues that, therefore, Z.17 points back even further, to the questions of Z.2 and “accordingly . . . [ii] makes it clear that the new beginning is a renewal of Z.2's search for non-sensible being(s).” So it is in this way that Z.17 takes another ‘probatively autonomous’ run at the question “What is substance?”

Despite initial appeal, there are some worries about Burnyeat's proposal (apart, of course, from the parochial worry that the proposal conflicts with our view that *Metaphysics Z*, as a whole, exhibits a connected line of reasoning). One worry is that the sole ground for seeing (i) as a back-reference to Z.2 is that (ii) cites as a reason for starting anew the possibility that clarity will be achieved with respect to the nature of those substances that are separated from perceptible substances. But notice that (ii) says that the new start will provide clarity *also* about these separate substances. This presupposes that clarity will be achieved about something else as well and that this is the chief target of clarification. This slot can be filled only by perceptible substances. Moreover, the first line's καί (‘and’) is arguably expegetical, and so (ii) promises clarity about the *nature* of these substances. Of course, Z.2 ended with a suggestion much like this but in doing so it contrasted investigating what things are substances, including whether any are separate from perceptible substances, with investigating the nature of substance. This investigation, which we have argued is an investigation of the substance-of c-substances, has been on-going since Z.3.

To say, with Burnyeat, that Z.17's new beginning renews a search for nonsensible substances is to say that Aristotle reverts to the question of what things are substances. This will strike some as implausible on its face, and it meets two principled objections. First, Z.17 contains nothing that could be taken to give the cash value of the supposed renewed search for nonsensible beings.<sup>634</sup> Second, Aristotle identifies the new start

<sup>634</sup> Nor for that matter does the entire following book, *Metaphysics H*.

in (iii), when he charges us to begin with the fact that substance is a principle and cause of some kind. *This is* the new start, and it is hard to see how a back-reference to Z.2 could yield this. Granted, Z.2 mentions Speusippus's opinion that there are different kinds of substances, each with different principles. But this is represented as a question about the *nature* of substance. So, again, the alleged back-reference could not signal renewal of a search for nonsensible substance.<sup>635</sup>

On my view, Z.17's call for a fresh start does not involve a specific back-reference at all. It does not point us back to the beginning of the treatise (as in Z.4) or implore us to go back to this beginning again (as in Z.13). Unlike those beginnings, Z.17 says simply that we must again make a fresh start. Moreover, unlike the previous fresh starts, which were aimed at specific distinct targets, Z.17 adds a qualifying 'ὅλον'. We are, that is, to make a fresh start, 'so to speak'. The significance of the rider is appreciated by Frede and Patzig (1988: ii. 308), who take it to check the impression that the preceding investigation has produced no results at all and that Z.17, therefore, gives us an entirely new beginning. Rather, Frede and Patzig advise, Aristotle is proposing to continue the investigation of what substance is in a new and different way. So they come down in favor of linkage. Burnyeat would no doubt insist, correctly, that according to probative autonomy earlier canonical clusters do produce results, but results that are deductively isolated from the arguments and results of other canonical clusters. But if, as Frede and Patzig suggest, ὅλον ("so to speak") is included to counter the impression that Z.17 proclaims an entirely new beginning, then it tells with equal effect against extending probative autonomy to Z.17. So I regard Frede and Patzig's advice as good advice—so long as we are clear on exactly how Z.17 continues the investigation.<sup>636</sup>

<sup>635</sup> I am not denying that the Aristotle of *Metaphysics* Z shows an interest in what Burnyeat calls "non-sensible being(s)," but only insisting that this interest is irrelevant to the argumentation proper of the book, indeed, I would add, to that of the central books as a whole. Aristotle says only that Z's investigations may prove of use in getting clear about the nature of those substances that are separate from perceptible substances. Whatever this means, it remains the case that neither in its arguments nor in its results does Z appeal to such separate substances. Since Z.17 is crucial to the overall structure of the book's argument, emphasizing an interest in nonperceptible substances would give undue weight to items that are not part of the real work of the book.

<sup>636</sup> Bostock (1994) sees *Metaphysics* Z.17 as an odd relative. He agrees that it advertises itself as a new start—so new, in fact, that it falls outside the line of argument extending from Z.3 to H.2. He offers two grounds for this: (a) Had it been designed as part of that discussion, it would have followed or been included in Z.4–11 because these chapters entertain the equation of substance, form, and essence but Z.17 argues it. (b) Z.17 neglects entirely Z.13–16's preoccupation with the status of substance as particular or universal. Even apart from our finding, in Ch. IX, that no such preoccupation is at work in Z.13–16, Bostock's confidence that Z.17 "stands outside the programme that governs Z3–H2" (1994: 237) is curious. For he admits that it fits with Z.4–11, which, at the very least, makes it consonant with the *theory* of Z. As for (a), the canonical portion Z.4–11 develops an *account* of form, in particular, of those forms suited to serve as the substance of things. This project can be pursued as a philosophical proposal without producing an independent argument for the truth of the account. But *if* Z.17 provides such an argument, so much the better; and *if* Z.13–16 settles the case against identifying the universal as the form developed in Z.4–11, then why *would* one expect that topic to arise in Z.17? For along with Z.4–11, Z.13–16 effectively clears the ground for what is avowedly a *new* start in ZZ.17. So much for (b).

## 2. The Organization of Z.17

We suggested, at the outset of this chapter and before, that the causal role of form announced in Z.17 governs much of the argumentation of *Metaphysics Z*, in particular, that earlier canonical chapters develop a number of constraints that must be satisfied by form if it is to play this role. Of these we shall first consider a constraint issued in the adjacent canonical cluster, namely, Z.13's weak proscription of the universal. Before we get to this, in section 4, we need to say something, in this section, about the organization of Z.17 and, in the next section, about the importance placed on why-questions in causal inquiry.

We have already taken a look at the first section of Aristotle's argument, 1041a6–9, which establishes procedural guidelines and charges the chapter with investigating substance as a principle and cause. Section II (1041a10–27) begins to execute the charge by distinguishing between 'why-questions' that serve inquiry and explanation and those that do not. I shall say that this discussion concerns the 'structure of why-questions'. The section draws to some extent on the framework of scientific demonstration from the *Posterior Analytics* and ends by, apparently, extending this framework to a kind of question foreign to that work, but central to *Metaphysics Z*, namely, why certain materials are a house. However, no constraints are placed on the kind of cause involved in such explanations; nor is form even mentioned. Section III (1041a27–32) remedies the first omission, concluding that Z.17's inquiry is about causes, more narrowly about those causes that are essences. Section IV (1041a32–b9) warns against an obscurity and, of more systematic importance, addresses the second of section II's omissions, by extending the logic of why-questions to specific cases of hylomorphic compounds. For purposes of investigating the substance-of a thing, 'what-questions' obscure what 'why-questions' make clear. Thus, 'What is a man?' is to be replaced by 'Why is this (matter) a man?'; and the answer, of course, will involve the form. The section ends with a second warning that no inquiry or investigation is possible in the case of simple things; and the next section, section V (1041b10–33), begins by contrasting

these with compounded wholes.<sup>637</sup> The balance of the section conducts a discussion of the logically different roles played by form and matter in the structure of these compounds of matter and form—a discussion that implies that form is purified of all material admixture.<sup>638</sup>

### 3. How to Ask ‘Why?’

Let us begin with what I am calling the structure of why-questions in section II. Statements of principles and causes answer to questions, and so this is a natural way for Aristotle to begin. At 1041a10–11 he links principles and causes to why-questions and adds that such questions always ask why one thing belongs to another (διὰ τί ἄλλο ἄλλῳ τινὶ ὑπάρχει). The Distinctness Condition, as I shall call this, might seem obvious, but Aristotle devotes the next seventeen lines to clarifying and defending it. He starts out by inviting us to reflect on what is involved in asking why a musical man is a musical man.<sup>639</sup> Now one might take Aristotle to be suggesting that the question of interest is literally “Why is a musical man a musical man?” But I think it is more likely that he is speaking meta-linguistically, as it were, about what might be called first-order why-questions, for example, “Why is Callias a musical man?” One reason to think this is that his question is supposed to serve as a counterexample, eventually to be overturned, of course, to the Distinctness Condition, and so it ought to enjoy some initial plausibility. And so it does, for having heard someone’s first-order question we can well imagine describing him as having asked why a musical man is a musical man. This is perfectly reasonable provided we do not take the first-order question to be “Why is a musical man a musical man?” but, perhaps, “Why is Liszt a musical man?”

Thus, Aristotle focuses on what we are *describing* in characterizing someone as asking why a musical man is a musical man. We are given two options: such a person is asking why a man is musical (διὰ τί ὁ ἄνθρωπος μουσικός ἐστίν) or he is asking something else (ἢ ἄλλο). The latter is immediately glossed as asking why a thing is itself (διὰ τί αὐτό ἐστίν αὐτό). If the options mention the first-order questions themselves, as opposed to describing them, we would have

<sup>637</sup> The line asserting the contrast, 1041b11–12, has been broken off but presumably it is to be completed with the thought that one can investigate the substance-of such wholes. I return to this in sect. 5 below.

<sup>638</sup> So it benefits from Z.10 and 11’s purification of form and confirms that such purity is required by form’s explanatory role. I address this directly in sect. 6.

<sup>639</sup> διὰ τί ὁ μουσικός ἄνθρωπος μουσικός ἐστίν, 1041a12.



1.  $s$  asks why a musical man is a musical man  $\rightarrow$  (a)  $s$  asks “Why is a man musical?”  $\vee$  (b)  $s$  asks “Why is a thing itself?”

Now (1[a]) and (1[b]) betray an interest in quite general matters of fact. Despite any metaphysical utility that may attach to such queries, most will take the questions of interest,  $s$ 's first-order questions, to ask, rather, something like “Why is Liszt musical?” or “Why is a given individual, say Ortcut, himself?” This is accommodated by replacing (1) with

- 1'.  $s$  asks why a musical man is a musical man  $\rightarrow$  (a)  $s$  asks why a man is musical  $\vee$  (b)  $s$  asks why a thing is itself.

Although either (1) or (1') might do for present purposes, (1') seems more plausible and so I shall operate with it. Now (1'[a]) is perfectly acceptable; it also heeds the Distinctness Condition.<sup>640</sup> So asking why a musical man is a musical man turns out not to be a counterexample after all—so long as alternative (1'[b]) can be eliminated. The trouble with (1'[b]), says Aristotle, is that it asks nothing at all (οὐδέν ἐστι ζητεῖν). Here is his reason for demoting it:

[iv] to ask why a thing is itself is to ask nothing, for [v] that something is and is the case must already be clear (δεῖ γάρ τὸ ὅτι καὶ τὸ εἶναι ὑπάρχειν δηλαδὲ ὄντω)—I mean, for instance, that the moon is eclipsed—but [vi] that a thing is itself, in all such cases there is just one explanation and cause (αὐτὸ δὲ ὅτι αὐτό, εἷς λόγος καὶ μία αἰτία ἐπὶ πάντων), why a man is a man or why a musical (thing) is musical; unless [vii] someone were to say that each thing is indivisible from itself (πλήν ἔτι τις λέγει ὅτι ἀδιαίρετον πρὸς αὐτὸ ἕκαστον) and this is what it is for it to be one thing (τοῦτο δ' ἦν τὸ ἐνὶ εἶναι). But [viii] this is common and applies to all cases and is also too quick (ἀλλὰ τοῦτο κοινόν γε κατὰ πάντων καὶ σύντομον). (1041a14–20)

The difficulty headlined in (iv) strips alternative (1'[b]) of investigatory value. Hence, genuine investigation must proceed by asking questions and getting answers that heed the Distinctness Condition. But what exactly is the trouble with (iv)? It has something to do with (v), the fact that it must already be clear that something is and is the case, and with the fact, registered in (vi), that there is just one explanation and cause in all cases where a thing is itself.

Suppose we take the target of (v) to be what is presupposed in asking why something is the case. Using the double arrow,  $\Rightarrow$ , to mark presupposition, we can take Aristotle to be imposing the following condition:

<sup>640</sup> Of course, (1'[a]) itself tolerates different answers, for example, “Because he took piano lessons” or “Because what it is to be musical belongs to him.” But, presumably, both differ from (1'[b]) in satisfying the Distinctness Condition, and at this stage of the argument that is all Aristotle is trying to highlight.

2.  $s$  asks why  $\phi \Rightarrow \phi$ ,

where  $\phi$  is something that can be true or false—a proposition or its Aristotelian analog. In other words, asking why something is the case presupposes that it is the case. Ordinarily, my asking why something is the case presupposes only that I believe that it is the case. So, ordinarily, (2) would be replaced by

2'.  $s$  asks why  $\phi \Rightarrow s$  believes that  $\phi$ .

But this overlooks the fact that Aristotle's why-questions are vehicles of investigation and explanation. In Z.17 he is not concerned with erotetic logic, the logic of propositional attitudes or the epistemology of inquiry. His target is explanation and so he is free to assume the existence of the facts to be explained. This is precisely what (2) reflects.

What he is concerned about is the range of the items that can replace without incurring (iv)'s self-defeating result. We can see how this works by considering some cases. Thus, we associate with our familiar examples the following presuppositions:

3.  $s$  asks why a man is musical  $\Rightarrow$  a man is musical,

and

4a.  $s$  asks why a musical man is a musical man  $\Rightarrow$  a musical man is a musical man.

Certainly, there is nothing troubling about (3). Nor would it be in order to reject the inquiry broached in the antecedent of (4a) on the grounds that its presupposition is false. And, in any case, what is to be shown is that the inquiry is an inquiry into nothing, and it is not clear how this is accomplished simply by faulting (4a)'s presupposition. Indeed, if understood correctly, namely, as (1'[a]) would have it, there is nothing at all suspect about the inquiry broached in (4a). Nor could one reject it, legitimately, on the grounds that (4a)'s presupposition is equivalent to the presupposition that a thing is itself. For this is just what we are trying to explain, namely, how it is that asking why a thing is itself amounts to asking nothing. In short, we are trying to explain why failure to heed the Distinctness Condition defeats investigation entirely.

To make this sort of trouble we need to add other cases that violate the Distinctness Condition. So along with (4a), in effect mentioned in (vi), consider:

4b.  $s$  asks why a white dog is a white dog  $\Rightarrow$  a white dog is a white dog,

and a second case contained in (v):

4c.  $s$  asks why a man is a man  $\Rightarrow$  a man is a man.

Each of (4a), (4b), and (4c) concern different investigations marked by the different why-questions in their antecedents. If so, then each must also have different presuppositions. In short, why-questions differ as their presuppositions differ. It was this that allowed Aristotle to suggest that asking why a musical man is a musical man is equivalent to asking why a man is musical. For both have the same presupposition, at least when the first is understood correctly, as in (1'[a]).

The trouble arises when a given why-question is understood as in (1')'s alternative (b). For by the presupposition condition, we get

5.  $s$  asks why a thing is itself  $\Rightarrow$  a thing is itself.

If, now, one adopts alternative (1'[b]), then from (5) we get

6.  $s$  asks why a musical man is a musical man  $\Rightarrow$  a thing is itself.

That is, if to ask why a musical man is a musical man is to ask why a thing is itself, then the presupposition of the latter will be the presupposition of the former. But this presupposition holds for everything of the same form as the antecedent of (6). For example, it holds for the inquiries broached in (4a), (4b), and (4c). But an inquiry's presupposition specifies what is to be explained and distinguishes it from other inquiries. So if we accept alternative (b) of (1'), these allegedly distinct inquiries do not differ. For we can no longer maintain that the target of any one of them differs from that of any other. In short, why-questions, so understood, do not determine a domain of inquiry and so no one of them asks anything different from another. In this sense, they do not ask anything at all. With this, alternative (1'[b]) is eliminated and the field is left to alternative (1'[a]).<sup>641</sup>

<sup>641</sup> Here is another way to take the argument. Asking (Q1), why a musical man is a musical man, is faulty, as it stands, because the Distinctness Condition, introduced in the first line of section II (1041a10–11), legislates that to ask why is always to ask why one thing belongs to another thing. So (Q1) must be reformulated as asking, (Q2), why a man is musical, or as asking something else, (Q3), that is also an informative version of our original question, (Q1). Alternative (1'[b]), that a thing is itself, then enters as a 'deep' candidate for what (Q1) might mean to be asking, as an alternative to both (Q2) and (Q3) and as a candidate that heeds the Distinctness Condition. The proffered 'deep' candidate is rejected for the reasons that derailed (1'[b]) in the account I have already given, and so we are left with (Q2) and (Q3). On this view, (Q3) is simply left open, perhaps to be determined later. Such looseness is, of course, one of the problems with this 'other way' of taking the argument. Another is that it is not obvious that asking why a thing is itself could satisfy the Distinctness Condition because it is not obvious that asking why *being itself belongs to a thing* is a case of asking why one thing belongs to *another*. Further, on this way of taking the argument, the Distinctness Condition is used as an unquestioned assumption without need of support. But the  $\gamma\alpha\theta$  ('for') at 1041a11 suggests that the subsequent reasoning is introduced precisely to support the Distinctness Condition. If so, asking why a thing is itself is not an alternative to (Q2) and (Q3), but part of the argument that eliminates (Q3).

Of course, Aristotle is not interested simply in how best to think about musical men. Rather, as an arbitrary case, alternative (1'[a]) is to be generalized. A few lines later he approves of asking why a man is a certain kind of animal (διὰ τί ἄνθρωπος ἐστὶ ζῷον τοιονδί, 1041a21), adding that this clearly is not a case of asking why one who is a man is a man (τοῦτο μὲν τοίνυν δῆλον, ὅτι οὐ ζητεῖ διὰ τί ὅς ἐστιν ἄνθρωπος, 1041a21–2).<sup>642</sup> He then offers generalizations corresponding to both sides of the presupposition relation. At 1041a23 he characterizes inquiry: “So one asks why one thing belongs to another (τί ἄρα κατὰ τινοσ ζῆτεῖ διὰ τί ὑπάρχει),” and a few lines later at 1041a25–6 he characterizes the object presupposed by such inquiry: “in this way what is investigated is one thing [holding] with respect to another (ἄλλο γάρ οὕτω κατ' ἄλλου ἐστὶ τὸ ζητούμενον).” We can, therefore, replace (2) with a pair of more fine-grained principles. We get, first, the Distinctness Condition:

2\*.  $s$  asks why  $\phi \rightarrow s$  asks why  $Y$  belongs to  $X$ ,

for distinct  $X$  and  $Y$ ; and, then, the presupposition of fact:

2\*\*.  $s$  asks why  $Y$  belongs to  $X \Rightarrow Y$  holds with respect to  $X$ .

Both (2\*) and (2\*\*) receive additional embellishment. Where  $\phi$  is the proposition *that it thunders*,  $X$  will be *clouds* and  $Y$  will be *noise*. Thus, one can reasonably ask why it thunders; but if we are to advance inquiry, this question must be replaced by one asking why *noise* belongs to *clouds*.

The replacement is recommended not just as an intuitively plausible constraint on inquiry (which it is). It also backs Aristotle's project in *Metaphysics Z* with the theory of scientific explanation from the *Posterior Analytics*. For insistence on the Distinctness Condition provides space not just for explanation but for explanation by supplying the appropriate middle term of a scientific or demonstrative syllogism. To ask why, for example, noise belongs to the clouds presupposes, in agreement with (2\*\*), that noise belongs to the clouds. We explain this by finding an appropriate middle term around which to construct a demonstrative syllogism:

7a	Noise belongs to extinguishing of fire
7b	Extinguishing of fire belongs to the clouds
7c	
Noise belongs to the clouds	

Thus, I explain that *noise* belongs to *clouds* because *noise* belongs to *extinguishing of fire* and *extinguishing of fire* belongs to *clouds*.

<sup>642</sup> On the ostensibly *de re* nature of this question, see sect. 4 below.

From the point of view of explanation, the so-called middle term, in this case *extinguishing of fire*, is the fundamental factor. So it is pretty clear that Aristotle introduces the framework of the *Posterior Analytics* to strengthen his case for the fundamental explanatory role of form. This is indicated in the closing sentence of section II, which licenses asking why “these things here,” e.g. bricks and stones (διὰ τί ταῦτα, οἷον πλίνθοι καὶ λίθοι), are a house.<sup>643</sup>

There are, however, at least two worries about the proposed extension. First, it is well known that the *Posterior Analytics* contains no explicit treatment of matter; nor does it display much interest in hylomorphism. *Metaphysics Z*, on the other hand, aims for an account of the substance-of c-substances, and these are compounds of form and matter. More narrowly, form's explanatory role as the substance-of a c-substance implicates it in a causal role with respect to matter. So how *could* the framework of the *Posterior Analytics* be extended to hylomorphic compounds?

The omission in question is certainly intriguing and even demands an accounting, but omission is not rejection. One might, then, suppose that Aristotle simply deferred to Z.17 this extension of the scientific framework because only there does he address, finally, form's explanatory role as the substance-of c-substances. So why not supply a demonstrative syllogism for the closing example of section II? Something like the following might be thought suitable.

8a	Being a house belongs to a structure of type T
8b	Being a structure of type T belongs to these bricks and stones
8c	
	Being a house belongs to these bricks and stones

The idea, again, is that the middle term, *structure of type T*, is the fundamental explanatory factor and tells us why certain materials are a house. Although true, this is not our immediate concern, which is extension of the demonstrative framework itself. And here the story is more complicated. Each line of the syllogism makes sense only when read with the parentheses. On this reading, however, the predicate of (8b) is *being a structure of type T*, whereas the subject of (8a) is *structure of type T*. So the syllogism does not have a univocal middle term. It does not strike me as plausible to recast (8a) to say that *being a house* belongs to *being a structure of type T*. But even were we to do so, we are faced with (8c), and (8c) is difficult in its own right. The trouble is that *being a house*, as opposed to *being for a house* (i.e., the essence of house), is said to be predicated of the matter. This simply will not work. It cannot

<sup>643</sup> It is important to note that form is not mentioned here and does not enter explicitly until later in the chapter, in sect. IV. On the significance of this fashionably late appearance, see below.

mean that the species or species-analog (to appease those who allow only natural objects to have species) is predicated of various material constituents, for the species is predicated rather of the house itself. So, if a recast (8a) means anything, it must mean, in the present context, that the *compound* is predicated of various material constituents. But we should be wary of attributing this claim to Aristotle. At least in the canonical chapters of Z, there is no sign of Aristotle's attraction to the view. Indeed, in Z.13 the compound was listed simply as a subject for accidental attributes without hint that it, in turn, is to be predicated.<sup>644</sup>

The immediate problem shows that extension of the *Posterior Analytics* demonstrative framework simply is not straightforward. At the heart of the problem is the fact that for purposes of analyzing the nature of form–matter compounds, considerable subtlety is called for with regard to relations of predication. For standard cases satisfying the frame—*P* belongs to *S* because *P* belongs to *M* and *M* belongs to *S*—what goes for *P* in the conclusion is just what is predicated of *M* in the major premise. Thus, when I ask why there is noise in clouds, the *noise* that belongs to *clouds* (in [7c]) is the same as what belongs to *extinguishing of fire* (in [7a]). But the *house* in (8c) is not the same as what belongs to the material constituents. This, rather, turns out to be the *form* of the house. Moreover, Aristotle appears to be aware of this, for, first, when he ‘adds’ the house case at the end of section II, the why-question is formulated not in the canonical idiom of belonging but by asking why one thing (the bricks and stones) *is* another (the house); and, second, he frames the presupposition of fact not in terms of one thing belonging to another, but in the looser idiom of one thing *holding with respect to another* (ἄλλο γὰρ οὕτω κατ’ ἄλλου ἐστὶ τὸ ζητούμενον, formulated in [2\*\*]). This avoids having to say that the house *qua* compound is predicated of or belongs to the material constituents. More importantly, it allows room to explain why these things are a house by mentioning the *form* of the house, but not the house, in the *explanans*.<sup>645</sup>

So I do not see that Z.17 aspires to extend, unproblematically, the framework of the *Posterior Analytics* to form–matter compounds. Like the conclusions of demonstrative syllogisms, we explain why ‘these’ bricks and stones are a house by appealing to a third factor, in this case the form of house. This is enough justification for summoning the apparatus of the *Posterior Analytics*, but it is not enough to make the explanation of hylomorphic compounds a simple case of demonstrative syllogism.

<sup>644</sup> For more on this point see Ch. IX, sect. 2.

<sup>645</sup> This, in fact, turns out to be a requirement of the explanatory role of form and, further, it lies behind what in Ch. IX I called weak proscription of the universal. I address this explicitly in the following section.

The second worry about extension of the *Posterior Analytics* framework concerns the sort of cause involved in demonstrative syllogism, when applied to form–matter compounds. In standard cases, the cause is often an efficient cause. Thus, in (7a), (7b), and (7c) thunder is explained by appealing to extinguishing of fire, and this is a so-called efficient cause. Although others are mentioned, efficient causes dominate discussion in the *Posterior Analytics*. So when Aristotle adds the hylomorphic case, the case of the house at the end of section II, left open is the possibility that here too he is interested in efficient causes, or at least that he does not intend to leave them out.

Now, of course, a complete tally of the factors involved in explaining the make-up and production of a house would include the efficient cause. But, if our story is correct, it would be odd to find this interest alive in the canonical chapters of *Metaphysics Z*. The point of discussing the nature of why-questions is to develop an informative account of the nature of a thing's *substance*, in particular, an account that explains how the form of a c-substance can function as its cause and principle. The efficient cause is irrelevant to this. Not so, of course, the formal cause.

It is, thus, unsurprising that Aristotle begins the next section, section III, by declaring that the target of inquiry in such cases is the cause that, from a 'logical' point of view, is the essence. The section, which goes on to add support for the declaration, reads in full:

It is clear, then, that [ix] the cause is sought (ζητεῖ τὸ αἴτιον); and [x] this is the essence, to speak logically (τοῦτο δ' ἐστὶ τὸ τί ἦν εἶναι, ὡς εἰπεῖν λογικῶς), which [xi] in some cases is that for the sake of which something exists (τίνος ἕνεκα) (as presumably in the case of a house or bed), and [xii] in some cases it is what first moves (τί ἐκίνησε πρῶτον) for this also is a cause (αἴτιον γὰρ καὶ τοῦτο, a30). But [xiii] this sort of cause (τὸ μὲν τοιοῦτον αἴτιον, a31) is investigated in the case of what comes to be and passes away, while [xiv] the other is sought also in the case of being (θάτερον δὲ καὶ ἐπὶ τοῦ εἶναι, a32). (1041a27–32)

It is worth remarking, that the first sentence of this section by itself undermines the opinion that Z.17 proceeds independently of its predecessor chapters. For by identifying the cause of interest as the essence, (x) refers back to Z.4–6's discussion of essence and, indeed, even revisits Z.4's promise to speak λογικῶς or deliver some logical remarks about it.<sup>646</sup> Moreover, the identification effectively embraces the view that the essence of a c-substance can serve as its substance only if it is a cause. Later, at 1041b8, the object sought is said to be the form and

<sup>646</sup> Thus, I keep the text of (x), which is the reading of the manuscripts, against Jaeger (1957), who brackets the sentence on the grounds that Alexander deleted it as spurious. For reasons to keep the manuscript reading, see the salutary remarks of Frede and Patzig (1988: ii. 312–13) and Burnyeat (unpublished).

so the passage appears to embrace the view that the form, as the essence of a c-substance, can be its substance only if it is a cause. This is just the sort of linkage we have been promoting.

In saying that section III embraces the view that the form, as essence, can be the substance of something only if it is the cause of that thing, it is natural to read (*xiv*) as saying that the essence is also sought in cases of (explaining) the being of things. For this is just what a thing's form ought to do, on our view at any rate. But this reading is a function of interpretation, in particular, of how to construe the references of 'this sort of cause' in (*xiii*) and 'the other' in (*xiv*). For purposes of comparison, it will be useful to mark the players:  $\alpha$  = essence,  $\beta$  = that for the sake of which,  $\gamma$  = what first moves,  $\delta$  = this sort of cause, and  $\epsilon$  = the other. Ross (1924: ii. 223) took (*xiii*) to be speaking of *what first moves* when it refers to *this sort of cause* ( $\delta = \gamma$ ), and took this to be the so-called efficient cause. The *other* (cause) introduced at a31 with an ἄλλᾶ ('but'), as an opposed case, he took to be *that for the sake of which* or the end ( $\epsilon = \beta$ ). On this view, Aristotle ends up in (*xiv*) by suggesting that in cases of investigating the being (of something) the end or final cause is also sought. Because it seems to give prominence to the end cause, I shall call this the 'telic' interpretation.

A second interpretation, mentioned by Ross and preferred by Frede and Patzig (1988: ii. 313–14), takes *this sort of cause* in (*xiii*) to cover both *that for the sake of which* and *what first moves* ( $\delta = [\beta \text{ \& } \gamma]$ ). The *other* cause in (*xiv*) would then be the essence mentioned in (*x*) at the outset of the passage ( $\epsilon = \alpha$ ). Since the *other* at a31 is set off from both the end and the moving cause, the essence in (*xiv*) must be understood as the formal cause. Frede and Patzig claim on behalf of the 'plain-formal' reading, as I shall call it, that it gives an especially satisfactory sense to the closing remark that the other cause is also involved in the case of the being (of something). For, they argue, the notion of an essence and formal cause should apply to all things, including those excluded from the domain of what comes to be and passes away—for example, the timeless objects of mathematics.

In giving only the mathematical cases, some may find Frede and Patzig adducing an alternative that seems remote from the concerns of Z.17. Their idea is that (*xiii*) and (*xiv*) describe different object ranges and, hence, that the *other* cause that 'also' applies in (*xiv*)'s case of being (ἐπιτοῦ εἶναι) must apply to something not covered by the cause or causes that apply to (*xiii*)'s domain of what comes to be and passes away. Now if to be included in this domain is to be an item that comes to be or passes away, as opposed merely to having some relation to such an item, then we may include the eternal moving bodies and Aristotle's unmoved movers within the wider scope of (*xiv*). Each of these has, or



is, a form, and so we can reasonably seek their formal causes. But they also appear to have ends, and so it seems that we can also seek their final causes as well. Only in the case of mathematical objects do we seek a formal but not a final cause. So they are crucial to the plain-formal interpretation.

Champions of the telic interpretation will be cheered by this news insofar as they are willing to dismiss the appeal to mathematical objects. They might do so on the strength of the claim that Aristotle himself refuses to grant full-blown ontological status to such objects. In *Metaphysics* E.1, for example, mathematical objects are downgraded because they do not exist on their own but are the results of abstraction performed on entities that do exist on their own. There are, however, two grounds for resisting this reasoning. First, to say that *O* is a final cause is not to say that *O* has a final cause. Thus, the primary unmoved mover, which is the separate entity *par excellence*, is a final cause but does not itself have a final cause. We do not investigate that for the sake of which it exists or acts. Even setting this aside, a second ground for resistance is found within the bounds of Z.17 itself. This is that the telic interpretation stresses a cause for which we are unprepared and which does not figure in the balance of Z.17. For on the telic reading, section III points out that, although the essence is the cause of interest, the essence can overlap with the other so-called causes, in the case of being ([xiii]'s ἐπιτοῦ εἶναι) overlapping with the final cause. This, however, excludes the formal cause entirely. No doubt a hard-bitten telic interpreter would embrace this as evidence that in Z.17 Aristotle thinks of a thing's essence as that-for-the-sake-of-which it is. In fact, however, this maneuver can be turned to form's advantage by pressing the fact that in the next section Aristotle applies his preferred cause to hylomorphic compounds. For here it is the form, and *not* the end, that emerges as top dog.<sup>647</sup> So even were one to adopt the telic interpretation of section III, in the end Z.17 gives explanatory prominence to the essence as a formal cause.

## 4. Weak Proscription and the Causal Role of Form

Not until section IV does form make an appearance. Aristotle prepares for this by explicitly warning that we are likely to miss our target, if we

<sup>647</sup> This appears to agree with Burnyeat (unpublished), although he goes further than I would in linking this to a move from a logical to a metaphysical level of analysis.

start with cases where one thing is not predicated of another. This occurs, for example, when we ask what man is (*ἄνθρωπος τί ἐστὶ ζητεῖται*, 1041b1). Such a question is simply put, and fails to mark out that ‘these things’ are ‘that’ (*μὴ διορίζειν ὅτι τᾶδε τὸδε*, 1041b2). Now one might suppose that “What is man?” is faulted for not satisfying the Distinctness Condition, and so that Aristotle takes it to be equivalent to “Why is a man a man?” But the Distinctness Condition governs why-questions, and so it is probable that something more is going on.

This, however, has been challenged by Bostock (1994: 243–44), who holds that “Aristotle’s first thought now is that it [‘What is man?’] is the question ‘Why is a man a man?’” So, in at least this case, asking *διὸ τί* (“Why?”) and asking *τί ἐστὶ* (“What?”) amount to the same thing. This view favors reinterpretation over replacement. So far from being replaced by why-questions, in Z.17 what-questions are reinterpreted as (actually turn out to be) why-questions. However, the argument for this general claim is not persuasive. From (a), the answer to “What is man?” is the same as the answer to “Why is . . . a man?” Bostock infers (b), “What is man?” is the same question as “Why is . . . man?” First, it is hardly obvious that their answers are the same: the first is satisfied by giving the definition of the *species*, and so will include both form and matter—both formal differentiae and material genus; whereas the second is answered by giving, in the appropriate way, the form only—what, we saw in Chapter VI, corresponds to the formal part only of a definition, the differentiae, and is identified with the essence. Second, in any event the inference itself fails on formal grounds: from the fact that  $q_1$  and  $q_2$  are answered by  $p$  it does not follow that  $q_1 = q_2$ . Bostock is aware of the difficulty and explains its presence with the darkening remark that “this evidently illegitimate step is no doubt assisted by a recollection of the *Posterior Analytics*.” Happily, all this is unnecessary, because Aristotle’s text calls for nothing more than replacing what-questions with their corresponding why-questions. This is quite enough to put the spotlight on the causal role of form.

The key to understanding Aristotle’s reservations about *τί ἐστὶ* or what-questions lies in his remark at 1041b3–4 that, if we fail to ask an articulated question, then it turns out that we are (a) asking something and (b) asking nothing (*εἰ δὲ μὴ, κοινόν τοῦ μηθὲν ζητεῖν καὶ τοῦ ζητεῖν τι γίγνεται*). Now I suppose one might still insist that Aristotle has in mind (1)’s why-question, “Why is a musical man a musical man?” and that alternative (1[a]) matches (a), the inquiry being about something, while (1[b]) matches (b), the inquiry being about nothing (see section 3 above). But this either conflates what-questions and why-questions (*τί ἐστὶ* and *διὸ τί* questions) or dismisses “What is man?” as an inessential

inclusion. The former is intrinsically unacceptable<sup>648</sup> and the latter does not square with the text. For the antecedent of our line (εἰ δὲ μῆ) denies the necessity, asserted in the previous line, of articulating one's question (δεῖ διαρθρώσαντας ζητεῖν). And this was said to be the chief failing of the simple τί ἔστι or what-question. So Aristotle is not referring to “Why is a man a man?” but to “What is man?”

On my view, why-questions differ in kind from what-questions; and so their prominence in Z.17 signals that the chapter is, indeed, looking at substance from a new angle. How we understand this is important. The new start involves, of course, moving from asking what something is (for example, what a man is) to asking why something is (why this material is a man). Now answers to the first could be given by citing the essence or form, and this, in turn, might provide an initial answer to Z's lead question, “What is substance?” For we could say that the substance-of a thing is the form or essence that tells us what that thing is. When Z.17 moves to why-questions, it simply amplifies this answer by installing the form or essence in a *causal* role: the substance-of a thing is the form or essence that is the cause of a certain bunch of matter being that thing, for example, a man. Now this is still an answer to Z's lead question, “What is substance?” So the question that governs the treatise remains unchanged, despite the fact that Z.17 pursues the investigation by use of a *different kind* of first-order question. On this view it is quite natural that Aristotle would turn to a new kind of question, the why-question.

But we still have to explain why Aristotle goes to *special* lengths to guard against the simple what-question and, especially, why such a question amounts to inquiring into something and into nothing. Here is a proposal. From the *Categories* on, so-called τί ἔστι questions have figured prominently in a wide variety of claims and arguments. Indeed, commentators often see such questions as inquiring about a thing's

<sup>648</sup> This will be contested by Bostock (1994: 243), who claims that Aristotle supposes that “What is a man?” is a why-question. On this view the original why-question is reformulated as, rather than replaced with, a why-question. In short, Aristotle is made to regard the what-question as a disguised why-question. Presumably, this is because Bostock can find no point to Aristotle's entertaining a what-question at this point in the argument. We are offering just such an account. Malcolm has suggested in conversation what is, perhaps, the best construal of this Bostockian reading: “What is man?” is an unanalyzed why-question because the object of search is most concealed when put in the form “What is man?” and the object of search is the *cause* and causes call for why-questions. Although it is true that the object of search is the cause, Malcolm's construal works only if by the object of search we understand the object of search *for the question* “What is man?” On pain of begging the question, there is no natural way to understand this. The object of search is, rather, the object sought by Z.17 as a whole and, implicitly, by Z itself. For this purpose, what-questions are logically ill-suited and so Aristotle recommends their wholesale replacement.

nature and, hence, about its essence.<sup>649</sup> Now it is true that in the *Categories*, for example, τί ἔστω questions have been implicated in sorting individuals into synonymy groups and eventually into their proper categories. Asked of Socrates, say, the question yields his species, *man*, as answer. This, in turn, yields, by the same question, the definition of the species, *two-footed animal*. By replacing the genus, *animal*, with its definition we finally arrive, by iteration of the procedure, at the category into which Socrates falls, namely, substance. We have already looked at this in Chapter I. The point to add now is that such use of the τί ἔστω question qualifies as a kind of inquiry, and so in this sense it is true that asking what a man is counts as an inquiry into something. But the worry that begins section IV, and that is directly raised by the simple τί ἔστω or what-question, is a worry about a cause that is *being sought* (ζητῆται τὸ αἴτιον, a27–28) and this is the cause that is the essence. With respect to this charge, the simple τί ἔστω question is not an inquiry into anything at all because it is the wrong question entirely. Although τί ἔστω questions may well serve the kind of classificatory project one finds in the *Categories*, they are of no help in a causal inquiry of the sort envisioned in Z.17. On this view, the essence of interest in Z.17 cannot be the species of the *Categories* or the differentia-cum-genus complex that corresponds to it. And, surely, it is unexceptionable to find Aristotle reinforcing this point in that part of *Metaphysics* Z, where the distinction between species and species-form is most critical. For it is in Z.17's section IV where form is finally tagged as the cause that is the essence.<sup>650</sup>

Rather than “What is *man*?” we are, then, to stick with διὰ τί or why-questions.<sup>651</sup> From the established point that genuine inquiry can be

<sup>649</sup> Bostock (1994: 243), for example: “substance is the answer to a what-is-*X* question.”

<sup>650</sup> Thus, removing the worry recorded by Ross (1924: ii. 224): “It has been thought . . . that a reference here to the question ‘*What* is man?’ is irrelevant.”

<sup>651</sup> Still, we are not quite done with the simple τί ἔστω question. For at this point, one might propose, not that 1041b1's τί ἔστω question—“What is man?”—is a disguised διὰ τί question, but that the line originally read as a διὰ τί question—“Why is man?” Bonitz, in fact, read διὰ τί at b1; it is also a marginal variant in codex E and some take it to have been the reading of Asclepius (Ross [1924 ] and Jaeger [1957 ]; but see Frede and Patzig [1988: ii. 315], who note that Asclepius may simply be paraphrasing τί ἔστω with διὰ τί). Although the above paragraph provides a rationale for the manuscript reading, there is something to be said for the E-variant reading, as I shall call it. For after impugning the simple question for being an inquiry into something and into nothing, Aristotle says, “And since (xv) it is necessary to have the thing and to presuppose its existence (ἐπεὶ δὲ δεῖ ἔχειν τε καὶ ὑπάρχειν τὸ εἶναι), it is clear that (xvi) the question is why the matter is a so-and-so (ὅτι τὴν ἄλλην ζητεῖ διὰ τί (τις)); for example, (xvii) why these things here are a house (ὅσον οἰκία ταῦτα διὰ τί)” (1041b4–6). Note that nothing in the Greek text corresponds to (xvi)'s underlined ‘a so-and-so’. Of course, the example in (xvii) makes clear that this is the ultimate sense Aristotle wants for his why-questions. But this reads the example back into (xvi) and asks us to take what appears to be formulated as an absolute question, namely “Why is the matter?” as an incomplete question, “Why is the matter . . .” On the E-variant reading, Aristotle starts with the simple why-question, “Why is man?” As such, it is an inquiry into nothing, since he has already set aside the efficient cause. (This insulates Aristotle from being misunderstood. For one who has not been following his reasoning in Z might read the why-question as asking for an efficient causal story. My asking why these bricks and stones are a house, for example, might be met by a long tale involving, among other things, the movements of masons, stone cutters, and laborers. That is, it might be met by a tale of the intricate relations between various efficient causes that were actually involved in assembling materials and producing the house. This, of course, is largely irrelevant to the argument of the canonical chapters.) Moreover, we must presuppose the existence of man, as (xv) reminds us, and, thus, we cannot be asking about this. So the original simple why-question—“Why is man?”—can be an inquiry into something, only if it is reinterpreted as asking “Why is the matter?” Since this is a reinterpretation of the why-question about *man*, it means to ask about the matter of man. Then, (xvii) enjoins that the alleged simple why-question, “Why is the matter?” can only mean “Why is this matter a man?” Inventive though it is, this attempt to save E's marginal variant at 1041b1 will strike most as rather roundabout; it also requires that the example in (xvii) is not an example of the why-question in (xvi). For these reasons I prefer the account of the above paragraph. On either reading, however, form emerges as the chief explanatory factor.

pursued only by why-questions that heed the Distinctness Condition, the text proceeds to bring form into Z.17's discussion:

for example, [xvii] why are these things here a house (οἶον οἰκία ταδι διὰ τι)?—because [xviii] *being for a house* belongs to them (ὅτι ὑπάρχει δ' ἦν οἰκία εἶναι); and why is this thing here a man (καὶ ἄνθρωπος τοδί)? or why is this body having this condition a man (ἢ τὸ σῶμα τοῦτο τοδί ἔχον)? Therefore, [xix] we are seeking the cause by which the matter is something, i.e., the form, and this is the substance-of the thing (τὸ αἴτιον ζητεῖται τῆς ὕλης τοῦτο δ' ἐστὶ τὸ εἶδος<sup>652</sup> ἢ τί ἐστὶν τοῦτο δ' ἡ οὐσία). (1041b5–9)

In Z.4–6, specific cases of essence (τί ἦν εἶναι) were introduced by Aristotle's standard formula *being for an F*. Thus, for example, he argued that *being for a cloak* (τὸ ἱματίω εἶναι) failed to qualify as an essence.<sup>653</sup> Here, in (xviii), the formula is enlisted to refer to the essence of a house. Supposing, then, that (xvii) asks why certain material constituents are a house, we have Aristotle offering the following explanatory schema:

9. (y)(x)(y is the matter of x & *being an F* belongs to x → *being for an F* belongs to y & *being an F* belongs to x because *being for an F* belongs to y).

Proposition (9) generalizes from Aristotle's examples in (xviii): certain materials (bricks and stones) are (the matter of something that is) a house because the essence of house belongs to them; a certain body is (the matter of something that is) a man because the essence of man belongs to it.

<sup>652</sup> I remove Jaeger's brackets around τοῦτο δ' ἐστὶ τὸ εἶδος .

<sup>653</sup> See Ch. VI.

Charles (1994: 85) uses the last example to construct a scientific syllogism that installs the form as the fundamental explanatory factor:

10a	Being a man belongs to soul of a given kind
10b	Soul of a given kind belongs to body of type Z
10c	Being a man belongs to body of type Z

Construction of such syllogisms is motivated in part by the desire to subsume Z.17's explanatory framework, sketched in (9) above, under the *Posterior Analytics* theory of scientific demonstration.<sup>654</sup> We have already registered some worries about this in looking at an earlier section of Z.17, but Charles claims to find the theory of scientific demonstration alive and well in the pivotal section IV of Z.17. So we need to look at what he says.

The idea is that I explain why certain materials (a body of type S) are a man by appealing to a soul of a certain kind and using the latter as the middle term of an explanatory syllogism. There is no problem with Charles's formulation, in (10c), of the fact to be explained. For whatever force one gives to the 'is',<sup>655</sup> Aristotle does ask why a body of a certain sort *is* a man, and (10c) reasonably represents this question's presupposition. Much the same can be said for (10b). However, (10a) is suspect, for it entails that a certain kind of soul *is a man* and this is simply false. It won't help to read (10a) nonsortally, as entailing that a certain kind of soul *is man*. For if 'man' is univocal in its two occurrences, as validity demands, then to be man is still to have a property (albeit nonsortal) that puts something into the *species* man. This sort of property the soul cannot have.

The problem, as before, is that the distinction between the species and species-form, or species property and species-form property, introduces a complexity that cannot be straightforwardly represented in *standard* syllogistic terms.<sup>656</sup> This is already suggested in (9), where the species term, *being an F*, and the species-form term, *being for an F*, are predicated of different things. Moreover, (9) operates at what might be called different predicative levels—with *being an F* predicated of a compound of form and matter and *being for an F* predicated of the matter only.

<sup>654</sup> Charles (1994: 84) takes Z.17's question—"Why is this body with this feature a man?"—to reappear in H.2 as the question "Why is this body two-footed?" So he is taking *being a man* and *being two-footed* as equivalent.

<sup>655</sup> That is, whether it is identity and, if so, whether it is necessary or so-called contingent identity; or whether it is, more plausibly, the 'is' of constitution or a yet different relation, perhaps Lewis's (1991) notion of accidental sameness.

<sup>656</sup> So I am not claiming that it cannot be captured in more involved syllogisms. However, the more involved these become, the further removed they are from the *Analytics* model.

Let us take a closer look at how this works. Now (9) was generated just from the examples of (*xviii*), and these do not explicitly mention form. Aristotle immediately remedies this in (*xix*) by, in effect, asserting

11.  $(y)(x)(z)(y_1 \dots y_n \text{ are the material constituents of } x \ \& \ x \text{ is an } F \ \& \ y_1 \dots y_n \text{ constitute } x \text{ because of } z \equiv z = \textit{being for an } F \ \& \ z \text{ is the form of } x \ \& \ z \text{ belongs to } y_1 \dots y_n \ \& \ \textit{being an } F \text{ belongs to } x \text{ because } z \text{ belongs to } y_1 \dots y_n).$

Here bound ‘ $y$ ’ ranges over any material constituent,  $y_k$ , and bound ‘ $x$ ’ is clearly intended to range over c-substances. So (11) gives us an account of the nature of c-substances: the cause of a given c-substance being what it is, to echo the wording of section III’s (*xii*), is the essence or form that belongs to its matter. And this Aristotle proclaims in (*xix*) is the substance. He can only be speaking of the substance-*of* such things as men, horses, and houses. Moreover, the closing proclamation is emphatic. So it is equally emphatic that Aristotle offers (11) as an account of the substance-*of* c-substances; and, according to the account, it is the form of the thing as its essence and its cause.

This result is just what we have predicted all along. What is more, we are now in a position to draw Z.13’s weak proscription into the story. Not only does form emerge as the sole claimant to the title of substance, but also the formulation of (11) makes it clear why Z.13–16 expends such energy on weak proscription. This emerges clearly, when we replace ‘belonging to’ with ‘predicated of’ and add the notion of substance from (*xix*)’s closing proclamation. Then (11) yields the floor to

- 11\*.  $(y)(x)(z)(y_1 \dots y_n \text{ are the material constituents of } x \ \& \ x \text{ is an } F \ \& \ y_1 \dots y_n \text{ constitute } x \text{ because of } z \equiv z = \textit{being for an } F \ \& \ z \text{ is the form of } x \ \& \ z \text{ is the substance-} \textit{of } x \ \& \ z \text{ is predicated of } y_1 \dots y_n \ \& \ \textit{being an } F \text{ is predicated of } x \text{ because } z \text{ is predicated of } y_1 \dots y_n).$

Obviously, (11\*) entails that form, if it is the essence and substance-*of* something, is to be predicated of the material constituents of the thing.

Now (11\*) does not, by itself, deny that the form may be predicated of the thing itself (i.e., the compound,  $x$ ). But remarks elsewhere in the chapter make it pretty clear that Aristotle wants to deny this. At 1041a20–2 he discredits asking why he who is a man is a man ( $\delta\iota\acute{\alpha} \tau\acute{\iota} \acute{\omicron}\varsigma \acute{\epsilon}\sigma\tau\acute{\iota}\nu \acute{\alpha}\nu\theta\rho\omega\pi\omicron\varsigma \acute{\alpha}\nu\theta\rho\omega\pi\acute{\omicron}\varsigma \acute{\epsilon}\sigma\tau\acute{\iota}\nu$ ) and so, implicitly, dismisses the explanatory value of asserting that the form of man is predicated of *he who is a man*. Now this will strike some readers as a mistake. For “Why is a man a man?” was introduced as a parallel to “Why is a musical man a musical man?” and the latter is unfruitful on one reading, (1’[b]). However, when held to ask, as in (1’[a]), why a man is musical, it is perfectly

acceptable. Further, one might hold that (1'[a]) gives the *de re* reading of what is being asked and that this is why it is acceptable. But it surely appears that asking *why he who is a man is a man* is to give the *de re* version of asking *why a man is a man*. Yet Aristotle bans it.

One might conclude that Aristotle is simply confused about *de re* and *de dicto*, and perhaps he is. More charitably, recall our earlier insistence that Aristotle is not interested in the logic of propositional attitudes, at least not in *Metaphysics* Z.17. Rather, he is preoccupied with a *specific* explanatory project, namely, identifying the nature of that in virtue of which a c-substance is the sort of thing it is and has the chief characteristics it has. We need to bear this in mind in assessing Aristotle's reservations about asking why he who is a man is man. If, then, this amounts to asking why a certain man is a man—say “Why is that man a man?”—we might take it as equivalent to asking why a man is a man. Although this would explain why Aristotle rejects the original question, it is not obvious that it gives the most plausible reading of why *he who is a man is a man*. Suppose, then, that to ask why he who is a man is a man is to ask either (a), why *that which* is a man is a man, or (b), why Socrates (for example) is a man. Now if (a) is to count as zetetically fruitful, it will have to amount to asking why *that (material) which* is a man is a man; and this, of course, is just to ask why certain material is a man. Since this is exactly what Aristotle thinks we should be asking, (a) cannot be what he has in mind by the original question.

So we are left with (b). It certainly looks zetetically useful and appears to invite an answer that has some explanatory punch:

12. Socrates is a man *because* Socrates is constituted by materials,  $y_1 \dots y_n$ , &  $y_1 \dots y_n$  constitute a man.

The coherence and fruitfulness of a question is a function of the coherence and fruitfulness of its answer(s). Thus, problems with the (b)-reading of *why he who is a man is a man* will be reflected in (12), and so (12) must be the source of Aristotle's reservations about the original question. Proposition (12) is not to be faulted on account of its truth value but on account of its explanatory value. Despite being true, (12) remains silent on the *cause* of the material constituents,  $y_1 \dots y_n$ , constituting a man. Asking why Socrates is a man does, then, call for an explanation but it is an explanation that leaves out the fundamental explanatory factor, namely, the form. Thus, (12) presupposes an additional, and deeper, principle:

12\*. Socrates is constituted by materials,  $y_1 \dots y_n$ , &  $y_1 \dots y_n$  constitute a man *because* there is a  $\zeta$  &  $\zeta$  is the form of Socrates &  $\zeta$  is predicated of  $y_1 \dots y_n$ .



Unlike (12\*), which could be expanded on the basis of (11\*), (12) skates over the cause that stops the chain of explanation and, thus, it fails to say anything about the substance-of Socrates. So Aristotle's dismissal of the question why he who is a man is a man cannot be explained away on the grounds that he confuses *de re* and *de dicto*. Rather, it is dismissed on the grounds that it does not generate answers that operate at a sufficiently deep level of explanation. Simply put, the question fails to hit explanatory bedrock.

Now a late auditor at Aristotle's lectures might well wonder why he goes to such lengths to bolster (11\*). But those who have followed the canonical course of instruction will be prepared for this and some among them will even whisper, "weak proscription." For in barring the universal from being the substance-of something it is predicated of, weak proscription paves the way for the explanatory role that (11\*) extends to form. We shall need to assume only that because generality is required by its explanatory role, Aristotle wants to keep open the possibility that form is a kind of universal.

According to the formulation offered in Chapter IX, weak proscription holds that the form of man cannot be both universal to, and the substance-of, things it is predicated of:

[11\*]<sub>IX</sub>.  $(x)(y)(z)(x \text{ is predicated [universally] of } y \text{ and } z \ \& \ y \neq z \rightarrow \neg(x \text{ is the substance-of } y \vee x \text{ is the substance-of } z))$ .<sup>657</sup>

We need now only add that Z.10–11 ties form's claim to universality to its role as a cause, and that this role assumes center stage in Z.17. For if, prudently, Aristotle wants to keep open the possibility that this form is a universal, it is clear why weak proscription figures in an earlier act. For the form that, in (11\*), is predicated of material constituents, is the substance, not of these, but of the compound constituted by the constituents. Moreover, weak proscription, encoded in [11\*]<sub>IX</sub>, allows this form to be predicated of other such material constituents,  $z_1 \dots z_n$ , and to be the substance-of the c-substance they constitute, so long as the form is not predicated of the c-substance itself. In short, [11\*]<sub>IX</sub> allows the form that is the substance-of a thing to be a universal. Weak proscription, thus, allows form to enjoy the generality required by its causal role.

Note, further, that the cases disqualified by [11\*]<sub>IX</sub> are universals that *could not* have done the explanatory work required of form in Z.17. For example, the species *man*, which is predicated of the same items it is universal to, ends up on the wrong end of the explanation relation. For

<sup>657</sup> When in one chapter I use a numbered sentence from a different chapter, whether earlier or later, I enclose the numeral in square brackets with a subscript to indicate the chapter of origin.

this case has nothing more to offer than the asseveration that something is a man because it falls into the species man; and this is hardly more informative than explaining a thing's solubility by appeal to the fact that it falls into the class of soluble things. So far from serving as an *explanans*, the species occurs as part of the *explanandum*: Socrates falls into the species *man* because certain matter (his) is in *formed* in a certain way, namely, in the way that is appropriate for matter that realizes the essence, *being for a man*. So weak proscription screens out those universals whose predicative relations to subjects do not, and could not, convey explanatory power. Finally, by pressing the explanatory point of view, Z.17 adds an additional refinement to Aristotle's preference for (12\*) over (12). For, in contradistinction to the *species*, weak proscription conveys on the species-*form* precisely the sort of explanatory primacy that Z.4 installs as the chief mark of essence. This implicitly confirms our view that in *Metaphysics Z* the primacy of primary substance is a kind of explanatory primacy and, as such, belongs to form alone. As we shall see in the last section of this chapter, Z.17's final lines remove the implicit nature of the confirmation.

## 5. Explanation and the Purity of Form

One might object that there is little independent gain in explaining that Socrates is a man because certain matter realizes the form, *being for a man*. For this explains why something is a man by appealing to the essence of *man*. This, however, not only overlooks the fact that the *being for an F* is formulaic shorthand but also forgets the lessons of *Metaphysics Z*.10–11. The failings are linked. For Z.10–11<sup>658</sup> is committed to the complexity of form and suggests that the complexity is expressed in definitions that articulate, in the case of *man*, the salient faculties and functions, and none of these need mention *man*.<sup>659</sup> Since the articulation of an essence introduces no new essences, the essence depends on no other essence, just as Z.6 demands, and, therefore, it remains the fundamental explanatory factor. Z.10–11 also promotes PURITY, the doctrine that the form of a c-substance must be free of material admixture. I have also suggested that PURITY is required in order for form to discharge its causal role in a genuinely explanatory manner. The form, as essence, of a c-substance can be the substance-of the c-substance, only if it explains the nature of the c-substance and its chief features. Because form can do this only if it is the cause of the matter of the c-substance

<sup>658</sup> Not to mention Z.16's theory of Dual Complexity, for which see Ch. IX, esp. the final section.

<sup>659</sup> See my discussion, Ch. VIII, esp. sect. 9.

being the thing that it, the c-substance, is, the form must be pure. This constraint, to which we now turn, is one target of Z.17's section V.

It will help to lay out in advance a major goal of our analysis, namely, that Aristotle confirms PURITY by arguing that one structural component of a c-substance must be free of matter and that this is the form. This sets the stage for the crucial claim that PURITY is a necessary condition of the explanatory role of form. Let us see how this works out in detail.

As the above discussion of Z.17's organization suggested, section IV ends by remarking that in the case of simple things there can be no investigation or instruction:

It is clear, then, that [xx] in the case of simple items (ἐπι τῶν ἀπλῶν) there is no investigation (ζήτησις) or instruction (δίδαξις), but [xxi] for such things there must be something other than inquiry (ἕτερος τρόπος τῆς ζητήσεως) (1041b9–11);

and section V begins by contrasting this with the case of compounds, i.e., c-substances:

But since [xxi] what is compounded from something in this way is such that the whole is a unity, not like a heap but like a syllable . . . (ἐπει δὲ τὸ ἐκ τινος  
σύνθετον οὕτως ὅτε ἐν εἶναι τὸ πᾶν, ἂν μὴ ὡς σωρὸς ἀλλ' ὡς ἡ συλλαβή . . . ). (1041b11–12)

The contrast broached in the broken sentence (xxi), indicated by triple dots, is surely that the investigation (ζήτησις) and instruction (δίδαξις) denied to simple items in (xx) can be fully pursued in the case of compounds of form and matter,<sup>660</sup> that is, in the case of c-substances.<sup>661</sup> Just this, one might argue, is what we get in the balance of Section V.

Before turning to this, however, something should be said about the simple items mentioned in (xx). Bostock (1994: 244) suggests that they may be forms and refers us to Aristotle's *Metaphysics* Θ.10, 1051b17–1052a4, and its “rather mystifying account of our knowledge of these simple items.” The alleged mystification aside,<sup>662</sup> we need not go so far afield to get a reading for ἀπλῶς (“simple”) in (xx). Simplicity, if that is the appropriate notion here, is a relative matter. Of a so-called

<sup>660</sup> This is surely the intended sense of the broken sentence. Frede and Patzig (1988: ii. 319) go beyond this and complete the broken sentence with the thought that the syllable must have a principle and a cause in virtue of which it is one. I prefer to see this as what is added in the body of sect. V.

<sup>661</sup> Speaking of c-substances as compounds is, for me, something of a *façon de parler*, since I hold that, strictly, the compound is an internal structural component of the substance. The c-substance itself is the concrete item obtained from the compound along with whatever properties, attributes, and the like, attach to it.

<sup>662</sup> See Wedin (1988: 131–2) for a demystified account of knowledge and error with respect to these simple objects.

simple item, one can always ask in what respect and with respect to what it is held to be simple. At any rate, in the present context Aristotle contrasts what is ἀπλῶς with the cases entered at the end of section IV, in (xvii) and (xviii) above, namely, *that these materials are a house* and *that this body so conditioned is a man*. Not only do these heed the Distinctness Condition but also they represent received facts that are to be explained. Thus, something is simple if it fails to heed the Distinctness Condition *or* if it fails to qualify as a genuine *explanandum*.<sup>663</sup> To be a genuine *explanandum* is to be expressed by a proposition composed of two terms that are not immediately linked. Thus, we can search for a third term that explains why the first two are linked. But if this term is immediately linked to the terms comprising the *explanandum*, then no additional term can be sought. Propositions containing such immediately linked terms are, then, not candidates for further explanation. Thus, *that a form of kind M belongs to materials  $y_1 \dots y_n$*  could count as ἀπλῶς because it explains the fact *that materials  $y_1 \dots y_n$  are a man* and has itself no like explanation. This reading allows us to sidestep the perplexities of the Θ.10 account and, moreover, to preserve a certain kind of internal complexity for form.<sup>664</sup> Indeed, the text stops comfortably short of saying that the simples in question (τὰ ἀπλῶ) are forms at all.

We come now to the main business of section V, namely, Aristotle's analysis of the formally different roles played by the form and the matter in the structure of c-substances. Note that Aristotle does not pursue this analysis by use of the word 'εἶδος' ('form'). Rather, he contrasts the elements of a whole with "something else" that is not an element. Although some might take this as cause for doubt, it is clear that he is talking *about* the form. For one thing, he finishes section IV by concluding that the form is the cause of various materials constituting a unified whole and that it is the substance-of the whole;<sup>665</sup> and toward the end of section V, this is exactly what he says about the "something else" that is not an element. So he is clearly talking about the relation between form and matter.

Notice also that Aristotle is no longer pressing a why-question. That

<sup>663</sup> The reasoning runs: (a)  $x$  is a subject of investigation and instruction  $\rightarrow x$  heeds the Distinctness Condition &  $x$  is a genuine *explanandum*; (b)  $x$  heeds the Distinctness Condition &  $x$  is a genuine *explanandum*  $\rightarrow x$  is not ἀπλῶς; therefore, (c)  $x$  is ἀπλῶς  $\rightarrow x$  does not heed the Distinctness Condition  $\vee x$  is not a genuine *explanandum*; and, so, (d)  $x$  is ἀπλῶς  $\rightarrow (x$  is a subject of investigation and instruction).

<sup>664</sup> I note now that Charles (1994: 91) refers to the simples of 1041b9–11 as basic unities. Insofar as he takes this to contrast with what can be explained by demonstrative syllogism, he agrees with our reading. But insofar as he sees in this sort of 'simple unity' something that clashes with the diversity of functions characteristic of a soul, he appears to regard the simples as absolute simples in the manner of Bostock.

<sup>665</sup> As we saw in (11\*) of the previous section.

is, he is not asking why the form of a thing stands in a certain relation to its material elements. Focus on the appropriate why-questions comes to a head at the end of section IV, when Aristotle declares that the form of a thing explains why its various material parts constitute the thing, namely, by being realized in the parts. This leaves unaddressed a number of questions about the relation between form and what it informs. Section V turns to this by stressing what I shall call the formal difference in the roles of form and matter in the structure of unified wholes (i.e., wholes of the sort that c-substances are). It chooses to do so by adopting the idiom of elements and principles—partly, I suggest, because this idiom is well suited for expressing formal distinctions and, especially, distinctions of a logical type.<sup>666</sup>

Section IV ends with the following claim about c-substances: we explain why certain materials are, for example, a house by appealing to the more fundamental fact that the materials are in a certain condition, that is, by appealing to the fact that a certain form belongs to them. This claim puts the spotlight on the relation between form and matter or, to use our familiar idiom, on the relation between two of the internal structural components of a c-substance. But it says nothing about their logical types. As far as it goes, form and matter might occur in formally homogeneous ways, and so one might think of a house, for example, as the simple adjunction of equal components. This would be analogous to taking subjects and predicates as semantic doubles, exercising the same semantic role, say referring, and yielding a statement when linked by the so-called copula. But this picture does not capture the fact that one structural component of a c-substance, the form, exercises a causal function with respect to the other, the matter. For the sort of causation Aristotle is chasing in Z.17 locates explanatory power in the form and so calls for an asymmetric relation between form and matter. This suggests that form may function in a logically heterogeneous way and, hence, that the appropriate analogy would be, rather, to Frege's assimilation of subject and predicate to the formally heterogeneous pair, argument and function. We need not push this comparison further to appreciate that Aristotle has left himself the task of articulating the relation between the components that make up a c-substance.

The task is governed by the fact that the components are to make up a *unified* thing. This is not the first mention of unity in *Metaphysics Z*. At the end of Z.4, Aristotle requires that what is primary be a unity.<sup>667</sup> But this, I argued, is structural primacy and as such is a property of the

<sup>666</sup> So I take the principle–element distinction to be formal in the sense that I would call formal Frege's distinction between objects and concepts or, better, arguments and functions or, perhaps even, names and predicates.

<sup>667</sup> See Ch. VI, esp. formulae (22) and (22') of sect. 6.

form or essence itself. Section V of Z.17, on the other hand, focuses on the unity of a c-substance and takes this to reside in the unity of its constituent parts. As far as Z's canonical chapters are concerned, this is a fresh problem. Methodologically, however, it recalls an earlier strategy. Just as Z.10–11<sup>668</sup> conceives of an object's general ontological make-up as a function of the make-up of its parts—material, formal, or both—so Z.17 conceives of an object's unity as a function of the unity of its parts. This cannot mean just that the parts, severally, are unified, for this is true of mere mereological sums, and of what Aristotle calls heaps.<sup>669</sup> Rather, the unity must be a function of relations that obtain *among* the parts.

It turns out, of course, that the unity results from relations among the parts when a *form* is realized in them. But Aristotle begins more simply, by giving us some examples and by shifting discussion to the more neutral ground of element and principle. His examples—the syllable,  $\beta\alpha$ ,<sup>670</sup> and flesh—are not examples of c-substances.<sup>671</sup> Nor are they meant to be. Rather, because they are structurally uncomplicated and structurally analogous to c-substances, the cases are ideal instruments for pursuing an analysis of the unity of c-substances. I shall refer to this sort of unity as c-unity. On this score, Aristotle appears to see no difference between  $\beta\alpha$ , with its elements  $\beta$  and  $\alpha$ , and *flesh*, with its elements *fire* and *earth*. So I shall track the argument for the syllable only.

Here, somewhat redacted, is what Aristotle says:

But [xxiii] the syllable is not the elements ( $\eta\ \delta\epsilon\ \sigma\upsilon\lambda\lambda\alpha\beta\eta\ \o\upsilon\kappa\ \epsilon\sigma\tau\iota\ \tau\alpha\ \sigma\tau\o\iota\chi\epsilon\iota\alpha$ ),  $\beta\alpha$  is not the same as  $\beta$  and  $\alpha$  ( $\o\upsilon\delta\epsilon\ \tau\omega\ \beta\alpha\ \tau\alpha\upsilon\tau\o\ \tau\o\ \beta\ \kappa\alpha\iota\ \alpha$ ), . . . for [xxiv] on dissolution these [compounds] do not exist, for example the syllable, but . . . the elements do ( $\delta\iota\alpha\lambda\upsilon\theta\epsilon\acute{\nu}\tau\omega\ \gamma\acute{\alpha}\rho\ \tau\alpha\ \mu\acute{\epsilon}\nu\ \o\upsilon\kappa\epsilon\tau\iota\ \epsilon\sigma\tau\iota\ \dots\ \tau\alpha\ \delta\epsilon\ \sigma\tau\o\iota\chi\epsilon\iota\alpha\ \epsilon\sigma\tau\iota$ ). So [xxv] the syllable is something, not just its elements (vowel and consonant) but also something else ( $\epsilon\sigma\tau\iota\ \acute{\alpha}\rho\alpha\ \tau\iota\ \eta\ \sigma\upsilon\lambda\lambda\alpha\beta\eta\ \o\upsilon\delta\ \mu\o\upsilon\acute{\nu}\omega\ \tau\alpha\ \sigma\tau\o\iota\chi\epsilon\iota\alpha\ \tau\o\ \varphi\omega\eta\gamma\epsilon\upsilon$   $\kappa\alpha\iota\ \acute{\alpha}\lambda\lambda\alpha\ \acute{\alpha}\varphi\omega\eta\sigma\iota\ \kappa\alpha\iota\ \epsilon\tau\epsilon\rho\acute{\omicron}\nu\ \tau\iota$ ). . . . If, then, [xxvi] that extra thing must be an element or composed of elements ( $\epsilon\iota\ \tau\o\iota\upsilon\nu\ \acute{\alpha}\nu\acute{\alpha}\gamma\kappa\eta\ \kappa\acute{\alpha}\kappa\epsilon\iota\upsilon\ \eta\ \sigma\tau\o\iota\chi\epsilon\iota\o\ \eta\ \epsilon\kappa\ \sigma\tau\o\iota\chi\epsilon\iota\o\upsilon$ ), the same argument ( $\o\ \alpha\upsilon\tau\o\ \lambda\o\gamma\o\ \epsilon\sigma\tau\iota$ ) will apply. If [xxvii] it is an element, the same argument already applies, for [xxviii] flesh will be a compound of this element and fire and earth, and still something else ( $\kappa\alpha\iota\ \epsilon\tau\iota\ \acute{\alpha}\lambda\lambda\o\ \upsilon$ ); and so on indefinitely ( $\epsilon\iota\ \varsigma\ \acute{\alpha}\pi\epsilon\iota\rho\o\ \upsilon$ ). If, on the other hand, [xxix] it is composed of an element ( $\epsilon\iota\ \delta\epsilon\ \epsilon\kappa\ \sigma\tau\o\iota\chi\epsilon\iota\o\ \upsilon$ ), then clearly it must be composed of more than one ( $\delta\eta\lambda\o\ \delta\tau\iota\ \o\upsilon\delta\ \acute{\epsilon}\nu\o\varsigma\ \acute{\alpha}\lambda\lambda\alpha\ \pi\lambda\epsilon\iota\o\acute{\nu}\omega\upsilon$ )—or it will be that one ( $\eta\ \epsilon\kappa\epsilon\iota\upsilon\ \alpha\upsilon\tau\o\ \epsilon\sigma\tau\alpha\iota$ ); so again in this case we have the same argument . . . as in the case of the syllable. (1041b12–25)

<sup>668</sup> See sect. 1 of Ch. VIII.

<sup>669</sup> Despite some opinion to the contrary, Aristotle does not take these to amount to the same thing. This turns out to be of some importance, as I show in sect. 7.

<sup>670</sup> For want of something better, I indicate syllabic wholes and elements by underlining.

<sup>671</sup> Neither can exist separately, for example.

The argument of the passage proceeds in roughly two segments: (xxiii)–(xxv) establishes that a c-unity consists not just of elements but must include “something else;” (xxvi)–(xxix) adds that this extra thing cannot be an element or composed of an element. Z.17 will go on to identify this extra something as the form that is the substance and primary cause of the c-substance being what it is. Our passage prepares for this in at least two ways. First, it insists that the extra factor function in a formally different way in the structure of a c-substance, namely, as a principle rather than an element. This function is tailor-made for form. Second, it presumes that the extra factor is free of material admixture and, so, it confirms that PURITY is a constraint on form's explanatory role. However, these are claims *about* the argument of the passage; before endorsing them we need to look at the argument itself.

The argument is case-driven, but the cases are clearly meant to be arbitrary examples of unities of a certain kind, what we are calling c-unities.<sup>672</sup> As the first line of (xxiii) indicates, its results are presumed to hold generally. The first segment begins by announcing, in (xxiii), part of what is to be established, namely, the negative result that a syllable is not just its elements. Immediately, (xxiv) gives the grounds that establish this result. On the assumption that the syllable is something, (xxv) then gives us the desired result that it is not just the elements but also something else. The argument is a *reductio* against the following:

$$13. \quad \beta\alpha \text{ is a syllable} \ \& \ \beta \text{ is an element of } \beta\alpha \ \& \ \alpha \text{ is an element of } \beta\alpha \rightarrow \beta\alpha = \beta + \alpha$$

Now (13) identifies  $\beta\alpha$  with its parts in the sense that it takes the syllable to be the sum of  $\beta$  and  $\alpha$ . How we are to take this is not entirely clear from (xxiii), but will become clearer when we look at (xxiv)'s reason for rejecting (13).<sup>673</sup>

The strategy of the argument is to show that (13) is false, in effect, by an application of the indiscernibility of identicals.<sup>674</sup> So, if the syllable has the property of *being nonexistent*,<sup>675</sup> then anything identical with it must also have the property. Thus, (13) yields

$$13a. \quad \beta\alpha \text{ is a syllable} \ \& \ \beta \text{ is an element of } \beta\alpha \ \& \ \alpha \text{ is an element of } \beta\alpha \ \& \ \beta\alpha = \beta + \alpha \rightarrow \beta \text{ does not exist} \equiv \beta + \alpha \text{ does not exist.}$$

<sup>672</sup> Or, bearing in mind the caveat entered two paragraphs back, they are *analogous* of c-unities.

<sup>673</sup> And it is addressed directly in the next section.

<sup>674</sup> Which I am taking to be:  $(x)(y)(x = y \rightarrow fx \equiv fy)$ .

<sup>675</sup> It would be misleading to suggest that Aristotle regards existence, and its complement, as properties. Doing so here is merely a convenience, replaceable in favor of something more cumbersome:  $a = b \rightarrow (\exists x)(x = a) \equiv (\exists y)(y = b)$ .

But, (xxii) reports, on dissolution the syllable does not exist but its elements do. Hence, it cannot be identified with them. Aristotle says simply “the elements exist” (τὰ στοιχεία ἔσονται, b15) and this appears to give us the following reading of (xxii):

14.  $\beta\alpha$  is a syllable &  $\beta$  is an element of  $\beta\alpha$  &  $\alpha$  is an element of  $\beta\alpha$  &  $\beta\alpha$  is dissolved  $\rightarrow$   $\Diamond(\beta\alpha$  does not exist &  $\beta$  exists &  $\alpha$  exists).

All parties can agree that syllables can be dissolved; so the idea is that the truth of (14) defeats the consequent of (13a). But the latter reads, ‘ $\beta + \alpha$  does not exist’, and this is not the contradictory opposite of (14)’s ‘ $\beta$  exists &  $\alpha$  exists’. I shall return to this point below. For now let us simply assume that Aristotle adopts

- 14a.  $\beta + \alpha$  exists  $\equiv$   $\beta$  exists &  $\alpha$  exists,

whatever weight is finally attached to the operation marked by ‘+’. Since (13a) was obtained by applying a logically impeccable principle, the indiscernibility of identicals, to the identity asserted in (13), it must be this identity that is at fault. Because all parties can agree that  $\beta$  and  $\alpha$  are the elements of  $\beta\alpha$ , it is not (13)’s antecedent that is to be rejected, but the entailment itself. Thus, one cannot hold that certain items are the elements of a syllable and also are identical with it.

To this negative result, (xxv) adds a simple assumption to get a positive outcome, namely, the assumption that the syllable is something ( $\tau\iota$ ): since  $\beta\alpha$  is something and since it cannot be identical with its elements,  $\beta$  and  $\alpha$ , there must be something else. So we have

15.  $\beta\alpha$  is a syllable &  $\beta$  is an element of  $\beta\alpha$  &  $\alpha$  is an element of  $\beta\alpha$  &  $\beta\alpha = \beta + \alpha + X$ ,

where  $X$  is different from  $\beta$  and  $\alpha$ . The second segment of the argument, (xxvi)–(xxix), worries about the status of this extra factor,  $X$ . If the extra factor is just another element, (xxvi) reports that “the same” argument will apply. There are two cases to consider: where  $X$  is an element ([xxvii]–[xxviii]) and where  $X$  is composed of an element (xxix).

Usually, the first arm of this segment of the argument, addressed to the case where  $X$  is an element, is taken to mean that we would have  $\alpha$ ,  $\beta$ , and  $X$ , the extra factor as an element, and because all are elements they require a further extra factor  $X_1$  in order to make up something that is a c-unity. This, after all, is precisely what is required by the generalization of (15), that is, by (xxv). But some have seen things differently. Bostock (1994: 245), for example, does not see how this argument is supposed to work in the first place:

it is not clear how this could be shown by ‘the same argument’, i.e. by the argument that you can destroy the syllable simply by separating its elements and



without destroying them. For if we separate the letter B from the letter A, then apparently we *have* destroyed the supposed third element, the original arrangement of the two, so there is no need to posit a further arrangement to be what is destroyed when our three elements are separated.

There is something perverse about this reading of the argument. For one thing, it confuses an argument with what is only a criterion for something that is mentioned in the argument, namely, that something counts as an element just in case it survives the demise of the whole whose part it is. Besides, a dogged interlocutor might insist, appearances notwithstanding, that this so-called arrangement is itself an element. Here Bostock's response is without effect, for it amounts merely to insisting that an arrangement is not the sort of thing that could be an element. Aristotle does better, pointing out that, even if we grant that  $X$  is an element, then, because it is an element, we still need some additional thing in order to explain how  $\alpha$ ,  $\beta$ , and  $X$  can make up a thing. This leads to  $X_1$ , different from  $X$ , and, by iteration of reasoning, to an indefinite number of 'extra' factors.

The other arm of this segment of the argument generates a more substantial concern. If the extra element,  $X$ , is a compound, we are given two options:

16.  $X$  is a compound = (a)  $X$  is composed of one element,  $e_1 \vee$  (b)  $X$  is composed of more than one element,  $e_k \dots e_n$ .

Aristotle rejects (16[a]) because it entails the identity of compound and element:

17.  $X$  is a compound &  $X$  is composed of one element,  $e_1 \rightarrow X = e_1$ .

The trouble with (17), presumably, is that  $X$  loses its claim to be a compound at all. On (16[b]) we have a compound because we have more than one element. However, by the original argument, no compound can be identified just with its elements. So we have  $X \neq e_k \dots e_n$  and, thus, for  $X$  to be a compound thing we need these elements plus something extra,  $X_1$ . The argument can be repeated so that we are forced to conclude that the extra thing needed to get the original whole must be the form.

Bostock challenges the claim that (16[a]) entails the identity of  $X$  and  $e_1$  because it appears to rely "on the general principle that anything composed of one element must be that element." Against this principle, (17), he offers the counterexample of a bronze statue, which consists of just one element, its bronze. Now if this qualifies as a counterexample, the following generalization will hold:

18.  $x$  is composed of form and (uniform) matter  $\rightarrow x$  is composed of just one element.

So one might defend (17) against Bostock's counterexample by insisting, contrary to (18), that whenever form supervenes on matter, the matter is not just one element. This would require flouting Democritean principles and rejecting actually indivisible magnitudes—something Aristotle might well find congenial.

Now some will worry that this solution is merely *ad hoc*. But, bronze spheres notwithstanding, it is arguably false that more complex artifacts are composed of just one element; and this is certainly false for natural organisms, whose matter is anything but uniform. And the closing lines of Z.17 promote these as paradigms of c-unity and possessors of substance *par excellence*. Finally, (18) is not the appropriate principle anyway, for the passage focuses not on compounds generally but on the possibility that the *extra factor*, *X*, is a compound of only one element. Bronze spheres and the like are not extra factors at all but rather the sorts of things, namely c-substances, whose unity is to be explained by an extra factor. So the counterexample and its associated principle fail—at least as Bostock (1994) deploys them.

What, then, about the possibility that the extra factor *itself* is a compound involving just one element? Here Bostock's counterexample is not so easily dismissed. That is, someone might insist that the extra factor just is a compound. This invites us to distinguish two cases,

16a' *X* is composed of one element, *e*, only and nothing else,

and

16a". *X* is composed of one element only and a form,

and to point out that, although only (16[a']) supports (17)'s identity of *X* and *e*, (16[a'']) invites a further round of argument. Here either *X* unifies our original elements or it does not. If the latter, then something extra is still required to get a whole from the original elements. And here regress threatens. If, on the other hand, *X* does produce a whole, then, because it contains a form, what unifies the original elements cannot be just another element. So we still need something besides the elements.

Aristotle's neglect of (16[a'']) may detract from the completeness of his argument, but it leaves untouched a much more fundamental point. For the argument testifies to Aristotle's conviction that form is pure of all material admixture. In characterizing a thing's form as the principle of its being (the sort of thing it is), he contrasts it with elements of the thing. These, Aristotle makes explicit at 1041b32, are present in the thing as matter (ὡς ὕλην). This is so even for Bostockian counterexamples, where the extra factor is a compound of form and matter because this works as a counterexample, only if the form in question is entirely nonmaterial. This means that at the end of *Metaphysics* Z, Aristotle's

position is that the form that can serve as an essence and a cause must be a purely formal item. So it should not be surprising to find Z.10 and 11 advocating PURITY on behalf of form. Moreover, if, as I have suggested, the causal role dominates the development of the concept of form that began in Z.3, then Z.17 provides a programmatic reason for taking Z as a whole to locate the substance-of a thing in its form, rather than in the species it falls into, and for taking this to be a pure form. This, at once, confers plausibility on our claim that PURITY is a necessary condition for the explanatory role of form, and confirms our doubts about proposals to elevate the universal compound to substantial status.<sup>676</sup>

## 6. Logical Heterogeneity and the Immediacy of the Form–Matter Connection

According to the argument just surveyed, a c-unity consists of elements plus an extra factor that is not an element. This encodes more than mere difference, for the form of a c-unity is a logically different kind of object from its material constituents. This means that a c-substance consists of parts that are formally heterogeneous. We can make some sense of this by sketching comparisons with two different ways of analyzing the structure of statements. According to one of these ways, statements consist of logically heterogeneous parts; according to the other, they consist of formally homogeneous parts joined by a ‘linking’ relation. Although the latter fails to provide an appropriate model for c-unity, it will prove instructive to see why. So I begin with it. Grant, then, that form and matter are different (much as it might be granted that predicate and subject are different) but that they, nonetheless, make the same formal contribution to the structure of the c-substance in question. One might say, for example, that each exercises a *content-determining function* or that each *specifies a determining feature* of the c-substance (much as one might say that predicates and subjects both exercise a *referring function*, the first referring to properties and the second to objects). It does not matter how we think about the details of this or even if we can finally make sense of it. The important point is that so long as their roles are formally homogeneous, we need proposals about how form and matter manage to yield a c-unity (much as one proposes that subject and predicate yield a statement thanks to the copula).<sup>677</sup>

<sup>676</sup> As in Bostock (1994), on which see Wedin (1996*b*).

<sup>677</sup> This presents what some will find to be an overly simple copula account. In particular, it might be maintained that the predicate of, say, “Ortcut is wise” is “wise,” rather than “is wise,” but that this is consistent with the predicate having a function different from “George,” whose function is to refer to something. It is sometimes said, for example, that the predicate ‘introduces’ the property wisdom. But this is just semantic sparring. For if the copula joins discrete parts into a whole, it is unclear what gain is registered by stipulating that these parts exercise heterogeneous functions. It cannot be the unifying function, for according to the account this falls to the copula.

Although legion in number, the difficulties facing the copula theory do not concern us here. For even if the copula can salvage the formal homogeneity of subject and predicate, no like device is available for form and matter. This, at least, is Aristotle's settled view. In *Metaphysics* H.6, for example, the Platonists are chastised for their inability to account for the unity of c-substances. Why, he asks at 1045a14–17, is a man one thing (a c-unity) rather than a plurality, such as *animal* and *two-footed*, and he points out that this is especially pressing for the Platonists because they countenance discrete ideas, the animal-itself and two-footed-itself, as the backing for predicates. Because Platonic ideas are functionally homogeneous with respect to the participation relation, a man will participate in two things rather than one. So if a man is to be a c-unity, the Platonists owe us an additional linking relation between the discrete ideas. But there is none.

Aristotle's idea is that form and matter must be linked in a way that does not invite asking, in turn, in virtue of what they are so connected. And this in turn is possible only if they have logically heterogeneous roles in the structure of a c-substance. Here enters the second way of analyzing statements. Thus, much as Frege tried to explain the happy unity of a judgment as the result of something that is unsaturated, a concept, being satisfied or completed by something of a different logical type, an object, so Aristotle appears to explain the peculiarly special unity of a c-substance as the result of something that is materially unrealized, form, being realized in something of a different logical kind, matter. As we shall soon see, the analogy with Fregean concepts and objects suffers from a crucial defect, but it does illuminate the fact that the difference between form and matter is a difference of logical type. To suggest, as he does in section V of Z.17, that a c-substance is a c-unity because its form is the *principle* of the c-substance's being what it is and the matter its *elements*, is to insist not on a mere difference but on a structurally formal difference between form and material parts. We, thus, have Aristotle firmly committed to

19.  $(x)(y)(z)(x \text{ is a c-unity iff and because } y_1 \dots y_n \text{ are elements of } x \ \& \ z \text{ is the principle of } x \ \& \ z \text{ is realized in } y_1 \dots y_n),$

where 'y' ranges over any element,  $y_k$ . On this view form just is the sort of thing that unifies material parts by being realized in them. What results is a c-substance—a man, a horse, a dog, etc.—and because this is

achieved by the immediate connection between the logically heterogeneous components, form and matter, nothing more is required.

Aristotle's focus in Z.17 is clearly on how various material parts fit together so as to constitute, for example, a man. So the form explains fit between the various material parts themselves. This says nothing about what might be called the second-order fit between the form itself and the material parts it informs. But the fact that form's realization in material parts is not mediated by anything else appears to leave little room to wonder about the fit between form and the material parts themselves. In a sense this is surely correct and, moreover, something we have been prepared for. For insofar as the question of second-order fit invites an additional why-question and, especially, insofar as it appears to ask for an additional structural principle, wondering about the fit between form and matter is tantamount to looking for another form that explains the original fit between the material parts. The problem, as I see it, is this. All parties grant that  $y_1 \dots y_n$  make up a c-substance because a form,  $\zeta$ , is realized in  $y_1 \dots y_n$ . To say that there is a nontrivial relation,  $R$ , such that  $R(\zeta, y_1 \dots y_n)$  is to say that  $R$  explains why  $\zeta$  and  $y_1 \dots y_n$  enjoy such concinnity. Since  $R$  cannot be material, it must be a formal item. In short, it is another form. Since forms are essences, this amounts to looking for another essence. This, however, runs counter to Z.6's rule that the essence of a c-substance cannot depend on another essence because this amounts to the requirement that the form and the matter of a c-substance enjoy an immediate connection. Even were one to deny that  $R$  is a form, or a form that invites assimilation to essence,  $R$  does explain *why* our original form does what it does. Hence, it compromises form's explanatory power. But the form of a c-substance just is the primary cause of its being the sort of thing it is and, so, this form ought to constitute explanatory bedrock.

On this deflationary view, as I shall call it, talk of wholes as unities of form and matter gives way to talk of wholes as unities of material parts. Unsurprisingly, there are dissenters. Lewis, for example, advances a pair of objections to the deflationary view, which he characterizes as

20.  $(x)(y)(x \text{ and } y \text{ are unified into a c-unity} \rightarrow x \text{ is a material part \& } y \text{ is a material part})$ .<sup>678</sup>

According to (20), what is unified, in a c-unity, are the elements and the elements only. So, says Lewis (1995a: 227–8), there is no room for pressing a like question about the fit between *form* and matter. This is the focus of Lewis's objections to the deflationary view. The first of these is

<sup>678</sup> This is what Lewis (1995a: 227) calls Principle 2: "If all of a number of items are to be unified into a genuine whole, the items themselves must all be elements." My discussion in this and the next paragraph is indebted to Lewis's illuminating account.

textual in nature. He points out that in H.6 Aristotle appears to ask, and answer, the very question of how form and matter can fit together, and that in general Aristotle assumes form and matter fit together, a fact indicated by phrases such as “the compound substance” (ἡ συνληγοῦσία). The difficult issues of H.6 will have to be addressed elsewhere, but we can say something here about the other point. Of course, Lewis is correct both about Aristotle's usage and about what it appears to mean. Although this commits Aristotle to the existence of items that are compounds of form and matter, it does not commit him to any particular analysis of these items. For a prior commitment to compounds of *X* and *Y* requires only that the analysis of the compound provide for the roles of both *X* and *Y*. This constraint is satisfied by the deflationary analysis. Moreover, not until Z.17 does Aristotle provide us with the ingredients of his account of c-substances as compounds of formally heterogeneous parts. In this light, standard idioms are not to be taken at face value but rather are what are to be explained.<sup>679</sup>

A second, logical, objection claims that the comparison of form and matter to Frege's concept and object tells against the deflationary view. According to Frege, “not all parts of a thought can be complete; at least one must be ‘unsaturated’, or predicative; otherwise they would not hold together.”<sup>680</sup> The idea is that the thought itself is composed of items of different logical types and that this is the reason they fit together. So if the thought itself is analogous to the compound, then the latter must consist of items of different logical types. Hence, says Lewis, “it is . . . certain that Frege himself would deny any counterpart to Principle 2 [our (20)].” Presumably, this is because (20) prevents anything but elements from being a constituent of a compound. Lewis appears to favor association with Frege<sup>681</sup> and so he takes the Fregean denial as additional grounds against (20).

Now it is quite correct that Frege would deny (20), or rather its appropriate counterpart, but it is less clear that this tells against the deflationary view. For one thing, according to (20) something is united in a compound only if it is an element. But why should this exclude the form from being a constituent, in some broader sense, of the compound? This, however, amounts to granting, at one remove, the very point Frege would insist on. For in this broader sense, surely both matter and form are united into a c-unity. So deflationists need to defend (20) as it stands.

<sup>679</sup> Lewis (1995a: 228) points out that the deflationary view of ‘fit’ is often associated with the ‘projectivist’ view that form and matter are not really distinct items at all. But it need not be so associated. This is to the good, since, as Lewis rightly indicates, projectivism may sit uncomfortably on Aristotle's shoulders.

<sup>680</sup> Lewis (1995a: 229), quoting Frege (1892: 54).

<sup>681</sup> Implicitly, in Lewis (1995a) and, explicitly, in Lewis (1991: 160–3).

Denial of (20) tells against the deflationary account only if the analogy with Frege is misapplied. Five paragraphs back we warned against this and gestured toward a crucial point of disanalogy. It is time to say what this is. For Frege, a complete thought is made up of parts that are of logically different types—an unsaturated concept and an object that completes it. Call this a Fregean whole and represent it as *fa*. Then we say that *fa* results from what is designated by the function-sign, '*f*('), namely the concept *being f*, being satisfied by what is designated by the argument-sign, '*a*', namely, the object *a*. The parentheses are nothing more than a device to indicate that the function-sign is incomplete and so for what it designates. Thus, and this is the point I wish to emphasize, concept and object are both *manifest parts* of the resulting Fregean whole, *fa*. That is, within the whole itself there are distinct parts that correspond to the formally heterogeneous concept and object. So the formal heterogeneity shows itself at the level of manifest parts. This is why Frege would flatly deny (20). It is also what gives the impression that Aristotle is concerned about the fit between things of logically different types, form and matter, and, hence, that he rejects the deflationary account.

But the impression is mistaken. Certainly, Aristotle uses the form to explain how something is a whole or c-unity, just as Frege's concept explains the unity of Fregean wholes. And as are Fregean concepts and objects, so are Aristotelian forms and elements items of logically different types. But here the comparison ends. For Aristotle, the form of a c-substance is *not* a manifest part of the result. This is plain from his favorite example. The syllable,  $\beta\alpha$ , has only  $\beta$  and  $\alpha$  as its manifest parts, and these parts are elements and elements only. Unlike the Fregean whole, where formal heterogeneity is evident in the manifest parts—witness *fa*—an Aristotelian form does not occur as a manifest part, even if of a logically different type. *Within the whole* no such part corresponds to the form; rather, the form corresponds to, and is responsible for, the arrangement of these manifest parts *as a whole*. For Frege, what unifies the whole is itself a manifest part of the whole. So here the analogy with Fregean concepts breaks down, and with it goes the objection to (20).<sup>682</sup>

There may well be other considerations that tell against us, but for the moment we have said enough to justify hanging on to (20) and its

<sup>682</sup> In a way this is not surprising because Frege's analysis is tailored for the sort of unity that is characteristic of propositions. Here it is useful to locate heterogeneity at the constituent level itself—propositional functions and arguments. Indeed, Aristotle does something quite like this in his account of names and verbs in *De Interpretatione*. For metaphysical purposes, on the other hand, the question is how parts of the same logical type, material parts, can fit together to make up a c-unity. Here the heterogeneity needed is between the parts as a whole, on the one hand, and the form that is realized in them, on the other.

commitment to a deflationary account of the relation between form and matter. This account comports nicely with Aristotle's evident attachment in Z.17 to the view that the form of a c-substance is the *immediate* cause of its being the sort of thing it is. We have not, however, said anything about the status of the material parts themselves that, under form's auspices, constitute the c-substance.

## 7. Heaps, Wholes, and the Transformation of Elements

One reason Aristotle discusses the relation between form and matter by shifting to the idiom of principles and elements is to underscore the fact that they are of different logical types and so exercise formally heterogeneous functions in determining the unity of a c-substance. The idiom also allows Aristotle to discuss the relation between form and matter without inviting distracting debate over the status of the material parts themselves. But the debate is just below the surface, for an element was characterized as what survives the demise of the whole (i.e., [14] above) and, at the end of the chapter, they are said to be present in the thing as its matter (στοιχείον δ' ἐστὶν εἰς ὃ διακεῖται ἐνυπάρχον ὡς ὕλην, 1041b31–2). And this makes it hard not to ponder whether Z.17's elements are material parts of the remnant variety or of the functional variety—to reenlist Z.10–11's celebrated distinction.

That there is a point to the pondering can be seen from reflection on a worry about the way Aristotle enters into the discussion of elements. His discussion of why-questions in section IV ended by specifying what might be called the fundamental why-question, namely, a question of the form, “Why is this matter an *F*?” and indicating that the cause sought is the form and substance-of the *F*. He then begins section V by making clear that this is to ask about an *F* that is a unified whole (cunity)—not like a heap but like a syllable. Immediately Aristotle declares that the syllable is not just the elements, and this suggests that to construe a syllable just as its elements is to construe it as a heap, so to speak. Despite the fact that the contrast between heap and syllable is recorded in a broken sentence, this is unarguably what Aristotle intended to say. On this Aristotle's commentators agree.

On the exact force of the contrast and its significance for the analysis of c-unity, however, the received commentary is less agreeable. Begin with the fact that a number of commentators appear to read Aristotle's contrast between heaps and syllables as a contrast between the syllable, as a genuine whole or c-unity, and the syllable as the mereological sum of its elements. Ross (1924: ii. 221) may have committed himself to this



in remarking that “the syllable is not identical with its letters,” and more than one recent writer appears drawn to the mereological reading. Thus, for Scaltsas (1994: 113) a heap is an aggregate and “an aggregate is identical to the totality of its parts,” and Gill (1994: 56) takes a heap to be “a mere plurality.”<sup>683</sup> Even more tempting is Fine (1995: 291–2): “a heap of sand or a mere aggregate . . . will be a formless sum  $g_1 \cup g_2 \cup \dots \cup g_n$  of its grains  $g_1, g_2, \dots, g_n$  and, in general, an aggregate will be the sum  $c_{1 \cup c_2 \cup \dots \cup c_n}$  of its various components  $c_1, c_2, \dots, c_n$ .”

Now a reason can be given for following these commentators on the nature of heaps. For heaps are contrasted with unified syllables and, generalizing from (14) above, we can supply Aristotle with the following formulation of the relation between the latter and its elements:

21.  $(x)(y)(x \text{ is a syllable} \ \& \ y_1 \dots y_n \text{ are elements of } x \rightarrow \Diamond(x \text{ does not exist} \ \& \ y_1 \dots y_n \text{ exist}))$ .<sup>684</sup>

As we have seen (21) is obviously satisfied by  $\beta\alpha$  and its syllabic kin. But the situation is dramatically different for mereological sums. This is because the identity of a mereological sum is simply a function of the identity of its parts. Therefore, mereological sums can fail to exist only if at least one of its parts fails to exist. Because the existence of any two, or more, items is sufficient for the existence of their mereological sum, the mereological counterpart to (21), is

22.  $(x)(y)(x \text{ is a mereological sum} \ \& \ y_1 \dots y_n \text{ are parts of } x \rightarrow \neg\Diamond(x \text{ does not exist} \ \& \ y_1 \dots y_n \text{ exist}))$ .<sup>685</sup>

So what satisfies bound ‘ $x$ ’ in (22) cannot satisfy bound ‘ $x$ ’ in (21). And this makes it look like Aristotle’s contrast between the syllable as a c-unity and the syllable as ‘just its elements’ is a contrast between a syllable and the mereological sum of its elements.

However, this cannot be correct. For (22) simply records the fact that a mereological sum exists if its elements exist. We let ‘+’ indicate mereological summing and say, then, that the mereological sum,  $x + y$ , exists if both of  $x$  and  $y$  exist. In short, the existence of  $x$  and of  $y$  is sufficient for the existence of their mereological sum.<sup>686</sup> There is no more to be

<sup>683</sup> And there are others who may be drawn to the mereological interpretation. For example, Ferejohn (1994: 317, n. 36) contrasts a c-unity with what is “just an ‘aggregate,’” Haslanger (1994: 136) sets it off against what is “(at best) a mere heap,” and Frede (1994: 175) speaks of heaps as “mere composites of items which exist independently of it and prior to it.”

<sup>684</sup> Where, again, ‘ $y$ ’ ranges over any  $y_k$ .

<sup>685</sup> Where, again, ‘ $y$ ’ ranges over any  $y_k$ .

<sup>686</sup> One is inclined here to add that the existence of each of  $x$  and  $y$  is also *necessary* for the existence of the mereological sum,  $x + y$ . Surely, it seems, if  $u$  just is the sum of  $x$  and  $y$ , then their existence is necessary for the existence of  $u$ . This seems especially plausible where  $x$  and  $y$  are discrete and have no part in common. However, there may be something that is a part of both, and to accommodate this Goodman (1951: 50–1) characterized the sum of two individuals as “that individual which overlaps just those individuals which overlap at least one of the two:  $x + y = (t \ x)(w)(w \ O \ x \ \equiv \ w \ O \ x \ \vee \ w \ O \ y)$ ,” where my ‘ $t$ ’ serves as his inverted iota. Although this will be satisfied for *existing*  $a$  and  $b$ , whatever they may be, it appears also to allow that  $a + b$  is a mereological sum, even if one of ‘ $a$ ’ or ‘ $b$ ’ is empty. So, apparently, according to Fine (1995: 283), who remarks that “on the standard conception of mereological summation, the sum of the two ingredients will exist at any time at which only *one* of the ingredients exists.” This will have no effect on our argument, but it does play rather loose with the notion that something is a sum of *two* elements,  $a$  and  $b$ .

said. In particular, it does not matter where  $x$  and  $y$  are located or in what, if any, relations they stand to other things. However, this means, *pace* Fine and company, that heaps cannot be mere mereological sums.<sup>687</sup> For when its grains have been thoroughly scattered, a heap of sand no longer exists, but the mereological sum of the grains surely does. So it is obvious that heaps fail to satisfy (22). In short, mereological sums surrender their existence much less easily than c-unities or heaps.<sup>688</sup> Indeed, on this point heaps are not at all like mereological sums.

Heaps appear to satisfy (21) as it stands, and, so, in this respect heaps and syllables alike require something extra, an arrangement, if you will. This, however, threatens to land us in something of a conundrum. For the syllable was supposedly distinguished by the fact that it consists of letters plus an arrangement. Thus, we might say that  $\beta\alpha = \beta_1, \alpha_2, \langle 1|2 \rangle$ , where angle brackets indicate a two-position arrangement and subscript numerals indicate which position each letter assumes in the arrangement. But a heap will also have an arrangement. It is, of course, true that in order for a heap of sand to be what it is, namely a heap, it is indifferent which grain stands next to which. Some might seize on this to counter the likening of heaps to syllables. But it is hard to see this as anything but question-begging, for why should all c-unities have the arrangement appropriate for syllables? So Aristotle must have something else in mind when he distinguishes heaps and syllables.

In raising this issue we need to be quite careful. Now, I think it is obvious that heaps are not c-unities and that they lack the sort of differential unity of parts that is characteristic of c-substances, especially those natural entities (plants, animals, and the like) that are paradigms of csubstances. In fact, this is so obvious that Aristotle can simply help himself to the point; and, I think, this is exactly what he does. In short, I do not take the discussion of (21) to attempt a *proof* of the distinctness of heaps and

<sup>687</sup> Actually, it is not completely clear that Fine's ' $x \cup y$ ' stands for a true mereological sum. But it surely represents what might be called a 'virtual' mereological sum because his  $x \cup y$  will, in any case, behave as I have suggested.

<sup>688</sup> This should alarm no one; it is due solely to the fact that mereological sums enjoy, at best, an attenuated kind of unity.

syllables. Rather, it is part of an explanation of this difference. Begin, then, with the point that (21) gives only a necessary condition of syllabic unity. Because heaps satisfy it as well, (21) cannot represent Aristotle's thought. For this is to saddle Aristotle with a contradiction of astonishing proportion. So we must replace (21), but with what?

Here Z.17's links with earlier canonical chapters pay dividends. For if, as we claim, earlier results anticipate form's causal role in Z.17, then earlier constraints should inform discussion of (21). And so they do—in the form of Z.13's constraint that a substance cannot consist of (substantial) parts that are present in it in actuality, especially as that constraint is implicit in Z.16's theory of Dual Complexity. To see how this works, it will be helpful to remind ourselves of the distinction in Z.10 and 11 between those of a thing's parts that are remnant parts and those that are functional parts.<sup>689</sup> The first, but not the second, are the parts into which the thing resolves upon passing away. So they correspond to the sort of letters Aristotle has in mind at (21) and in Z.17 generally. Now Z.10 ended by putting forward what I called the Sophisticated Position,<sup>690</sup> according to which a part of a thing counts as a functional part insofar as it is considered a part of the *object without matter*. This I wrote as

[8d]<sub>VIII</sub>. The parts of the particular object are posterior to the object without matter.<sup>691</sup>

But to be a part of an object without matter is just to be a part of the object as an informed object. This is equivalent to saying that the part is informed by the form of the object whose part it is. And, in the environment of Z.17, this amounts to saying that the part has been appropriately fit together by the form.

So the parts of interest in (21) are remnant parts. Now according to Z.13 no (substantial) part of something's substance can be present as an actual thing in this substance. Because the substance-of a thing is its form, this amounts to enjoining that no part of the form of a c-substance can be actually present in the form. The theory of Dual Complexity adds that this is mirrored by the material functional parts of the c-substance itself. Thus, no (substantial) part of a c-substance can be actually present in the c-substance itself. Because a substantial part of a c-substance can be thought of as a functional part, Dual Complexity enjoins that no functional part of a c-substance can be actually present in the c-substance itself.

This suggests a way to formulate (21) that avoids the contradiction that is presently visited on Aristotle. Thus, replace (21) with

<sup>689</sup> See Ch. VIII.

<sup>690</sup> See sect. 4 of Ch. VIII.

<sup>691</sup> Ch. VIII, sect. 4.

21\*.  $(x)(y)(x \text{ is a syllable} \ \& \ y_1 \dots y_n \text{ are elements of } x \rightarrow \Diamond(x \text{ does not exist} \ \& \ y_1 \dots y_n \text{ exist} \ \& \ y_1 \dots y_n \text{ do not exist as each existed in } x))$ .

Admittedly, (21\*) is somewhat awkward, but it makes the point: separated from  $\beta\alpha$ ,  $\beta$  and  $\alpha$  no longer exist as they did when they were parts of the syllable. This, of course, does not hold for heaps. A grain of sand undergoes no transformation when it is withdrawn from a heap. In its own right, it exists just as it did before. Thus, (21\*) is not satisfied by heaps, any more than by mereological sums, and so Aristotle is spared an embarrassing contradiction.

As a beneficiary of Dual Complexity, (21\*) denies the appropriateness of what we called in Chapter IX the modular model of the relation between a c-substance and its parts. On this model a c-substance is conceived as a collection of separate modules each complete in its own right, in the sense that each is capable of independently exercising its function. If this is correct, it follows not just that a syllable is the elements plus something extra, but also that the elements themselves are somehow transformed when fit together by the form. If so, then Aristotle will have to deny that a syllable is to be thought of merely as the elements plus an arrangement. So, where  $x$  is a syllable,  $y$  and  $z$  are its elements, and  $\mathcal{A}$  is an arrangement, he must hold

23.  $(x)(y)(z)(\mathcal{A})(x \neq (y, z, \mathcal{A}))$ ,

because the mere positioning of the elements  $\beta$  and  $\alpha$  in the appropriate arrangement involves no change in the elements themselves.<sup>692</sup> Rather, the fitting together of elements involves transformation, just as (21\*) and Dual Complexity recommend, and it is for this reason that we take Aristotle to be committed to (23).

Interpretation is strengthened when challenges can be met and the probative weight of evidence enhanced. In this respect, (23) serves as a kind of independent test. For there is internal textual evidence for (23) as well as a challenge to it. Let us begin with the challenge, which is implicit in Fine's (1994: 34) analysis of a parallel passage from *Metaphysics* H.6:

In all cases where a thing has several parts and the totality [of them] is not like a heap, but the whole is something beyond the parts, there is a cause  $(\gamma\acute{\alpha}\rho \ \delta\omicron\sigma\alpha \ \pi\lambda\epsilon\acute{\iota}\omega \ \mu\acute{\epsilon}\rho\eta \ \acute{\epsilon}\chi\epsilon\iota \ \kappa\alpha\acute{\iota} \ \mu\grave{\eta} \ \acute{\epsilon}\sigma\tau\iota\nu \ \omicron\iota\omicron\nu \ \sigma\omega\rho\acute{\omicron}\varsigma \ \tau\acute{\omicron} \ \pi\acute{\alpha}\nu \ \acute{\alpha}\lambda\lambda' \ \acute{\epsilon}\sigma\tau\iota \ \tau\iota \ \tau\acute{\omicron} \ \acute{\omicron}\lambda\omicron\nu)$ . (1045a8–10)

The passage is clearly meant to parallel the account of Z.17. So it is not at all inappropriate for Fine to pursue the analysis by means of

<sup>692</sup> So, to invoke an earlier idiom, he will deny that  $\beta\alpha = \beta_1, \alpha_2, \langle 1|2 \rangle$ , where angle brackets assign positions to the elements,  $\beta$  and  $\alpha$

syllables and letters. But the analysis itself is not without difficulty. On his view,  $\beta\alpha$  is constituted by  $\beta$  and  $\alpha$  “united by means of the form of juxtaposition.” So he thinks that Aristotle cannot be committed to (23).

However, the H.6 passage does not establish this. Aristotle goes on immediately to deny that the cause of interest can be what Lewis (1995*a*: 222) aptly calls a “special connecting relation” to explain how elements make up a c-unity. These relations—contact, stickiness, and being bound together are Aristotle's examples—are additional to the form and, as such, miss the explanatory target altogether. In particular, they are unable to explain why a man is one thing rather than two—the problem solved by enforcing difference of logical type for form and elements. Even if juxtaposition operates at a different logical level, it is still a special connecting relation, because no better than the *Iliad*'s being one by being bound together does the ordered juxtaposition of  $\beta$  and  $\alpha$  give us a unified syllable, as opposed to a first discrete letter sitting next to a second. For the form to unite  $\beta$  and  $\alpha$  into a whole, neither can exist in the whole as they exist separately. Juxtaposition is not enough to accomplish this.

The idea that arrangement is not enough, if it leaves untransformed the elements arranged, not only is required by the demands of consistency but also is suggested within Z.17 itself. For Aristotle refers, in ( $\chi\chi\nu$ ), to the elements of the syllable as “sounded” and “unsounded.” These refer to their roles within the syllable. Thus, in  $\beta\alpha$  the unsounded element is the consonant,  $\beta$ , the sounded element is the vowel,  $\alpha$ . Nowadays, linguists refer to  $\beta$  as the onset of the syllable  $\beta\alpha$  and to  $\alpha$  as its peak.<sup>693</sup> The phonetic value of  $\beta$  as the onset is markedly different from whatever phonetic value it has in isolation. To put it crudely, the phonetic value  $\beta$  has as onset is a value it can have only in the context of a syllable. Voiced in isolation,  $\beta$  has an utterly different phonetic value.<sup>694</sup> So the elements of a syllable cannot exist separately in anything like the way they exist in the syllable. In isolation they cannot perform their ‘sounded’ and ‘unsounded’ functions.<sup>695</sup> Therefore, when  $\beta$  and  $\alpha$

<sup>693</sup> Giegerich (1992).

<sup>694</sup> Much the same can be said of  $\alpha$ . Although  $\alpha$ , more effectively than  $\beta$ , can be uttered in isolation, it still has a different phonetic value in the syllable  $\beta\alpha$ . And, in any event, its syllabic phonetic value is a function of the syllable it occurs in, even if this is the same as its value ‘in isolation’. So it remains true that the letter does not occur in the syllable as a modular unit.

<sup>695</sup> This is true, I believe, for written syllables as well as uttered ones. For imagine entering a colleague's office and seeing inscribed on the blackboard a ‘b’ followed immediately by an ‘a’. What reason would I have to assume that this is, or stands for, a syllable as opposed to some other object? Simply put, the answer is ‘none’. Moreover, if I take the inscription to be the syllable,  $ba$ , it is because I *read* the inscription in that way. This gives us what might be called a ‘read’ syllable, and here there are still sounded and unsounded elements—even if, to wax paradoxical, they are silently sounded and silently unsounded. So, again, more is required than mere arrangement.

are united in the syllable  $\beta\alpha$ , they occur transformed, one for its role as onset and the other for its role as peak. Moreover, because the mode of transformation is determined by the form of the syllable, this view really does give the form a causal role in fitting the elements into the unified syllable. As the mere arrangement of elements, on the other hand, the form would be unable to achieve this.

Aristotle's syllable is introduced as a simple model for c-substances. The model is meant to illuminate, in particular, how form unifies various material parts so that they constitute a genuine unity, a c-unity. We might think of the form as a function from material parts to a c-substance. According to the model, this function accomplishes not just arrangement of the parts, according to the form, but also their transformation by the form.<sup>696</sup> A thorough treatment of this topic would contain an account of how elemental matter is 'worked up' into nonelemental uniform matter and how this is worked up into nonuniform matter and, eventually, into the sort of matter that living organisms, for example, are composed of. Such an account, which will make use of the full range of Aristotelian causes and dynamical principles, need not concern us here.<sup>697</sup> For our purposes, transformation is transformation under the aegis of the formal cause only. And so there are only two controls that we need to consider. First, we know from Z.10 and 11 that as parts of an in *formed* organism, the material parts of a thing are functional parts and that, as parts surviving the organism's demise, they are remnant parts; and, second, from Z.16 we know that the material parts of a whole that correspond to the parts of its form exist in the whole itself only in potentiality. By the latter, we have taken Aristotle to mean that the parts do not exist in the whole in the same way they exist in separation from the whole. Were hands to function in much the same way in both contexts, then, when existing in the body, they would exist there as *actual* parts. But they do not, and this underwrites the fact that a given c-substance is one thing rather than several. So one might suppose that a hand could exist as something actual only when separated from the body. But this is ruled out by the first control, which enjoins that separated hands are not hands at all. Moreover, they are not hands precisely because they are no longer appropriately in *formed*.

So by the transformation of matter by form we are speaking only about two aspects of form's ability to unify material parts into a c-unity: first, the material parts of a c-substance must be rendered functional parts of the c-substance; and, second, as parts of this sort, they exist in

<sup>696</sup> There is here an echo of Z.11's insistence that a definition of *man*, for example, must take into account that a man's parts must be conditioned in a certain way.

<sup>697</sup> Plus, there is some excellent work available on the topic. It is a major theme in Furth (1988) and Gill (1989), and has received close attention in Lewis (1994). See now also Bogen (1995) and Fine (1995).

the c-substance only in potentiality. Thus, Aristotle seems to be holding something like

24.  $(x)(y)(z)(x \text{ is a material part of } z \ \& \ y \text{ is a material part of } z \ \& \ z \text{ is a c-unity iff and because } x \text{ is a functional part of } z \ \& \ y \text{ is a functional part of } z \ \& \ x \text{ exists in } z \text{ only in potentiality } \ \& \ y \text{ exists in } z \text{ only in potentiality}).$

Now I think it is a quite difficult to know what to make of (24)'s claim that the unity of a c-substance (c-unity) is explained by saying that its parts are functional parts and that, as such, they exist in the thing only in potentiality. But it is pretty clear that this is what Aristotle holds. It is, after all, suggested by the model of the syllable and not as completely novel news. For, as we have indicated, Z.10 and 11 have prepared us for the point that form unifies material parts by transforming them into functional parts; and the fact that these parts exist in the whole only in potentiality is already evident in Z.16's theory of Dual Complexity. And the latter appears to be Aristotle's way of accommodating both the complexity and the unity of a c-substance. In the case of man, for example, the parts will be those that correspond to characteristic physiological and psychological faculties and their operations. Because they do not exist as discrete, isolable units, but only as parts of the whole, they constitute a single unified system. Moreover, because relations among the 'substantial' material parts of a c-substance mirror relations among the parts of the form of the c-substance, form fits the material parts into a c-unity simply by being realized in them. In short, realization of a form is structure-preserving.

Now, there is a possible misunderstanding that ought to be avoided. What I have in mind can be made clear by considering a worry put by Fine (1995: 326–7) in a quite different context. With us, Fine allows forms to be complex and to apply to a plurality of material constituents. Whereas it is unexceptionable to allow a single function (= form) to apply to a single or to several arguments (= material constituents), it is nonsense to talk of several functions applying to a single argument and so “in the same way, it is hard to see how a form as many could have application to some matter without giving rise to many compounds.” So if the parts of a form are forms, then it appears that realization of the form will produce not a c-unity but rather a collection of c-unities—one for each of the forms that is a part of the parent form. This, of course, saddles us with the 'modular model' that in Chapter IX was rejected in favor of Dual Complexity.

According to Dual Complexity, a form consists of parts exhibiting a certain structure. Although the parts must be purely formal, nothing is said about their being forms in their own right. In fact, the Platonist is

chided precisely for forgetting this. So form's complexity need not entail its 'modularity' and so compromise its unifying power. Still, suppose one were to insist that the parts *must* be forms. Apart from the questionable assumption that a part of a form must be a form, we can appeal to the fact that for Aristotle forms are not all alike. Thus, mixtures have forms, but *On Generation and Corruption*A.10 takes special pains to make it clear that mixtures are things of a different *kind* from c-substances (things that can come to be and pass away). And this difference resides, ultimately, in a difference in kind between their forms. Indeed, in H.2–3, where Aristotle is keen to illuminate the structure of c-substances, the form of a mixture appears to rank as an analog only. So, if we are stuck with them, it would not be surprising to find that parts of the form of a c-substance are forms of a different kind. The following can be said with some certainty. If, in agreement with Chapter VI,<sup>698</sup> a form is a this (τὸδετι) primarily and so is able to unify something that is not a this (namely, material parts) into something that is a this, even if derivatively (namely, a c-substance), then its application to matter does yield a compound of the sort Fine has in mind. But its parts, if forms at all, *are not thises*. So they do not yield compounds of this sort. That is, they do not yield material units that are able to do what they do on their own as well as when included as a constituent of a c-substance.

## 8. A Philosophical Argument for Purity

*Metaphysics* Z.17 installs form as the primary cause of, or chief factor in accounting for, the nature or being of a c-substance. A given bunch of matter or material parts constitute a man, say, because the appropriate form is realized in the parts. Similarly, we can say that Socrates is a man because the appropriate form is predicated of his matter or material parts. Thus, the apparatus of form and matter explains a central feature attributed to c-substances in the *Categories*, namely, the fact that every c-substance falls into one and only one species. Moreover, this explanation remains within the compass of Socrates' nature because the form in question just is his essence. Of course, the apparatus must be appropriately constrained. For instance, by barring the universal from being the substance-of something it is predicated of, Z.13 excludes the species as a candidate for substance but not the species-form. Weak proscription, as we have called this, *permits* the form that is the substance-of Socrates to be a universal of some kind; but weak proscription does not require this. So it turns out, somewhat surprisingly, that the issue of particular versus

<sup>698</sup> See esp. sects. 4 and 5.



general forms is not forced by the argumentation of Z.13–16. Thus, Z.13 cannot be the *locus classicus* for the debate. The issue may arise from reflection on the connection between explanation and generality, although in less urgent tones, and I have already alluded to this. More of course can be said, but at the moment we need to address another aspect of the constraint that emerges so clearly in Z.17, namely, form's purity. Certainly, there can be no doubt about the fact that Z.17 is committed to the purity of form. The commitment comes in two steps. First, the principle of a thing is contrasted with its matter, its elements; and, second, the principle is the form of the thing. But there is an additional, and more strictly philosophical, reason for holding PURITY, as we are calling this doctrine, and this is our immediate concern.

At the center of our proposal is the already familiar claim: *if form is to explain why certain material parts are a such-and-such, then form itself cannot contain matter*. A general consideration in support of this is found in Aristotle's standard view that *X* can play an explanatory role with respect to *Y* only if *X* is independent of *Y*. This is satisfied, for example, where *X* is a premise and *Y* the conclusion of a demonstrative syllogism. So if appeal to a thing's form explains why (its) material parts constitute a thing of a certain kind, the form must be independent of the material parts. So it must be pure. If this proposal is broadly correct, when we get down to details the picture is rather more complicated.

In arguing the case for PURITY in Chapter VIII, we rejected the claim that the form of a c-substance contains matter of some sort (IMPURITY). We did so chiefly on textual grounds. But the claim is also suspect on philosophical grounds. For one thing, it is not clear exactly what the claim means. It cannot, for example, mean that the species is the form of a c-substance. For brief passages in each of Z.10 and 11 exclude *man* as a substance on the grounds that it is an universal compound resulting from a generalizing operation on particular compounds of form and matter. So IMPURITY, as we have called the view, must mean something else. Suppose we start by assuming that the matter to be included in the form is either of the functional or of the remnant variety. Although this is, I think, a reasonable assumption (we know, after all, that it cannot be matter of the abstract variety obtained by generalization from the matter of particular compounds), we shall give it some backing in a moment. But let us begin with the simple, two-case, alternative.

Because both functional and remnant material parts<sup>699</sup> are associated with c-substances, we get something like

<sup>699</sup> One might better refer to the latter as 'antecedent' material parts, to appropriate Fine's (1995) apt phrase, because they are parts, whose transformation by the form yields a c-substance. But nothing will depend on this point, and, in any case, there is reason to suppose that the parts from which a c-substance is constituted are those into which it resolves.

25.  $(x)(y)(z)(x \text{ is the form of } y \ \& \ z \text{ is the matter of } y \ \& \ x \text{ contains } z \rightarrow [a] \ z \text{ is } y\text{'s functional matter} \vee [b] \ z \text{ is } y\text{'s remnant matter})$ .

The strategy, of course, is to defeat both (25[a]) and (25[b]) and, hence, to conclude that no matter can be contained in the form of a c-substance. Alternative (25[b]) can be ruled out immediately. Even were one to grant that the compound that underlies Socrates is a compound of form and remnant matter, this matter could not be included in the form—first, because it is more than slightly awkward to suppose that something of such a thoroughly un*informed* nature could be part of a form;<sup>700</sup> second, because including remnant matter in the form results in a breakdown of the distinction that is central to Aristotle's hylomorphism. But IMPURITY just is a doctrine about the make-up of forms of hylomorphic compounds.

Alternative (25[a]) might be thought more promising. For it could allow that c-substances are compounds of form and remnant matter, even while insisting that the form itself contains functional matter. Although this appears to avoid the general breakdown of hylomorphism, (25[a]) is blocked by an equally powerful consideration—form's explanatory role. As we have already emphasized, and registered in (24) above, for the form of a c-substance to explain how various material parts constitute the c-substance just is for the form to transform those parts into functional parts. If the functional parts of the c-substance are already contained in the form, then the form plainly cannot accomplish this transformation. Thus, to include functional parts in the form is to strip the form of the very explanatory role Aristotle assigns it in Z.17.

Now one might attempt to meet the last objection by insisting that the material functional parts that are part of the form are not the same as the (material) functional parts that result from form's transforming operation on remnant material parts. What are they, then? They cannot be the strictly formal parts that are countenanced by Dual Complexity. Here the parts of the form are purely formal, and so the form as a whole remains pure. The characteristic material functional parts of an organism then result from the form's being realized in the matter of the organism. Even if we need to specify more exactly what this sort of matter is like, on Dual Complexity there is no need to include matter of any kind *in the form*. So what can material parts of the form be? Not, I submit, any sort of 'abstract' matter. Aristotle's argument against the universal compound entails that form cannot contain matter that is abstracted from the actual matter of a particular c-substance. And it

<sup>700</sup> It will not help to make the matter a lower grade than what we might call immediate remnant matter, for this runs head-on into the second objection.

is hard to see how it could contain any sort of abstract matter that is unrelated to the matter of the c-substance. For this would be *ad hoc*ism pure and simple, and offers to include in the form a kind of matter that is irrelevant to the structure of the c-substance. But the form just is what underwrites the structural unity of a c-substance. So this matter could not be of *explanatory* use. Hence, if the form retains its explanatory punch, it will do so thanks to the formal part only of the (allegedly matter-containing) form. In short, even were one to worry that (25[a]) and (25[b]) do not present exclusive alternatives, it is dubious that any other ‘material’ alternative will be acceptable. Therefore, we are justified in concluding that the form is free of all material admixture and, hence, that such purity is a requirement of form’s explanatory function.

## 9. Last Rights on Primacy

At the very end of section V of *Metaphysics Z*.17, after he has concluded that there is an extra factor which is not an element of a c-unity, Aristotle says

[xxx] it is the cause of this being flesh and this being a syllable (αἴτιον τοῦ εἶναι τοῦ μὲν σάρκα τοῦ δὲ συλλαβῆν), and similarly in other cases; and [xxxx] this is the substance-of each thing because it is the primary cause of its being (οὐσία δὲ ἑκάστου μὲν τοῦτο [τοῦτο γὰρ αἴτιον πρῶτον τοῦ εἶναι]). (1041b26–8)

For those who have been following my story, the final line of this passage ought to strike a resounding chord. I have been campaigning for compatibility of the early theory of the *Categories* and the mature theory of *Metaphysics Z*. Perhaps the major obstacle to compatibilism is the so-called reversal on the identity of primary substance. In the early work the honorific is reserved for c-substances—Socrates, Secretariat, Madame Curie, and their like. In the later work it is applied rather to the forms of such things. The appearance of contradiction begins to fade when it is realized that *Metaphysics Z* complements rather than competes with the theory of the *Categories* by offering an account of the nature and chief features of c-substances. So the substance it seeks is the substance-of the primary substances of the *Categories*. And, of course, this is their form. Compatibilists still need to explain why Aristotle should appear to withdraw *primacy* from c-substances and attach it to their forms. Otherwise, the specter of contradiction remains.

Resolution is achieved by seeing that the primacy of *Categories*

primary substances, c-substances, is a kind of ontological primacy, whereas the primacy of form is a kind of structural or explanatory primacy. This we have argued is precisely what Aristotle asserts in Z.4's New Primacy Passage.<sup>701</sup> Despite its considerable interpretive power, Aristotle himself was not utterly explicit about the point of calling form and essence primary. This might afford a glimmer of hope for die-hard incompatibilists. But the hope fades in light of (xxx) above, for here Aristotle announces with evident finality that the form of a thing is its substance precisely because the form is the *primary* cause of the being of the thing. So the form of a thing is primary substance because it is the primary cause of the being of the thing and the primary cause of the being of the thing is the substance-of the thing. In short, from

26a.  $(x)(y)(x \text{ is the form of } y \equiv x \text{ is the primary cause of } y)$ ,

and

26b.  $(x)(y)(x \text{ is the substance-of } y \text{ iff and because } x \text{ is the primary cause of the being of } y)$ ,

Aristotle concludes

26c.  $(x)(y)(x \text{ is the form of } y \equiv x \text{ is the substance-of } y)$ .

So the form is *primary* substance just because it is the primary thing in virtue of which a c-substance (i.e.,  $y$ ) has the nature it has. That is, it is the primary explanatory factor.

In the end, the primacy accorded primary substance in *Metaphysics* Z.17 is precisely the kind of structural or explanatory primacy that we detected in Z.4. This notion, which enjoins that a form is primary only if no part of it is predicated of another part,<sup>702</sup> continues to exert its influence in *Metaphysics*H. Thus, H.2, 1043a5–6, reiterates that in substances (c-substances) what is predicated of the matter is the actuality itself (i.e., the form), and, in a clear reference back to Z.17, H.3, 1043b4–14, reports that this is the substance-of the thing and the cause of its being ( $\alpha\lambda\tau\iota\sigma\tau\omicron\nu\ \tau\omicron\upsilon\ \epsilon\iota\lambda\upsilon\sigma\alpha$ ). It is hard not to see this as embracing the view that the form of a thing is primary because, although predicated of the matter, it does not itself exhibit a like predicative structure. And, of course, structural primacy is satisfied by Z.17's model case. For according to Z.10 and 11, the form of the syllable,  $\beta\alpha$ , will contain formal counterparts to the letters,  $\beta$  and  $\alpha$ . However, no more than the letters themselves, do these counterparts display predicative relations. So Aristotle's plain case is also a plain case of structural primacy. Thus, form's ascension to substantial primacy in *Metaphysics* Z is compatible with

<sup>701</sup> See Ch. VI, sect. 6.

<sup>702</sup> See Ch. VI, esp. sect. 6.

the *Categories* insistence that c-substances alone are primary substances, for the latter promotes an ontological primacy that is a primacy of a different stripe. Finally, this is just what one would expect, if the later treatise aims to explain a central part of the standing theory of the early treatise. For, as Aristotle advises in Z.17, this will presuppose the essential truth of the theory of the *Categories*.

# Bibliography

- Ackrill, J. L. (1963), *Aristotle's Categories and De Interpretatione*, trans. with notes and glossary. Oxford.
- Albritton, R. (1957), "Forms of Particular Substances in Aristotle's *Metaphysics*," *Journal of Philosophy* 54: 699–798.
- Alexander Aphrodisiensis (1891), *In Aristotelis Metaphysica Commentaria*, ed. M. Hayduck. Berlin.
- Allen, R. E. (1969), "Individual Properties in Aristotle's *Categories*," *Phronesis* 14: 31–9.
- Ammonius (1991), *On Aristotle's Categories*, trans. M. Cohen and G. Matthews. Ithaca, N. Y.
- Annas, J. (1974), "Individuals in Aristotle's *Categories*: Two Queries," *Phronesis* 19: 146–52.
- Anton, J. and Preus, A. (1992), eds. *Aristotle's Ontology: Essays in Ancient Greek Philosophy*, vol. 5. Albany, N. Y.
- Asclepius (1888), *In Aristotelis Metaphysicorum Libros A–Z Commentaria*, ed. M. Hayduck. Berlin.
- Aubenque, P. (1979), ed. *Études sur la Métaphysique d'Aristote: Actes du vi symposium aristotelicum*. Paris.
- Aubenque, P. (1980), ed. *Concepts et catégories dans la pensée antique*. Paris.
- Balme, D. (1984), "The 'Snub'," *Ancient Philosophy* 4: 1–8. Repr. in Gotthelf and Lennox (1987), 306–12.
- (1987), "Note on the Aporia in *Metaphysics Z*," in Gotthelf and Lennox (1987), 302–6.
- (1990), "Matter in the Definition," in Devereux and Pellegrin (1990), 49–54.
- Barnes, J. (1971), "Homonymy in Aristotle and Speusippus," *Classical Quarterly* 21: 65–80.
- (1971–2), "Aristotle's Concept of Mind," *Proceedings of the Aristotelian Society* 72: 101–14.
- (1975), *Aristotle's Posterior Analytics*, trans. with notes. Oxford. 2nd edn., Oxford, 1993.
- Benson, H. (1988), "Universals as Sortals in the *Categories*," *Pacific Philosophical Quarterly* 69: 182–306.
- Benveniste, E. (1971), *Problems in General Linguistics*. Coral Gables, Fla. Trans. by M. Meek of *Problèmes de linguistique générale*, Paris, 1966.
- Berti, E. (1975), "Logical and Ontological Priority among the Genera of Substance in Aristotle," in *Kephalion: Studies in Greek Philosophy and its Continuation Offered to C. J. De Vogel*. Assen, 55–69.
- Blackwell, R. (1955), "Matter as Subject of Predication in Aristotle," *Modern Schoolman* 33: 19–30.
- Bogen, J. (1995), "Fire in the Belly: Aristotelian Elements, Organisms,

- and Chemical Compounds," *Pacific Philosophical Quarterly* 76: 370–404.
- and McGuire, J. (1985), eds. *How Things Are*. Dordrecht.
- Bonitz, H. (1848–9), *Aristotelis Metaphysica*. 2 vols. Bonn.
- Bosley, R. and Tweedale, M. (1991), eds. *Aristotle and his Medieval Interpreters*, *Canadian Journal of Philosophy*, suppl. vol. 17.
- Bostock, D. (1994), *Aristotle: Metaphysics, Books Z and H*, trans. with notes and commentary. Oxford.
- Brandis, C. (1823–37), *Aristotelis et Theophrasti Met.* 2 vols. Berlin.
- (1833), "Ueber die Reihenfolge der Bücher des Aristotelischen Organons," *Abhandlungen der Akademie der Wissenschaften zu Berlin*.
- Brinkman, K. (1996), "The Consistency of Aristotle's Thought on Substance," in Wians (1996), 289–302.
- Brunschwig, J. (1979), "La Forme, prédicat de la matière?" in Aubenque (1979), 131–66.
- Burnyeat, M. F. (1992), "Is an Aristotelian Philosophy of Mind Still Credible?" in Nussbaum and Rorty (1992), 15–26.
- (unpublished). "A Map of *Metaphysics Z*."
- *et al.* (1979), *Notes on Book Zeta of Aristotle's 'Metaphysics'*. Oxford.
- Caston, V. (1993), "Aristotle and Supervenience," in Ellis (1993), 107–35.
- Casey, R. T. (1977), *The Unity of Science*. Dordrecht.
- Charles, D. (1984), *Aristotle's Philosophy of Action*. Ithaca, N. Y.
- (1988), "Aristotle on Hypothetical Necessity and Irreducibility," *Pacific Philosophical Quarterly* 69: 1–53.
- (1994), "Matter and Form: Unity, Persistence, and Identity," in Scaltsas, Charles, and Gill (1994), 75–105.
- Cherniss, H. (1944), *Aristotle's Criticism of Plato and the Academy*. Baltimore, Md.
- Christ, W. (1895), ed. *Aristotelis Metaphysica*. Leipzig.
- Code, A. (1978). "No Universal is a Substance: An Interpretation of *Metaphysics Z* 13, 1038b8–15," *Paideia*, 5th special issue, 65–74.
- (1984), "The Aporematic Approach to Primary Being in *Metaphysics Z*," in Pelletier and King-Farlow (1984), 1–20.
- (1985a), "On the Origins of Some Aristotelian Theses about Predication," in Bogen and McGuire (1985), 101–31.
- (1985b), "On the Origins of Some Aristotelian Theses about Predication: Appendix on 'The Third Man Argument'," in Bogen and McGuire (1985), 323–6.
- (1986), "Aristotle: Essence and Accident," in Grandy and Warner (1986), 411–39.
- (1997), "Aristotle's *Metaphysics* as a Science of Principles," *Revue internationale de philosophie* 201: 345–66.
- and Moravcsik, J. (1992), "Explaining Various Forms of Living," in Nussbaum and Rorty (1992), 129–45.
- Cohen, S. Marc (1984), "Aristotle and Individuation," *Canadian Journal of Philosophy*, suppl. vol. 10: 41–65.

- (1992), "Hylomorphism and Functionalism," in Nussbaum and Rorty (1992), 57–73.
- Cohen, Sheldon, M. (1981), "Proper Differentiae, the Unity of Definition, and Aristotle's Essentialism," *New Scholasticism*, 55: 229–40.
- (1984), "Aristotle's Doctrine of the Material Substrate," *Philosophical Review* 93: 171–94.
- Collin, F. (1974), "The Concept of Substance in the *Categories* and the *Physics*," *Danish Yearbook of Philosophy* 11: 72–119.
- Cook, H. P. (1938), *Aristotle: The Categories; On Interpretation*, Loeb Classical Library. Cambridge, Mass.
- Cooper, J. (1975), *Reason and the Human Good in Aristotle*. Cambridge, Mass.
- Dahl, N. (1998), "Two Kinds of Essence in Aristotle: A Pale Man is not the Same as his Essence," *Philosophical Review* 106: 233–65.
- Dancy, R. (1975), "On Some of Aristotle's First Thoughts about Substance," *Philosophical Review* 84: 338–73.
- (1996), "Keeping Body and Soul Together: On Aristotle's Theory of Forms," in Wians (1996), 249–87.
- Devereux, D. (1992), "Inherence and Primary Substance in Aristotle's *Categories*," *Ancient Philosophy* 12: 113–31.
- and Pellegrin, P. (1990), eds. *Biologie, logique et métaphysique chez Aristote*. Paris.
- Driscoll, J. (1981), "ΕΙΔΗ in Aristotle's Earlier and Later Theories of Substance," in O'Meara (1981), 129–59.
- Dumoulin, B. (1980), "Sur l'authenticité des *Catégories* d'Aristote," in Aubenque (1980), 23–32.
- Dupréel, E. (1909), "Aristote et le traité des catégories," *Archiv für Geschichte der Philosophie* 22: 230–51.
- Düring, I. and Owen, G. E. L. (1960), eds. *Aristotle and Plato in the Mid-Fourth Century*, *Studia Graeca et Latina Gothoburgensia* 11. Göteborg.
- Durrant, M. (1973), "Aristotle's 'Second Substance' and its Significance," *Second Order* 2: 40–53.
- Ellis, J. (1992), "The Trouble with Fragrance," *Phronesis* 35: 290–302.
- (1993), ed. *Ancient Minds: Spindel Conference 1992*, *Southern Journal of Philosophy*, suppl. vol. 31.
- Ferejohn, M. (1991), *The Origins of Aristotelian Science*. New Haven, Conn.
- (1994), "The Definition of Generated Composites in Aristotle's *Metaphysics*," in Scaltsas, Charles, and Gill (1994), 291–318.
- Fine, K. (1992), "Aristotle on Matter," *Mind* 101: 35–57.
- (1994), "A Puzzle Concerning Matter and Form," in Scaltsas, Charles, and Gill (1994), 13–40.
- (1995), "The Problem of Mixture," *Pacific Philosophical Quarterly* 76: 266–369.
- Flew, A. N. (1961), ed. *Logic and Language: Second Series*. Oxford.
- Frede, M. (1978), "Individuals in Aristotle," in Frede (1987a), 49–71.
- (1981), "Categories in Aristotle," in O'Meara (1981), 1–24.
- (1985), "Substance in Aristotle's *Metaphysics*," in Frede (1987a), 72–80.



- Frede, M. (1987*a*), *Essays in Ancient Philosophy*. Minneapolis.
- (1987*b*), “The Unity of General and Special Metaphysics: Aristotle's Conception of Metaphysics,” in Frede (1987*a*), 81–95.
- (1990), “The Definition of Sensible Substances in Met. Z,” in Devereux and Pellegrin (1990), 113–29.
- (1992), “On Aristotle's Conception of the Soul,” in Nussbaum and Rorty (1992), 93–107.
- (1994), “Aristotle's Notion of Potentiality in *Metaphysics*  $\theta$ ,” in Scaltsas, Charles, and Gill (1994), 173–93.
- (unpublished). “Analysis of *Metaphysics*  $\Delta.1$ ,” Proceedings of the Fourteenth Symposium Aristotelicum. Oxford, 1996.
- and Patzig, G. (1988), *Aristoteles 'Metaphysik Z*, trans. and commentary. 2 vols. Munich.
- Frege, G. (1892), “On Concept and Object,” in Geach and Black (1960), 42–55.
- Furth, M. (1985), *Aristotle Metaphysics, Books VII–X*, trans. Indianapolis.
- (1988), *Substance, Form and Psyche. An Aristotelean Metaphysics*. Cambridge.
- Geach, P. T. (1972*a*), “History of the Corruptions of Logic,” in Geach (1972*b*).
- (1972*b*), *Logic Matters*. Berkeley.
- and Black, M. (1960), eds. *Translations from the Philosophical Writings of Gottlob Frege*. Oxford.
- Gercke, A. (1891), “Ursprung der aristotelischen Kategorien,” *Archiv für Geschichte der Philosophie* 4: 424–41.
- Giegerich, H. (1992), *English Phonology*. Cambridge.
- Gill, M. L. (1989), *Aristotle on Substance: The Paradox of Unity*. Princeton.
- (1991), Review of Frede and Patzig (1988), *Journal of the History of Philosophy* 28: 602–5.
- (1994), “Individuals and Individuation,” in Scaltsas, Charles, and Gill (1994), 55–71.
- and Lennox, J. (1994), eds. *Self-Motion: From Aristotle to Newton*. Princeton.
- Gillespie, C. (1925), “The Aristotelian Categories,” *Classical Quarterly* 19: 75–84.
- Goodman, N. (1951), *The Structure of Appearance*. Cambridge.
- Gotthelf, A. (1985), ed. *Aristotle on Nature and Living Things*. Pittsburgh.
- and Lennox, J. (1987), eds. *Philosophical Issues in Aristotle's Biology*. Cambridge.
- Graeser, A. (1987), ed. *Mathematics and Metaphysics in Aristotle*. Bern.
- Graham, D. (1975), “Counterpredicability and *Per Se* Accidents,” *Archiv für Geschichte der Philosophie* 57: 182–7.
- Grandy, R. and Warner, R. (1986), eds. *Philosophical Grounds of Rationality: Intentions, Categories, Ends*. Oxford.
- Granger, H. (1980), “A Defense of the Traditional Position Concerning Aristotle's Non-Substantial Particulars,” *Canadian Journal of Philosophy* 10: 593–606.
- (1981), “The Differentia and the *Per Se* Accident in Aristotle,” *Archiv für Geschichte der Philosophie* 63: 118–29.

- (1984), "Aristotle on Genus and Differentia," *Journal of the History of Philosophy* 22: 1–23.
- (1990), "Aristotle and the Functionalist Debate," *Apeiron* 23: 27–49.
- (1995a), "Aristotle on the Subjecthood of Form," *Oxford Studies in Ancient Philosophy* 13: 135–59.
- (1995b), "The Subjecthood of Form: A Reply to Shields," *Oxford Studies in Ancient Philosophy* 13: 177–85.
- (1996), *Aristotle's Idea of the Soul*. Dordrecht.
- Grene, M. (1974), "Is Genus to Species as Matter to Form?" *Synthese* 28: 51–69.
- Hamlyn, D. W. (1968), *Aristotle's De Anima, Books II and III*, trans. with notes and commentary. Oxford.
- Hare, J. E. (1979), "Aristotle and the Definition of Natural Things," *Phronesis* 24: 168–79.
- Haslanger, S. (1994), "Parts, Compounds, and Substantial Unity," in Scaltsas, Charles, and Gill (1994), 129–70.
- Heinaman, R. (1980), "An Argument in *Metaphysics Z 13*," *Classical Quarterly* 30: 72–85.
- (1981a), "Knowledge of Substance in Aristotle," *Journal of Hellenic Studies* 101: 63–77.
- (1981b), "Non-substantial Individuals in the *Categories*," *Phronesis* 26: 295–307.
- Hetherington, S. (1984), "A Note on Inherence," *Ancient Philosophy* 4: 218–23.
- Hicks, R. D. (1907), *Aristotle: De Anima*. Cambridge.
- Hintikka, J. (1959), "Aristotle on the Ambiguity of Ambiguity," *Inquiry* 2: 137–51.
- Hiz, H. (1978), ed. *Questions*. Dordrecht.
- Horgan, T. (1983), ed. *The Concept of Supervenience in Contemporary Philosophy: Spindel Conference 1983, Southern Journal of Philosophy*, suppl. vol. 22.
- Hughes, G. J. (1979), "Universals as Potential Substances: The Interpretation of *Metaphysics Z 13*," in Burnyeat *et al.* (1979), 107–26.
- Husik, I. (1904), "On the Categories of Aristotle," *Philosophical Review* 5: 514–28. Repr. in Nahm and Strauss (1952), 96–112.
- (1939), "The Categories of Aristotle," *Journal of Philosophy* 16: 427–31. Repr. in Nahm and Strauss (1952), 96–112.
- Irwin, T. H. (1988), *Aristotle's First Principles*. Oxford.
- Jaeger, W. (1912), *Studien zur Entstehungsgeschichte der Metaphysik des Aristoteles*. Berlin.
- (1923/1948). *Aristoteles, Grundlegung einer Geschichte seiner Entwicklung*. Berlin. Trans. by R. Robinson as *Aristotle: Fundamentals of his Development*, 2nd edn. Oxford.
- (1957), ed. *Aristotelis Metaphysica*. Oxford.
- Jones, B. (1972), "Individuals in Aristotle's *Categories*," *Phronesis* 17: 107–23.
- (1975), "An Introduction to the First Five Chapters of Aristotle's *Categories*," *Phronesis* 20: 146–72.
- Jubien, M. (1998), "Ontological Commitment," in *Routledge Encyclopedia of Philosophy*, ed. E. Craig, vii. 112–17.

- Kahn, C. (1978), "Questions and Categories: Aristotle's *Categories* in Light of Modern Research," in Hiz (1978).
- Kapp, E. (1924), "Sokrates der Jüngere," *Philologus* 79: 225–33.  
 Repr. in H. Diller and I. Diller, eds., *Ernst Kapp: Ausgewählte Schriften*. Berlin, 1968, 180–7.
- Kessler, M. (1976), *Aristoteles' Lehre von der Einheit der Definition*. *Epimeleia*, vol. 26. Munich.
- Kim, J. (1978), "Supervenience and Nomological Incommensurables," *American Philosophical Quarterly* 69: 54–98.  
 — (1984a), "Concepts of Supervenience," *Philosophy and Phenomenological Research* 45: 153–76.  
 — (1984b), "Epiphenomenal and Supervenient Causation," *Midwest Studies in Philosophy* 9: 257–70.
- Kirwan, C. (1971), *Aristotle's Metaphysics, Books Γ, Δ, and E*. trans. with notes and commentary. Oxford.
- Kung, J. (1978), "Can Substance be Predicated of Matter?" *Archiv für Geschichte der Philosophie* 60: 140–59.
- Lear, J. (1987), "Active Episteme," in Graeser (1987), 149–74.
- Lee, E. N., Mourelatos, A. P. D. and Rorty, R. (1973), eds. *Exegesis and Argument: Studies in Greek Philosophy Presented to Gregory Vlastos, Phronesis*, suppl. vol. 1. Assen.
- Lewis, F. A. (1984), "What is Aristotle's Theory of Essence?" in Pelletier and King-Farlow (1984), 89–131.  
 — (1985a), "Form and Predication in Aristotle's *Metaphysics*," in Bogen and McGuire (1985), 59–83.  
 — (1985b), "Plato's Third Man Argument and the Platonism of Aristotle," in Bogen and McGuire (1985), 133–74.  
 — (1988), "Teleology and Material/Efficient Causes in Aristotle," *Pacific Philosophical Quarterly* 69: 54–98.  
 — (1991), *Substance and Predication in Aristotle*. Cambridge.  
 — (1994), "Aristotle on the Relation between a Thing and its Matter," in Scaltsas, Charles, and Gill (1994), 247–77.  
 — (1995a), "Aristotle on the Unity of Substance," *Pacific Philosophical Quarterly* 76: 222–65.  
 — (1995b), "Substance, Predication, and Unity in Aristotle," *Ancient Philosophy* 15: 521–49.  
 — (unpublished). "A Nose by Any Other Name: Sameness, Substitution, and Essence in Aristotle's *Metaphysics* Z.5."  
 — and Bonton, R. (1996), eds. *From, Matter, and Mixture in Aristotle*. Oxford: Blackwell.
- Lloyd, A. C. (1966), "Aristotle's Categories Today," *Philosophical Quarterly* 16: 258–67.
- Lloyd, G. E. R. (1990), "Aristotle's Zoology and his Metaphysics: The *Status Quaestionis*," in Devereux and Pellegrin (1990), 7–35.
- Lorenz, P. (1984), "Was Aristoteles Nominalist?" *Wiener Studien* 18: 71–88.
- Loux, M. (1979), "Form, Species, and Predication in *Metaphysics* Z, H, and Θ," *Mind* 88: 1–23.

- (1991), *Primary OUSIA*. Ithaca, N. Y.
- Mckirahan, R. (1992), *Principles and Proofs: Aristotle's Theory of Demonstrative Science*. Princeton.
- Malcolm, J. (1981), "On the Generation and Corruption of the Categories," *Review of Metaphysics* 34: 662–81.
- (1991), *Plato on the Self-Predication of Forms: Early and Late Dialogues*. Oxford.
- (1993), "On the Endangered Species of the *Metaphysics*," *Ancient Philosophy* 13: 79–93.
- (1996), "On the Duality of Εἶδος in Aristotle's *Metaphysics*," *Archiv für Geschichte der Philosophie* 78: 1–10.
- Mansion, S. (1979), "La Notion de la Matière en *Metaphysique*, Z 10 et 11," in Aubenque (1979), 185–205.
- Manuwald, B. (1971), *Das Buch H der aristotelischen 'Physik': Eine Untersuchung zur Einheit und Echtheit. Beiträge zur klassischen Philologie* 36. Meisenheim.
- Matthen, M. (1978), "The *Categories* and Aristotle's Ontology," *Dialogue* 17: 228–43.
- Matthews, G. (1989), "The Enigma of *Categories* 1a20ff. and Why it Matters," in Penner and Kraut (1989), 91–104.
- (1991), "Container Metaphysics According to Aristotle's Ancient Greek Commentators," in Bosley and Tweedale (1991), 7–23.
- and Cohen, S. Marc (1968), "The One and the Many," *Review of Metaphysics* 21: 630–55.
- Maudlin, T. (1988–9), "Keeping Body and Soul Together: The Z. 3 Puzzle and the Unity of Substances," *University of Dayton Review* 19: 121–33.
- Mignucci, M. (1986), "Aristotle's Definitions of Relatives in *Cat.* 7," *Phronesis* 31: 101–27.
- Modrak, D. (1987), *Aristotle: The Power of Perception*. Chicago.
- Moravcsik, J. (1967a), ed. *Aristotle: A Collection of Critical Essays*. Garden City, N. Y.
- (1967b). "Aristotle on Predication," *Philosophical Review* 76: 80–96.
- (1967c), "Aristotle's Theory of Categories," in Moravcsik (1967a), 125–45.
- Morrison, D. (1990), "Some Remarks on Definition in *Metaphysics* Z," in Devereux and Pellegrin (1990), 131–44.
- Nahm, M. and Strauss, L. (1952), eds. *Philosophical Essays, Ancient, Medieval and Modern*. Oxford.
- Nussbaum, M. C. and Rorty, A. O. (1992), eds. *Essays on Aristotle's De Anima*. Oxford.
- Oehler, K. (1984), *Kategorien*, trans. and comm. Vol. 1 of *Aristoteles Werke*. Berlin.
- O'Meara D. (1981), ed. *Studies in Aristotle*. Washington, D. C.
- Owen, G. E. L. (1960), "Logic and Metaphysics in Some Earlier Works of Aristotle," in Düring and Owen (1960), 163–90.
- (1965a), "Inherence," *Phronesis* 10: 97–105.
- (1965b), "The Platonism of Aristotle," *Proceedings of the British Academy* 51: 125–50.

- Owen, G. E. L. (1968a), ed. *Aristotle on Dialectic: The Topics*. Proceedings of the Third Symposium Aristotelicum. Oxford.
- (1968b), "Dialectic and Eristic in the Treatment of the Forms," in Owen (1968a), 103–25.
- (1978/9), "Particular and General," *Proceedings of the Aristotelian Society* 79: 1–21.
- Owens, J. (1971), "Aristotle's Definition of the Soul," in R. Palmer and R. Hamerton-Kelly, eds., *Philomathes*. The Hague.
- Also in *Aristotle: The Collected Paper of Joseph Owens*, ed. J. Catlan. Albany, N. Y., (1981), 109–21.
- Patzig, G. (1960/1), "Theologie und Ontologie in der Metaphysik des Aristoteles," *Kant-Studien* 52: 185–205.
- (1979), "Logical Aspects of Some Arguments in Aristotle's *Metaphysics*," in Aubenque (1979), 37–48.
- Pellegrin, P. (1986), *Aristotle's Classification of Animals: Biology and the Conceptual Unity of the Aristotelian Corpus*, trans. A. Preus. Berkeley.
- Pelletier, J. and King-Farlow, J. (1984), eds. *New Essays on Aristotle, Canadian Journal of Philosophy*, suppl. vol. 10.
- Penner, T. and Kraut, R. (1989), eds. *Nature, Knowledge and Virtue: Essays in Memory of Joan Kung, Apeiron* 22.
- Prantl, C. (1885–70), *Geschichte der Logik in Abendlande*. 3 vols. Leipzig.
- Quine, W. V. O. (1960), *Word and Object*. Cambridge, Mass.
- Rapp, C. (1995), "Allgemeines konkret: Ein Beitrag zum Verständnis der Aristotelischen Substanzlehre," *Philosophisches Jahrbuch* 102: 83–100.
- (1996), ed. *Aristoteles: Metaphysik, Die Substanzbücher (Z H Θ)*. Berlin.
- Rescher, N. (1978a), "The Equivocality of Existence," in Rescher (1978b), 57–66.
- (1978b), ed. *Studies in Ontology, American Philosophical Quarterly*, Monograph Series, no. 12.
- Rist, J. M. (1989), *The Mind of Aristotle*. Toronto.
- Robinson, H. "Form and the Immateriality of the Intellect from Aristotle to Aquinas," *Oxford Studies in Ancient Philosophy*, suppl. vol.: *Aristotle and the Later Tradition*, 207–26.
- Rohr, M. (1978), "Aristotle on the Transitivity of *Being Said of*," *Journal of the History of Philosophy* 16: 379–85.
- Rorty, R. (1973), "Genus as Matter: A Reading of *Metaphysics Z–H*," in Lee, Mourelatos and Rorty (1973), 393–420.
- (1974), "Matter as Goo: Comments on Grene's Paper," *Synthese* 28: 71–7.
- Rose, V. (1854), *De Aristotelis Librorum Ordine et Auctoritate Commentatio*. Berlin.
- Ross, W. D. (1924), *Aristotle's Metaphysics*, revised text with introduction and commentary. 2 vols. Oxford. Corrected ed., 1953.
- (1928), trans. *Metaphysica*. Vol. viii of *The Works of Aristotle*, ed. W.D. Ross. Oxford.
- Ryle, G. (1961), "Categories," in Flew (1961), 65–81.
- Sachs, D. (1948), "Does Aristotle have a Doctrine of Secondary Substances?" *Mind* 57: 221–5.

- Scaltsas, D. (1980–1), “Numerical versus Qualitative Identity of Properties in Aristotle's *Categories*,” *Philosophia* 10–11: 328–45.
- (1994), “Substantial Holism,” in Scaltsas, Charles, and Gill (1994), 107–28.
- Scaltsas, D., Charles, D., and Gill, M. L. (1994), eds. *Unity, Identity, and Explanation in Aristotle's Metaphysics*. Oxford.
- Schwegler, A. (1847–8), *Die Metaphysik des Aristoteles*. 4 vols. Tübingen.
- Sellars, W. (1957), “Substance and Form in Aristotle,” *Journal of Philosophy* 54: 688–99. Repr. in Sellars (1967), 125–36.
- Sellars, W. (1967), *Philosophical Perspectives*. Springfield, IL.
- Shields, C. (1988), “Soul as Subject in Aristotle's *De Anima*,” *Classical Quarterly* 38: 140–9.
- (1989), “The First Functionalist,” in Smith (1989), 19–33.
- (1995), “The Subjecthood of Souls and Some Other Forms: A Response to Granger,” *Oxford Studies in Ancient Philosophy* 13: 161–76.
- Smith, J. A. “TOΔE TI in Aristotle,” *Classical Review* 35: 19.
- Smith, J.-C. (1989), ed. *Historical Foundations of Cognitive Science*. Dordrecht.
- Sober, E. (1986), “Explanatory Presupposition,” *Australasian Journal of Philosophy* 64: 143–9.
- Spellman, L. (1995), *Substance and Separation in Aristotle*. Cambridge.
- Spengel, L. (1845), *Münchener Gelehrte Anzeigen* 20: 33–56.
- Suppes, P. (1974), “Aristotle's Concept of Matter and its Relation to Modern Concepts of Matter,” *Synthese* 28: 27–50.
- Tiles, J. (1983), “Why the Triangle has Two Right Angles *Kath' Hauto*,” *Phronesis* 27: 1–16
- Tricot, J. (1974), *Aristote: La Métaphysique*, trans. and notes. 2 vols. Paris.
- Wallace, E. (1875), *Outlines of the Philosophy of Aristotle*. Cambridge.
- (1882), *Aristotle's Psychology*. Cambridge.
- Wardy, R. (1990), *The Chain of Change: A Study of Aristotle's Physics VII*. Cambridge.
- Wedin, M. V. (1973) (as Vernon E. Wedin, Jr.), “A Remark on Per Se Accidents and Properties,” *Archiv für Geschichte der Philosophie* 55: 30–5.
- (1978), “Aristotle on the Existential Import of Singular Sentences,” *Phronesis* 23: 179–96.
- (1979), “‘Said of’ and ‘Predicated of’ in the *Categories*,” *Philosophy Research Archives* 5: 1–13.
- (1984), “Singular Statements and Essentialism in Aristotle,” in Pelletier and King-Farlow (1984), 67–88.
- (1988), *Mind and Imagination in Aristotle*. New Haven, Conn.
- (1989), “Aristotle on the Mechanics of Thought,” *Ancient Philosophy* 9: 67–86. Repr. in Anton and Preus (1992), 245–71.
- (1990), “Quantification and Negation in Aristotle,” *History and Philosophy of Logic* 11: 131–50.
- (1991), “PARTisanship in *Metaphysics Z*,” review of Frede and Patzig (1988), *Ancient Philosophy* 11: 361–85.
- (1993a), “Content and Cause in the Aristotelian Mind,” in Ellis (1993), 49–105.
- (1993b), “Nonsubstantial Individuals,” *Phronesis* 38: 137–65.

- Wedin, M. V. (1994), "Aristotle on the Mind's Self-Motion," in Gill and Lennox (1994), 81–116.  
 — (1995), "Keeping the Matter in Mind," *Pacific Philosophical Quarterly* 76: 183–221.  
 Repr. in F. Lewis and R. Bolton, eds., *Form, Matter, and Mixture in Aristotle* (Oxford, 1996), 1–38.  
 — (1996*a*), "Subjects and Substance in *Metaphysics Z.3*," in Rapp (1996), 41–73.  
 — (1996*b*), "Taking Stock of the Central Books." Review of Bostock (1994), *Oxford Studies in Ancient Philosophy* 14: 241–71.  
 — (1997), "The Strategy of Aristotle's *Categories*," *Archiv für Geschichte der Philosophie* 79: 1–26.  
 Whiting, J. (1986), "Form and Individuation in Aristotle," *History of Philosophy Quarterly* 3: 359–77.  
 — (1991), "Metasubstance: Critical Notice of Frede–Patzig and Furth." Review of Frede and Patzig (1988) and Furth (1988), *Philosophical Review* 100: 607–39.  
 Wians, W. (1996), *Aristotle's Philosophical Development*. Lanham, Md.  
 Wiggins, D. (1967), *Identity and Spatio-Temporal Continuity*. Oxford.  
 — (1974), "Essentialism, Continuity, and Identity," *Synthese* 23: 321–59.  
 — (1980), *Sameness and Substance*. Cambridge.  
 Wilkes, K. V. (1978), *Physicalism*. London.  
 Williams, D. C. (1986), "Universals and Existents," *Australasian Journal of Philosophy* 64: 1–14.  
 Witt, C. (1989), *Substance and Essence in Aristotle*. Ithaca, N. Y.  
 Woods, M. J. (1967), "Problems in *Metaphysics Z*, Chapter 13," in Moravcsik (1967*a*), 215–38.  
 — (1974–5), "Substance and Essence in Aristotle," *Proceedings of the Aristotelian Society* 75: 167–80.  
 — (1991*a*), "Particular Forms Revisited." Review of Frede and Patzig (1988), *Phronesis* 36: 75–87.  
 — (1991*b*), "Universals and Particular Forms in Aristotle's *Metaphysics*," *Oxford Studies in Ancient Philosophy*, suppl. vol.: *Aristotle and the Later Tradition*, 41–56.

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