SAMUEL C. RICKLESS

Plato's Forms in Transition

A Reading of the Parmenides

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PLATO'S FORMS IN TRANSITION

There is a mystery at the heart of Plato's *Parmenides*. In the first part, Parmenides criticizes what is widely regarded as Plato's mature theory of forms, and in the second, he promises to explain how the forms can be saved from these criticisms. Ever since the dialogue was written, scholars have struggled to determine how the two parts of the work fit together. Did Plato mean us to abandon, keep, or modify the theory of forms, on the strength of Parmenides' criticisms? Samuel Rickless offers something that has never been done before: a careful reconstruction of every argument in the dialogue. He concludes that Plato's main aim was to argue that the theory of forms should be modified by allowing that forms can have contrary properties. To grasp this is to solve the mystery of the *Parmenides* and understand its crucial role in Plato's philosophical development.

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For Dana

Contents

Preface

This book came into existence by accident. My graduate training (at Oxford and UCLA) was not in ancient philosophy, but primarily in the philosophy of language. My first job out of graduate school was at Florida State University, where I taught courses on descriptivism, direct reference, and propositional attitude reports. For a year or so after I was hired, I searched for a new project, without much success. Then, in January 1997, I decided to attend a graduate seminar on the *Parmenides* taught by my then colleague, Russ Dancy. I remembered that my college mentor, Warren Goldfarb, had once discussed what he called a "third man" argument purporting to show that what accounts for the unity of a proposition cannot, on pain of infinite regress, be part of the proposition. I knew that the name for this argument had come from the *Parmenides*, and this sparked my interest in the seminar. Russ, with his wealth of erudition and sharp intellect, listened patiently and provided encouragement as I struggled to give voice to naïve suggestions that more often than not simply led nowhere. But by the end of the semester, I realized that I was called to the study of Plato and sat down to write "How Parmenides Saved the Theory of Forms."

The project of writing this book began with the realization that my article had provided a cursory, and in the end inaccurate, interpretation of the second half of the *Parmenides*. The article had also failed to draw Plato's various statements about the forms into a coherent theory, with independent axioms and with theorems following deductively from the result of combining these axioms with auxiliary assumptions. The pages that follow are the result of my attempt to atone for these deficiencies by providing a complete logical reconstruction of all the arguments of the dialogue. As I argue below, such a reconstruction provides the key needed to solve the enduring mystery of the *Parmenides*.

I could not have written this book without the sage advice of my editor at Cambridge University Press, Hilary Gaskin, the wonderful philosophical training I received from my mentors at UCLA, particularly David Kaplan

(my dissertation advisor), Robert Adams, Rogers Albritton, Joseph Almog, Tyler Burge, John Carriero, Keith Donnellan, Kit Fine, Barbara Herman, Gavin Lawrence, David Pears, and Warren Quinn, or the assistance and encouragement of a significant number of philosophical interlocutors. I would like to single out the following people for their special contributions, in the form of constructive philosophical and/or philological comments and criticism: Rogers Albritton, Russ Dancy, Dan Devereux, Darryl Jung, Gareth Matthews, Pat Matthews, Dana Nelkin, Michael Pakaluk, Richard Patterson, Terry Penner, Sandra Peterson, George Rudebusch, and two extremely helpful and diligent anonymous reviewers for Cambridge University Press. I have learned an enormous amount from contributors to the secondary literature on Plato's metaphysics, and the *Parmenides* in particular, as I hope will be evident from the pages that follow. I would like to thank the graduate students in my two *Parmenides* seminars at UCSD for their constructive and probing comments, particularly Andy Beck, Matt Brown, Erin Frykholm, Andrew Hamilton, Mitch Herschbach, Charlie Kurth, James Messina, Mark Newman, Aaron Schiller, Sharon Skare, and Nellie Wieland. I am deeply grateful for the editorial and philosophical assistance of two dedicated research assistants, Erin Frykholm (who read the manuscript from cover to cover) and John Vella. I have benefited greatly from the encouragement of colleagues and friends, both at Florida State and then later at UCSD, particularly Georgios Anagnostopoulos, Dick Arneson, Bill Bechtel, David Brink, Craig Callender, Nancy Cartwright, Pat Churchland, Paul Churchland, Jonathan Cohen, Peter Dalton, Margaret Dancy, Russ Dancy, Jerry Doppelt, Rick Grush, Michael Hardimon, Darryl Jung, Wayne Martin, Pat Matthews, Maria Morales, Dana Nelkin, Don Rutherford, Gila Sher, and Eric Watkins. And I am most grateful to my assistant editor, Gillian Dadd, my production editor, Jacqui Burton, and my wonderfully punctilious copy editor, Iveta Adams, for carefully shepherding the manuscript through a complex production process. To those I have forgotten to thank by name for their various contributions, I offer my sincere apologies.

I also consider myself very fortunate to have received precious assistance from institutional sources. I am deeply grateful to the UCSD Hellman Faculty Fellows program for providing me with a summer grant, and to the UCSD Center for the Humanities for providing me with one quarter's research leave to work on the manuscript. The generosity of these organizations helped spur my research and allowed me to complete the book in a fraction of the time it would otherwise have taken.

Lastly, I would like to thank my immediate family and close friends: my mother, Regina Sarfaty Rickless, and (late) father, Elwood Rickless, for their undying confidence in me and for making it possible for me to achieve my intellectual dreams without worrying about where my next meal was coming from; my sister, Sarah Baker, for her love and support (and consummate spelling and grammar); my (late) father-in-law, Norton Nelkin, whose devotion to family and to philosophy as a calling I have constantly striven to emulate; my stepmother-in-law, Sue Metzner, for her courage and strength (and German pancakes); my mother-in-law, Nancy Morais, and stepfather-in-law, Lee Morais, for helping me to see beauty in unfamiliar places; my sister-in-law, Karen Nelkin, for her genius and wit; my gorgeous children, Sophie and Alice, for their endless patience and understanding (and peals of wild laughter); my cousin, Miriam Rykles, for encouraging me (when in college) to follow my intellectual nose wherever it might lead, and for delicious holiday meals I will never forget; Michael Wolf and Susan Wolf, for helping me find my feet in graduate school and enjoy the wonders of Southern California; Nancy, David, and Leona Foldi, for cheering me up; and my wife, colleague, and soulmate, Dana Nelkin, to whom this book is dedicated, for her love and companionship, for believing in me even when the chips were down, and for her magical smile and sharp intellect: from her I have learned everything I know about anything worth knowing about (except maybe Fourth Amendment law, Verdi operas, and the Chicago Cubs).

Abbreviations

THE HIGH THEORY OF FORMS

AXIOMS

OM (One-over-Many) For any property F and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F.

II (Itself-by-Itself) Every form is itself by itself.

AUXILIARIES

CON (Contraries) The following pairs of properties (among others) are pairs of contraries: beautiful/ugly, just/unjust, good/bad, wise/foolish, strong/weak, quick/slow, poor/rich, dry/wet, cold/hot, bitter/sweet, sharp/blunt, empty/full, friend/enemy, temperate/licentious, healthy/diseased, big/small (or tall/short), odd/even, alive/dead, pious/impious, light/heavy, double/half, hard/soft, dark/pale, thick/thin, and one/many.

PC (Principle of Contraries) Forms corresponding to contrary properties are themselves contraries. [If X is a form of F-ness and Y is a form of G-ness and the property of being F is opposite to the property of being G, then X and Y are opposite forms.]

NCC (No Causation by Contraries) For any property F that admits a contrary (con-F), whatever makes something be (or become) F cannot itself be con-F.

TT (Transmission Theory) Whatever makes something be (or become) F must itself be F.

IS (Impurity of the Sensibles) For any property F that admits a contrary (con-F), all sensible F things are con-F.

SOK (Stability of the Objects of Knowledge) All objects of knowledge are stable.

PHK (Possibility of Human Knowledge) Humans are capable of having knowledge.

FUNDAMENTAL THEOREMS

E (Existence) For any property F, there is a form of F-ness.

NMTO (No More Than One) For any property F, there is no more than one form of F-ness.

U (Uniqueness) For any property F, there is exactly one form of F-ness.

C (Causality) For any property F, all F things (other than the F) are F by virtue of partaking of the F.

BP (Being as Partaking) For any property F and for anything other than the F, partaking of the F is both necessary and sufficient for being F.

SP (Self-Predication) For any property F, the F is F.

P (Purity) For any property F that admits a contrary (con-F), the F is not con-F.

P* (Purity*) For any property F that admits a contrary (con-F), the F is not both F and con-F.

O (Oneness) Every form is one.

NI1 (Non-Identity1) For any property F that admits a contrary, the F is not identical to any sensible F thing.

KF (Knowledge of Forms) Humans can know at least some forms.

S (Separation) Every form is separate from the things that partake of it.

NSP (Non-Self-Partaking) No form partakes of itself.

NSE (Non-Self-Explanation) For any property F, it is not by virtue of partaking of itself that the F is F.

THE HIGHER THEORY OF FORMS

The higher theory results from adding the following proposition as an axiom to the high theory:

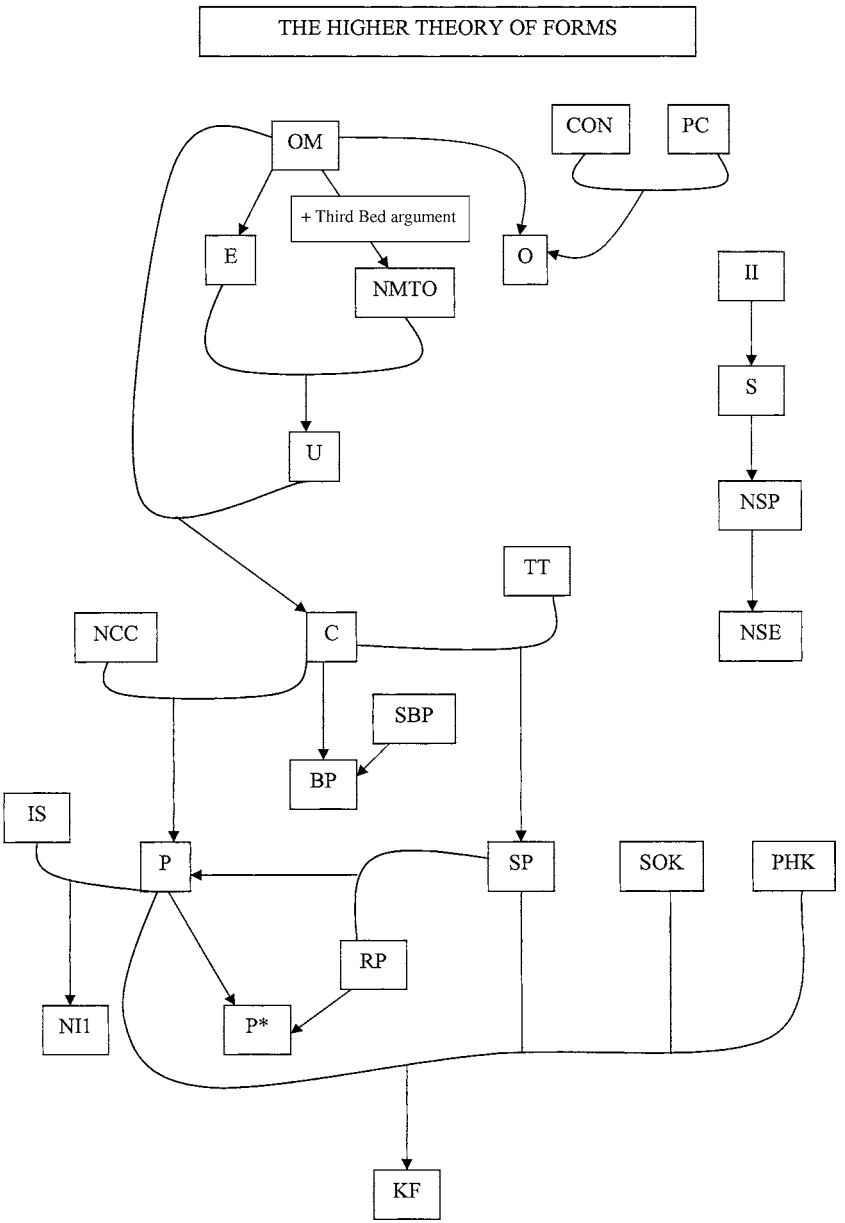
RP (Radical Purity) No form can have contrary properties.

ADDITIONAL PRINCIPLES

SBP (Strong Being as Partaking) To say that X partakes of the F is to say that X is F.

PE (Principles of Elision)

PE1: To say that *X is F in some way* is to say that *X is F*.
PE2: To say that *X is in some way* is to say that *X is*.
PE3: To say that *X comes to be F in some way* is to say that *X comes to be F*.
PE4: To say that *X ceases to be F in some way* is to say that *X ceases to be F*.
PE5: To say that *X appears to be F in some way* is to say that *X appears to be F*.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Introduction

> The theory of forms was set up on the basis of a contrast that employed provocative predicates: forms were free of identity crises by virtue of their indefeasible possession of identifying predicates, whereas transient individuals were unstable because they always show both the predicate and its contrary. That contrast, after the *Parmenides* and *Sophist*, is no more.
>
> (Dancy [1984, 183])

THE SETTING

Among scholars of ancient philosophy, there is disagreement over whether the Platonic corpus exhibits thematic unity or thematic development. According to "unitarians," Plato's dialogues present a single, consistent, synoptic philosophical system of which each dialogue gives us a partial or proleptic glimpse.[1] According to "developmentalists," the same dialogues can be arranged in thematic order that likely corresponds with the order in which they were written.[2]

The main lines of argument that favor developmentalism are these. The "early" dialogues (*Apology*, *Crito*, *Euthyphro*, *Charmides*, *Ion*, *Hippias Minor*, *Menexenus*, *Protagoras*, *Euthydemus*, *Lysis*, *Laches*, and *Republic* I) hew (more or less) to the following paradigm: Socrates (always the protagonist) extracts from his interlocutor a definition or characterization of a morally significant topic (typically, one of the canonical parts of human virtue), proceeds to criticize this definition or characterization "elenctically" by pointing out that the interlocutor's beliefs on the relevant subject are logically inconsistent, and wraps up the discussion by getting the interlocutor to admit to utter confusion (*aporia*) and ignorance. At no point in these

[1] For a defense of unitarianism, see Shorey (1903; 1933), Cherniss (1945), and, more recently, Kahn (1996).

[2] For interestingly different defenses of developmentalism, see Teloh (1981), Prior (1985), Silverman (2002), and Dancy (2004).

dialogues does Socrates propose or defend his own definition of the parts of human virtue. Nor does he discuss the abstract ontological and epistemological features of the objects of definition, which he calls "forms" [*eidē* or *ideai*].[3]

These activities, so out of keeping with the elenctic method of the early dialogues, do appear in the dialogues of the middle period, notably the *Cratylus*, *Phaedo*, *Symposium*, and *Republic* II–X. In these works Socrates, who appears to have abandoned the elenctic method in favor of the method of hypothesis (according to which hypotheses are either confirmed or disconfirmed by the propositions that entail them and by the consequences that may be derived from them), provides and defends his own definitions of the human virtues and argues, for the first time, that forms are invisible, eternal, perfect, unchanging, uniform, and knowable. Middle-period Socrates resembles in great measure the Plato described by Aristotle,[4] and it makes sense to suppose that middle-period Plato puts his own views in the mouth of a character named "Socrates" as a gesture of respect and admiration of a pupil for his mentor.[5]

Finally, in the late-period dialogues (*Phaedrus*, *Sophist*, *Statesman*, *Philebus*, and *Laws*), Plato's protagonist (who, more often than not, is no longer called "Socrates") embraces a new definitional method of division and collection, and appears to have abandoned (or, at least, ignores) some of the theses characteristic of the middle period.

With the aid of these three major chronological divisions, developmentalist scholars have proposed two further groups of transitional dialogues: an early-middle group (*Gorgias*, *Meno*, and *Hippias Major*), in which the opinions of early-period Socrates are undermined and views of middle-period Socrates begin to appear, and a middle-late group (*Parmenides* and *Theaetetus*), in which the opinions of middle-period Socrates are undermined and views of late-period Socrates begin to appear.[6]

In the sequel, I assume the standard developmentalist ordering of the dialogues, in part because I find the evidence favoring developmentalism compelling, but also because it gives me a convenient frame of reference for my results.

[3] For an analysis of the different ways in which the early dialogues differ from the rest, see Vlastos (1991). For discussion, see Nails (1993) and Beversluis (1993). For close analysis of the function of the Socratic *elenchus*, see Benson (2000).

[4] See, e.g., *Metaphysics*, 987a29–b8, 1078b12–32, and 1086a32–b13.

[5] For criticism of the "mouthpiece" view, see Nails (2000) and Press (2000). For defense of the view, see Gerson (2000).

[6] For an excellent summary of the case for developmentalism, see Kraut (1992b).

THE PROBLEM

Let us assume, then, that the *Parmenides* is a way station from the dialogues of the middle period to the dialogues of the late period. This much is clear (at least to developmentalists): but little else is. The *Parmenides* is simply the most puzzling and notorious of Plato's dialogues. Although the work is of seminal importance for understanding the development of Plato's metaphysical doctrines, it has been the source of nothing but disagreement and controversy. Generations of scholars have cut their teeth on this work, attempting to capture its structure and content, as well as its relative significance in the overall Platonic corpus.[7] But, despite their efforts, there is still nothing approaching consensus on the answer to the most pressing interpretive question: What, in Plato's opinion, is the ultimate lesson of the dialogue?

The *Parmenides* focuses on the philosophical interaction between two main characters: an impatient, youthful, and bold Socrates, and a patient, venerable, and exceedingly deliberate Parmenides. There are two main parts to the work, with a short transitional section in between. In the first part (126a1–134e8), after a brief introduction (126a1–128e4), young Socrates (in a speech at 128e5–130a2) proposes what is widely recognized to be an outline of the theory of forms defended by a considerably older Socrates in the works of Plato's middle period. (I will call this theory the "high theory of forms.") Parmenides then (at 130a3–134e8) affectionately puts Socrates in his place with a series of arguments that drive him to ever greater perplexity. In the transitional section (134e9–137c3), Parmenides sketches the general lines of a method of "training" that promises to rescue (or to begin the task of rescuing) at least some aspects of the high theory. And finally, in the second part (137c4–166c5), Parmenides instantiates this method by way of roughly 180 tightly interconnected arguments arranged in eight (or nine) sections.

The structure of the *Parmenides*, as described, raises a number of questions that, to my mind, have never before been answered in a way that is completely satisfactory.

First, what exactly is Plato's "high" theory of forms, as put forward and defended by middle-period Socrates? Is this theory identical to,

[7] These scholars include, among many others, Cornford (1939), Ryle (1939; 1966), Vlastos (1954; 1969), Runciman (1959), Brumbaugh (1961), Owen (1970), Peterson (1973; 1981; 1996; 2000; 2003), Teloh (1981), Allen (1983; 1997), Sayre (1983; 1996), Prior (1985), Miller (1986), Meinwald (1991; 1992), Moravcsik (1992), Dorter (1994), McCabe (1994), Rickless (1998a), Turnbull (1998), Silverman (2002), and Scolnicov (2003).

similar to, or different from, the "theory" of forms that appears in Socrates' speech in the *Parmenides*? If there are similarities or differences, what are they? If there are differences, do they show that the high theory has undergone significant, or only minor, transformation by the time of the *Parmenides*?

Second, how exactly does the theory that appears in Socrates' speech (however similar or different it may be from the high theory of forms) come under attack in the first part of the dialogue? How many arguments does Parmenides unleash against this theory, and what exactly are these arguments intended to establish? Do they allow for the possibility of rescuing the theory? If so, is it by leaving room to question their soundness, or, with their soundness having been accepted, is it by abandoning some axiom or axioms of the theory? If the latter, is the chunk of theory to be abandoned significant enough to constitute wholesale transformation, or does Plato envisage that the theoretical changes required by Parmenides' criticisms are relatively minor?

Third, how are we to understand the second part of the dialogue and its relation to the first? More particularly, what exactly are the 180 (or so) arguments in this part of the dialogue, and exactly how (if at all) are these arguments interrelated? If the arguments are indeed interrelated, what does Plato intend them (and the manner of their interconnection) to establish? Does he present them to the reader as sound, or does he mean to "train" the reader to ferret out fallacies or false premises within them? If the former, does he mean for these arguments to reveal that some or all of Parmenides' criticisms in the first part were invalid or otherwise unsound? Does he intend these arguments to provide reasons to abandon a chunk of the theory outlined in Socrates' speech? Or is there some other, less obviously scrutable, purpose behind the dizzying display of argumentation in the second part of the dialogue?

Now the fact that the *Parmenides* is succeeded by the *Sophist*, *Statesman*, and *Philebus* raises another set of (to my mind heretofore unanswered) questions. In particular, what happens to the high theory of forms (and, if it is different, to the theory articulated in Socrates' speech) in the "late" dialogues that postdate the *Parmenides*? Does the theory change, or does it disappear entirely? If the former, are the changes slight or more significant? Is there evidence in these dialogues to confirm or disconfirm any particular interpretive hypothesis about the structure and content of the *Parmenides* itself? And can the proper interpretation of the *Parmenides* explain the methodological or theoretical differences between the dialogues of the middle period and the dialogues of the late period?

The main purpose of this book is to show, by careful attention to the logical structure of the high theory of forms and to the arguments in both parts of the *Parmenides*, that the answer to all these questions is, at bottom, remarkably simple.

THE SOLUTION

As I argue below, the heart of the high theory of forms consists of two axioms, **One-over-Many** (**OM**) and **Itself-by-Itself** (**II**). According to **OM**, for any property F and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F. Thus, for example, for any plurality of large things, there is a form of largeness by virtue of partaking of which each member of the plurality is large. According to **II**, every form is itself by itself (*auto kath' auto*), a claim that entails that every form is numerically distinct from, and not present in, the things that partake of it. (What these axioms mean will become clearer in the sequel.) When combined with auxiliary assumptions about such things as opposites, sensibles, causation, and knowledge, these two axioms yield virtually all of the philosophically significant theorems about the ontological and epistemological status of the forms postulated by the high theory.

Among the more important of the high theory's auxiliary assumptions is "**No Causation by Contraries**" (**NCC**), the assumption that nothing that makes something possess a certain property can possess the opposite (or contrary) of that property.[8] **NCC** precludes the possibility of large things making small things small, of unlike things making like things like, and so on. Among the more important theorems is what we might call "**Purity**" (**P**), the claim that, for any property F that admits an opposite (call it "con-F"), the F cannot be con-F, which itself entails what we might call "**Purity***" (**P***), the claim that, for such a property, the F cannot be both F and con-F.[9] According to **P**, the tall cannot be short, the like cannot be unlike, and so on; and, according to **P***, the tall cannot be both tall and short, the like cannot be both like and unlike, and so on. Another important theorem is "**Uniqueness**" (**U**), the claim that there is exactly one form per property.

In the *Parmenides*, Socrates extends the high theory by making a single important change (call this extension the "higher theory"). The change

[8] Henceforth, I use the words "opposite" and "contrary" interchangeably.

[9] To say that a property F "admits" an opposite is just to say that there is another property (con-F) that is opposite to F. For example, for Plato, the property of being one admits an opposite (namely, the property of being many), but the property of being human does not.

comes about through the introduction of an axiom I call "**Radical Purity**" (**RP**), the assumption that no form can have contrary properties. **RP**, which is a generalization of **P*** (hence its name), *not only* makes it impossible for the F to be both F and con-F (as is already required by **P***) *but also* makes it impossible for the F to be both G and con-G (for any property G distinct from F). Thus, for example, **P*** does, but **RP** does not, allow the equal to be both one and many, like and unlike, large and small, and so on.

Once the logical structure of Parmenides' criticisms of the higher theory has been clarified, it becomes clear that every one but the very last of his criticisms can be avoided by abandoning **RP**, **NCC**, **P**, and **U**. And once the logical structure of the arguments of the second part of the dialogue has been clarified, it becomes clear that Plato intended these arguments to establish the being of forms and, by proving that all forms possess both oneness and multitude, as well as a host of contrary properties of various kinds, the falsity of both **RP** and **P**. There is also a stretch of argument in the second part that is sufficient to establish the falsity of **U**. It then remains for the late-period dialogues to confirm these results and establish the falsity of **NCC** by showing, in the *Sophist*, that the same, by which same things are same, is also different, and that the different, by which different things are different, is also same.

The main message of the *Parmenides*, then, is that the higher theory of forms can and must be altered in order to avoid inconsistency, and that this is to be accomplished by abandoning **P**, **RP**, **U**, and (as Plato later argues) **NCC**. As it happens, the rejection of these principles leaves a good chunk of the higher theory (including **OM** and **II**) untouched, but not without bringing a series of important theoretical and methodological changes in its train, among the most important of which is the introduction of a new method of defining the forms (the so-called "method of division and collection"). If the story I am about to tell is even roughly right, not only will we have a better understanding of the *Parmenides* itself, but we will also acquire a deeper appreciation of the dialogue's pivotal place in the development of Plato's metaphysics and epistemology.

THE METHOD

Before entering into the details of the reconstruction itself, I would like to describe the methodology that animates my interpretation of the dialogue and its place in the larger Platonic corpus. Like the work of analytic philosophers today, most of Plato's writings are awash with deductive arguments. It is impossible to read Plato's work without being struck by his

love of reason and his delight in what the use of reason is (or might be) able to accomplish. And this love does not merely reveal itself through the discussions Plato sets up among his various fictional interlocutors; it is also, at least in some dialogues (most notably, the *Republic*), explicitly defended as a matter of philosophical *doctrine*.

Given these facts, it is frankly inconceivable to me that Plato's philosophical intentions may be gleaned in any other way than through careful logical analysis. Attention to dramatic clues and stage directions, though not to be dismissed as an exegetical tool, must play a role secondary to the role of logical reconstruction. The meaning of a character's smile or frown, resistance or amenability, intelligence or stupidity cannot be understood in abstraction from the relevant argumentative context and the overall logic of the dialectical enterprise. The interpretation of literary tropes is the servant, not the master, of logical analysis.

And yet it is a widespread view among scholars of ancient philosophy that logical analysis fails to do justice to the many facets of Plato's work. Typical of this view is the following passage from a recent book review in the *Journal of the History of Philosophy*:

> One might ask whether the techniques of analytical philosophy can elucidate the views of so allusive, visionary and poetic a philosopher as Plato . . . [Logical] analysis yields rival accounts that cannot be confirmed or rejected on the basis of the text alone . . . I wonder whether the analytical approach does not require a greater precision from Plato's dialogues than can be found there. I also wonder whether the pursuit of precision does not inevitably lead the interpreter to underplay the more mystical and religious aspects of Plato's thought.[10]

What this passage reveals is understandable frustration in the face of continuing controversy among analytically inclined Plato scholars. As an impartial observer, one might be forgiven for concluding that the method of logical analysis is an inappropriate tool for understanding the ultimately imprecise and poetic musings of a philosophical visionary. This book is written in the firm belief that this attitude is the product of unjustified defeatism in the face of a seemingly recalcitrant text. The proper cure for disagreement among analytically inclined commentators is not retreat into perplexity in the face of apparent imprecision, but simply more careful and more detailed logical scrutiny.

However, there is growing recognition among analytically minded commentators that the arguments of the *Parmenides* cannot be interpreted in

[10] See Prior (2004, 98).

isolation. With this approach I am in complete agreement. The vast literature on the Third Man argument (see below) testifies to the fact that we are unlikely to find the key to the *Parmenides* by unearthing the logical structure of a single argument, no matter how central to the dialogue it may be. Accordingly, the interpretation defended in this book aims to place each reconstructed argument in its proper context. Each argument is to be understood in the light of the arguments that precede it and the arguments that follow it. Even the dialogue itself cannot be fully understood without being related to its immediate predecessors and successors.

I am not saying that every text must be approached as an exercise in logical reconstruction. Some philosophical texts are indeed written in a visionary, and sometimes even anti-logical, spirit. Some contain musings on different matters that the author may never have intended to form a logically harmonious whole. But one of the messages of this book is that, insofar as Plato was a visionary, he was of the logophilic persuasion.

A NOTE ON THE *TIMAEUS*

I said above that developmentalists are largely agreed on the thematic ordering of Plato's dialogues. But there is one point of disagreement among them that has significant bearing on the main thesis of this book, namely, the thematic position of the *Timaeus* relative to the *Parmenides*. According to Owen (1953), the *Timaeus* belongs with the middle-period dialogues, and therefore *precedes* the *Parmenides*. Owen's arguments have been challenged, most notably by Cherniss (1957), who adopts the (still orthodox) position that the *Timaeus* is a late-period dialogue that *postdates* the *Parmenides*.

My own view, for reasons similar to Owen's, is that the theory of forms described in the *Timaeus* closely resembles the theory of forms described in the middle dialogues, and is not consistent with the revised version of the theory that issues from the *Parmenides*. This claim requires defense, and I do not take it for granted. But any adequate defense of it must issue from, and hence cannot precede, an adequate interpretation of the *Parmenides* itself. It is only once we understand the *Parmenides* and its role in the development of Plato's metaphysics that we will be in a better position to judge whether the doctrines of the *Timaeus* more closely resemble the doctrines of the middle period than they do the doctrines of the late period.

Having said that, I will henceforth *provisionally* assume that the *Timaeus* is a middle-period dialogue. I invite those who think that it is best read as a late work to consider whether the evidence marshaled below confirms, rather than disconfirms, this assumption. I would argue that it does.

A NOTE ON THE TRANSLATION

For ease of reference, I have borrowed all translations of the original Greek text from Cooper (1997), unless otherwise noted. With respect to the *Parmenides* in particular, I rely (again, unless otherwise noted) on the excellent and easy-to-follow translation of Gill and Ryan (1996), which is reprinted, without Gill's very useful introduction, in Cooper (1997).

CHAPTER 1

The theory of forms

The Socrates of the early dialogues devotes his attention to the search for definitions of morally significant forms, but never asks after the fundamental ontological and epistemological status of these entities. For example, Socrates asks Euthyphro to provide him with a definition of piety (*Euthyphro* 5d), Charmides to provide him with a definition of temperance (*Charmides* 159a), and both Nicias and Laches to provide him with a definition of courage (*Laches* 190d–e). In all these cases, what Socrates asks his interlocutors to define is something he calls a "form," namely whatever it is by virtue of which persons and actions are pious, temperate, or courageous.[1] Although Socrates reveals that he has opinions about what some of these forms are like[2] and about what all forms must be like,[3] he never suggests that these opinions rise to the level of knowledge. More importantly, he never so much as speculates about whether forms are or are not the sorts of things that can be perceived by means of the senses, whether they have parts or are indivisible wholes, whether they are eternal and indestructible or whether they come to be or perish, whether they can undergo any sort of change (whether in the form of translation, rotation, or alteration), whether they are perfect or in some way deficient, or whether they are such as to be humanly knowable.

It is in the dialogues of the middle period, principally the *Phaedo* and the *Republic*, that Plato begins to ask and answer these questions. As I argue in section 1.1, the answers to Plato's questions take the form of a theory, insofar

[1] For example, at *Euthyphro* 6d10–11, Socrates asks Euthyphro to define "that form itself by which all pious things are pious."

[2] At *Protagoras* 361b, Socrates concludes that every virtue (notably justice, temperance, and courage) is [a kind of] knowledge. Socrates also claims that temperance is admirable (*Charmides* 159c), that virtue is admirable (*Protagoras* 349e), that courage is admirable (*Laches* 193d), that the good is admirable (*Lysis* 216d), that justice is admirable (*Gorgias* 478b), and that temperance, justice, and courage (and, by implication, all the virtues) are good (*Euthydemus* 279b).

[3] For example, at *Protagoras* 332c8–9, Socrates claims that "for each thing that can have an opposite, there is only one opposite."

as they amount to a set of axioms about forms, which, when combined with auxiliary assumptions about such things as opposites, causation, sensibles, and knowledge, logically entail all of the most important metaphysical and epistemological claims of Plato's middle period. I call this theory "the high theory of forms." In section 1.2, I explain how young Socrates extends and generalizes the high theory in the *Parmenides*, with the aim of responding to troublesome Zenonian *reductiones* of pluralism. The result of young Socrates' efforts is a "higher" theory of forms that Parmenides then subjects to sustained and withering criticism.

1.1 THE HIGH THEORY

The method of hypothesis[4]

Although early-period Socrates has a negative method (namely, the *elenchus*) for discerning inconsistency in the opinions of his interlocutors, and thus for undermining their claims to knowledge, he does not articulate a positive method for gaining knowledge of the sort he seeks. It is perhaps with the aim of repairing this defect in early-period Socrates' methodology that Plato introduces the *method of hypothesis* in the dialogues of the early-middle and middle period. In order to understand the high theory of forms (and why it is appropriate to count it as a "theory" in the modern sense), it is necessary to understand this method and how middle-period Socrates employs it.

Important aspects of the method of hypothesis make their first appearance in the early-middle *Meno* (at 86e ff.). Having explained (with the help of a geometrical example) how it is possible to "inquire into the qualities of something the nature of which we do not yet know" (86d8–e1), Socrates asks Meno whether he will "agree to investigate whether [virtue] is teachable or not by means of a hypothesis" and compares this method to "the way geometers often carry out their investigations" (86e2–5). Socrates then provides Meno with the following instance of the method in geometrical investigation (86e5–87b2):

[4] The method of hypothesis, as it appears in the *Meno*, *Phaedo*, and *Republic*, is much discussed. See, e.g., Robinson (1953, chapters 8–10), Gallop (1975, 178–181 and 187–192, and accompanying references), and Bostock (1986, 157–170), among others. I do not have the space to consider the numerous difficulties involved in making sense of the details in the relevant texts. My main purpose here is not to offer a new interpretation of the method, but rather to explain how implementing the method, as classically understood, yields a logically interconnected system of hypotheses, i.e., a theory in the modern sense of the term.

For example, if [geometers] are asked whether [P] a specific area can be inscribed in the form of a triangle within a given circle, one of them might say: "I do not yet know whether [P] that area has that property, but I think I have, as it were, a hypothesis [H] that is of use for the problem, namely this: If [H] that area is such that when one has applied it as a rectangle to the given straight line in the circle it is deficient by a figure similar to the very figure which is applied, then I think one alternative [that is, one of P or ∼P] results, whereas another [that is, the other of P or ∼P] results if [∼H] it is impossible for this to happen. So, by using this hypothesis [namely, H], I am willing to tell you what results with regard to inscribing it in the circle – that is, whether it [namely, P] is impossible or not."

In this example, what the inquirers would like to know is whether P is true. The method of investigation Socrates proposes is that one begin with a hypothesis H, and then ask whether P or ∼P logically follows from H and whether P or ∼P follows from ∼H. Suppose the answers to these questions are that P follows from H and that ∼P follows from ∼H. In that case, the investigation into the truth or falsity of P reduces to the question of the truth or falsity of H.

Socrates then applies the method as described to his investigation into whether or not [T] virtue is teachable. The relevant hypothesis in the case is [K] that virtue is a kind of knowledge. What makes K helpful in investigating whether T is true or false is that (i) T follows from K and (ii) ∼T follows from ∼K. As Socrates puts it at 87c8–9: "If [virtue] is of one kind [namely, a kind of knowledge] it can be taught, if it is of a different kind, it cannot." The question whether T is true reduces to the question whether K is true, and this allows the focus of investigation to shift from T to K.

As his investigation continues, Socrates at first finds reason to accept K and then finds reason to reject K. The initial reason to accept K takes the form of an argument that is based on further hypotheses, in this case (a) that virtue makes us good (87d8–e1), (b) that all that is good is beneficial (87e2), (c) that it is only when a thing is used rightly that it benefits us (88a4–5), and (d) that it is the presence or absence of wisdom that determines whether a thing is used rightly or wrongly (88b1–c3). The reason to reject K takes the form of two instances of *modus tollens*. Socrates assumes that if T is true (that is, if virtue is teachable), then (E) there are teachers of virtue (89d6–8). He then suggests that exhaustive empirical investigation reveals that E is false (89e6–96b9). It follows by *modus tollens* that T is false (96c10), and, since T is a consequence of K, that K is false (98e7–8).

Returning then to the initial argument for accepting K, Socrates uses the distinction between knowledge and true belief (98b2) to undermine

premise (d) in the original argument for K. For, as he notices, it is not whether one has knowledge of a thing, but whether one's beliefs about it are true or false, that determines whether it will be used rightly or wrongly (97b1–c2). With his reasons to believe K undermined and as-yet-unrefuted reasons to disbelieve K, Socrates reaches the (provisional) conclusion that K is false.

Socrates' employment of hypotheses in the *Meno* suggests something like the following general picture. Inquiry into the truth or falsity of a target proposition (in this case, T) can proceed in the following way. First, there is the upward-directed search for a first set of hypotheses (in this case a single hypothesis, K) that entail the target proposition (and the falsity of which entails the falsity of the target proposition). Second, there is another upward-directed search for a second set of hypotheses (in this case, [a]–[d]) that entail the first set of hypotheses (K). If this second set of hypotheses is found and no reason to reject any of them has been discovered, then the second set of hypotheses is provisionally acceptable and the first set of hypotheses confirmed. But if, once a second set of hypotheses is found, reason is also found to reject any one of them, then the first set is no longer confirmed. Third, there is a downward-directed search for consequences that follow from the first set of hypotheses. If the consequences yielded by this search are acceptable, then the first set of hypotheses is confirmed. But if the consequences yielded by this search are unacceptable (as in this particular case), then the first set of hypotheses is disconfirmed.

This pattern of upward-directed investigation into potentially confirming or disconfirming hypotheses and downward-directed investigation into potentially confirming or disconfirming consequences reappears in the *Phaedo*. Socrates describes his method as having the following stages. He begins with a hypothesis, namely the theory that seems to him the most compelling, and considers as true whatever agrees with it while considering as false whatever disagrees with it (100a3–7).[5] Next, he considers what happens if the hypothesis is questioned. In the first place, he "examine[s] whether the consequences that follow from [the hypothesis] agree with one another or contradict one another" (101d). This procedure complies with the downward-directed investigation described in the *Meno*. In the second place, he "assume[s] another hypothesis, the one which seems to [him] best of the higher ones until [he comes] to something acceptable" (101d4–6).

[5] Bostock (1986, 163) claims (reasonably, in my view) that what Socrates means here is that he will consider as true whatever *follows* from the hypothesis and that he will consider as false whatever *is inconsistent* with the hypothesis.

This procedure complies with the upward-directed investigation described in the *Meno*.

The method of hypothesis ascribed to geometers in *Republic* VI differs from that in the *Meno*: whereas the *Meno* suggests that the geometrical method is bidirectional, *Republic* VI suggests that it is unidirectional. At the very end of *Republic* VI, when discussing the Divided Line, Socrates claims that when "students of geometry, calculation, and the like" introduce hypotheses, they "don't think it necessary to give any account of them, either to themselves or to others, as if they were clear to everyone" (510c6–d1). As Socrates puts it a few lines later, geometers "consider [their] hypotheses as first principles" (511b5), that is, as not requiring further proof or confirmation.

The geometrical method is here explicitly contrasted with the method of dialectic, which is supposed to yield knowledge of forms as a result of a bidirectional procedure that is both akin to, but also in one salient respect different from, the method of hypothesis described in the *Meno* and *Phaedo*. According to Socrates, the dialectical method (like the geometrical method) begins with a hypothesis, but (unlike the geometrical method) does not treat this initial hypothesis as a "first principle." Rather, some account of the initial hypothesis is required for knowledge, an account that reaches upward to further hypotheses that reach upward to further hypotheses, and so on up the line until an "unhypothetical first principle of everything" (511b6–7) is reached, at which point the method reverses direction, considering (and accepting) the consequences that follow from the first principle (511b7–c2).

In the *Republic*, Socrates disavows any claim to knowledge of the good.[6] If the good (or some fact about it) is the famed "unhypothetical first principle" of 511b6–7 (a role it seems to play in the *Timaeus* – see 29d–e), then Socrates does not think of his investigation into the forms as having reached the unhypothetical first principle characteristic of the successful execution of the dialectical method. Rather, Socrates conducts his enquiries in a way reminiscent of the method of hypothesis described in the *Meno* and *Phaedo*. For example, he tests his account of the virtues in *Republic* IV by checking whether there is independent reason to accept one of its more surprising consequences (namely, the claim that the soul has three parts:

[6] Socrates tells us (at *Republic* 534b8–c5) that one cannot know the good itself or any other good unless one can "distinguish in an account the form of the good from everything else," implies (at 506b8–c3) that he doesn't have knowledge of the good, and (at 506d8–e1) abandons (for the time being) the quest for what the good is (and so, presumably, for how to distinguish it in an account from everything else).

reason, spirit, and appetite – see 435a–c), and finds such a reason in the shape of further hypotheses (that, we may presume, seem to him "the most compelling"), one of which is the principle of opposites, according to which "the same thing will not be willing to do or undergo opposites in the same part of itself, in relation to the same thing, at the same time" (436b8–9).[7]

Thus, middle-period Socrates aspires to achieving, but unfortunately finds himself as yet unable to achieve, the results promised by the method of dialectic. The next best means of investigation available to him is the method of hypothesis of the *Meno* and *Phaedo* described above. It is with this method that he begins his investigation into the forms, hoping that the upward-directed part of the method will eventually enable him to reach the elusive "unhypothetical" first principle that promises to explain everything there is to explain (*Republic* 511b6–7). As may be predicted from the description of this method in the *Meno* and *Phaedo*, the results of middle-period Socrates' metaphysical and epistemological enquiries will take the shape of a logically interconnected set of hypotheses, some of which will count as axiomatic by virtue of the fact that no more basic hypotheses have as yet been found to entail them, and the rest of which will count as theorems by virtue of being logically derivable from the axioms. As *Phaedo* 101d3–6 emphasizes, the axioms remain acceptable only for as long as the theorems are found to "agree with one another." If perchance a contradiction were to be found among the theorems, then the axioms would become unacceptable. What middle-period Socrates' use of the method of hypothesis promises, then, is a *theory*. It is this theory that will be extended by young Socrates in the *Parmenides*, and then criticized to such effect by Parmenides himself.

The axioms

The backbone of the high theory of forms consists of two axioms, **One-over-Many** and **Itself-by-Itself**. (In the next section, we will meet a third principle about forms, namely the **Principle of Contraries**, that might be

[7] Socrates first (at 428a–434c) defines the virtues of a city in terms that presuppose that the city has three parts (rulers, auxiliaries, and craftsmen), hypothesizes that if city and soul are both called by the same name (e.g., "courageous," "just," "moderate," and "wise"), then they are the same in form (435a–b), and concludes (at 435b) that a virtuous soul must have three parts (corresponding to the three parts of the virtuous city). He then provides independent reason (based on the principle of opposites) for thinking that the soul has three parts (435c–441c), thereby confirming his definitions of the virtues of state and soul.

treated as an axiom, but which we will treat as an auxiliary because of its lesser significance.)

One-over-Many: For any property F and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F.[8]

There is one well-known text that testifies to Socrates' acceptance of **One-over-Many** (**OM**). In *Republic* X (at 596a6–7), Socrates embarks on his examination of imitation by asking Glaucon to adopt the "usual [or customary] procedure," that of hypothesizing "a single form in connection with each of the many things to which we apply the same name."[9] What this statement suggests is that, for any property F and any plurality of F things, there is a (single) form corresponding to F (i.e., a form of F-ness). What is left unstated is that each member of the relevant plurality is F precisely by virtue of partaking of the relevant form.

That what is unstated is implied becomes clear in what has come to be known as the Third Bed argument (at 597c1–d3). There, Socrates argues that there could only be one form of bed. The argument assumes that if there were two forms of bed, each of these forms would "possess the form" (i.e., partake) of another form of bed, and that the latter form would "be the one that is the being of a bed [and hence the real form of bed] and not the other two" (597c7–9). The claim that results in a *reductio* of the assumption that there are two forms of bed is the proposition that the two forms of bed, which are beds, partake of another form of bed. What justifies this proposition is what is left unstated at 596a6–7, namely that, for any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F.

Itself-by-Itself: Every form is itself by itself.

It is not difficult to find language in the middle-period dialogues that testifies to Plato's acceptance of **Itself-by-Itself** (**II**). For example, in the

[8] See, e.g., Ross (1951, 24), Cohen (1971, 473 n. 43), Annas (1974, 277 and 279), and Bostock (1986, 198). As stated, **OM** implicitly distinguishes between forms and properties. Some (e.g., Fine [1993]) argue that Plato's forms are properties. Although I believe it is unlikely that Plato identifies forms with properties (see below, p. 45 n. 48), this is not an issue I wish to prejudge. One way to avoid prejudgment is to restate **OM** as a thesis about predicates (or names), rather than about properties: "For any predicate (or name) 'F' and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F." The same restatement strategy applies to every other axiom or theorem of the high(er) theory stated below. For a view according to which **OM** does not yield a form for every predicate, see Fine (1980, 214ff.; 1993, 110–113).

[9] The translation of this passage has been disputed, e.g., by Smith (1917). Smith's concerns are addressed by Sonnenschein (1918). For discussion of different reactions to Smith's (non-standard) translation, see Fine (1993, 304–305 n. 40). I am grateful to Russ Dancy for these references.

Phaedo, Socrates begins his discussion of causation by assuming "the existence of a beautiful, itself by itself, of a good and a great and all the rest" (100b6–7). And in the *Symposium*, Diotima waxes eloquent about the beautiful "itself by itself with itself" (211b1). The idea that the F is itself by itself is then encapsulated in the phrase "the F itself," which is ubiquitous in the dialogues of this period. Thus, in the *Cratylus*, we find Socrates mentioning a beautiful itself and a good itself (439c8). In the *Phaedo*, Socrates refers to "the beautiful itself, the good itself, the just, the pious, and . . . all those things to which we can attach the word 'itself'" (75c11–d2), to the equal itself (74a12, 74c4–5, 78d3), to tallness itself (102d6), and to the form of life itself (106d5–6), and in the *Republic*, to the beautiful itself (476b10, 479a1, 479e1), and, quite generally, to the thing itself (480a11). Finally, in a passage from the *Timaeus* that pointedly echoes the argument at the very end of *Republic* V, Timaeus refers to forms as "these 'by themselves' things" (51d4–5) and as "these things of which we always say that each of them is something 'by itself'" (51b8–c1).

What is difficult is to say what **II** means, for Plato provides us with no explicit elucidation of **II** in the dialogues of the middle period. One of the passages we have by way of elucidation of **II** appears in Socrates' speech (and in Parmenides' summary of the main points of this speech) in the *Parmenides*. Since, as I argue below (pp. 46-48), there are strong independent reasons to believe that part of the purpose of Socrates' speech is to present the main tenets of the high theory of forms, it is, I think, legitimate to rely on the speech to make sense of what **II** means in the dialogues of the middle period.

So let me briefly canvas the evidence relevant to the interpretation of **II** that appears in Socrates' speech and Parmenides' immediate reaction to it. In the speech, Socrates' first point is that "there is a form, itself by itself, of likeness" (128e6–129a1). Later, describing his own theory (at 129d6–e3), Socrates says:

> But if someone first *distinguishes as separate the forms, themselves by themselves*, of the things I was talking about a moment ago – for example, likeness and unlikeness, multitude and oneness, rest and motion, and everything of that sort – and then shows that in themselves they can mix together and separate, I for my part . . . would be utterly amazed. [Italics for emphasis added.]

As I understand it, the italicized phrase is most plausibly read as including an elucidation or analysis of the technical, and otherwise unclear, phrase "itself by itself." What Socrates seems to be saying is that a form's being itself by itself amounts to its being (or being distinguishable as) separate, in

some sense of "separate."[10] On its own, this is not much of an elucidation, since the word "separate" (*chōris*) is not self-interpreting either. But the equation of "itself-by-itself-ness" with separation (in some sense) opens the way to further elucidation, as becomes clear when we look at the way in which Parmenides summarizes this particular aspect of the theory described in the speech. At 130b1–3, Parmenides asks Socrates:

> Have you yourself distinguished as separate, in the way you mention, certain forms themselves, and also as separate the things that partake of them?

Socrates' affirmative response indicates at least one of the ways in which he conceives of forms as being separate. If forms are separate, then there are things in relation to which they are separate. As this passage makes clear, forms are separate at least in the sense of being separate *from the things that partake of them*. Putting this passage together with the passage from Socrates' speech results in a reading of **II** according to which each form is itself by itself *at least in part in that it is (distinguished as) separate from the things that partake of it*.

This reading is confirmed by a passage that forms part of Parmenides' first criticism of the theory encapsulated in Socrates' speech. The passage that leads in to this criticism reads as follows (130b7–c2):

> "And what about these?" asked Parmenides. "Is there a form, itself by itself, of just, and beautiful, and good, and everything of that sort?"
>
> "Yes," [Socrates] said.
>
> "What about a form of human being, separate from us and all those like us? Is there a form itself of human being, or fire, or water?"

When Parmenides asks, at the end of this passage, whether there is "a form itself of human being" (which, given the obvious parallel with the first sentence of the passage, is most plausibly read as the question whether there is a form, *itself by itself*, of human being), he is clearly repeating the question posed in the previous sentence, namely whether there is "a form of human being, separate from us and all those like us." And given that this last question is best understood in context as the question whether there is a form of human being, separate from the things that partake of it (separate, that is, from individual human beings), we may conclude yet again that Parmenides simply takes for granted that a form's being itself by itself amounts at least to its being separate from its participants.

The upshot of these passages is that it is reasonable (even compelling) to suppose that axiom **II**, namely that every form is "itself by itself" (or the

[10] Here, and in the discussion that follows, I am indebted to Vlastos (1987).

sort of thing that would rightly be described as "the F itself"), at the very least entails the claim (**S**) that every form is separate from the things that partake of it.

Now separation in this context clearly entails non-identity: to say that a form is separate from its participants is to say, at the very least, that the form is numerically distinct from its participants. But there are also reasons for thinking that separation, as Plato conceives it, means *more* than non-identity. To see this, consider the following passage from the *Phaedo* (at 64c2–9 – see also 66e–67a and 67d):

SOCRATES: Do we believe that there is such a thing as death?
SIMMIAS: Certainly.
SOCRATES: Is it anything else than the separation of the soul from the body? Do we believe that death is this, namely, that the body comes to be separated by itself [*auto kath' auto*] apart from [*chōris*] the soul, and the soul comes to be separated by itself [*autēn kath' autēn*] apart from [*chōris*] the body? Is death anything else than that?
SIMMIAS: No, that is what it is.

In defining death as the separation of the soul from the body, Socrates means more in saying that the soul and body exist apart [*chōris*] in death than that they are not identical. For a human's soul and body are not identical *even when she is alive*, that is, when her soul is present in her body (105c8). If the soul and body's being *chōris* is to be a mark of death (as opposed to life), then for X and Y to be *chōris* must be for X and Y to exist in separation in such a way that X is not present in Y and Y is not present in X. Thus, we may take it that Plato understands a form's being itself by itself, separate from the things that partake of it, as its existing in separation from its participants in such a way that it is not present in them.[11]

That this is what the Plato of the middle period means in describing forms as themselves by themselves is confirmed by passages from the *Symposium* and the *Timaeus*. At *Symposium* 211a8–b1, Diotima insists that the beautiful "is not anywhere in another thing, as in an animal, or in earth, or in heaven, or in anything else, but itself by itself with itself [*auto kath' auto meth' autou*]." This is exactly what we would expect Diotima to say, were it the case that a form's being itself by itself amounts to (or at least entails) its existing in separation from its participants in the sense just outlined.

[11] Here I differ from Fine (1984), Vlastos (1987), and Allen (1997, 113 ff.), who take the passages from the *Phaedo* on the separation of soul from body as support for the thesis that forms exist independently, i.e., that forms can exist even if their sensible participants do not.

And at *Timaeus* 52a1–3, Timaeus claims that "that which keeps its own form unchangingly, which has not been brought into being and is not destroyed . . . neither receives into itself anything else from anywhere else, nor itself enters into anything else anywhere." Here it is Timaeus' acceptance of its being of the nature of a form not to "enter into" anything else that confirms Plato's understanding of itself-by-itself-ness as requiring existence in separation.[12]

The auxiliaries

In addition to these two axioms about forms, middle-period Socrates accepts seven auxiliary hypotheses that may be divided into four groups in accordance with their subject matter: opposites, causation, sensibles, and knowledge. Let us then consider each group of principles in turn.

Opposites

The dialogues of the early period are replete with instances of particular claims about opposite properties. Thus, the *Euthyphro* makes it plain that beautiful, just, and good have opposites, namely ugly, unjust, and bad (7e6–8). These same examples turn up in the *Protagoras* (332a4–5 ff.), along with others (wise/foolish, strong/weak, quick/slow, high-toned/low-toned). And, in the *Lysis* (at 215d ff.), we are given even more instances (poor/rich, dry/wet, cold/hot, bitter/sweet, sharp/blunt, empty/full, friend/enemy, temperate/licentious, healthy/diseased). And the same is clearly true of the middle-period dialogues. For example, the *Phaedo* treats being big (or: tall) and small (or: short) as opposite properties (102d–103a), and similarly for being hot and being cold (103c), being odd and being even (104b), and being alive and being dead (105d). And, in the *Republic*, Socrates repeats

[12] In saying that a form is separate (*chōris*) from its participants, is Plato saying that the form can exist independently of its participants, i.e., that the form can exist even if its participants do not? As we will see below (pp. 178), there is some evidence to suggest that Plato's forms cannot exist uninstantiated, and hence that Plato's forms do not have the capacity for independent existence. On the other hand, Aristotle says in several places (*Metaphysics* 1078b30–31, 1086a32–b5) that Plato separated the forms, where there is reason to think that *Aristotle* (at least in these passages) understands separation to involve (or to amount to) the capacity for independent existence (see Hardie [1936, 73], Irwin [1977a, 154], Fine [1984, 258–262], and Allen [1997, 114–115]). My own view (left undefended here) is that, in the relevant passages, Aristotle means no more in saying that the Platonists separated the forms than that they believed that forms were numerically distinct from their participants (see Ross [1924, xliii]). For further discussion of these issues, see Rohr (1980), Morrison (1985a; 1985b), and Fine (1985). There is also evidence from the *Timaeus* that Plato's forms *can* exist uninstantiated. I agree with Fine (1984, 292–295) that this evidence is not sufficiently probative. For further discussion of various reasons for thinking that Plato's forms can exist independently of their participants, see Fine (1984) and Devereux (1994).

many of these same claims (see 479a ff. for the contrast between beautiful and ugly, just and unjust, pious and impious, big and small), and then adds to the set of opposites the pairs light/heavy and double/half (479b) as well as hard/soft, dark/pale, thick/thin (see 523c ff.), and, importantly, one/many (524e–525a). We might call the principle that each of the above-mentioned pairs of properties is a pair of contraries "**CON**" (for "**Contraries**").

In the *Phaedo*, Socrates moves rather seamlessly from talk of opposite *properties* to talk of opposite *forms*. As he sees it, it is not only that the property of being short and the property of being tall are opposites: it is also the case that the form tallness and the form shortness are opposites. For example, at 103b4–5 (and again at 103c7–8), Socrates emphasizes that "the opposite itself could never become opposite to itself" (*auto to enantion heautōi enantion ouk an pote genoito*), citing as an instance of this claim that "tallness . . . cannot venture to be small" (102e5–6); from which it follows that Socrates takes tallness to be opposite (*enantion*) to shortness (and vice versa). It is reasonable to suppose, on this basis, that Socrates takes for granted a **Principle of Contraries** for forms (**PC**), namely that forms corresponding to contrary properties are themselves contraries (that is, if X is a form of F-ness and Y is a form of G-ness and the property of being F and the property of being G are contraries, then X and Y are contrary forms).

Causation

There are two assumptions about causation in the dialogues of the middle period that play a critical role in the high theory of forms. They are, respectively, what I have been calling the principle of "**No Causation by Contraries**" (**NCC**), and what others have called the "**Transmission Theory**" of causation (**TT**).[13]

According to **NCC**, for any property F that admits a contrary (con-F), whatever makes something be (or become) F cannot itself be con-F.[14] A clear instance of this principle appears at *Phaedo* 101b. This passage appears as part of the second of two arguments against the thesis "that one man [say, X] is taller [or: bigger] than another [say, Y] by a head" (100e8–9), that is, that it is a head that makes one man big in relation to another. Socrates' first objection to this thesis begins from the claim that anyone who thinks that it is a head that makes X bigger (than Y) must also think that this same

[13] I borrow the name "Transmission Theory" from Lloyd (1976, 146), Dancy (1991, 86; 2004, 148–149), and Sedley (1998, 123).

[14] See Burge (1971, 4–5), Bostock (1986, 137 and 152), and Dancy (2004, 303).

head is what makes Y smaller (than X) (100e9–101a1). It would follow from this that "the bigger is bigger and the smaller smaller by the same [thing]" (101a7–8), a result that Socrates assumes to be absurd in itself. Socrates' second objection to the thesis begins from the claim that every head is small (presumably insofar as it is smaller than the body of which it is a part). It would then follow from the thesis under investigation that what makes X big (in relation to Y) is something that is itself small. But, as Socrates puts it, "this would be strange (*teras*: monstrous), namely that someone is made bigger by something small" (101a9–b1). Given that, by **CON**, being big and being small are opposites (102e6–103a1), this statement reveals Socrates' acceptance of a clear instance of **NCC**, namely that whatever makes something big cannot itself be small.

According to **TT**, whatever makes something be (or become) F must itself be F.[15] A clear instance of this principle, which has its seeds in Anaxagoras' conception of causation and is also repeatedly affirmed by Aristotle,[16] can be found as early as the *Charmides*, and there is a passage in the *Protagoras* that is most reasonably read as presupposing an instance thereof. At *Charmides* 160e4–5, Charmides proposes that temperance is modesty. At the beginning of his elenctic examination of this proposal, Socrates elicits from Charmides assent to the proposition that temperate men are good (160e9), and then argues to the conclusion that temperance itself must be good (160e13). Given that temperance makes men good (161a8–9), the reason for the conclusion is, quite plainly, that whatever makes something good must itself be good (160e11). And it is plain that this reason is an instance of **TT**.[17] At *Protagoras* 330d8–e1, Socrates and Protagoras both agree that nothing other than piety could be pious unless piety itself were pious. The thought here, we may reasonably presume, is that piety is pious precisely because it is what makes other pious things pious. And what this statement presupposes is yet another instance of **TT**, namely that whatever makes pious things pious must itself be pious.

[15] See Burge (1971, 4–5), Bostock (1986, 152), Teloh (1981, 42–46), Gill (1996, 35), Sedley (1998, 123), and Dancy (2004, 149). For a contrary view, see Malcolm (1991, 11–16 and 21–24). Note that what Cresswell (1971, 245) cites as support for **TT** actually supports **NCC**.

[16] For references and discussion, see Dancy (2004, 148–149). At *Phaedo* 97c–99c, Socrates criticizes Anaxagoras, but not *this* aspect of Anaxagoras' theory. The Anaxagorean idea of which Socrates disapproves is that the causes (*aitiai*) of the properties of things are *sensible* items (such as air, ether, water, sounds, bones, sinews, and so on).

[17] For further discussion, see Dancy (2004, 109–114 and 151). Dancy (2004, 151–170) also argues that **TT** underlies the argument at *Charmides* 164c–166b, as well as the first three refutations in *Hippias Major* 287b–293c. Although I agree with Dancy here, I think that the evidence from the *Hippias Major* for ascribing **TT** to Plato is indirect.

Although there is no *direct* evidence from the middle dialogues to suggest that Plato took **TT** on board as his theorizing matured, there does exist some *indirect* evidence to this effect. As we have seen, the Socrates of the *Phaedo* (at 101a9–b1) finds it "strange" (or: monstrous) that things should be made big by something that is small. In saying this, Socrates presumably has in mind to contrast this sort of case with one that he would not be disposed to describe as monstrous, namely one in which things would be made big by something that is big (and not small). And it is reasonable to suppose further that the reason why this sort of situation is not monstrous is precisely *because* nothing can make other things F unless it itself is F.[18]

Sensibles

There is one claim about sensibles that plays an important role in the high theory of forms. This is the thesis (call it "**Impurity of the Sensibles**" [**IS**]) that, for any property F that admits a contrary (con-F), all sensible F things are con-F.[19] Evidence that Plato was approaching acceptance of **IS** by the early-middle period derives from Socrates' acceptance of instances of this principle in the *Hippias Major*. There, as part of an argument that the fine itself is not to be identified with a fine girl, Socrates gets Hippias to agree that "the finest of monkeys is foul put together with another class [namely, the class of humans]" (289a3–4), "the finest of pots is foul put together with the class of girls" (289a4–5), and "the finest girl is foul compared to the class of gods" (289b6–7). Since Socrates' conclusion is general enough to include horses and lyres (289d4–5), it is reasonable to suppose that Socrates endorses the general claim that all fine sensible things are also foul. It is then but a short step from this claim to the even more general claim that every sensible thing is such that there are things by comparison with which it is fine and other things by comparison with which it is foul, and hence that every sensible thing is both fine and foul.

[18] Further indirect evidence for middle-period Socrates' acceptance of **TT** derives from his clear endorsement of **SP**, which plainly follows from the conjunction of **TT** and **C** (about which more below).

[19] See Vlastos (1965a; 1965b) and Annas (1981, 205). To say that X is both F and con-F is to say something weaker than that X suffers from compresence or succession of opposites. When X is F and con-F at the same time, X suffers from compresence of opposites. When X is F at one time and con-F at another, X suffers from succession of opposites. (See Owen [1957, 174–175].) I argue below (pp. 112–113) that, as Plato sees it, to say that X is F (con-F) is to say that there is some way in which X is F. One way for X to be F is for X to be F *at a time*. Another way for X to be F is for X to be F *relative to* Y. **IS** says no more than that all sensible things that are F [in some way] are also con-F [in some way]. For a different view that emphasizes compresence over succession, see Irwin (1977b), Fine (1993, 54–57), and McCabe (1994, 37–47).

Direct evidence that middle-period Socrates accepts **IS** appears both in the *Phaedo* and in the *Republic*. In the *Republic*, as part of his argument that sensibles are objects of opinion (not knowledge), Socrates assumes that "the many beautiful things" appear ugly, that the many just things appear unjust, that the many pious things appear impious, and that the many doubles appear halves (479a–b). Socrates and Glaucon then agree that the point generalizes, and in particular that "each of [the many bigs and smalls and lights and heavies] always participates in both [opposites]" (479b8).[20] Since the "many" things at issue here are sensibles, Socrates' general claim here is that every sensible F thing is also con-F, and, even more generally, that (for all contrary properties, F and con-F) every sensible thing is such that there are things by comparison with which it is F and things by comparison with which it is con-F.

Finally, in the *Phaedo*, as part of his argument for the conclusion that the soul exists before birth, Socrates proves that the F itself is distinct from all sensible F things. And it is a premise of the latter proof, as Socrates puts it, that "equal stones and sticks sometimes, while remaining the same, appear to one to be equal and to another to be unequal" (74b7–9). Again, the point here seems to be that [it is apparent – in the veridical sense – that] sensible equals are also unequal, and, more generally, that sensible things have all manner of contrary properties.[21] Particular instances of this principle then appear later in the dialogue. Thus, at *Phaedo* 102b ff., Simmias is described as being both big (or: tall) by comparison with Socrates and small (or: short) by comparison with Phaedo, and hence both big (tall) and small (short). And it is clear that, at least with respect to the contrary properties of being big and being small, every sensible thing is such that there are things by comparison with which it is big and other things by comparison with which it is small.[22]

[20] Notice that Socrates moves to the claim that sensible F things *are* con-F (that is, partake of both the F and the con-F) from the claim that sensible F things *appear to be* con-F. Since the Greek word for "appear" in this context is ambiguous as between a veridical and a non-veridical sense, Socrates' move from the one claim to the other strongly suggests that his use of "appear" here is veridical. For more on this, see Annas (1981, 205) and Irwin (1999, 154). For a different view, see, e.g., Kirwan (1974).

[21] On the use of "appear" in this passage, see previous note and below (p. 39 n. 37).

[22] There is some controversy over whether the many F's that Socrates describes as being con-F in the *Phaedo* and *Republic* are tokens or types. One reason for thinking that Plato must have types (rather than tokens) in mind, rather clearly stated by Irwin (1999, 154 ff.), is that Plato surely does not accept that all just action-tokens are also unjust. Rather, what Plato holds is that every action-type is both just and unjust *in the sense that* some tokens of the type are just and other tokens of the type are unjust. For interpretations similar to Irwin's, see Owen (1957, 174 n. 32), Gosling (1960),

Knowledge

There are two claims about knowledge that play an important role in the high theory of forms. The first (call it "**Stability of the Objects of Knowledge**" [**SOK**]) concerns what things must be like if they are to serve as the objects of knowledge. The second (call it "**Possibility of Human Knowledge**" [**PHK**]) concerns those who serve as the subjects of knowledge.

The first assumption about knowledge (namely, **SOK**) says that knowledge is of objects that are (in a sense to be elucidated) *stable*. This principle appears as a premise in the second of three anti-Heracleitean arguments at the end of the *Cratylus*, and serves as a justification for one of the premises in the argument that knowledge is of forms (not sensibles) at the end of *Republic* V. In the *Cratylus*, Socrates worries that if, as Heracleitus famously said, "everything gives way and nothing stands fast" (402a8–9) and "all . . . things seem to be flowing" (439d4), then it will turn out that nothing can ever be known by anyone. For, as Socrates puts it (at 439e7–440a3), "at the very instant the knower-to-be approaches, what he is approaching is becoming a different thing, of a different character, so that he can't yet come to know either what sort of thing it is or what it is like." The argument here is simply put. To know something is to draw a cognitive bead, to get a cognitive fix, on it. And since one cannot get a cognitive fix on things that are not stable, things that are constantly in a state of becoming other than they were (or are), one cannot know them. And if, as Heracleitus averred, everything there is is unstable (in the relevant sense), then it follows that nothing at all can be known by anyone, a result Socrates takes to be fairly obviously false. Socrates then concludes that Heracleiteanism is false. The important point for my purposes here is that this argument presupposes that it is impossible to get a cognitive fix on (and so, it is impossible to know) objects that are in a state of Heracleitean flux: as **SOK** says, knowledge must be of things that are stable.

Although **SOK** plays a merely negative (anti-Heracleitean) role in the *Cratylus*, it plays a far more positive role at the end of *Republic* V. There Socrates argues to the conclusion that knowledge is of forms (not sensibles) from two assumptions: (i) that knowledge is of (*epi*) something that

Crombie (1962–1963, vol. 1, 293–295), Nehamas (1975b) (who differs from Nehamas [1975a]), and Fine (1993, 56). However, as White (1977, 301) points out, Plato allows that the very same action-token can be just *to one person* and unjust *to another person*, hence that the very same action-token can be just *in one way* and unjust *in another way*, and hence that the very same action-token can be both just and unjust. For further discussion, see Gosling (1977), White (1978), and Annas (1981, 204 ff.).

"purely is" (477a) and (ii) that forms (not sensibles) are the sort of things that purely are, i.e., that "are always the same in every respect" (479e7–8). Socrates' first assumption here quite plainly derives from **SOK**. For **SOK** tells us that knowledge is of things that are stable, things that are not always in a state of becoming other than they were (or are). And these are precisely the things of which we can say that they are not both F (in some way) and con-F (in another), i.e., things that (in the relevant sense) *purely* are.

The second assumption about knowledge (namely, **PHK**) is that we humans are capable of having knowledge. The thought that knowledge is possible (even, in some cases, actual) for us appears in a number of middle-period dialogues. As we have seen, the second anti-Heracleitean argument of the *Cratylus* assumes that we humans are able to obtain knowledge. And at *Phaedo* 74a12–b3, Socrates gets Simmias to agree that they both have knowledge of the equal itself, and goes on to argue (at 75a ff.) that their souls must have acquired this knowledge before they were born, and hence (at 76e–77a) that their souls must have existed before they were born. Moreover, in the *Symposium*, the wise Diotima describes a procedure whereby humans, by gazing at ever more beautiful things, are capable of attaining knowledge of "what it is to be beautiful" (211c8–d1), that is, knowledge of the form of beauty itself. And in the *Republic*, Socrates describes another procedure, namely the method of dialectic, the successful execution of which will lead humans to knowledge of all forms, and most importantly the form of the good (534b8–c5). So it is clear from the middle dialogues that humans possess knowledge of some things and are at least in principle capable of gaining knowledge of many more.

Fundamental theorems

The most interesting and surprising fact about Plato's mature ontological investigations, and the fact that perhaps more than anything entitles the results of these investigations to be presented in the shape of a theory, is that the two axioms and seven auxiliaries discussed above logically entail almost everything else of philosophical interest Plato says about forms in the dialogues of the middle period. In the rest of this section, I explain exactly how the axioms and auxiliaries entail fourteen statements that deserve to be called the fundamental theorems of the high theory of forms.

Existence (**E**) For any property F, there is a form of F-ness.

E is a logical consequence of **OM**. For **OM** says that, for all F and every plurality of F things, there is a form of F-ness by virtue of which each member of the plurality is F. It follows directly that, for all F, there is a form of F-ness.

Instances of **E** appear throughout the early to middle dialogues. Already in the *Protagoras*, Socrates insists that "justice is a thing" (330c1–2), that "piety is a thing" (330d3–4), that "there is such a thing as folly" (332a4), and that there are such things as beauty, ugliness, goodness, and badness (332c3–6). In the *Meno* (at 72a8–c5), Socrates insists on there being a form of bee. In the *Hippias Major* (at 287c4–d2), Socrates gets Hippias to agree that each of justice, wisdom, goodness, and beauty (i.e., the fine) is something. And in the *Cratylus* (at 389b2–7), Socrates and Hermogenes agree that there is a form of shuttle, and later (at 439c8–d2) Socrates gets Cratylus to agree that "there is a beautiful itself, and a good itself, and the same for each one of the things that are."

Then, in the *Phaedo*, Socrates and Simmias agree that "there is something that is equal," something "beyond all [sensible equal things]," namely "the equal itself" (74a9–12). And, later in the same dialogue, Socrates "assume[s] the existence of a beautiful, itself by itself, of a good and a great and all the rest" (100b5–7).[23] And at *Republic* 596b3–4, Socrates claims that there is a form of bed and a form of table (and so, we may presume, forms of artifacts generally). In general, as Timaeus puts it at *Timaeus* 51c4–5, "there exists an intelligible form for each thing," the point here being not that there is a form of F-ness corresponding to every individual F thing, but rather, as **E** says, that there is a form corresponding to every property.

No More Than One (**NMTO**)	For any property F, there is no more than one form of F-ness.
Uniqueness (**U**)	For any property F, there is exactly one form of F-ness.

NMTO is the conclusion of the Third Bed argument in *Republic* X. As we saw above, Socrates begins by stating a truncated version of **OM**, namely that there is "a single form in connection with each of the many things to which we apply the same name" (596a6–7). It follows from this that, for any plurality of things to which we apply the name "form of bed," there is a form of bed of which each member of the plurality partakes. Socrates then claims that "['form of bed'] is our term for the being of a bed" (597a1–2),

[23] In some of these texts, Socrates uses the phrase "the F" or "the F itself" to refer to the form whose existence he is assuming. The use of the definite article suggests that Socrates hypothesizes not merely existence but also uniqueness. Substantiation of this claim appears in the next section.

and that no one other than a god could possibly make a form (597b5–8). The argument then appears in the following passage (597c1–d3):

SOCRATES: Now, the god, either because he didn't want to or because it was necessary for him not to do so, didn't make more than one bed in nature, but only one, the very one that is the being of a bed. Two or more of these have not been made by the god and never will be.

GLAUCON: Why is that?

SOCRATES: Because, if he made only two, then again one would come to light whose form they in turn would both possess, and *that* would be the one that is the being of a bed and not the other two.

GLAUCON: That's true.

SOCRATES: The god knew this, I think, and wishing to be the real maker of the truly real bed and not just *a* maker of *a* bed, he made it to be one in nature.

The argument begins with an assumption for *reductio*, namely the claim that there is more than one form (and so at least two forms) of bed. It then follows by **OM** that there is a third form of bed of which the first two forms of bed partake. And given that "form of bed" is just a name for the being of a bed, it follows that this third form of bed is the being of a bed. Socrates goes on to say, without further explanation, that neither of the first two forms of bed would deserve the name "the being of a bed." There are a number of assumptions that might be used to justify this step. Perhaps the most obvious suggestion is that nothing that partakes of the being of a bed deserves to be called "the being of a bed." But if neither of the first two forms of bed deserves to be called "the being of a bed" and the term "form of bed" is our term for the being of a bed, then neither of the first two forms of bed is a form of bed. Contradiction. The conclusion is that the assumption for *reductio* is false, and thus that there is no more than one form of bed.[24]

The result of combining **E** and **NMTO** is a theorem we might call "**Uniqueness**" (**U**), namely that for any property F, there is exactly one form of F-ness. For this result, as is evident, follows directly from the claim that there is a form, but no more than one form, corresponding to any given property. Given **U**, Socrates is justified in using the definite article to refer to the forms hypothesized by means of **OM**: since there is exactly one form of F-ness, it is reasonable to call this form "the F," as Socrates so often does in the dialogues of the middle period.

[24] For a different rendition, and extensive discussion, of the Third Bed argument, see Fine (1993, 231–238 and accompanying references).

Causality (**C**) For any property F, all F things (other than the F) are F by virtue of partaking of the F.[25]

Being as Partaking (**BP**) For any property F and for any X other than the F, X partakes of the F if and only if X is F.

C is logically entailed by the conjunction of axiom **OM** and theorem **U**. For, by **OM**, any plurality of F things is F by virtue of partaking of a form of F-ness. Consider now the plurality defined as the set of all F things (that are not themselves forms of F-ness). Since, by **U**, there is exactly one form of F-ness (namely, the F), it follows directly that all F things (other than the F) are F by virtue of partaking of the F.

C has clear antecedents in the early and early-middle dialogues. Already in the *Euthyphro*, Socrates explicitly rephrases his guiding question, "What is the pious?" (5d7), as the question, "[What is] that form itself that makes all pious actions pious?" (6d10–11). And in the *Protagoras*, Socrates insists, without proof, that "it is by virtue of temperance that [people] are temperate" (332a8–b1), that "foolish behavior comes from folly" (332b4–5), that "what is done temperately is done through temperance, and what is done foolishly is done through folly" (332d6–e1), and that cowardice is "that through which cowardly people are cowardly" (360c1–2). Later, Socrates assumes that "people act unjustly . . . by injustice" (*Gorgias* 520d1–2), that all of the virtues "have one and the same form which makes them virtues" (*Meno* 72c7–8), that "just people are just . . . by justice," that "by wisdom wise people are wise, and by the good all good things are good," and that "all fine things . . . are fine by the fine" (*Hippias Major* 287c1–d1).

C is also prominent in the *Phaedo* in the form of a hypothesis that, like any other hypothesis to be tested by the method of hypothesis, is at least potentially subject to falsification. Thus, Socrates characterizes what he calls the "safest answer" (100d8–9) to the question "what makes beautiful things beautiful," namely that "all beautiful things are beautiful by the beautiful" (100d7–8), as a "hypothesis" that one might well discover to have contradictory consequences (101d3–6). The relevant hypothesis, as in the early (and early-middle) dialogues, is perfectly general. For, as Socrates emphasizes, it is also the case "that it is through bigness that big things are big, and that smaller things are made small by smallness" (100e5–6), that magnitude is the cause of excess (101b4–6), and that it is by sharing in twoness that something becomes two (101c4–5).

This last way of putting the point brings up an important aspect of both **C** and **OM**. What Socrates says is not just that it is by (or through) twoness

[25] See, e.g., Wedberg (1955, 32) and Dancy (2004, 149).

that something becomes two. What he says is that it is by *sharing in* twoness that something becomes two. The point generalizes. As Socrates says at *Phaedo* 100c4–6: "If there is anything beautiful besides the beautiful itself, it is beautiful for no other reason than that it *shares in* that beautiful, and I say so with everything" [italics for emphasis added]. So what accounts for the fact that sensible things have the properties they do (properties such as being two, being beautiful, and so on) is that these things bear a very particular sort of relationship to the forms that correspond to these properties. This relation is that of sharing in (partaking of, participating in) the form.[26]

Despite the important place of the relation of partaking as part of **C**, middle-period Socrates tells us precious little about how we are to understand it. In fact, he explicitly tells us that he has little to say in this regard. As he puts the point at *Phaedo* 100d4–8: "Nothing else makes [a thing] beautiful other than *the presence of, or the sharing in, or however you may describe its relationship to that beautiful we mentioned, for I will not insist on the precise nature of the relationship*, but that all beautiful things are beautiful by the beautiful" [italics for emphasis added].

The *Phaedo*, then, explicitly sets aside the project of giving an account of the relation of partaking. But it is clear from the earlier *Lysis* and *Euthydemus* that there are potential problems in the offing here.[27] At *Lysis* 217d1–4, Socrates notices that when blond hair is smeared with white lead, the hair isn't really white (it only appears to be white) even though whiteness is "present with" it. Socrates concludes that the mere presence of the F (in the colloquial sense of "present") is not sufficient for something's being F. As he puts it, it is only when the F is present "in a certain way" that the things with which it is present are F (217e2–3).

Moreover, when Socrates volunteers at *Euthydemus* 301a3–4, as in the *Phaedo*, that some beauty (namely, the beautiful) is *present with* each beautiful thing, Dionysodorus responds as follows (301a5–6): "Then if an ox is present with you, you are an ox? And because I am present with you

[26] Notice that the passage from *Phaedo* 100c presupposes both that the beautiful is beautiful and that it is not by virtue of partaking of itself that the beautiful is beautiful. The first claim is an instance of **Self-Predication** (**SP**), the second an instance of what I will call "**Non-Self-Explanation**" (**NSE**). Both of these principles, as we shall see, are theorems of the high theory. And it is because of these principles that **C** says, not that *all F things* are F by virtue of the F, but that *all F things other than the F* are F by virtue of the F. (See also *Symposium* 211b2–3, where Diotima says that "all the other beautiful things [i.e., all the beautiful things other than the beautiful] share in [the beautiful].")

[27] I am indebted to Russ Dancy for bringing these passages to my attention. For discussion, see Dancy (2004, 192–198).

now, you are Dionysodorus?" To which Socrates replies (301a7): "Heaven forbid."

The "Dionysodorean" problem raised here stems from an important corollary of **C**. If, as **C** says, F things (other than the F) are F by partaking of the F, then, for anything other than the F, partaking of the F is both necessary and sufficient for being F (call this corollary "**Being as Partaking**" [**BP**]). By **BP**, then, if X is not identical to the F and X partakes of the F, then X is F. So if, as Socrates suggests in both the *Euthydemus* and the *Phaedo*, for X to partake of Y is just for Y to be present with X, then we have it that if X is not identical to the F and the F is present with X, then X is F. But on a normal, colloquial understanding of being "present with," X's being present with Y amounts to Y's being in X's presence. And a consequence of this is that, if Socrates (who is other than the ox) is in the presence of the ox, then Socrates is an ox. Although this is not exactly the absurd consequence raised by Dionysodorus himself (Dionysodorus claims the relevant absurdity to be that, if Socrates is in the presence of *an* ox, then Socrates is an ox), the consequence raised here is no less absurd. For surely being in the presence of the F (were this even possible) would not be sufficient to make anything F.

In order to avoid the Dionysodorean problem raised in the *Lysis* and *Euthydemus*, Socrates needs to provide an account of the nature of partaking that does not equate it with being present with, at least as colloquially understood. But middle-period Socrates provides no such account. Notice, though, that with respect to this project he is not without resources. In particular, there are numerous references in the middle-period dialogues to things' being like (resembling, being images of) the forms of which they partake.[28] For example, at *Republic* 472b7–c7, Socrates describes justice as a model that just people are like (though it may well be that they are not like it in every respect). Later, in the section on the Divided Line (at 510a ff.), Socrates claims that sensible things are likenesses of intelligible things (namely, forms), and in particular that visible squares are like the square itself, that visible diagonals are like the diagonal itself, and so on for the other geometrical shapes (510d5–e1). And in *Republic* X (at 597a4–5), Socrates claims that the beds human carpenters make are "like" the form of bed that these craftsmen "look towards" when they make them (596b6–8). Similarly, in the *Timaeus*, Socrates describes the sensible world as having

[28] As we will see, this is no surprise. For the claim that X is like Y follows from the claim that X and Y have a property in common. And since, by **SP**, itself a theorem of the high theory, the F is F, it follows that the F and its participants have a property in common (namely, F), and hence are like. More on this below.

been "formed to be like" the intelligible world (29c1–2 – see also 48e5–49a1), and speaks of the craftsman who forms the sensible world (at 30c2–d1) as making it in the image of the living thing itself (whereupon, in accordance with **C**, the sensible world becomes a living thing as well). In general, sensible things "are imitations of those things that always are [i.e., the forms], imprinted after their likeness" (50c4–6). So middle-period Socrates might have said, even if he never goes so far as to say, that partaking of a form amounts to being like it. As we will see, it is not until the *Parmenides* that this suggestion is explicitly raised.

Before moving on to the next theorem, it is worth saying a few more words about the relation between **C** and the way in which things are named, if only to avoid possible confusion elsewhere. There are passages in the middle dialogues in which Socrates says not only that it is by the F that F things (other than the F) are (or become) F, but also that it is by the F that F things are (or get) named. For example, at *Phaedo* 102b1–3, middle-period Socrates insists that it is by partaking of the forms that other things "acquire their name." As I understand it, this claim is just a stylistic variant of **C**. Notice that the *Phaedo* treats Simmias' being tall as equivalent to his being [properly] called "tall" and Simmias' being short as equivalent to his being [properly] called "short" (102c7–11). It would then seem that, according to middle-period Socrates, for something to be [properly] *called "F"* is tantamount to its *being F*. Thus, to say that it is by virtue of X that Y is [properly] named "F" is just to say that it is by virtue of X that Y is F.

Self-Predication (**SP**) For any property F, the F is F.

SP, as should be evident, is a direct consequence of theorem **C** and auxiliary **TT**. For, by **C**, all F things other than the F are F by virtue of the F, and, according to **TT**, if X is F by virtue of Y, then Y itself must be F. It follows directly that the F too must be F.[29]

Since both **C** and **TT** are holdovers from the dialogues of the early period (see above), it should come as no surprise that instances of **SP** appear throughout the early- to middle-period dialogues. Already in the *Protagoras*, we find that "justice is the sort of thing that is just" (330c7–8) and that piety is by nature pious (330d5–e1). In the *Euthydemus*, Socrates insists that the beautiful is beautiful, the ugly ugly, the same same, and (something "even a child would hardly doubt") the different different (301b5–c2). Then, in the *Cratylus*, Socrates tells us that "the beautiful is always such as it is" (439d5–6), i.e., that the beautiful is beautiful. This claim is then repeated in the

[29] See Teloh (1981, 119–125), Gill (1996, 35), Sedley (1998, 129 n. 18), and Dancy (2004, 149 and 305).

Hippias Major, where we find Socrates insisting that "the fine is always fine" (292e6–7). Finally, in the *Phaedo*, Socrates claims that "if there is anything beautiful besides the beautiful itself, it is beautiful for no other reason than that it shares in that beautiful, and I say so with everything" (100c4–6). In this context, the phrase "besides the beautiful" reveals Socrates' acceptance of the claim that the beautiful is beautiful, and the phrase "I say so with everything" indicates that Socrates takes the thesis to be fully general. This is confirmed by a later passage in which Socrates claims that "tallness, being tall, cannot venture to be small" (102e5–6). Here Socrates accepts a claim that will loom large in the *Parmenides*, namely that the large is large.[30]

Despite the appearance of numerous claims of the form "the F is F" throughout the early to middle dialogues, some commentators balk at attributing to Plato (at any stage of his career) a thesis that has what appear to be obviously false, even nonsensical, instances. For example, it seems to be a clear category mistake (and one Plato himself was in a position to recognize) to say that justice is just in the same sense that just persons are just or that largeness is large in the same sense that large buildings are large. After all, for a human being to be just is for her to possess a certain trait of character, and justice, on Plato's conception of it, just isn't the sort of thing that is capable of possessing character traits. Moreover, for a building to be large is for it to exceed others along some spatial dimension (such as size or height), and largeness, on Plato's conception of it (as will become clearer below), just isn't the sort of thing that could have spatial dimensions.[31]

Faced with clear statements of the form "the F is F" in the dialogues, some of these scholars suggest that the apparently clear syntactical structure of this sentence does not mirror its semantic features. On their view, "the F is F," properly understood, does not capture the standard thought that the F displays or exemplifies the property of being F. (One consequence of this position is that the sentence does not follow by universal instantiation from the universal generalization "everything is F.") There are in the philosophical literature at least three different suggestions as to what the sentence should properly be taken to mean. Cherniss (1957) and Allen (1960) claim that, for Plato, "the F is F" is semantically equivalent to the identity-statement "the F is identical to the F"; Vlastos (1974) treats the sentence as a Pauline predication to the effect that "necessarily, whatever is F is F"; and Nehamas

[30] The words "tall" and "large" here translate the same Greek term, *mega*.

[31] See, for example, Penner (1987, xiii) and Gill (1996, 34). Owen (1957, 177–178) worries that the equal is not equal in the same way that ordinary sensible things are equal, namely by being equal *to* something. But there is no need to worry here if, as I presume, Plato takes the equal to be equal to something, namely itself.

(1979) analyzes the sentence as "the F is what it is to be F." Despite their differences, all of these proposals have in common a reinterpretation of "the F is F" that makes the sentence mean something that Plato would (or at least might) have accepted as true. They are, in effect, understandable and well-motivated applications of the principle of charity (never attribute to an intelligent author something that he would take to be either obviously false or nonsensical).

But there are reasons to be suspicious of non-standard ways of reading the sentence "the F is F," as it appears in Plato's dialogues. For one thing, if Plato had wanted to say that the F is identical to the F or that necessarily whatever is F is F or that the F is what it is to be F, there were familiar Greek expressions at his disposal to say exactly that. Why, then, would Plato choose to use "the F is F" to express a proposition better expressed in other terms?

Perhaps the most important reason not to read "the F is F" in any non-standard way is that the motivation for doing so, based on the principle of charity, disappears on reflection. Consider, for example, the worry that justice could not, on Plato's account, be the sort of thing that exemplifies the property of being just. The initial thought is that for a person to be just is for her to possess a certain trait of character. Thus, it would seem that justice itself could not be just in the same way that a person is just, since justice is obviously not a trait of character. But it is not at all clear that Plato would endorse the claim that being just, even in the case of persons, is a matter of possessing a character trait. According to the Socrates of the *Republic*, a city is just insofar as it has parts each of which does its own work (433b ff.), and a human is just in exactly the same sense (441d5–6). What is there to say that, for middle-period Socrates, justice itself could not be the sort of thing that had parts each of which did its own work, that justice itself could not be just in exactly the same way that souls and cities are just?[32]

Or consider the worry that largeness could not, on Plato's account, be the sort of thing that exemplifies the property of being large. The initial thought is that largeness, a non-spatial thing, could not possibly exemplify a spatial property such as being large. But it is not at all clear that the property of being large is spatial. It is true, of course, that, in the case of

[32] In answer to this question, it might be argued that the Affinity argument in the *Phaedo* assumes that forms are incomposite, and hence have no parts (78c1–8). But the relevant passage may be read as emphasizing, not that forms are *partless*, but that (even if they have parts) they *cannot be split up into their parts*. As Socrates puts the point in the argument's conclusion (at 80b1–5), the important thing is that forms (unlike sensibles) are indissoluble (80b2: *adialutoi*).

spatial entities, the property of being large is realized spatially (as greatness of size, height, or whatnot). But what is there to say that, in the case of non-spatial entities such as forms (including largeness itself), the property of being large must be realized in the same way? After all, when we say that a number (class, set) is larger than another number (class, set), there is no supposition that the one exceeds the other along some spatial dimension. So why couldn't it be the same, at least in Plato's eyes, for largeness itself? It seems, then, that non-standard interpretations of "the F is F" derive from a well-intentioned, but ultimately misguided, application of the principle of charity. It is only because *we* cannot fathom how justice *as we conceive of it* could be just and because *we* cannot fathom how largeness *as we conceive of it* could be large that we are tempted by non-standard interpretations of "justice is just" and "largeness is large."

There are also positive reasons for thinking that Plato intended "the F is F" to be read in the standard way. For recall that middle-period Socrates endorses the proposition that forms are paradigms that resemble their participants. Since resemblance is a matter of sharing properties, it follows that, for the Socrates of this period, the F and the things that partake of it share at least one property. The one property to which Plato draws the most attention in this respect is *the property of being F*. For example, in the *Phaedo* (at 74d ff.), Socrates makes much of the fact that sensible equal things are "such as" the equal and "strive to be like the equal," even if they are in some way "inferior" and only "deficient" copies of the equal itself. On at least one plausible way of understanding "inferiority" or "deficiency" in this context, it is plain that what most directly accounts for the fact that the F resembles the many sensible F things that partake of it is that the F and its participants exemplify the property of being F.[33]

In addition to this, there is a telltale sign of Plato's intentions in the very language he chooses to refer to the form that corresponds to the property of being F. As we have seen, Plato used the phrase "the F" to refer to the (unique) form of F-ness. But in Attic Greek, as is also well known, "the F" is ambiguous. In some contexts, to speak of "the F" is to speak of the only contextually salient F thing, as I might say to you in my office: "The table is covered in books." In others, the phrase "the F" is elliptical for "the

[33] On the "approximation view" (so-called by Nehamas [1975a]), sensible things that participate in the F are only *approximately* F, while the F is *perfectly* F. On such a view, the F and its participants do not exemplify the same property. Those who adopt the "approximation view" include Wedberg (1955, 40), Cross and Woozley (1964, 180–181), and Malcolm (1991, 106–124). (For further references, see Nehamas [1975a, 139–140].) But, largely for the same reasons alluded to by Gosling (1965), Nehamas (1975a), Gallop (1975, 127–128), Patterson (1985, 165–169), and Bostock (1986, 85–88), I reject the approximation view.

F thing," as in the case in which, speaking of Socrates, Simmias might say: "The snub-nosed just walked in." In these cases, the speaker's use of the phrase "the F" clearly presupposes that the relevant referent of the phrase exemplifies the property of being F: the table under discussion is a table, the snub-nosed [individual] under discussion snub-nosed. Given that Plato was well aware of these alternative ways of using "the F," it is difficult indeed to believe that he did not intend to suggest, precisely by referring to F-ness by appending the predicate "F" to the definite article, that F-ness exemplifies the property of being F.

Finally, it becomes even more difficult to reject the standard reading once it is recognized that "the F is F," as standardly understood, derives logically from **C** and **TT**. On balance, then, too many roads point toward, and too few roads away from, middle-period Socrates' acceptance of **SP**.

Purity (**P**) For any property F that admits a contrary (con-F), the F is not con-F.[34]

Purity* (**P***) For any property F that admits a contrary, the F is not both F and con-F.

P is a logical consequence of theorem **C** and auxiliary **NCC**. According to **C**, all F things (other than the F) are F by virtue of partaking of the F. But, by **NCC**, whatever makes anything F (i.e., the thing that is such that F things other than it are F by virtue of partaking of it) cannot itself be con-F. It follows directly that the F is not (and cannot be) con-F. It is then a corollary of **P** (call it "**P***") that, for any property F that admits a contrary, the F is not both F and con-F.[35]

[34] See Bostock (1986, 195), Sedley (1998, 118), McCabe (1994, 63), and Dancy (2004, 18 and 164). It might be objected that, at best, middle-period Plato holds a restricted version of **P**, for in the *Republic* Socrates holds that every form (including, presumably, the bad) is good. I agree that if the Socrates of the *Republic* holds such a view, then **P** cannot be true in all generality. But I doubt that Socrates expounds such a view. In brief, when Socrates likens the form of the good to the sun at *Republic* 508b13–c2, he means no more than that, just as the sun makes sensible things visible, so the good makes intelligible things (including the forms) knowable. In committing himself to this, Socrates does not thereby commit himself to the good's causing the bad (which, since the bad is bad [by **SP**], would run afoul of **NCC**), nor does he commit himself to the bad's being good. So, as I see it, the *Republic* does not present us with a counterexample to **P** in the shape of the bad.

[35] McCabe (1994, 66) claims that middle-period Plato accepts not only **P** but also **RP**, the thesis that no form can have contrary properties (of any sort). Her main reason for thinking this is that middle-period Plato takes the forms to be completely simple or austere, in the sense of having no properties at all (McCabe [1994, 64]). I cannot accept that middle-period Plato is committed to such a radical assumption as that forms are austere (in the relevant sense). In the first place, Plato's forms are eternal, unchanging, intelligible, and indivisible (see below), from which it follows directly that forms have at least some properties. And further, as I have just argued, forms are self-predicating (as McCabe [1994, 85] herself accepts), and hence cannot possibly be austere. If Plato had thought that forms were austere, he would have *immediately* seen a conflict between the austerity thesis and numerous theorems of the high theory (including **SP**).

Instances of **P**, throughout the early to middle dialogues, are legion. Already in the *Euthydemus* (at 301b8), we find Socrates insisting that the different is not the same (where it is plain from the context that Socrates is not here affirming the non-identity of difference and sameness, but rather pointing out that the different does not exemplify the property of being the same). In the *Hippias Major*, Hippias summarizes what Socrates has been getting at in the following words: "The fine [i.e., the beautiful] is the sort of thing that will never be seen to be foul [i.e., ugly] for anyone, anywhere, at any time" (291d1–3). Then, in the *Phaedo*, Socrates hypothesizes that "tallness, being tall, cannot venture to be small" (102e5–6), and, in general, "the opposite itself could never become opposite to itself" (103b4–5). At *Phaedo* 102d6–7, Socrates also states an instance of **P***, namely that "tallness itself is never willing to be tall and short at the same time." And another instance of **P*** appears in the *Symposium*, where Diotima emphasizes that the beautiful "is not beautiful in this way and ugly that way, nor beautiful at one time and ugly at another, nor beautiful in relation to one thing and ugly in relation to another; nor is it beautiful here but ugly there, as it would be if it were beautiful for some people and ugly for others" (211a2–5). Finally, at the very end of *Republic* V (479a ff.), Socrates contrasts the many sensible F things with the F itself, finding the mode of contrast in the fact that the many sensible F things have a property that the F itself does not possess, namely the property of being con-F. Moreover, although **P*** is not explicitly stated, it is clearly implied that while each sensible thing "always participates in both opposites" (479b8), the F itself, being "always the same in every respect" (479e7–8), is not both F and con-F.[36]

Oneness (**O**) Every form is one.

There are two different ways of deriving **O** from the axioms and auxiliaries of the high theory of forms. One line of argument, which relies on **OM**, appears in the introduction to the Third Man argument of the *Parmenides* (about which more below). A second line of argument, one that relies on **CON** and **PC**, appears in two separate passages in the *Republic*. The first of these passages appears at 475e9–476a6:

SOCRATES: Since the beautiful is the opposite of the ugly, they are two.
GLAUCON: Of course.
SOCRATES: And since they are two, each is one?

[36] Notice also that, in a context in which the F is contrasted with F things that are also con-F, the very claim that the F is "always the same in every respect" demands to be read as the claim that the F is always F in every respect. This provides further, albeit somewhat indirect, evidence for the claim that the Socrates of the *Republic* accepts **SP**.

GLAUCON: I grant that also.
SOCRATES: And the same account is true of the just and the unjust, the good and the bad, and all the forms. Each of them is itself one . . .

The second appears at 524b3–9:

SOCRATES: Then it's likely that in such cases the soul, summoning calculation and understanding, first tries to determine whether each of the things announced to it [namely, the light and the heavy, the hard and the soft, the large and the small – see 523e3–524a10] is one or two.
GLAUCON: Of course.
SOCRATES: If it's evidently two, won't each be evidently distinct and one?
GLAUCON: Yes.

In the first passage, the argument runs as follows: by **CON** and **PC**, the beautiful and the ugly are opposites; but opposites are two; hence, the beautiful and the ugly are two; but if X and Y are two, then each of X and Y is one; therefore, the beautiful is one and the ugly is one. (Similar reasoning applies to the light and the heavy, the hard and the soft, and the large and the small in the second passage.)

It is important to note that in neither of these passages do we find an argument for, or any commitment to, **U**. When Socrates concludes from the fact that the F and the con-F are two that each of these forms is one, he is concluding neither that there is exactly one form of F-ness nor that there is exactly one form of con-F-ness. All he seems to be saying is that it is appropriate to call each of two things "one" thing. This use of "one," a use that does not connote uniqueness, is colloquially appropriate, even in English discourse. For example, if my daughters have asked me to look for cockatoos at the aviary, it would be perfectly in order for me to point to a cockatoo I've just spied while saying, "There's one," without at all meaning to imply thereby that there is exactly one cockatoo in the aviary. Being connected to the practice of counting, we might call this the "enumerative" use of "one," as opposed to the "uniqueness" use of "one."

Non-Identity1 (**NI1**) For any property F that admits a contrary, the F is not identical to any sensible F thing.

NI1 is a straightforward logical consequence of theorem **P** and auxiliary **IS**. For consider any property F that admits an opposite (con-F). According to **P**, the F is not con-F. But, by **IS**, any sensible F thing is also con-F. It follows directly that, at least in the case of properties that admit opposites, the F is not identical to any sensible F thing.

As I see it, this is precisely the way that Socrates argues at *Phaedo* 74b7–c6:

SOCRATES: Look at it also this way: do not equal stones and sticks sometimes, while remaining the same, appear[37] to one to be equal and to another to be unequal?[38]
SIMMIAS: Certainly they do.
SOCRATES: But what of the equals themselves?[39] Have they ever appeared unequal to you, or equality to be inequality?[40]
SIMMIAS: Never, Socrates.
SOCRATES: These equal things and the equal itself are therefore not the same?
SIMMIAS: I do not think they are the same at all, Socrates.

Socrates begins the passage by pointing to an instance of **IS**, namely that "equal stones and sticks sometimes . . . appear . . . unequal." He then gets Simmias to agree to an instance of **P**, namely that the equal itself "has never appeared unequal," and then concludes quite rightly, as an instance of **NI1**, that equal stones and sticks "and the equal itself are therefore not the same."[41]

[37] The use of "appear" (*phainetai*) might suggest that Socrates is presupposing an appearance/reality distinction, one between *really being* (un)equal and *merely appearing to be (without being)* (un)equal. But the relevant use of "appear" could just as easily be veridical, and, given its veridical use in a parallel passage in the *Republic* (see p. 24 n. 21 above), is most likely veridical here too. (See Bostock [1986, 77].) Note also that, as Irwin (1999, 153) argues, the argument is fallacious if "appear" is read non-veridically.

[38] There are four ways of reading the claim that a given stick S is "equal to one but unequal to another." The phrase could be read to say (1) that S is equal to (i.e., in the view of) one *person*, but not equal to (i.e., in the view of) another *person*, (2) that S is equal to one *thing* (such as a stick), but not to another *thing*, (3) that S is equal in one respect, but not in another, or (4) that S is equal at one time, but not at another. Each of these interpretations has its proponents. (For references, see Gallop [1975, 121–123].) For my purposes, it does not matter which of these four readings Plato favors (if any). As I see it, he probably means (or would accept) all of them. The crucial point is that, whereas *there is some way in which* every sensible equal thing is also unequal, *there is no way in which* the equal itself is unequal.

[39] The phrase "the equals themselves," being in the plural, suggests that Socrates may be referring to perfect particular instances of the equal (see Burnet [1911, 56], Hackforth [1955, 69 n. 2], and Bluck [1955, 67 n. 3]). But if this were so, the argument would make no sense (see Gallop [1975, 125]). If the argument is to prove that the equal is not identical to any equal stick or stone, then the phrase "the equals themselves" must be read as referring (in a plural way, which Attic Greek oddly allows) to the equal itself, as the telltale use of "themselves" readily indicates (see the discussion of **II** above). For a defense of this suggestion, see Owen (1968, 230–231), followed by Gallop (1975, 124), Bostock (1986, 81–83), White (1987, 204–205), and Dancy (2004, 271).

[40] Some, including Matthen (1984) and Penner (1987), worry that the second question here (namely, whether equality has ever appeared to be inequality) is not just another way of asking the first (namely, whether equality has ever appeared unequal). But, like Mills (1957–1958, 3:48–49), Gallop (1975, 125), and Dancy (2004, 271), I disagree.

[41] I take this to be the standard interpretation of the argument. (See, among others, Mills [1957–1958], Gallop [1975, 121], Matthen [1984, 282–283], Fine [1984, 282], Bostock [1986, 73], and Dancy [2004, 272].) Matthen (1984), Penner (1987), and White (1987; 1992) defend non-standard interpretations of the argument.

One further result of conjoining **NI1** and **SP** is that, for any property F that admits an opposite, the F is not identical to any sensible thing (whether that thing be F or not). For, by **SP**, the F is F, and thus cannot be identical to any sensible thing that *isn't* F. So if, by **NI1**, the F is not identical to any sensible thing that *is* F, it follows that the F is not identical to any sensible thing (regardless of whether that thing is F).[42]

Knowledge of Forms (**KF**) Humans can know at least some forms.

KF follows from the conjunction of theorems **P** and **SP** with auxiliaries **SOK** and **PHK**. According to **P**, for any property F that admits an opposite (con-F), the F is not con-F. And, by **SP**, the F is F. Thus, in the case of such a property, the F is F, but not con-F. In the relevant sense, the F is "always the same," that is, always F and never con-F. The F is never in the state of becoming other than it is, and is therefore, in the relevant sense outlined above, stable. Now **PHK** says that humans are capable of having knowledge, and **SOK** says that knowledge is of things that are stable. Since there are at least some forms (namely those corresponding to properties that admit contraries) that can be proven stable, it follows that humans are capable of knowing at least some forms.

Support for the idea that Plato was aware of **KF** and its status as a theorem of the high theory derives from the fact that statements of the form "so-and-so knows form such-and-such" appear in the middle dialogues. For example, at *Phaedo* 74b2–3, Socrates gets Simmias to agree that they both know what the equal is, where it is plain from Socrates' next question (namely, "Whence have we acquired the knowledge of [the equal]?" [74b4]) that *to know what the equal is* is just *to know the equal*.[43] Consider also the fact that in the early-middle *Meno*, Socrates defines (and hence must take himself to know) shape (76a6–7), and describes the slave-boy he

[42] Note that **NI1** does not entail the more general claim (call it "**NI2**") that no form is identical to any sensible thing. Moreover, **NI2** does not follow from any combination of axioms and auxiliary hypotheses discussed above. (This is because **NI2**, but not **NI1**, concerns forms corresponding to properties [such as being a man or being a finger] that do not admit opposites.) Sufficient reason to accept **NI2** does not occur until the high theory is supplemented with **RP** in the *Parmenides* (see below).

[43] Some (e.g., Gallop [1975, 120]) worry that the claim that Socrates and Simmias both know the equal is contradicted later in the *Phaedo* (at 76c1–3). But the later passage says not that *no one* has knowledge of forms (which would indeed contradict the relevant claim), but that *not everyone* has knowledge of forms (which does not). It might also be argued that the relevant claim is contradicted earlier in the *Phaedo* (at 65a–c). But the earlier passage (in particular, at 65a10–b1) says no more than that the human body is an obstacle to the acquisition of knowledge when one "associates with it in the search for knowledge" (i.e., when one tries to acquire knowledge at least in part by means of the senses). The passage does *not* say that it is *impossible* for a soul to acquire knowledge while it remains present in a human body.

examines as being at least capable of attaining knowledge of geometry on the strength of his abilities to respond appropriately to repeated questioning on this subject (85c9–d1). And in the *Republic*, although Socrates admits to lack of knowledge of the forms, his detailed description and recommendation of dialectic as a method for obtaining knowledge (see 534b3–c5) suggests that he thinks it at least possible for humans to engage in dialectic successfully.

Separation (**S**)	Every form is separate from the things that partake of it.
Non-Self-Partaking (**NSP**)	No form partakes of itself.[44]
Non-Self-Explanation (**NSE**)	It is not by virtue of partaking of itself that the F is F.[45]

II can be used to derive two more theorems. Recall (pp. 17–20) that **II** entails that every form is itself by itself, in the sense of being separate from the things that partake of it (**S**). Now X's being separate from Y entails *at the very least* that X and Y are not identical, for it is absurd to suppose that something could be separate from itself.[46] It follows that no form is identical to any of the things that partake of it, and hence that no form partakes of itself (**NSP**). The second such result, namely **NSE**, follows directly thereupon. For if no form partakes of itself, then it surely couldn't happen that it is by virtue of partaking of itself that the F is F.

As far as I am aware, there is no explicit acknowledgement of either **NSP** or **NSE** in the dialogues of the middle period. But, as we have seen, there are passages from the *Phaedo* and the *Symposium* that reveal implicit acceptance of these theorems. At *Phaedo* 100c4–6, Socrates says that "if there is anything beautiful besides the beautiful itself, it is beautiful for no other reason than that it shares in that beautiful," and, at *Symposium* 211b2, that what shares in the beautiful is "all the other beautiful things," i.e., all the beautiful things other than the beautiful itself. Both of these statements presuppose that the beautiful does not partake of itself and does not derive its beauty from itself.

More theorems

There is more to the high theory of forms than is encapsulated by the axioms, auxiliaries, and theorems described in preceding sections. Plato's

[44] See Wedberg (1955, 37) and Nehamas (1982, 202).
[45] I borrow the term "Non-Self-Explanation" from Peterson (1973).
[46] This absurdity is emphasized at *Parmenides* 131b1–2 (see below).

picture of the world of the forms is rich and full, and the purpose of this section is to bring out some of the features of this more detailed picture, explaining how they emanate from the theory's fundamental theorems.

Changelessness

It is a consistent refrain of the middle-period dialogues that the forms are changeless. Thus, at *Phaedo* 78d3–5, Socrates gets Cebes to agree that "the equal itself, the beautiful itself, each thing in itself, the real, [is never] affected by any change whatever"; at *Symposium* 211b4–5, Diotima claims that the beautiful "does not become the least bit smaller or greater nor suffer any change"; and in the *Timaeus*, Timaeus claims that the forms are "unchanging" (28a2), "always changeless" (48e6).

There are, in fact, two separable dimensions of changelessness. In the first place, forms are changeless insofar as they neither come into existence nor go out of existence. This is emphasized both in the *Symposium*, where Diotima tells us that the beautiful "neither comes to be nor passes away, neither waxes nor wanes" (211a1), in the *Republic*, where Socrates says that the forms do not "wander around between coming to be and decaying" (485b2–3), and in the *Timaeus*, where Timaeus insists that a form is that "which has not been brought into being and is not destroyed" (52a1–2). In the second place, forms are changeless insofar as they are always in the same state. This is emphasized in the *Phaedo*, where Socrates and Cebes agree that forms are "ever the same and in the same state" and do not "vary from one time to another" (78d2–3), and in the *Republic*, where Socrates and Glaucon agree that the beautiful "remains always the same in all respects" (479a2–3).

On the latter dimension of changelessness, the fact that (at least some) forms are changeless follows from **P** and **SP**. According to **P**, for any property F that admits a contrary, the F is not con-F. When Plato says this, he does not mean that there is some way in which, or some time at which, the F fails to be con-F. What he means is that the F is *in no way* and *at no time* con-F. Thus, in particular, the fact that the F is not con-F entails that it is not the case that the F is F at some time and con-F at another. Rather, by **SP**, it is always the case that the F is F. It follows, then, that the F is always in the same state *in the sense that it is always F and never in any way or at any time con-F*.

It is not as clear why Plato accepts the further proposition that forms are changeless along the former dimension, i.e. insofar as they neither come into nor go out of existence. It may be that he already accepts an instance of **RP**, to the effect that forms in no way possess the property of being

and the opposite property of not-being. For from this proposition it does follow that forms do not come into existence (since this would imply that there was a time at which they did not exist) and that forms do not go out of existence (since this would imply that there will be a time at which they no longer exist). But given the lack of explicit endorsement of **RP** in the middle dialogues, this hypothesis is somewhat speculative.

Eternity

If forms are rightly said to be and neither come into nor go out of existence, then it follows directly that they are eternal. This result appears in the *Timaeus*, where the model of the visible universe is said to be "eternal" (29a3), an "everlasting living thing" (37d1).

Indivisibility

Middle-period Socrates also insists that the forms are (or are likely to be) incomposite, and hence indivisible. His reason for this is that forms are changeless, in the sense of always being in the same state. As Socrates puts it at *Phaedo* 78c6–7, "things that always remain the same and in the same state [are] most likely not . . . composite." The thought here is that composite things are subject to change, whether such change be in the form of gaining or in the form of losing parts. Incomposite things, by contrast, cannot gain or lose parts, and hence are less likely to be subject to change of any sort. Here, Socrates does not commit himself to the strong claim that forms are incomposite, but only to the weaker claim that forms are *most likely* incomposite. The stronger claim appears in the *Timaeus*, where Timaeus claims outright that forms are "indivisible" (35a2).

Non-sensibility

It is also a consistent refrain of the middle-period dialogues that the forms cannot be perceived by means of the senses. In the *Phaedo*, the thought that forms are invisible is directly associated with the thought that they are changeless. As Socrates puts it to Cebes (at 79a9–10): "The invisible remains always the same, whereas the visible never does." In a somewhat different vein, the Socrates of *Republic* V argues that the objects of knowledge differ from the objects of opinion, and that the objects of opinion are not forms, but sensibles.[47] And from this it follows that forms must be non-sensible sorts of beings.

[47] Here I adopt the standard "Two Worlds" interpretation of the argument. (For references, see Fine [1978, 66 n. 1]. See also Annas [1981, 190–216].) This interpretation has been challenged, most notably by Fine (1978; 1990). For responses to Fine, see Gonzalez (1996), Baltzly (1997), and Hestir (2000).

The idea that forms are not sensible is also underlined in the *Timaeus*. At the very point where Timaeus distinguishes between the realm of being and the realm of becoming, he tells us that things that become but never are are grasped by opinion, a faculty that "involves unreasoning sense perception" (28a2–3). By contrast, he says, forms are "grasped by understanding, which involves a reasoned account" (28a1–2). And later on he claims directly that forms are "invisible – [they] cannot be perceived by the senses at all" (52a3–4).

This, then, is the high theory of forms that issues from the two axioms and seven auxiliaries described above. For any property F and any plurality of F things, there is a form of F-ness by virtue of which all the members of the plurality are F (**OM**). It follows from this axiom that each form is one (**O**) and that, for any property F, there is a form of F-ness (**E**). (As we saw above [pp. 37-38], **O** also follows from the conjunction of **CON** and **PC**.) Moreover, as the Third Bed argument shows, for any property F, there is no more than one form of F-ness (**NMTO**), and hence, given **E**, there is exactly one form of F-ness (**U**), namely the F, by virtue of partaking of which F things other than the F are F (**C**). And from **C** it follows that, for any property F and for any X not identical to the F, X partakes of the F if and only if X is F (**BP**). Given that nothing that is con-F could ever be responsible for making something be F (**NCC**), it follows from **C** that, for any property F that admits a contrary (con-F), the F is not con-F (**P**), and hence that the F is not both F and con-F (**P***). And since anything that is responsible for making something be F must itself be F (**TT**), it follows from **C** that the F is F (**SP**). When it is recognized that (for any property F that admits a contrary) sensible F things are also con-F (**IS**), it then follows from **P** that, at least in those cases in which F admits a contrary, the F is not identical to any sensible F thing (**NI1**), and hence (since the F is F and cannot then be identical to any sensible thing that is not F) that the F is not identical to any sensible thing. Combined with the fact that knowledge is of things that are stable (**SOK**) and that humans are capable of gaining knowledge (**PHK**), it follows from **P** and **SP** that, for at least some F's, humans are capable of knowing the F (**KF**). In addition, the axiom that the F is itself by itself (**II**), and hence separate from all the things that partake of it (**S**), entails that the F does not partake of itself (**NSP**) and that it is not by virtue of partaking of itself that the F is F (**NSE**). And these results combine in different ways to produce further consequences that fill out the high theory just described, namely that the forms are changeless, eternal, indivisible, and non-sensible.

This is a beautiful, powerful, and impressive theory, the purpose of which is to identify the causes of the properties of sensible things and the ontological and epistemological properties that these causes must have, given a number of plausible auxiliary assumptions about opposites, causation, sensibles, and knowledge. This "high" theory of forms, with one important, indeed crucial, alteration, is the theory that Parmenides will place under attack in the first part of the *Parmenides*. It is the purpose of the next section to explain the nature of this alteration and the way in which it both extends and tightens the original theory.[48]

1.2 THE HIGHER THEORY

Setting up young Socrates' speech

The *Parmenides* consists of a conversation recounted by Antiphon (as heard from Pythodorus, who hosted it) to Cephalus (the narrator) and to both Adeimantus and Glaucon (Plato's half-brothers, and Socrates' interlocutors in *Republic* II–X). As Antiphon tells it, the distinguished sixty-five-year-old Parmenides and his handsome forty-year-old friend Zeno have come to stay with Pythodorus, where they have been joined by a relatively young Socrates (presumably in his late teens or early twenties) and a number of others[49] who have come to hear Zeno read his book. When Zeno has finished, Socrates summarizes the book's first argument thus: "If things [*ta onta*: the things that are] are many, they must then be both like and

[48] There are two important issues I have (deliberately) failed to address in this section. The first is the question as to what sort of thing Plato takes his forms *to be*. Are the forms of the high theory properties (universals), meanings, or perfect exemplars (particulars)? The second is the question as to whether Plato accepts, in addition to forms and sensible particulars, so-called "form-copies" or "immanent characters." I have two reasons for not addressing these matters at any length in this study. The first is that answering these questions in one way or the other does not have any logical or philosophical impact on the sequel. What I argue for below holds good regardless of how these two questions are answered. The second is that the two questions are best answered *after* one has achieved a conspectus of the central features of the high theory as I have described them in this section.

For the record, I think that, in the light of such a conspectus, it is very difficult to sustain the claim that Plato's forms are properties (universals) or meanings. For neither properties nor meanings can play the sorts of roles that the high theory requires of the forms. (For example, properties do not universally self-exemplify, and meanings are not causes.) The most likely answer to the first question, then, is that forms are perfect exemplars of the things that partake of them. I also believe, in answer to the second question, that there is insufficient evidence to sustain the claim that Plato countenances the existence of (immanent) characters. In this, I follow Dancy (1991, 14–18; 2004, 308–310).

[49] The others include Aristotle, "the man who later became one of the Thirty" (127d2–3) – not the famous philosopher of the same name.

unlike, but that is impossible, because unlike things [*ta anomoia*: the things that are unlike] can't be like or like things [*ta homoia*: the things that are like] unlike" (127e1–4). More formally:

Zeno's argument

(1) If the things that are are many, then they are both like and unlike.
(2) The things that are unlike can't be like, and the things that are like can't be unlike.
(C) So, the things that are are not many.

Socrates then accuses Zeno of trying to hide the fact that this argument is designed to establish Parmenides' monistic thesis, namely that the all is one (or: the things that are are one) (128a4–b6). Zeno demurs, claiming that the purpose of the argument is ad hominem: it serves as a challenge to those who claim that monism entails absurdities (presumably by means of the sorts of arguments recounted at *Sophist* 244b–245e) insomuch as it shows that pluralism entails "consequences even more absurd than those suffered by" monism (128d5). As Zeno describes the situation, those who dismiss monism for leading to absurdity face the following dilemma: *either* stick to your reasons for dismissing monism, in which case similar reasons can be found to dismiss your favored alternative to monism (i.e., pluralism), *or* give up your reasons for dismissing monism, in which case monism remains a viable hypothesis (even if it hasn't been proved true).

Socrates' speech

It is against this background, namely as a response to Zeno's argument, that Socrates launches into his speech. This speech deserves close and careful analysis, not only because it reveals Socrates' acceptance of an extended version of the high theory, but also because it issues an emphatic challenge that dominates the rest of the dialogue.

Socrates begins by asking Zeno to "acknowledge that there is a form, itself by itself, of likeness, and another form, opposite to this, which is what unlike is" (128e6–129a2). Packed into this request is Socrates' acceptance of (i) two instances of **E**, namely that there is a form corresponding to the property of being like (a form of likeness) and a form corresponding to the property of being unlike (a form of unlikeness), (ii) one instance of **II**, namely that each of these two forms is "itself by itself," and (iii) a consequence of **CON** and **PC**, namely that these two forms are opposite to each other.

Socrates then asks (129a2–6):

> [A] Don't you and I and the other things we call "many" get a share of [*metalambanein*] those two entities [namely, likeness and unlikeness]? And don't things that get a share of likeness come to be like in that way and to the extent that they get a share, whereas things that get a share of unlikeness come to be unlike, and things that get a share of both [likeness and unlikeness] come to be both [like and unlike]?

The questions in [A] reveal Socrates' acceptance of two instances of **C**, namely that all like things (other than likeness) – "you and I and the other things we call 'many'" – are like by virtue of getting a share of likeness and that all unlike things (other than unlikeness) are unlike by virtue of getting a share of unlikeness, and hence his acceptance of two corresponding instances of **BP**, namely that all like things are like to the extent that (i.e., exactly insofar as) they get a share of likeness, and that all unlike things are unlike to the extent that (i.e., exactly insofar as) they get a share of unlikeness.

By having Socrates commit himself explicitly to these particular instances of **II**, **E**, and **C**, it is reasonable to suppose that Plato means us to understand Socrates to be committing himself to the larger high theory of which these theses are a part. There are two reasons for this. First, from the perspective of the high theory, there is nothing special or strange about the properties of being like and being unlike: these properties are, as it were, representative of the properties to which the high theory applies. Second, **II** is one of the high theory's two axioms, and both **E** and **C** are among the first theorems to be derived from the theory's other axiom, namely **OM**, to which explicit reference will later be made as a reason for accepting **O** (at 132a2–3).

As the end of [A] makes clear, Socrates brings up his adherence to the high theory as a way of responding to Zeno's argument. For the high theory, as Socrates points out, entails that the things we call "many," including human beings and other sensible things, are like if they are unlike and unlike if they are like. This is a direct consequence of the auxiliary hypothesis **IS**, according to which, for any property F (such as being like or being unlike) that admits a contrary, all sensible F things are also con-F. But if, as the high theory implies, like sensible things are also unlike and unlike sensible things also like, then premise (2) of Zeno's argument is false (since at least *some* of the things that are like are unlike and at least *some* of the things that are unlike are like), and hence the argument itself unsound. As Socrates sees it, then, those (such as he) who accept the high theory, have a principled (i.e., non-ad-hoc) way of rejecting premise (2). For the falsity of premise (2) is

itself a consequence of a fruitful theory that, unlike some of its competitors (such as the theory according to which it is by a head that one man is taller than another – see *Phaedo* 100e8–9), has thus far passed all the tests of theoretical acceptability mandated by the method of hypothesis. The result of this exchange, then, is that Zeno cannot retain his ad hominem challenge to the critics of Parmenidean monism without finding principled reasons for rejecting the high theory of forms itself.

Having explained why he rejects premise (2) of Zeno's argument, Socrates continues (129a6–c1):

> [B] And even if all things get a share of both [likeness and unlikeness], though they are opposites, and by partaking [*metechein*] of them are both like and unlike themselves, what's astonishing about that [*ti thaumaston*]? If someone showed that the likes themselves [*auta ta homoia*] come to be unlike or the unlikes [*ta anomoia*] like – that, I think, would be a marvel [*teras*: monstrous]; but if he shows that things that partake of both of these have both properties, there seems to me nothing strange [*atopon*] about that, Zeno – not even if someone shows that all things are one by partaking of oneness [*tou henos*], and that these same things are many by partaking also of multitude [*tōi plēthous*]. But if he should demonstrate this thing itself, what one is, to be many, or, conversely, the many to be one – at this I'll be astonished [*thaumasomai*].

Socrates had already pointed out in [A] that (as the high theory implies) things that partake of likeness can partake of its opposite and that things that partake of unlikeness can partake of *its* opposite, and thus that things that partake of forms such as likeness and unlikeness thereby become both like and unlike. The first thing that Socrates adds (and repeats) in [B], as might be expected given his presumed commitment to **IS**, is that this result is far from astonishing or strange. The second thing that Socrates wishes to emphasize in [B], however, is that he *would* consider it a marvel (monstrous) if it turned out that the like itself (*auta ta homoia*)[50] were unlike or the unlike like, and that he *would* be astonished to discover that the one is many or the many one. In saying this in the way that he does, Socrates indicates his commitment to two instances of **P**, yet another crucial theorem of the high theory, and brashly throws the proverbial gauntlet at the feet of Zeno, challenging him to present incontrovertible evidence of **P**'s falsity in the way of an argument to the conclusion that the like is unlike (or the unlike like) and the one is many (or the many one).[51]

[50] Note once again the odd way in which Attic Greek allows the use of a plural phrase to refer to a singular entity (see above, p. 39 n. 39).

[51] For discussion, see Allen (1997, 99–103).

As if that weren't enough in the way of a challenge, Socrates' goading of Zeno continues in a more general vein (129c1–d2):

> [C] And it's the same with all the others: if he could show that the kinds and forms [*auta ta genē te kai eidē*] themselves have in themselves these opposite properties, that would call for astonishment [*thaumazein*]. But if someone should demonstrate that I am one thing and many, what's astonishing about that [*ti thaumaston*]? He will say, when he wants to show that I'm many, that my right side is different from my left, and my front from my back, and likewise with my upper and lower parts – since I take it I do partake of multitude. But when he wants to show that I'm one, he will say I'm one person among the seven of us, because I also partake of oneness. Thus he shows that both are true.

Passage [C] has a number of important, indeed crucial, features. In the first place, Socrates' challenge has now expanded beyond what it was in the previous passage. Previously, Socrates had claimed that he would be astonished to find out that some form of F-ness was con-F, and hence (by implication) that he would be equally astonished to discover that some form of F-ness was both F and con-F. Now, in [C], Socrates claims that he would be just as astonished to discover that any form has opposite properties, in particular, that any form possesses both the property of being one and the property of being many. By contrast, he claims, it is perfectly run-of-the-mill that sensible things should be both one and many. For sensible things have parts and a thing's having parts is sufficient for its being many, and a sensible thing's being one among many (as often happens) is sufficient for its being one.

Recall that it is a consequence of **P** that, for any property F that admits an opposite, the F is not both F and con-F (**P***). The first thing to note about passage [C], then, is that it indicates Socrates' acceptance of a generalization of **P***, a thesis we might call "**Radical Purity**" (**RP**):

(**RP**) No form can have contrary properties.

It is not just, as Socrates suggested in passage [B], that neither the one nor the many can be both one and many: according to passage [C], it is impossible for *any form* to be both one and many, like and unlike, and so on. And it is not just that Socrates *commits himself* to **RP**: just as he did earlier when focusing on **P**, he brashly challenges Zeno to present incontrovertible evidence of **RP**'s falsity as well.[52]

[52] One commentator who sees that Socrates here commits himself to **RP**, and not just to **P**, is McCabe (1994, 77). Gill (1996, 15–16) and Sayre (1996, 65) do not distinguish between **P** and **RP**. Allen (1997, 99–103) says only that Socrates challenges Zeno to disprove **P**.

Socrates' addition of **RP** to the high theory accords perfectly with the method of hypothesis employed in the dialogues of the middle period. For there is an obvious sense in which **RP** "agrees" with the theory to which it is being added. It is, after all, a generalization of **P***, itself a theorem of the high theory, and thus functions as the kind of proposition that one might find in an upward-directed search for hypotheses that would provide additional confirmation for **P***. Moreover, the conjunction of **RP** with **SP** entails **P**. For if no form can have contrary properties, then, for any property F that admits a contrary, the F cannot be both F and con-F. And given that the F is F, the F cannot be con-F. Hence, the addition of **RP** further tightens the logical connections among the theorems of the high theory, thereby desirably enhancing its degree of coherence.

The addition of **RP** to the high theory also has significant consequences, not the least of which is the quite general result (call it "**NI2**") that *no* form is identical to *any* sensible thing. Recall that the high theory entails that the F is not identical to any sensible thing only when the property of being F is among those that admit a contrary. But, as Plato well knows, there are properties (such as being human and being a finger) that do not admit contraries. If, in accordance with theorem **E**, there are such forms as *the human*, then, for all the high theory says, *the human* could be identical to some particular human being, and so could be identical to some sensible thing. This is the sort of possibility that the addition of **RP** totally precludes. For it is a commonplace that all sensible things, without exception, have contrary properties of some kind or other. For example, although there is no property contrary to the property of being human, all sensible humans are, as Plato emphasizes in the *Phaedo*, both tall and short (or: big and small). But if, as **RP** says, no form can have contrary properties, then it follows directly that *the human* cannot be identical to any sensible human. And since, by **SP**, *the human* must itself be human and thus cannot be identical to anything non-human, it follows that *the human* cannot be identical to any sensible thing, period.

As will become clear in the sequel, the second crucial feature of passage [C] concerns what Socrates takes to be sufficient conditions for being many and for being one. Socrates tells us that, in order to prove something to be many, it is enough to prove that it has parts: for something's having parts entails its being many. In particular, each human is many insofar as he or she has an upper part and a lower part, a right side and a left side, a front side and a back side, and so on. Moreover, in order to prove something to

be one, it is enough to prove that it is one among others: for something's being one among many entails its being one *tout court*.[53]

Having extended and generalized the high theory by means of the addition of **RP**, Socrates ends his speech thus (129d2–130a2):

> So if – in the case of stones and sticks and such things – someone tries to show that the same thing is many and one, we'll say that he is demonstrating *something* to be many and one, not the one to be many or the many one – and we'll say that he is saying nothing astonishing [*thaumaston*], but just what all of us would agree to. But if someone first distinguishes as separate [*chōris*] the forms, themselves by themselves [*auta kath' auta*], of the things I was talking about a moment ago – for example, likeness and unlikeness, multitude and oneness, rest and motion, and everything of that sort – and then shows that in themselves they can mix together and separate, I for my part . . . would be utterly amazed [*thaumastōs*], Zeno. I think these issues have been handled with great vigor in your book; but I would, as I say, be much more impressed if someone were able to display this same difficulty, which you and Parmenides went through in the case of visible things, also similarly entwined in multifarious ways in the forms themselves – in things that are grasped by reasoning.

Here again, Socrates emphasizes that, although he finds nothing amazing in the idea that *sensible things* should have contrary properties, he would be astonished to discover that *forms* (those entities that are grasped by reasoning, not sense perception) can "mix together and separate," as might happen if, say, likeness were both one and many (a case of mixing) and neither one nor many (a case of separating). And, as if he hadn't already made the point absolutely clear, Socrates yet again challenges Zeno and Parmenides to find the forms subject to the "same difficulty" that they had found in the world of sensible things, namely the possession of contrary properties.

It is, I think, impossible to overemphasize the importance of Socrates' speech as providing a key to the interpretation of the rest of the *Parmenides*. Socrates begins by pointing out that the high theory of forms entails the

[53] Why does Socrates think that something's having parts entails its being many? One hypothesis is that Socrates assumes that a thing with more than one part is identical to its parts. After all, it is clear that the parts of a thing that has more than one part are many. So, if it were the case that a thing X with more than one part is identical to its parts, then it would follow directly that X is many. (See Harte [2002, 59–60].) As we will see, this hypothesis is not only independently plausible (since it is independently reasonable for Plato to suppose that a thing with parts is identical to its parts), but also further confirmed by a passage in the second part of the dialogue in which Parmenides gets Aristotle to accept an instance of the relevant claim, namely that "the one is all the parts of itself, and not any more or less than all" (145c1–2).

falsity of the second premise of Zeno's argument. So, if (as we must suppose) Zeno is interested in vindicating this second premise, he must find some principled reason to reject the high theory itself. In accordance with the method of hypothesis, Socrates then proceeds to add **RP** to the high theory, and challenges Zeno to find some reason to reject both **RP** and **P**. The rhetorical power of this challenge is unmistakable. In the speech, Socrates uses words such as "astonishing," "marvel," "amazed," "impressed," and their cognates no less than *eight* times, each time with the idea of emphasizing the depth of his commitment to **P** and **RP**, and how shocked he would be to discover that these principles were false. In having Socrates repeat the same challenge in such dramatic language, it is more than reasonable to assume that Plato is preparing the reader for an attack on **P** and **RP**, and hence an attack on the higher theory of forms.

It is the burden of the chapters to follow to show that this sort of attack is precisely what Plato puts in Parmenides' mouth in the pages that immediately succeed Socrates' speech. As I argue in chapter 2, after giving Socrates reason to worry that the scope of the higher theory extends more widely than it should, Parmenides argues in several different ways that the higher theory is logically inconsistent, no matter how Socrates proposes to spell out the nature of the otherwise less-than-pellucid relation of participation. Although this attack leaves Socrates dazed and confused, it turns out that, as Plato presents them, all of Parmenides' arguments except the very last one (i.e., the second of the two arguments described as the "Greatest Difficulty") fail against a theory of forms that has been shorn of **P**, **RP**, and **U**. As I argue in chapters 3–7, Parmenides himself provides reasons to reject these principles (along with **NCC**), thereby saving a suitably modified theory of forms from the very criticisms to which he had so bluntly subjected the higher theory itself.

CHAPTER 2

The theory criticized

In the speech in which he challenged all and sundry to falsify the higher theory of forms, Socrates (so we are told) "kept from moment to moment expecting Parmenides and Zeno to get annoyed" (130a3–5). But Socrates' expectations were not rewarded. Rather, Parmenides and Zeno "both paid close attention to Socrates and often glanced at each other and smiled, as though they admired him" (130a5–7). And at the conclusion of the speech, just before launching into his criticisms of the higher theory, Parmenides compliments Socrates on his "keenness for argument" (130b1).

Given the interpretation of the dialogue arrived at thus far, Socrates is right to worry about how Parmenides and Zeno will react to his brash challenge. Although he clearly respects his elders, Socrates does not show much in the way of deference to their philosophical views. Why, then, does Plato have Parmenides and Zeno exchange smiles and then have Parmenides express admiration for Socrates' logical acumen? The correct explanation, as I see it, is that the smiles being exchanged are *knowing* smiles, the smiles of men who can afford to listen patiently and indulgently to Socrates' goading remarks because they take themselves to understand things that Socrates does not yet see. What it is that they see that he doesn't is the subject of this chapter.

2.1 THE EXTENT OF THE FORMS

At first sight, Parmenides' first criticism of the higher theory of forms is that the result of combining theorem **E** and axiom **II** has some untoward consequences.

Parmenides begins by eliciting from Socrates agreement to **S**, the thesis that every form is separate from the things that partake of it, where **S** is presented as a partial interpretation of **II**, the axiom that every form is itself by itself (130b1–6):

PARMENIDES: Tell me. Have you yourself distinguished as separate, in the way you mention, certain forms themselves, and also as separate the things that partake of them? And do you think that likeness itself is something, separate from the likeness we have? And one and many and all the things you heard Zeno read about a while ago?
SOCRATES: I do indeed.

Parmenides then gets Socrates to agree to specific instances of **E** (130b7–10):

PARMENIDES: And what about these? Is there a form, itself by itself, of just, and beautiful, and good, and everything of that sort?
SOCRATES: Yes.

Theorem **E** says that there is a form corresponding to every property. It follows, as Socrates readily accepts, that there is a form of justice, a form of beauty, and a form of goodness. In eliciting Socrates' acceptance of these instances of **E**, Parmenides uses the phrase "itself by itself" to underline Socrates' simultaneous acceptance of **II**. As Parmenides emphasizes, each of justice, beauty, and goodness is "itself by itself," where what it means for something to be "itself by itself" is spelled out at least in part by **S**.

Up to this point, Parmenides has been doing nothing other than extracting some not obviously unacceptable consequences from the higher theory. But now the first of two gloves comes off (130c1–4):

PARMENIDES: What about a form of human being, separate from us and all those like us? Is there a form itself of human being, or fire, or water?
SOCRATES: Parmenides, I've often found myself in doubt whether I should talk about those in the same way as the others or differently.

Parmenides here presses, not on whether **E** applies to humans, fire, and water, but on whether **E** and **S** could *both* be true of these sorts of things. The problem apparently lies not in the fact of there being a form for humans, a form for fire, or a form for water; the problem lies in there being a form for humans *that is also itself by itself*, separate from all of its participants.

Why there should be a problem in there being separate forms for humans, fire, and water becomes clearer when the second glove comes off (130c5–d5):

PARMENIDES: And what about these, Socrates? Things that might seem absurd, like hair, mud, and dirt, or anything else totally undignified and worthless? Are you doubtful whether or not you should say that a form is separate for each of these, too, which in turn is other than anything we touch with our hands?
SOCRATES: Not at all. On the contrary, these things are in fact just what we see. Surely it's too outlandish to think there is a form for them.

Here the worry is that there might not be separate forms for such worthless things as hair, mud, and dirt. But the idea of worthlessness does not reach the heart of the matter. Recall that, by **SP**, the F must itself be F. If **E** applies in all generality to humans, fire, water, hair, mud, and dirt, then there must be a form for humans (the human) that is itself human, a form for fire (the fire) that is itself a fire, a form for hair (the hair) that is itself hair, a form for mud (the mud) that is itself mud, and so on. But it seems that anything that is human (fire, hair, mud, and so on) must also be sensible. After all, humans are made of visible, tangible flesh and bone and blood, hair and mud are the sorts of things one can run one's fingers through, fire feels hot to the touch, water tastes good after an hour of hiking, and so on. The human, then, must be a sensible human, the mud sensible mud, and so on. This result, however, contradicts not so much **S**, which entails that the F is distinct from its participants, as it does **NI2**, which says that the F is distinct from any sensible thing whatsoever.[1]

That the problem being raised here concerns the fact that some forms are such that they cannot be conceived as other than sensible is confirmed by the list of forms for which (we are told) no such problem arises. These are the forms mentioned first: justice, beauty, and goodness. Unlike the putative forms for fire or mud, it is possible to conceive of the good, say, as something non-sensible. Of course, it still follows from **SP** that the good is good. But, unlike the property of being mud or hair, there is nothing about the property of being good that absolutely requires good things to be sensible.

The heart of the problem, then, is that the higher theory of forms, incorporating as it does **E**, **SP**, and **RP**, entails the existence of non-sensible forms that must, given the particular properties to which they correspond, be sensible. This is a contradictory, and hence totally unacceptable, result. Socrates' impetuous reaction is to doubt that there are forms for humans, fire, and water, and to deny that there are forms for hair, mud, and dirt. Parmenides urges Socrates to be more circumspect, to allow philosophy to "grip" him and "consider none of the cases beneath [his] notice" (130e2–3). Later, Parmenides will urge Socrates to retain the proposition that "for each thing there is some kind, a being itself by itself" (135a8–b1), that "for each thing there is a character [*idean*] that is always the same" (135b8–c1). I take

[1] It is relatively easy to understand why Plato would be conflating **S** and **NI2** at this point. Both of these theses are similar in requiring the F to be distinct from other things, either its participants or sensibles generally. Moreover, Plato assumes that sensibles participate in the forms after which they are named. This makes it easy to see why Plato would take the claim that the F is a sensible F thing to contradict the claim that the F is distinct from its participants.

it that what Parmenides means is that, upon reflection, the philosopher should recognize the existence of separate forms for such things as humans and hair. But if this is so, then one of **E**, **SP**, and **RP** must go. What is not clear at this stage is which of these principles it would be best to abandon.

2.2 PARTS AND WHOLES

Parmenides begins his second criticism of the higher theory by reminding Socrates that **C** ranks among the theory's theorems (130e4–131a3):

PARMENIDES: But tell me this: is it your view that, as you say, there are certain forms from which these other things, by getting a share of them, derive their names – as, for instance, they come to be like by getting a share of likeness, large by getting a share of largeness, and just and beautiful by getting a share of justice and beauty?
SOCRATES: It certainly is.

What Parmenides literally says is that, as a general rule, things other than the F "derive their names" from the F, by getting a share of it. But, as we saw above (p. 32), and as the rest of this passage confirms, this is just another way of saying that things other than the F are F (or become F) by virtue of getting a share of the F (which is exactly what **C** says).

In this context, "to get a share" translates *metalambanein*, one of the words Plato most often uses to describe the particular sort of relation that things bear to the forms of which they partake. Having elicited from Socrates agreement to **C**, Parmenides now proposes to take Socrates' own way of describing the special relation between forms and their participants in the most literal sense possible. On this conception, a form is like a pie, and its participants are like those who get a share of the pie. (Call this the "Pie Model" conception of partaking.)[2] The Pie Model conception of partaking entails that there literally are shares of forms that participants receive. And this brings up the following question: if, as **C** affirms, things are (or become) F by getting a share of the F, what is the "share" of the F that they get?

Parmenides claims that there are only two possible answers to this question (131a4–7):

PARMENIDES: So does each thing that gets a share get as its share the form as a whole or a part of it? Or could there be some other means of getting a share apart from these two?
SOCRATES: How could there be?

[2] I have borrowed the term "Pie Model" from Russ Dancy.

Just as someone who gets a share of a pie gets as her share either the entire pie or only a piece of it, so someone who gets a share of a form gets as her share either the whole form or only a part of it. As Parmenides says and Socrates agrees, there is no other way for someone who partakes of a form to get a share of it in the most literal sense.

We can think of this disjunction as setting up two different versions of the Pie Model conception of partaking. On the "Whole Pie" version of the Pie Model (or: Whole Pie Model), for X to partake of the F is for X to get the whole of the F as its share of the F. On the "Piece-of-Pie" version of the Pie Model (or: Piece-of-Pie Model), for X to partake of the F is for X to get only a part of the F as its share of the F. What Parmenides goes on to prove is that this disjunction sets up a dilemma for any proponent of the higher theory who also accepts the Pie Model conception of partaking.

The First Horn of the Whole–Part dilemma, as I will call it, appears in the following passage (131a8–b2):

PARMENIDES: Do you think, then, that the form as a whole – one thing – is in each of the many? Or what do you think?
SOCRATES: What's to prevent it's being one?
PARMENIDES: So, being one and the same, it will be at the same time, as a whole, in things that are many and separate; and thus it would be separate from itself.

The reasoning here runs as follows. Consider any property F such that there is, at one time, a plurality of F things, each of them separate from each of the others. (This happens all the time: there are now, for example, many books in my office, each of them separate from each of the others.) According to theorem **C**, all F things (other than the F) are F by virtue of partaking of the F. It follows directly that there are, at one time, many separate things that partake of the F. Now, given the Whole Pie Model, it follows that there are, at one time, many things that get the whole of the F as their share of the F. But X's *getting* Y (in this case, an entire form) in the relevant sense entails Y's *being in* X. Thus, the whole of the F is, at one time, in many separate things. However, anything that is, as a whole, in many separate things at the same time must be separate from itself.[3] So, given that the whole of the F is, at one time, in many separate things *and* anything that is, at one time, in many separate things must be separate

[3] One might argue for this as follows. Suppose X and Y are two things that exist in separation from each other. It follows that whatever is in X as a whole must be separate from whatever is in Y as a whole. Thus, if Z is both in X as a whole and in Y as a whole, then Z must be separate from itself.

from itself, the F itself must be separate from itself. But this is impossible: nothing can be separate from itself. Contradiction.

As this argument reveals, the result of combining the higher theory (theorem **C**, in particular) with the Whole Pie Model is a logical disaster. Thus, if Socrates wants to retain the higher theory (particularly theorem **C** and the principles that support it), then he must abandon the Whole Pie Model altogether.

At first, Socrates tries to have his cake and eat it, too. Objecting to Parmenides' reasoning, he tries to suggest a way of keeping the higher theory without abandoning the Whole Pie Model. That is, he tries to avoid the First Horn of the Whole–Part dilemma. As he puts it (131b3–6):

SOCRATES: No, [the form as a whole] wouldn't [be separate from itself]. Not if it's like one and the same day. That is in many places at the same time and is none the less not separate from itself. If it's like that, each of the forms might be, at the same time, one and the same in all.

The assumption of Parmenides' that Socrates rejects is the principle that anything that is, at one time, in many separate things must be separate from itself. What falsifies this principle is the example of a day. For, says Socrates, one and the same day "is in many places at the same time and is none the less not separate from itself."

Parmenides does not react to this proposal of Socrates' by denying that a day can be in many places at the same time. Rather, Parmenides presses Socrates to make clear the conditions that make it possible for a day to have this rather special property (131b7–c1):

PARMENIDES: Socrates, how neatly you make one and the same thing be in many places at the same time! It's as if you were to cover many people with a sail, and then say that one thing as a whole is over many. Or isn't that the sort of thing you mean to say?
SOCRATES: Perhaps.

As Parmenides sees it, the "day" that Socrates has in mind is not a stretch of time (such as a Tuesday). After all, it makes no sense to say that a stretch of time is in many places *at the same time*. Rather, Socrates must be conceiving of a day as a sort of sky-dome, something that can be "in" (in the sense of being "over") separate places (say, Athens and Sparta) at the same time. In this sense, says Parmenides, a day is like a sail covering many people.

The problem with this, as Parmenides makes abundantly clear, is that this conception of a day lands Socrates squarely in the Second Horn of the Whole–Part dilemma (131c2–4):

PARMENIDES: In that case would the sail be, as a whole, over each person, or would a part of it be over one person and another part over another?
SOCRATES: A part.

If a form is in many separate participants as a dome is over many separate places (or as a sail is over many separate people), then, just as it isn't the entire dome (but only a proper part of it) that is over each separate place, so it isn't the entire form (but only a proper part of it) that is in the many separate participants. But in that case it is no longer true that a form's participants partake of it by getting the whole of it: rather, each participant partakes of the form by getting a part of it. Parmenides' point is that the only way for Socrates to successfully falsify the principle that the same thing cannot be in many things at the same time without being separate from itself is to abandon the Whole Pie Model in favor of the Piece-of-Pie Model.

Socrates therefore finds himself subject to the Second Horn of the Whole–Part dilemma (131c5–11):

PARMENIDES: So the forms themselves are divisible, Socrates, and things that partake of them would partake of a part; no longer would a whole form, but only a part of it, be in each thing.
SOCRATES: It does appear that way.
PARMENIDES: Then are you willing to say, Socrates, that our one form is really divided? Will it still be one?
SOCRATES: Not at all.

The reasoning here runs as follows. As on the First Horn, we have it (partly as a consequence of **C**) that there are, at one time, many separate things that partake of the F. Given the Piece-of-Pie Model, it follows that there are, at one time, many things that get a part of the F as their share of the F. And, since *getting* Y (in this case, a part of a form) in the relevant sense entails Y's *being in* X, it follows that in each of these many things is to be found a part of the F, presumably a different part of the F for each participant (if, that is, we are to avoid the absurd result of some part's being, as a whole, in separate places at the same time, and hence separate from itself). The result of all this is that the F has different parts into which it may be divided. And Parmenides immediately concludes from this that the F is no longer one, a thesis that contradicts theorem **O** of the higher theory of forms.

How exactly is it supposed to follow from the fact that the F has parts that the F is not one? As we saw above (p. 51 n. 53), a thing with more than one part is identical to its parts. And since the parts of such a thing

are many, it follows that the thing itself is many. Thus, if the F has parts, then the F is many. But being one and being many are contrary properties, and, in accordance with axiom **RP** of the higher theory, no form can have contrary properties. Thus, if the F is many, the F cannot also be one.

The structure of the Whole–Part dilemma, then, is this. Assume, to begin with, that partaking of a form amounts to getting a share of it, in a very literal sense. There are two ways to get a share of something: either by getting the whole of it or by getting a part of it. Suppose, then, that partaking of a form amounts to getting the whole of it (First Horn). Given that the whole of Y is in X if X gets the whole of Y and that nothing can be in many separate things at the same time without being separate from itself, it follows from the higher theory of forms (and from **C** in particular) that forms are separate from themselves, which is absurd. Suppose, then, that partaking of a form amounts to getting a part of it (Second Horn). In that case, forms have (many) parts. And since a thing with parts is identical to its parts, forms must be many. But, by **RP**, no form can be both one and many. So no form can be one. But, by **O**, each form is one. Contradiction. Thus, whether one takes the First or Second Horn, the result of combining the higher theory of forms with the Pie Model conception of partaking is logically unacceptable.

At this stage of the discussion, neither Parmenides nor Socrates indicates how this problem is to be resolved. But, for future reference, let us take note of the fact that the Second Horn of the Whole–Part dilemma (and so the dilemma as a whole) would have no purchase on someone who denied **RP**. If **RP** is false, then it is not in principle absurd for a form to be both one and many, and thus there is (as yet) no inconsistency to be found in the result of combining a theory of forms shorn of **RP** with the Piece-of-Pie Model of participation.

At the conclusion of the Whole–Part dilemma, Parmenides finds four more reasons to worry about the result of combining the higher theory with the Piece-of-Pie Model. The first of these difficulties begins at the end of the previous passage (131c9–d3):

PARMENIDES: Then are you willing to say, Socrates, that our one form is really divided? Will it still be one?

SOCRATES: Not at all.

PARMENIDES: No. For suppose you are going to divide largeness itself. If each of the many large things is to be large by a part of largeness smaller than largeness itself, won't that appear unreasonable?

SOCRATES: It certainly will.

The reasoning here begins from the implicit acceptance of the result of combining the higher theory (in particular, theorem **C**) with the Piece-of-Pie Model. According to **C**, it is by partaking of the F that things (other than the F) are F. If, as the Piece-of-Pie Model requires, partaking of a form amounts to getting a part of it, then it is by [getting] a part of the F that things (other than the F) are F, and, in particular, it is by [getting] a part of the large that things (other than the large) are large. Now Parmenides also implicitly assumes that something is smaller than anything of which it is a part: if X is a part of Y, then X is smaller than Y. Thus, it is by [getting] something that is smaller than the large that things (other than the large) are large. Assume now that for X to be smaller than Y is for X to be small relative to (*pros*) Y, and that X's being small relative to Y entails X's being *in some way* small. If the statement "X is F" is an elliptical way of saying "X is *in some way* F," then we can say that X's being smaller than Y entails X's being small.[4] On these assumptions, from the result that it is by [getting] something that is smaller than the large that things (other than the large) are large, it follows that it is by [getting] something small that things (other than the large) are large. But notice that one of the higher theory's auxiliary hypotheses is **NCC**, the thesis that whatever makes something be (become) F cannot be con-F. Put another way, **NCC** says that nothing that is F is F by [getting] something that is con-F, and thus (since being large and being small are contrary properties) that nothing that is large is large by [getting] something that is small. Thus, we arrive at a contradiction, for we have it that many things are large by [getting] something small, and yet, by **NCC**, that nothing can be large by [getting] something that is small.

What this argument shows is that the result of combining the higher theory (particularly, theorem **C** and auxiliary **NCC**) with the Piece-of-Pie Model of partaking is logically inconsistent. Again, at this stage, neither Parmenides nor Socrates provides us with any clue as to how this inconsistency is to be resolved. But, for future reference, let us take note of the fact that a theory of forms that was shorn of **NCC** would avoid the inconsistency entirely. If **NCC** is false, then there is nothing bizarre about a theory's entailing the result that large things are large by [getting] something small.

[4] For persuasive evidence that Plato accepts this elliptical reading of "X is F" in the *Sophist*, see Brown (1986). I do not see any way of making sense of the argument at hand unless "X is smaller than Y" is read in such a way as to entail "X is small." In my view, then, Brown's point generalizes. Note that what I am calling the "elliptical" reading of "X is F" generates the following **Principle of Elision** (**PE1**), which plays an important role in the second part of the *Parmenides*: To say that X is F in some way is to say that X is F. (For more on this, see chapter 4 below.)

For further evidence of Plato's elliptical use of subject–predicate sentences, this time in the early-period *Protagoras*, see Rickless (1998b).

The second difficulty comes right on the heels of the first (131d4–6):

PARMENIDES: What about this? Will each thing that has received a small part of the equal have something by which to be equal to anything, when its portion is less than the equal itself?
SOCRATES: That's impossible.

This rather compressed piece of reasoning again begins with the implicit acceptance of the result of combining the higher theory (in particular, theorem **C**) with the Piece-of-Pie Model. As in the case of the previous argument, the conjunction of **C** with the Piece-of-Pie Model entails that it is by [getting] a part of the F that things (other than the F) are F. But, in this case, Parmenides instantiates differently, getting the result that it is by [getting] a part of the equal that things (other than the equal) are equal. Assume, again as before, that if X is a part of Y, then X is smaller than Y. In that case, it is by [getting] something that is smaller than the equal that things (other than the equal) are equal. This time, however, assume further not that, if X is smaller than Y, then X is small relative to Y, but rather that if X is smaller than Y, then X is unequal to Y. And assume, in addition, that X's being unequal [relative] to Y entails X's being *in some way* unequal, and, in line with the **Principle of Elision** mentioned above, that X's being in some sense unequal entails X's being unequal. Given these assumptions, it follows that it is by [getting] something *unequal* that things (other than the equal) are equal. Unfortunately, since being equal and being unequal are contrary properties, this result contradicts **NCC**, according to which nothing that is equal is equal by [getting] something that is unequal.

The difficulty here is similar to the first: the result of conjoining the higher theory of forms (particularly, **C** and **NCC**) with the Piece-of-Pie Model of partaking is logically inconsistent. And, yet again, neither Parmenides nor Socrates explains how this difficulty might be avoided. But, as before, it is plain that a theory of forms shorn of **NCC** would be impervious to this criticism.

The third and fourth difficulties arise as follows (131d7–e2):

PARMENIDES: Well, suppose one of us is going to have a part of the small. The small will be larger than that part of it, since the part is a part of it: so the small itself will be larger! And that to which the part subtracted is added will be smaller, not larger, than it was before.
SOCRATES: That surely couldn't happen.

The third criticism begins where the two previous criticisms began. The conjunction of **C** with the Piece-of-Pie Model entails that small things

(other than the small) are small by [getting] a part of the small. Now in the first two criticisms, Parmenides assumed that if X is a part of Y, then X is smaller than Y. Here, in the third criticism, Parmenides makes the equally plausible assumption that if X is part of Y, then Y is larger than X. (This actually follows from conjoining the previous assumption with the obvious thesis that if X is smaller than Y, then Y is larger than X.) In the first criticism, Parmenides had also assumed that X's being smaller than Y entails X's being in some way small, which itself entails (given the **Principle of Elision**) X's being small. Here, in the third criticism, Parmenides makes the equally plausible assumption that X's being larger than Y entails X's being in some way large, which itself entails (given the **Principle of Elision**) X's being large. Thus, if X is part of Y, then Y is large. And hence the small, by [getting] a part of which small things (other than the small) are small, must itself be large. This result now contradicts not the auxiliary hypothesis **NCC** but theorem **P**, which says that, for any property F that admits an opposite, the F is not con-F, and hence (since being small and being large are opposites) that the small is not large.

The problem, yet again, is that combining the higher theory with the Piece-of-Pie Model produces logical inconsistency. This time, however, the inconsistency derives from the conjunction of **C** and the Piece-of-Pie Model with **P**, rather than with **NCC**. The moral here is that a proponent of **C**, and hence of the assumptions on which **C** is based, cannot consistently retain the Piece-of-Pie conception of partaking without abandoning **P** (and one or more of the assumptions from which **P** is derived).

The fourth and final criticism starts similarly. By **C** and the Piece-of-Pie Model, small things (other than the small) are small by [getting] a part of the small. Parmenides now assumes that for X to get a part P is for P to be added to X. Thus, each small thing (other than the small) is small by having a part of the small added to it. But, assumes Parmenides (and not unreasonably), it is impossible for anything to be *small* by having something *added to* it. (After all, adding something to X should make X larger, not smaller.) Contradiction.

Interestingly, this criticism involves no reference to either **NCC** or **P**. If it is sound, it shows directly that it is impossible to combine the higher theory (particularly, **C**) with the Piece-of-Pie Model without inconsistency. Even more interesting, however, is the fact that Socrates has good grounds for rejecting this final criticism as unsound. The argument itself hinges on the assumption that X's getting a part of a form amounts to having that part added to X. But, on the Piece-of-Pie Model, getting a part of a form is exactly what partaking of the form amounts to. From the combination of these

two ideas arises the thesis that X's partaking of any form amounts to having something added to X. The problem with this thesis, as middle-period Socrates would surely have protested, is that it contradicts a central passage in the *Phaedo* (at 101b–c). As we have seen, at *Phaedo* 100c–d, Socrates presents **C** as the "safe" answer to the question of causation, namely that it is by the F that F things (other than the F) are F. Socrates explains that this answer contrasts with alternative proposals that may be criticized on independent grounds. Among the proposals with which the "safe" answer is contrasted are the following: that "one man is taller than another by a head" (100e8–9), that "ten is more than eight by two" (101b4), and that "two cubits is bigger than one cubit by half" (101b6–7). But Socrates also claims that the "safe" answer contrasts with the proposal that, when one is added to one, the cause of two is *addition* (101b10–c2). What makes two things two is not addition, but twoness (101c4–5). The general point, says Socrates, is that one should "dismiss these additions and divisions and other such subtleties" (101c7–9) in favor of the "safe" answer he himself has suggested. If we now apply this discussion to the case at hand, what we see is that it is inconsistent with both the letter and spirit of the higher theory for it to be the case that F things are F by having things *added to* them. If this were so, then *addition* would be the (or, at least, an) answer to the question of causation. But it is precisely this sort of answer to this very question that the "safe" answer of the *Phaedo* was originally intended to exclude.

Taking all four criticisms together, the upshot of Parmenides' discussion of the conjunction of the higher theory with the Piece-of-Pie Model conception of partaking, as I understand it, is this. In addition to **C** and the Piece-of-Pie Model, the first two criticisms implicate **NCC**, the third implicates **P**, and the fourth implicates the assumption that X's "getting" Y (in the relevant sense) is a matter of Y's being "added to" X. The first two can therefore be avoided by rejecting **NCC**, the third by rejecting **P**, and the fourth by rejecting an assumption that is contrary to **C** itself, as presented in the *Phaedo*. It is the burden of the chapters to follow to show that, at least with regard to the first three criticisms, this is exactly the row that Parmenides proposes to hoe.

2.3 THE THIRD MAN

As we have seen, theorem **O**, that each form is one, plays in important role in the Whole–Part dilemma. After his fourth and final criticism of the result of conjoining the higher theory with the Piece-of-Pie Model, Parmenides

considers one of the reasons Socrates might have for accepting **O** in the first place (132a1–5):

PARMENIDES: I suppose you think each form is one on the following ground: whenever some number of things seem to you to be large, perhaps there seems to be some one form [*idea*],[5] the same as you look at them all [*epi panta*], and from that you conclude that the large is one.
SOCRATES: That's true.

This passage makes it plain that Parmenides is thinking of a piece of reasoning that leads to **O** from **OM**, using the large to stand for any form whatsoever. It is easy to see that **O** is the conclusion, as the following phrases indicate: "I suppose you think that each form is one on the following ground," and "and from that you conclude that the large is one." It is less easy to see that **OM** is the major premise from which **O** is supposed to follow. As Parmenides puts it, the premise reads: "whenever some number of things seem to you to be large, perhaps there seems to be some one form [*idea*], the same as you look at them all." Given the overall context, one in which we find Parmenides criticizing the higher theory of forms put forward in Socrates' speech, and given the close similarity between the idea presented in this statement and that presented in axiom **OM**, it is difficult to read the statement as capturing anything other than what is captured in **OM**, to wit: for any property F and any plurality of F things, there is a [single] form of F-ness by [virtue of partaking of] which each member of the plurality is F.[6]

But how exactly is **O** supposed to follow from **OM**? After all, from the fact that there is one, even just exactly one, form of F-ness over a given

[5] Gill and Ryan translate *idea* here as "character." In general, as Gill and Ryan acknowledge, Plato uses the terms *eidos* and *idea* interchangeably to refer to forms (1996, 129 n. 8). But here, they say, the word *idea* refers not to the form, largeness itself, but to "the common [immanent] character Socrates takes various things to have, if they all seem to be large (cf. 'the likeness we have,' contrasted with 'likeness itself,' at 130b)" (1996, 133 n. 10). I don't myself believe that Plato countenances any such immanent characters, at least not when such characters are thought of as distinct from the forms to which they are supposed to correspond. (For evidence of this, see Dancy [1991, 14–18; 2004, 308–310].) But even supposing that there were such distinct characters, I see no reason to think that Plato uses *idea*, in this context or anywhere else, to refer to a character. And, as I argue below, the argument in this passage makes much more sense if *idea* is here used, consistently with its use in other contexts, to refer to a form.

[6] The main aspect of **OM** that is missing from Parmenides' rendition of it at 132a1–4 is the idea that it is by partaking of largeness that the relevant plurality of large things is [seen to be] large. A similarly truncated version of **OM** appears at *Republic* 596a, where Socrates says that there is "a single form in connection with each of the many things to which we apply the same name" (see p. 16). What is missing from this statement of **OM** is reference to the specific kind of "connection" that "each of the many F things" is supposed to bear to the relevant form of F-ness, namely the relation of participation. But the fact that this relation is not explicitly mentioned does not mean that it is not important: it could be, and I would argue that it is, simply taken for granted.

plurality of F things, it does not follow that there is exactly one form of F-ness *tout court*. But notice that, as I argued above (see p. 38), the claim that each form is *one* is not the same as the claim that each form is *unique*. And the fact that **OM**, by itself, does not entail **U** indicates that we are witnessing the "enumerative," rather than the "uniqueness," use of "one" at 132a1–4. The "enumerative" use is the kind of use that explains the validity of the inference from the claim that X and Y are two to the conclusion that each of X and Y is one, and thus the validity of the inference from the claim that X is one among two to the conclusion that X is one. This is precisely the kind of use that appears in Socrates' claim, toward the middle of his speech, that he is one by virtue of being one among seven. If, then, the use of "one" at 132a1–4 is enumerative, parity of reasoning suggests that Parmenides means to infer that the large is one, not from the assumption that the large is one *among* many, but from the parallel assumption that the large is one *over* many, as the phrase *epi panta* (132a3) itself strongly suggests. The argument from **OM** to **O**, then, is simple. From **OM** and the obviously true claim that there is a plurality P of large things, it follows that there is a form of largeness (call it "the large") that is "over" each member of P in the sense of being *that by virtue of partaking of which each member of P is large*. Then, as we have just seen, from the fact that the large is one over many, it follows directly that the large is one. Since there is nothing special about the use of the predicate "large" in this case, the argument generalizes.

Having extracted from Socrates' acceptance of this argument one reason for accepting **O**, Parmenides launches into what has become the best-known of all the arguments of the *Parmenides*, the Third Man. Here is how the argument appears at 132a6–b2 (for ease of reference and to facilitate the exposition below, I have taken the liberty of dividing the text into three separate Steps):

Step 1 (132a6–9)

PARMENIDES: What about the large itself and the other large things? If you look at them all in the same way with the mind's eye, *won't some one large again appear*, by which all these appear large?[7]

SOCRATES: It seems so.

[7] Although Gill and Ryan prefer "again won't some one thing appear large" to the italicized phrase, they accept that the italicized phrase is accurate to the text (1996, 133 n. 11). For reasons that will appear below, the argument makes more sense with the italicized phrase than with Gill and Ryan's preferred alternative.

Step 2 (132a10–b1)

PARMENIDES: So another form of largeness will make its appearance, which has emerged alongside largeness itself and the things that partake of it, and in turn another over all these, by which all of them will be large.

Step 3 (132b1–2)

PARMENIDES: Each of your forms will no longer be one, but unlimited in multitude.

Let us analyze each of these Steps in order. At Step 1, Parmenides retains the example of largeness he used in setting up the argument from **OM** to **O**. What this suggests is that the reasoning at Step 1 presupposes the premise of the immediately preceding passage, namely **OM**. Let us then suppose that there is a plurality P1 of large things, say {a, b, c}, and, by **OM**, that it is by partaking of a form of largeness (call it "L1") that each member of P1 is large. The first of Parmenides' two questions at Step 1 ("What about the large itself and the other large things?") presupposes that L1 is large.[8] Given the status of **SP** as one of the theorems of the higher theory, the claim that L1 is large is unsurprising. If it is true, for all F, that the F is F, then it must surely be the case that L1 ("the large itself") is large. The second of Parmenides' questions ("If you look at them all in the same way with the mind's eye, won't some one large again appear, by which all these appear large?") is a rhetorical way of putting the following statement: If L1 is added to P1, thus forming a new plurality P2 (= {a, b, c, L1}), then there is a form of largeness ("some one large," call it "L2") by partaking of which each member of P2 is large. This statement is, rather plainly, a direct consequence of **OM**, this time applied to P2 rather than to P1.

The reasoning at Step 1, then, is this. Starting with the existence of some plurality of large things (P1), Parmenides applies **OM**, to which he has already secured Socrates' agreement as one of his reasons for accepting **O**, to yield the existence of a form of largeness (L1) of which each member of P1 partakes. Parmenides then adds L1 to P1, thus forming a new plurality (P2), and applies **OM** to P2, thereby yielding the existence of a form of largeness (L2) of which each member of P2 (including, of course, each member of P1) partakes.

[8] This is something noticed by Taylor (1915–1916) and emphasized by Vlastos (1954). See also Vlastos (1969, 351), Peterson (1973), Meinwald (1991, 15), Fine (1993, 206), McCabe (1994, 85), Gill (1996, 34), Sayre (1996, 79), and Allen (1997, 155).

Parmenides then begins Step 2 by claiming that it is a further consequence of the reasoning thus far ["so"] that "another form of largeness will make its appearance, which has emerged alongside largeness itself and the things that partake of it." Using the terminology I have introduced, Parmenides would put the very same point thus: It is a further consequence that L2 is distinct both from L1 (it is "*another* form of largeness" that "has emerged *alongside*" L1) and from each of the members of P1 ("the things that partake of [L1]"). Even more succinctly, the relevant result is that L2 is distinct from each of the members of P2. How does this follow? Assume first, by *reductio*, that L2 is identical to any one of the members of P2. Since we already have it that each member of P2 partakes of L2, it follows that L2 partakes of itself. But according to theorem **NSP** of the higher theory, no form partakes of itself. Contradiction. The assumption for *reductio* must then be false, that is, L2 must be numerically distinct from each one of the members of P2. In particular, L2 must be numerically distinct from L1.[9]

Parmenides' next move at Step 2 is to claim that there is "in turn another [form of largeness] over all these, by which all of them will be large." What does this mean? And how does it follow? Up to this point, we have discovered two forms of largeness, L1 and L2, such that (i) L1 is large, (ii) each member of the initial plurality of large things P1 partakes of both L1 and L2, and (iii) L1 itself partakes of L2. Since, by **SP**, L2 must be large as well, L2 can be added to P2 to form a new plurality of large things, P3 (={a, b, c, L1, L2}). Applying **OM** now to P3, Parmenides concludes that there is a form of largeness (call it "L3") by partaking of which each member of P3 is large. Now, importantly, L3 can be shown to be numerically distinct from each of the members of P3 (that is, L3 can be shown to be "another [form of largeness] over all these [members of P3]"). The reasoning to this conclusion is parallel to the argument that L2 is numerically distinct from each of the members of P2. Assume, by *reductio*, that L3 is identical to any one of the members of P3. Since we already have it that each member of P3 partakes of L3, it follows that L3 partakes of itself. But according to **NSP**, no form partakes of itself. Contradiction. The assumption for *reductio* must then be false, that is, L3 must be numerically distinct from each one of the members of P3. In particular, L3 must be numerically distinct from both L1 and L2.

In addition to the fact that L3 is numerically distinct from each of the members of P3, Parmenides emphasizes that L3 is something "by which all

[9] The fact that **NSP** (or **NSE**) plays a role in the Third Man argument is emphasized in Peterson (1973). See also Vlastos (1969, 351), Fine (1993, 206), McCabe (1994, 84), Gill (1996, 36), Sayre (1996, 80), and Allen (1997, 156).

of [the members of P3] will be large." As a direct result of applying **OM** to P3, this claim is unsurprising. But the fact that Parmenides reminds us of it at this stage will have some significant bearing on the proper interpretation of the reasoning at Step 3.

It is, in fact, at Step 3 that commentators are to be found scratching their heads most energetically. Parmenides says no more than that "each of your forms will no longer be one, but unlimited in multitude." This seems to mean that the reasoning thus far reveals each form to be not one, but infinitely many. But to what, exactly, does the phrase "each of your forms" refer? And exactly how are we supposed to conclude from the previous reasoning that each of the relevant forms is "no longer one, but unlimited in multitude"?

On one possible reading of "each of your forms," Parmenides intends by this phrase to refer to every one of the forms countenanced by the high theory (the large, the small, the beautiful, the just, the like, and so on). Although this reading is not absolutely ruled out, it is, I think, unlikely to be what Plato had in mind. Notice that Parmenides has focused all of his attention up to this point on one example, the case of largeness. Although it is true that Parmenides appears to be looking to extract a general moral at the end of the day, the textual evidence suggests that it is solely from the representative nature of this example that the general moral is to be extracted. It is more likely, then, that Parmenides continues, even at Step 3, to be focused on the case of largeness.[10]

Suppose, then, that "each of your forms" does not refer to all the forms countenanced by the high theory. To what *does* the phrase refer? The most reasonable supposition, given the immediate context, is that the phrase refers to *each of the forms of largeness revealed by repeated application of* ***OM***, ***SP***, *and* ***NSP***. The problem with this supposition is that it appears to take us, interpretatively speaking, from the frying pan into the fire. If Parmenides intends by "each of your forms" to refer to L1, L2, and so on, ad infinitum, then how could he possibly believe that *it follows from the reasoning at Steps 1 and 2* that each of *these* forms "is no longer one, but

[10] McCabe (1994, 86) supposes that Parmenides succeeds in showing that largeness (i.e., L1) is many by showing that it is "one among many" forms of largeness. The idea is that, by showing that L1 is one among many, Parmenides proves that L1 has a property (namely, the property of being one among many), and hence that L1 is not austere (in the sense of having no properties). But if Plato is interested in establishing that the high theory leads to paradox *on the grounds that* its central assumptions entail that forms are not austere, then he hardly needs an argument as complex as the Third Man to establish this result. All he needs to point out is that the claim that forms are not austere follows directly from **SP** (or from a host of other high theoretic theorems, including the claim that forms are eternal and indivisible – see above, p. 36 n. 35)! But this he does not do. As I argue below, there is a better way to represent the argument to the conclusion that L1 is many.

unlimited in multitude"? Surely the mere existence of many, even infinitely many, forms of largeness does not, by itself, license the inference to the conclusion that each of these forms is infinitely many.

Perhaps because they are not otherwise able to see how Parmenides could have reasonably believed there to be a valid inference from the first two Steps to the third, some commentators translate the sentence at Step 3 in some such way as this:

> Thus you will no longer have one of each form, but an indefinite plurality.[11]

The reason for being attracted by such a translation is obvious. If the conclusion to which Parmenides is moving says, as this proposed translation says, that there is no longer just one form, but rather infinitely many forms, of F-ness, then it is rather easy to see how Parmenides could think that the conclusion follows from the reasoning at the first two Steps. For that reasoning established the existence of three distinct forms of largeness (L1, L2, and L3), with the potential of establishing the existence of infinitely many forms of largeness by repeated application of **OM**, **SP**, and **NSP**. Thus, the mere existence of a regress of forms of largeness, a regress clearly mandated by Steps 1 and 2, is sufficient to establish what the proposed translation says, at least as applied to the case of largeness: If there are infinitely many forms of largeness, then it is clear that "you will no longer have one [form of largeness], but an indefinite plurality." And since the case of largeness is representative of all cases, the point generalizes: For any property F, if there are infinitely many forms of F-ness, then "you will no longer have one of each form, but an indefinite plurality."

But, as most commentators now agree, this translation is not true to the text.[12] What Parmenides concludes is not that there will no longer be one of each form, but rather that each form (presumably, as I have argued, each form of largeness revealed by the regress) will no longer be one. And this puts us right back into the fire: How is it supposed to follow from the reasoning at the first two Steps that each of L1, L2, L3, and so on is no longer one, but infinitely many?

Recall that part of what the reasoning at the first two Steps establishes is that L1 partakes of L2, and that L1 and L2 both partake of L3. Repeated applications of **OM**, **SP**, and **NSP** enable this result to be generalized: For any positive integers m and n such that $m<n$, Lm partakes of Ln. Spelled out, this result says (i) that L1 partakes of L2, L3, L4, L5, L6, and so on,

[11] See, for example, Scolnicov (2003, 61).

[12] See, for example, Vlastos (1969, 354), Cohen (1971, 449), Fine (1993, 204), McCabe (1994, 84), Gill and Ryan (1996, 133), Sayre (1996, 10), and Allen (1997, 10).

ad infinitum, (ii) that L2 partakes of L3, L4, L5, L6, and so on, ad infinitum, (iii) that L3 partakes of L4, L5, L6, and so on, ad infinitum; and so on, ad infinitum! So one of the consequences of the reasoning at the first two Steps is that each form of largeness, Li, partakes of all the forms that lie above it in the hierarchy, and thus, since the hierarchy is infinite, partakes of infinitely many forms.[13]

By referring to texts both within and without the *Parmenides*, it can now be shown that middle-to-late Plato accepts the thesis that if X partakes of [infinitely] many forms, then X is [infinitely] many. Consider, to begin, a passage from *Philebus* 14c8–d3:

SOCRATES: For that the many are one and the one many are amazing statements, and can easily be disputed, whichever side of the two one may want to defend.

PROTARCHUS: Do you mean this in the sense that someone says that I, Protarchus, am one by nature but then also says that *I am many and even contrary things*,[14] when he treats me, who am one and the same, as tall and short, heavy and light, and endless other such things?[15]

By means of this exchange, Plato reveals his acceptance of the claim that a thing is pluralized by possessing numerous properties or attributes. If many things are true of Protarchus, then he himself is many. Although this claim has an odd ring to it, sense can be made of its English counterpart. If Protarchus is tall and short, heavy and light, and so on, it makes sense (even in English) to say that Protarchus is many things (namely, tall and short, heavy and light, and so on).

Suppose now that X partakes of many forms, F1, F2, F3, and so on. Thus, "partaking of F1" is true of X, "partaking of F2" is true of X, "partaking of F3" is true of X, and so on, and hence many things are true of X. But, by the principle revealed at *Philebus* 14c–d, if many things are true of X, then X is many. And so we may conclude that anything that partakes of many

[13] See Allen (1997, 158).

[14] Frede (in Cooper [1997, 402]) translates the italicized phrase as: "there are many 'me's' and even contrary ones." This is not mandated by the Greek text (*pollous einai palin tous eme kai enantious allēlois*), and makes little or no sense in the larger context. Protarchus is explaining to Socrates that some believe that "the many are one and the one many" because they think that many things (and even pairs of contraries) can be correctly attributed to one and the same individual (such as a single human being). Thus, what is supposed to follow from the thought that Protarchus is "tall and short, heavy and light, and endless such things" is clearly not that there are many Protarchuses and even contrary ones (as Frede's translation suggests), but that Protarchus himself is many things. This explains why I translate the relevant phrase as I do in the text. (I am grateful to John Vella for discussion on this point.)

[15] I thank Russ Dancy for bringing this passage to my attention.

forms must itself be many (and must in fact be as many as the forms of which it partakes).

By appealing to passages that appear later on in the *Parmenides*, it can also be shown that Parmenides takes it for granted that, if X partakes of a form Y, then Y is part of X (whether as a whole or divided). Consider, for example, the following passage from the beginning of the Second Deduction, which functions as an argument for the conclusion that if the one is, then the one has parts (142d1–5):

PARMENIDES: If we state the "is" of the one that is, and the "one" of that which is one, and if being and oneness are not the same [as was shown earlier, at 142b7–8], but both belong to that same thing that we hypothesized, namely, the one that is, must it not itself, since it is one being, be a whole, and the parts of this whole be oneness and being?

ARISTOTLE: Necessarily.

Later, in chapter 5, I will discuss this passage in greater detail as it relates to the larger context in which it appears. But, for now, it is enough for our purposes to notice that the passage presupposes that, if the one is (i.e., partakes of being), then being (at least, the being of which the one partakes) is part of the one, and that, if the one is one (i.e., partakes of the one), then the one (at least, the oneness of which the one partakes) is part of the one. The point appears to generalize: If X is F (i.e., partakes of the F), then the F is part of X.

Suppose, then, that X partakes of many forms. By the principle revealed at *Parmenides* 142d1–5, each of the many forms of which X partakes is part of X. Thus, X has many parts (as many parts as there are forms of which X partakes). But recall now that, in his speech, young Socrates had claimed, almost surely on the basis of the assumption that a thing with parts is identical to its parts, that something's having many parts is sufficient for its being many (see p. 50). If this is correct, then X itself must be many. And so we may conclude that anything that partakes of many forms must itself be many (and must in fact be as many as the forms of which it partakes).[16]

There are therefore two different ways of arguing, in a way that relies on other things that Plato says, both in the *Parmenides* itself and in dialogues that postdate it, for the principle that something that partakes of many forms must itself be many (and as many as the forms of which it partakes). One way goes through the principle that a thing is many if many things are true of it. The other way goes through the principle that a thing is many if it has many parts.

[16] See also Allen (1997, 157).

Given the principle that something that partakes of many forms must be many, it is a simple matter to move from the previously obtained result that each Li partakes of the infinitely many forms that lie above it in the hierarchy to the conclusion that each Li is "no longer one, but unlimited in multitude" (132b1–2). For the principle entails that each Li is [infinitely] many (and so, in the relevant sense, "unlimited in multitude"). And since, by **RP**, no form can be both one and many, it follows that each Li is not (and so, "no longer") one. In the Third Man as a whole, then, Step 3 may be seen to follow rather easily from the first two Steps. For it follows from the first two Steps that there are infinitely many forms of largeness, each of which partakes of infinitely many forms of largeness. And since each form is as many as the forms of which it partakes, it follows that each form of largeness in the hierarchy is infinitely many, and hence, by **RP**, no longer one. The problem with each of these forms' no longer being one, of course, is that theorem **O** of the higher theory requires that each form be one. Contradiction.

What the Third Man argument shows, then, is that the higher theory, particularly the conjunction of five of its main principles (namely, **OM**, **SP**, **NSP**, **O**, and **RP**), is internally inconsistent. Using **OM**, **SP**, and **NSP**, it is possible to reveal, for any given property F, the existence of infinitely many forms of F-ness, each of which is infinitely many, and hence both one (by **O**) and not one (by **RP**). If the higher theory of forms is to avoid this criticism, one or more of these assumptions will need to be abandoned.

I have now articulated what I take to be the most reasonable interpretation of the actual text of the Third Man argument. But if the interpretation I have offered is correct, then there is something slightly odd about Plato's strategy, especially at Step 3. Recall that it is already a consequence of the first two Steps that there are infinitely many forms of largeness. As seems clear, this result *all by itself* contradicts one of the higher theory's main theorems, namely **U**, according to which there is exactly one (and hence, no more than one) form of largeness.[17] It appears, then, that the first two Steps of the Third Man, *all by themselves*, reveal an inconsistency at the heart of the higher theory, inasmuch as the conjunction of **OM**, **SP**, and **NSP** entails the falsity of **U**. This is the inconsistency that some commentators (as I have argued, wrongly) believe Plato uses the Third Man argument to reveal.

[17] This fact was brought home to me in the form of a question by Dominic Scott when I presented a previous version of my reconstruction of the Third Man at the Eastern Division Meetings of the American Philosophical Association in November 1998. See also Fine (1993, 205).

The existence of this second inconsistency (involving **OM**, **SP**, **NSP**, and **U**, rather than **OM**, **SP**, **NSP**, **O**, and **RP**) presents something of a conundrum for those who accept the interpretation I have proposed. If, as is uncontested, Plato is interested in revealing the existence of logical inconsistencies within the higher theory of forms, why on earth would he not have Parmenides stop at the end of Step 2 and declare victory? Why have Parmenides go on to point out, most enthymematically, the existence of what appears to be a far less obvious inconsistency at Step 3?

As I see it, a complete answer to these questions must await a detailed reconstruction of the arguments in the second part of the dialogue. But it is possible, even now, to outline the general shape of an answer. As I read the Deductions, part of Plato's aim is to establish the existence of infinitely many forms of F-ness, for at least some F's. Consider, for example, the first argument of the Second Deduction for the conclusion that, if the one is, then it is infinitely many (142b1–143a3). In this argument, Parmenides' strategy (given the assumption that the one is) is to show, first, that the one has two parts, being and oneness, second, that each of these two parts (namely, the being of the one and the oneness of the one) has two parts, being and oneness (thereby giving us the being of the being of the one and the oneness of the being of the one, as well as the being of the oneness of the one and the oneness of the oneness of the one), third, that each of these four parts has being and oneness, and so on, ad infinitum. It is a consequence of this argument that, if the one is, then there are infinitely many forms of being (being, the being of being, the being of the being of being, and so on – not to speak of the being of oneness, the being of the being of oneness, the being of the oneness of being, the being of the oneness of oneness, and so on) and infinitely many forms of oneness (oneness, the oneness of oneness, the oneness of the oneness of oneness, and so on – not to speak of the oneness of being, the oneness of the oneness of being, the oneness of the being of oneness, the oneness of the being of being, and so on). And if, as I will argue, it is a further consequence of the Deductions that *the one is*, then the second part of the *Parmenides* contains a proof of the existence of infinitely many forms of being and infinitely many forms of oneness.

The falsity of **U** is a direct consequence of this proof. So, I understand part of Plato's purpose in the *Parmenides* (though not the only part, by any means) to be to provide reasons for abandoning theorem **U**. If this is right, then it is reasonable to suppose that Plato does indeed intend the reader of the *Parmenides* to notice the inconsistency that appears at the end of Step 2, with the idea of waiting until the Second Deduction to reveal

his own way of solving the problem (namely, the abandonment of **U**). It appears, then, that Plato's purpose in moving to Step 3 is to bring out a *different* and perhaps even more troubling inconsistency, one that could not be solved by jettisoning **U**. This potentially more troubling inconsistency, as we have seen, requires the abandonment of one or more of **OM**, **SP**, **NSP**, **O**, and **RP**. Although Plato does not tell us at this stage which of these principles should be the one to go, it is worth noting for future reference that the second inconsistency evaporates for any theory of forms that is shorn of **RP**.

2.4 FORMS AS THOUGHTS

Seeing that **O** is among the set of principles threatened by the Third Man argument, Socrates (rather impulsively, it appears) proposes the following way of avoiding the relevant inconsistency (132b3–6):

SOCRATES: But, Parmenides, maybe each of these forms is a thought [*noēma*] and properly occurs only in minds [*en psuchais*]. In this way each of them might be one and no longer face the difficulties mentioned just now.

Socrates' suggestion is to combine the higher theory with the "noematic" thesis that forms are thoughts. But exactly how this combination is supposed to avoid the difficulties posed by the Whole–Part dilemma and the Third Man argument, Socrates does not say.[18]

Parmenides now embarks on the first of two arguments (call it the "Anti-Noematic" argument) designed to shatter the consistency of Socrates'

[18] Perhaps, as I argued in Rickless (1998a, 525 n. 27), Socrates thinks that the noematic thesis avoids the Whole–Part dilemma by virtue of being inconsistent with the Pie Model conception of partaking. After all, it does seem rather difficult to imagine something's literally "getting a share" of a thought. But, as I argue below, the second of Parmenides' two criticisms of the result of combining the higher theory with the noematic thesis presupposes that this thesis and the Pie Model are not inconsistent *ab initio*. Argument is needed to reveal an inconsistency here. Thus, it seems that Parmenides (and hence, by implication, Plato) does not understand Socrates to be introducing the noematic thesis as a way of rejecting the Pie Model.

Perhaps, as also argued in Rickless (1998a, 525 n. 27), Socrates thinks that the noematic thesis avoids the inconsistency revealed by the Third Man by virtue of being inconsistent with **OM**. But I no longer see why someone who accepts the noematic thesis would, in any obvious way, be compelled to abandon **OM**.

I now read Socrates' suggestion that the noematic thesis might enable a supporter of the higher theory to avoid "the difficulties" represented by the Whole–Part dilemma and the Third Man as incompletely thought-through, as Parmenides then takes pains to show. It may be that Plato had some particular way of avoiding these difficulties in mind when he wrote the relevant stretch of discourse at 132b. But, then again, maybe not. As the conversation unfolds, Socrates shows signs of increased frustration as he finds himself unable to think ahead in a way that might enable him to defuse Parmenides' criticisms. And it may be precisely this inability to think things through to the end that is on display upon Socrates' introduction of the noematic thesis at 132b.

proposal. As in the case of the Third Man, it is possible to divide the relevant text at 132b7–c8 into three separate Steps:

Step 1 (132b7–c2)

PARMENIDES: What do you mean? Is each of the thoughts one, but a thought of nothing?
SOCRATES: No, that's impossible.
PARMENIDES: Of something, rather?
SOCRATES: Yes.
PARMENIDES: Of something that is, or of something that is not?
SOCRATES: Of something that is.

Step 2 (132c3–5)

PARMENIDES: Isn't it of some one thing, which that thought thinks is over all the instances, being some one form [*idean*]?
SOCRATES: Yes.

Step 3 (132c6–8)

PARMENIDES: Then won't this thing that is thought to be one, being always the same over all the instances, be a form [*eidos*]?
SOCRATES: That, too, appears necessary.

The function of Step 1 is to introduce the assumption that every thought is of something that [in some way] is. The alternative to this assumption, we may presume, is that there might be a thought of something that is not, in the sense of being something that *in no way* is, that is, in the sense of being nothing at all. But this, Socrates says, is "impossible." For Socrates, like Parmenides, accepts the thesis that every thought has an object.

The function of the next two Steps is to add further details to the assumption introduced at Step 1. At Step 2, Parmenides gets Socrates to agree that the object O of any thought T must be something that T thinks to be one, inasmuch as O is one thing that lies "over all the instances." And at Step 3, Socrates accepts Parmenides' claim that something that is one and the same "over all the instances" must be a form. The upshot of these two Steps is that the object of any thought is a form. Thus, if Socrates' noematic thesis (that all forms are thoughts) is true, then the assumptions at Steps 1–3 entail that every form is a thought of a form.

The argument, as it appears in the text, ends here. Since Parmenides is clearly criticizing Socrates' noematic proposal (or, more likely, the result of combining this proposal with the higher theory), Plato must mean the reader to find something absurd or problematic about the result that every

form is a thought of a form. But what? Why couldn't forms be thoughts of other forms? What is so objectionable about *that*?

The absurdity, such as it is, does not lie at the surface of the text. So, if we are not to read the Anti-Noematic argument as a complete failure, we must think of it as an enthymeme and complete it with what, given the context, are the most reasonable assumptions of which we can think. The first thing to notice about the argument is that the result that each form is a thought of a form is the kernel of an infinite regress. For, assume that form F1 is a thought of form F2. Since F2 is a form and every form is a thought of a form, F2 must itself be a thought of a form (say, F3). And since F3 is a form and every form is a thought of a form, F3 must itself be a thought of a form (say, F4). This reasoning may be repeated ad infinitum. If every form in the series happens to be numerically distinct from every form that appears earlier in the series (so that F2 is not identical to F1, F3 is not identical to either F2 or F1, and so on), then the result that every form is a thought of a form generates an infinite regress of forms.

Recall now that the Anti-Noematic argument appears right on the heels of the Third Man argument, in which the generation of an infinite regress of forms plays a crucial logical role. If the surface result obtained at the end of Step 3 of the Anti-Noematic argument is sufficient (or nearly sufficient) to generate an infinite regress of forms, it is reasonable to assume that Plato means us to complete the Anti-Noematic argument with premises that lead to an absurdity similar to the absurdity reached at the end of the Third Man, and that lead to such absurdity in a way that echoes the form of reasoning employed in the Third Man. If we can find premises that complete the Anti-Noematic argument in this way, then we have good reason to believe that these are the additional premises Plato had in mind (or would have recognized) as completing it.

Consider, then, a form of F-ness (say, F1). Since every form is a thought of a form, F1 must be a thought of a form (say, F2). Is F2 a form of F-ness? Neither Parmenides nor Socrates says. But the Anti-Noematic argument will not generate a regress of forms similar to the regress generated in the Third Man (namely, a regress of forms of largeness) unless we have it that F2 is indeed a form of F-ness. Now it is possible to obtain this result by tweaking the premises at Steps 2 and 3 ever so slightly, and in a way that does not render them any less plausible. Recall that Steps 2 and 3 introduce the following assumptions:

(A1) Every thought is of something that is one over all the instances.
(A2) Anything that is one over all the instances is a form.

Let us now modify these assumptions by making clear that they apply to those situations in which the relevant forms and instances are all associated with the same property:

(A1*) *For any property F*, every thought *associated with F* is of something that is one over all the *F* instances.

(A2*) *For any property F*, anything that is one over all the *F* instances is a form *of F-ness*.

These modified assumptions do give us the means to argue validly from the assumption that F1 is a form of F-ness to the conclusion that F2 is a form of F-ness. For if F1 is a form of F-ness and all forms are thoughts, then F1 is a thought associated with F. By (A1*), it follows that that of which F1 is a thought (namely, F2) is one over all the F instances. And by (A2*), it follows that F2 is a form of F-ness.

So F1 and F2 are forms of F-ness. Notice now that the higher theory requires that F2 and F1 be numerically distinct. To see why, let us begin with the idea that F2 is "over" all the F instances. As the Third Man argument makes clear, a form's being "over" its F instances is a matter of these instances' being F by virtue of partaking in the form. So, for F2 to be "over" all the F instances is for it to be the case that all the F instances are F by virtue of partaking of F2. The argument for the numerical distinctness of F1 and F2 now becomes relatively simple. By **SP**, F1 is itself F, that is, F1 is an F instance. Since F2 is "over" all the F instances, F2 must be "over" F1. But then, given the understanding of "over" just adumbrated, it must be that F1 is F by virtue of partaking of F2, and so it must be that F1 partakes of F2. But, by **NSP**, no form partakes of itself. So F2 and F1 must be numerically distinct.[19]

[19] We are now in a position to see that assumptions (A1*) and (A2*) are not quite satisfactory as they stand. To see this, consider that, by **SP**, F2 must be an F instance. If, as (A1*) requires, F2 is "over" *all* the F instances, then F2 must be "over" itself, and hence must partake of itself. But, by **NSP**, this is absurd.

There are various ways of tweaking (A1*) and (A2*) to avoid this absurdity without sacrificing validity. One way is to replace (A1*) with (A1**):

(A1**) For any property F, every thought associated with F is of something that is one over all the F instances *other than itself*.

Another is to replace (A1*) with (A1***):

(A1***) For any property F, every thought associated with F is of something that is one over all the F instances *described thus far* (i.e., lower down in the hierarchy).

To my mind, presenting the Anti-Noematic argument as relying on (A1**) or (A1***) might result in the basic shape of the reasoning being lost in a cloud of qualifications. This is why I rely on (A1*) and (A2*) in the text, and invite my readers to complicate the reasoning themselves if they so choose.

The existence of an infinite regress of forms of F-ness now follows by repetition of this mode of reasoning. Since F2 is a form of F-ness, the noematic thesis entails that F2 is a thought of a form (say, F3). By (A1*) and (A2*), it follows that F3 is a form of F-ness that is over all the F instances. Now, by **SP**, F2 and F1 are both F instances. Thus, F3 is "over" F1 and F2, and hence both F1 and F2 partake of F3. Since **NSP** requires that no form partake of itself, F3 must be numerically distinct from each of F1 and F2. Since F3 is a form of F-ness, the noematic thesis entails that F3 is a thought of a form (say, F4). By (A1*) and (A2*), F4 is a form of F-ness that is over all the F instances. Now, by **SP**, F3, F2, and F1 are all F instances. Thus, F4 is "over" F3, F2, and F1, and hence F3, F2, and F1 all partake of F4. Since **NSP** requires that no form partake of itself, F4 must be numerically distinct from each of F1, F2, and F3. And so on, ad infinitum.

Now, as we saw in the previous section, although the existence of infinitely many forms of F-ness is inconsistent with theorem **U** of the higher theory, this is not the inconsistency that Parmenides was attempting to get Socrates to acknowledge in the Third Man. Rather, Parmenides' aim was to show that each form partakes of all the infinitely many forms that lie above it in the hierarchy, that this result entails that each form in the hierarchy is infinitely many, and hence, by **O** and **RP**, that each form in the hierarchy is both one and not one.

If, as I have argued, the reasoning in the Anti-Noematic argument is meant to echo the reasoning of the Third Man argument, then the final step in the Anti-Noematic reasoning looks like this. From the Anti-Noematic regress it follows that each form of F-ness generated by the regress partakes of infinitely many forms of F-ness. By parity of reasoning with the Third Man, then, each form of F-ness is infinitely many. Given **RP**, this result entails that each form of F-ness is not one. But, by **O**, each form of F-ness is one. Contradiction.

As should now be clear, the Third Man and Anti-Noematic arguments are similar in structure. In the Third Man argument, **OM**, **SP**, and **NSP** are sufficient to generate an infinite regress of forms associated with the same property. In the Anti-Noematic argument, a similar conclusion is reached by replacing **OM** with the result of conjoining the noematic thesis with (A1*) and (A2*). Since both regresses are generated in similar ways, both arguments then rely in the same way on **O** and **RP** to produce a contradiction. Thus, whereas the Third Man argument shows that at least one of **OM**, **SP**, **NSP**, **O**, and **RP** is false, the Anti-Noematic argument shows that at least one of the noematic thesis, (A1*), (A2*), **SP**, **NSP**, **O**, and **RP** is false. But it is worth noting, again for future reference, that a

theory of forms shorn of **RP** would be able to avoid the Anti-Noematic argument no less than it would be able to avoid the Third Man.

At the conclusion of the Anti-Noematic argument, Parmenides presents the second of his two criticisms of Socrates' noematic proposal (132c9–12):

> PARMENIDES: And what about this? Given your claim that other things partake of forms, won't you necessarily think either that each thing is composed of thoughts and all things think, or that, although they are thoughts, they are unthinking?
>
> SOCRATES: That isn't reasonable either, Parmenides.

This argument runs as follows. Suppose, as the noematic thesis requires, that all forms are thoughts. By **OM**, if X is F, then X partakes of a form of F-ness. Thus, if X has a property, X partakes of a thought. Now the only model of partaking proposed by Socrates thus far is the Pie Model, according to which partaking of a form amounts to literally getting a share of it, either as a whole or as a part. Since we may safely presume that thoughts do not have parts, the only remaining option in this case is that X's partaking of a thought amounts to X's getting the whole thought, in such a way that the entire thought is in X (and so, part of X). Thus, if the noematic thesis is combined with the (Whole) Pie Model version of the higher theory, the result is that everything is "composed of" thoughts. Assuming, then, that having a thought as a part entails that one is a thinking thing, it follows that all things think. But this panpsychist thesis is absurd. It might be suggested, as a way of rebutting this argument, that having a thought as a part does not entail that one is a thinking thing. But, says Parmenides, the only supposition that would make sense of this lack of entailment is the claim that thoughts are unthinking. Yet this is also absurd, since, as Parmenides and Socrates previously agreed, every thought has an object, and thus thinks about something or other.

The upshot of this second argument is that yet another kind of absurdity is derivable from the result of combining the noematic thesis with **OM** and with the Pie Model conception of partaking. This is not the sort of problem that can be avoided by rejecting **RP** (or **P**, or **NCC**, or **U**). Rather, Parmenides appears to be saying that advocates of the higher theory who wish to retain **OM** have no choice but to reject the noematic thesis or offer some different conception of the partaking relation. As we will see in the next section, this is precisely the kind of view that Socrates goes on to offer.

2.5 PARADIGMATISM

At the conclusion of Parmenides' criticism of the noematic thesis, Socrates takes a completely different tack. Stung by the absurdities that can be

generated by combining the higher theory with the Pie Model conception of partaking or with the noematic thesis (or both), Socrates attempts to avoid inconsistency without rejecting the higher theory by abandoning *both* the Pie Model *and* the noematic thesis. The suggestion is this (132d1–4):

SOCRATES: What appears most likely to me is this: these forms are like patterns [*paradeigmata*] set in nature, and other things resemble them and are likenesses [*homoiōmata*]; and this partaking of the forms is, for the other things, simply being modeled on them.

Socrates' proposal (call it "Paradigmatism") is composed of two separate (and logically separable) theses. The first is that forms are natural (non-mental, non-conventional) patterns (*paradeigmata*), the second, that participation is a matter of resemblance. Though this view is not officially endorsed in the dialogues of the middle period, it does appear in embryonic form in the *Republic* and in the *Timaeus* (see above, pp. 31-32).

Paradigmatism represents a reasonably well thought-out response to the criticisms Parmenides has raised against various versions of the higher theory. The claim that forms are natural patterns directly contradicts the immediately preceding noematic proposal that forms are thoughts, and the claim that partaking is a matter of resemblance directly contradicts the earlier proposal that partaking of a form is a matter of getting a share of it. Thus, worries that stem from the result of combining the higher theory with either the noematic thesis or the Pie Model conception of partaking (or both) will not automatically transfer to the result of combining the higher theory with Paradigmatism.

Still, Parmenides does not believe that the purveyor of the higher theory can find any solace in Paradigmatism. Rather, he argues that conjoining the higher theory with Paradigmatism produces yet another absurdity. For ease of reference, I divide the argument at 132d5–133a7 into three separate Steps:

Step 1 (132d5–8)

PARMENIDES: If something resembles the form, can that form not be like what has been modeled on it, to the extent that the thing has been made like it? Or is there any way for something like to be like what is not like it?

SOCRATES: There is not.

Step 2 (132d9–e5)

PARMENIDES: And isn't there a compelling necessity for that which is like to partake of the same one form as what is like it?

SOCRATES: There is.

PARMENIDES: But if like things are like by partaking of something, won't that be the form itself?
SOCRATES: Undoubtedly.

Step 3 (132e6–133a7)

PARMENIDES: Therefore nothing can be like the form, nor can the forms be like anything else. Otherwise, alongside the form another form will always make its appearance, and if that form is like anything, yet another; and if the form proves to be like what partakes of it, a fresh form will never cease emerging.
SOCRATES: That's very true.
PARMENIDES: So other things don't get a share of the forms by likeness; we must seek some other means by which they get a share.
SOCRATES: So it seems.

According to Paradigmatism, for X to partake of Y is for X to resemble Y, that is, for X to be like Y. At Step 1, Parmenides gets Socrates to agree that the relation of resemblance is symmetrical: if X is like Y, then Y is like X. If resemblance were not symmetrical, there might be a way "for something like to be like what is not like it." But this is impossible. Thus, if something resembles a form, then the form must be like the thing that resembles it.

At Step 2, Parmenides claims, first, that if two things are like each other, then there must be a form of which they both partake. The following reasoning establishes that this claim is a consequence of the higher theory.[20] By the **Principle of Elision** with which we are already familiar, if X is F (in relation to) Y, then X is *in some way* F, which is just to say that X is F. Thus, if X is like [in relation to] Y, then X is like. Moreover, given the symmetry of resemblance, if X is like [in relation to] Y, then Y is like [in relation to] X, and hence Y is like. So, if X and Y are like each other, then both X and Y are like. Now, by **OM**, if X and Y are both F, then there is a single form (a form of F-ness) by virtue of partaking of which each of X and Y is F, and thus there is a single form of which both X and Y partake. Thus, if two things are like each other, then they are both like, and hence there is a single form of which they both partake.

Parmenides' second claim at Step 2 is that the thing by virtue of partaking of which like things are like is "the form itself" (*auto to eidos*). If, as we may reasonably suppose, Parmenides means by this to be making a point in addition to the one just made at the beginning of Step 2, then he must be using "the form itself" to refer to the very form that (by **C**) makes like things (other than itself) like, namely *the like* (or *likeness*). Thus, if two

[20] I am indebted to Schofield (1996) for pointing the way to the reconstruction offered here. See also McCabe (1994, 87–88) and Allen (1997, 182–183).

things are like each other, and hence like, there is a single form *of likeness* of which they both partake.

It is at the beginning of Step 3 that Parmenides derives an absurdity that should trouble those who accept the paradigmatistic version of the higher theory. It follows from the results established thus far, says Parmenides, that "nothing can be like the form, nor can the form be like anything else," for otherwise we will be forced to accept an infinite regress of forms. Parmenides takes it that such a regress is unacceptable, and then finds in the unacceptability of such a regress a reason to accept another conclusion he takes to be unacceptable. What requires explanation is how these unacceptable conclusions are supposed to follow, and why they should be considered unacceptable.

Begin, then, with two things, A and B, that have some property F in common. If, as Parmenides says much later at 139e8 (and at 148a3), "whatever has a property the same is surely like," then, if A has a property the same as B, then A is like B. Given the symmetry of the resemblance relation (Step 1), B must be like A, and hence, by the **Principle of Elision**, A and B must both be like. By **OM**, there is a form of likeness (say, L1) by virtue of partaking of which both A and B are like, and hence of which both A and B partake (Step 2). What Parmenides now aims to show is that nothing can be like L1, nor can L1 be like anything else.

The relevant argument proceeds by *reductio*. Assume, for *reductio*, that something is like L1 or L1 is like something. If something is like L1, then, by the symmetry of resemblance, L1 must be like something. Thus, whether something is like L1 or L1 is like something, L1 must perforce be like something (say, C). Now if L1 is like C, then, by the **Principle of Elision**, L1 is like. Recall now that A and B both partake of L1. By **NSP**, nothing partakes of itself, and hence L1 must be numerically distinct from each of A and B. But A and B are both like, and since L1 is also like, the set {A, B, L1} now represents a new plurality of like things. By **OM**, there must be a form of likeness (say, L2) by virtue of partaking of which A, B, and L1 are all like. Given that each of A, B, and L1 partakes of L2, **NSP** now requires that L2 be numerically distinct from each member of {A, B, L1}, and hence, in particular, that L2 be numerically distinct from L1. (Hence Parmenides' claim that "alongside the form [namely, L1] another form [namely, L2] will . . . make its appearance.")

Now recall that Paradigmatism requires that X's partaking of Y amounts to X's being like Y. So, given that L1 partakes of L2, L1 must be like L2. But now, by the symmetry of resemblance, L2 must be like L1, and hence, by the **Principle of Elision**, L2 must be like. Since L2 is a like thing that

is numerically distinct from each member of {A, B, L1}, the set {A, B, L1, L2} now represents yet another plurality of like things. And now the reasoning repeats itself. By **OM**, there must be a form of likeness (say, L3) by virtue of partaking of which A, B, L1, and L2 are all like. Given that each of A, B, L1, and L2 partakes of L3, **NSP** requires that L3 be numerically distinct from each member of {A, B, L1, L2}, and hence, in particular, that L3 be numerically distinct from both L1 and L2. (Hence Parmenides' claim that "if that form [namely, L2] is like anything [which it is, since it is like L1], yet another [form (namely, L3) will make its appearance]".)

It is not now difficult to generate an infinite regress of forms of likeness. Since each of L1 and L2 partakes of L3, Paradigmatism requires that each of L1 and L2 be like L3. But then, by the symmetry of resemblance, L3 must be like each of L1 and L2, and by the **Principle of Elision**, L3 must be like. Since L3 is a like thing that is numerically distinct from each member of {A, B, L1, L2}, the set {A, B, L1, L2, L3} represents yet another plurality of like things. But then, by **OM**, there is a form of likeness (say, L4) of which each member of {A, B, L1, L2, L3} partakes and which, by **NSP**, must be numerically distinct from each member of the very same plurality, and hence numerically distinct from each of L1, L2, and L3. This pattern of reasoning can now be repeated ad infinitum to yield an infinite series of forms of likeness. (Hence Parmenides' claim that "if the form proves to be like what partakes of it [as it must, since if X partakes of Y, X is like Y, and hence, by symmetry of resemblance, Y is like X], a fresh form will never cease emerging.")

Now I said above that the argument to the conclusion that nothing can be like L1, nor can L1 be like anything else, is a form of *reductio ad absurdum*. If this is so, then Parmenides must take some absurdity to follow in some way from there being infinitely many forms of likeness. Where the absurdity lies, the text does not say. So we are left to reconstruct for ourselves what Plato must have had in mind as constituting the relevant absurdity. Now we have already witnessed Parmenides' putting paid to two of Socrates' previous suggestions by generating absurd results related to the existence of an infinite series of forms associated with a single property. In each of these criticisms, as I have argued, Parmenides does not treat the mere existence of infinitely many forms of F-ness as absurd in itself (even though it is straightforwardly inconsistent with theorem **U** of the higher theory). Rather, the relevant absurdity derives from the fact that each form of F-ness is shown to partake of each of the infinitely many forms of F-ness above it in the hierarchy. For it follows from the fact that X partakes of infinitely many forms that X is infinitely many, and hence (by **RP**) not one. And

thus it turns out that each form in the hierarchy fails to be one, even as **O** requires that each form be one.

Let us then return to the infinite series of forms of likeness generated by the result of combining the higher theory with Paradigmatism, on the *reductio* assumption that L1 is like something or something is like L1. It is a direct consequence of the reasoning that establishes this result that each form in the series partakes of the forms that lie above it. As we have already seen, this result is sufficient to establish that each form of likeness in the hierarchy is infinitely many, and hence, by **RP**, not one. And the relevant absurdity then consists in the fact that this result is logically inconsistent with theorem **O**.

The conclusion of the relevant *reductio*, then, is that "nothing can be like [L1], nor can [L1] be like anything else." If Parmenides aims to find an inconsistency at the heart of the paradigmatistic version of the higher theory, then he must take it that this conclusion is no less absurd than the absurdity generated in the *reductio*. And the conclusion *does* lead to absurdity. Recall that one of the consequences of Step 2 was that A and B both partake of L1. But Paradigmatism requires that A's partaking of L1 entails A's being like L1. So A must be like L1. But the conclusion of the *reductio* says that nothing can be like L1, and hence that A cannot be like L1. Contradiction.

The upshot of Parmenides' criticism of the paradigmatistic version of the higher theory is that, given the symmetry of resemblance and the **Principle of Elision**, it is impossible to combine, without inconsistency, the two theses that define Paradigmatism with **OM**, **NSP**, **O**, and **RP**. If the criticism is valid, then Socrates must reject Paradigmatism if he does not wish to reject one of **OM**, **NSP**, **O**, and **RP**. Hence Parmenides' remark at the end of Step 3 that "other things don't get a share of the forms by likeness; we must seek some other means by which they get a share." Something that Parmenides does not say, but which should be kept in mind, is that his criticism leaves it open for Socrates to keep Paradigmatism by rejecting **RP**.

2.6 THE GREATEST DIFFICULTY

At the conclusion of his criticism of the paradigmatistic version of the higher theory, Parmenides gets Socrates to acknowledge "how great the difficulty [*aporia*] is if one marks things off as forms, themselves by themselves" (133a8–9). But Parmenides goes on to claim that "posit[ing] one form in each case" (133b1) involves further difficulties, the most significant of which

is that "if the forms are as we claim they must be [i.e., if the forms conform to the axioms and theorems of the higher theory], they cannot even be known" by human beings (133b4–6), a result that contradicts theorem **KF**. This problem (call it "GD1") is the first of two difficulties that have jointly come to be known as the "Greatest Difficulty." The second of these difficulties (call it "GD2") is designed to show that if the forms conform to the axioms and theorems of the higher theory, then the gods cannot know human affairs (134e5–6), a result that Parmenides and Socrates take to be absurd in itself.[21]

For ease of reference, let us divide GD1 into four Steps (133c3–134c3), commenting on each Step in turn:

Step 1 (133c3–6)

PARMENIDES: I think that you, Socrates, and anyone else who posits that there is for each thing some being, itself by itself, would agree, to begin with, that none of those beings is in us.

SOCRATES: Yes – how could it still be itself by itself?

The point of this passage is to extract from axiom **II**, that every form is itself by itself, the result that no form is in human beings. The assumption that allows the inference to go through is that anything that is itself by itself cannot be in humans. Although neither Parmenides nor Socrates explains why he takes this assumption to be true, we can understand the appeal of the premise by unpacking the concept of "itself-by-itself-ness."

As I argued above (pp. 17-20), for something to be itself by itself is for it to be separate from the things that partake of it (**S**). **S**, in this context, clearly entails non-identity, and it is this identity failure that is reflected in theorems **NSP** and **NSE**. But separation also means *more* than non-identity. Specifically, a form is separate from its participants only if it is not present in them. If humans are included among the relevant participants, it follows directly from a form's being itself by itself, and hence separate, that it is not [present] in humans.

Step 2 (133c8–134a2)

PARMENIDES: And so all the forms [*tōn ideōn*][22] that are what they are in relation to each other have their being in relation to themselves but not in relation

[21] Although I disagree with the details of her own reconstruction, I am indebted to Peterson (1981) for pointing the way toward the reconstruction of the Greatest Difficulty arguments offered below. (See Rickless [1998a, 535] for details.)

[22] Gill and Ryan translate *tōn ideōn* here as "characters." This is misleading. Parmenides is clearly using this phrase to refer to forms, as is attested by the interchangeability of *idea* and *eidos* within the very same passage.

to things that belong to us [*par' hēmin*]. And whether one posits these as likenesses or in some other way, it is by partaking of them that we come to be called by their various names. These things that belong to us, although they have the same names as the forms, are in their turn what they are in relation to themselves but not in relation to the forms [*eidē*]; and all the things named in this way are *of* themselves but not *of* the forms.

SOCRATES: What do you mean?

PARMENIDES: Take an example. If one of us is somebody's master or somebody's slave, he is surely not a slave of master itself – of what a master is – nor is the master a master of slave itself – of what a slave is. On the contrary, being a human being, he is a master or slave of a human being. Mastery itself, on the other hand, is what it is of slavery itself; and, in the same way, slavery itself is slavery of mastery itself. Things in us do not have their power in relation to forms, nor do they have theirs in relation to us; but, I repeat, forms are what they are *of* themselves and in relation to themselves, and things that belong to us are, in the same way, what they are in relation to themselves. You do understand what I mean?

SOCRATES: Certainly. I understand.

The purpose of Step 2 is to introduce two assumptions (call them "A" and "B") and illustrate them by means of the master–slave example. Assumption A is captured by Parmenides' claim at 133c8–9 that "all the forms . . . have their being in relation to themselves" and by his claim at 133e6 that "forms are what they are *of* themselves and in relation to themselves." Assumption B is captured by Parmenides' claim at 133d2–4 that "these things that belong to us . . . are . . . what they are in relation to themselves" and by his repetition of the very same claim at 133e6–134a1. We can restate A and B as follows:

(A) If X is a form and X is what it is in relation to Y, then Y is a form.
(B) If X belongs to us (i.e., is in us) and X is what it is in relation to Y, then Y belongs to us (i.e., is in us).

To understand (A) and (B), it is necessary to see things as falling into two groups: those things that possess what one might call "relative" being, and those things that possess what one might call "absolute" being. Something has only relative being if it is *impossible* to describe its nature without mentioning something else to which it is related; something has absolute being if it is *possible* to describe its nature without mentioning anything else to which it is related. Among things with merely relative being, some are forms and some are "among us." The point of (A) is to say that it is in relation to another form that any form with merely relative being is defined, the point of (B), that it is in relation to another sensible particular that any sensible particular with merely relative being is defined.

To see how this might be true in a particular case, Parmenides offers the master–slave example. The point of the example is to provide two independently plausible instances, and thence independent confirmation, of each of (A) and (B). The relevant instances of (A) are captured by the following statements at 133e3–4: (i) "mastery itself . . . is what it is of slavery itself," and (ii) "slavery itself is slavery of mastery itself." We can restate these claims as follows:

(A*) If mastery is a form and mastery is what it is (namely, a master) in relation to slavery, then slavery is a form.
(A**) If slavery is a form and slavery is what it is (namely, a slave) in relation to mastery, then mastery is a form.

The relevant instances of (B) are captured by the following claim at 133e2–3: (iii) "being a human being, [one of us] is a master or slave of a human being." We can restate (iii) as follows:

(B*) If X is a human being and X is what it is (namely, a master) in relation to Y, then Y is a human being.
(B**) If X is a human being and X is what it is (namely, a slave) in relation to Y, then Y is a human being.

Notice that (A) and (B) say neither that no form is related in any way to any sensible thing nor that no sensible thing is related in any way to a form. In fact, to say this would be to contradict one of the main tenets of the higher theory, namely that sensible things have the properties they do by virtue of partaking of (and so, by virtue of being in some way related to) forms. After all, what makes a human master a master is the fact that she is in some as-yet-unspecified way related to mastery itself, and what makes a human slave a slave is the fact that he is in some as-yet-unspecified way related to slavery itself.

Step 3 (134a3–b2)

PARMENIDES: So too, knowledge itself, what knowledge is, would be knowledge of that truth itself, which is what truth is?
SOCRATES: Certainly.
PARMENIDES: Furthermore, each particular knowledge, what it is, would be knowledge of some particular thing, of what that thing is. Isn't that so?
SOCRATES: Yes.
PARMENIDES: But wouldn't knowledge that belongs to us be of the truth that belongs to our world? And wouldn't it follow that each particular knowledge that belongs to us is in turn knowledge of some particular thing in our world?
SOCRATES: Necessarily.

At Step 3, Parmenides instantiates (A) and (B) yet again, this time using the case of knowledge, both general and particular. As Plato sees it, knowledge is a genus of which there are particular species (or branches). For example, there is the genus of musicianship (knowledge of music), of which particular species are lyre-playing (knowledge of how to play the lyre), flute-playing (knowledge of how to play the flute), and so on. Call the genus of the relevant kind "general knowledge" (or, simply, "knowledge" *tout court*), and the various species of general knowledge "particular knowledges." This gives us two instances of (A), one for general knowledge and one for particular knowledge. The first is captured by Parmenides' claim at 134a3–4 that "knowledge itself . . . would be knowledge of that truth itself," the second by his claim at 134a6–7 that "each particular knowledge . . . would be knowledge of some particular thing, of what that thing is." We can restate these claims as follows:

(Agk) If knowledge K is a form and K is what it is in relation to truth T, then T is a form.
(Apk) If some particular knowledge PK is a form and PK is what it is in relation to some particular thing T, then T is a form.

We also obtain two instances of (B), one for general knowledge and one for particular knowledge. The first is captured by Parmenides' claim at 134a9–10 that "knowledge that belongs to us [is] of the truth that belongs to our world," the second by his claim at 134a10–b1 that "each particular knowledge that belongs to us is . . . knowledge of some particular thing in our world." We can restate these claims as follows:

(Bgk) If knowledge K is in us and K is what it is in relation to truth T, then T is in us.
(Bpk) If particular knowledge PK is in us and PK is what it is in relation to some particular thing T, then T is in us.

Step 4 (134b3–c3)

PARMENIDES: But, as you agree, we neither have the forms themselves nor can they belong to us.
SOCRATES: Yes, you're quite right.
PARMENIDES: And surely the kinds themselves, what each of them is, are known by the form of knowledge itself?
SOCRATES: Yes.
PARMENIDES: The very thing we don't have.
SOCRATES: No, we don't.

PARMENIDES: So none of the forms [*tōn eidōn*] is known by us, because we don't partake of knowledge itself.
SOCRATES: It seems not.
PARMENIDES: Then the beautiful itself, what it is, cannot be known by us, nor can the good, nor, indeed, can any of the things we take to be forms [*ideas*] themselves.
SOCRATES: It looks that way.

In Step 4, Parmenides puts together the result of Step 1 with some of the results of Steps 2 and 3. At the end of Step 1, Parmenides and Socrates agree that no form is in us. At Step 2, they accept (B), that if X is in us and X is what it is in relation to Y, then Y is in us. And at Step 3, they accept an instance of (B), that if X is knowledge (whether general or particular) in us and X is what it is in relation to Y, then Y is in us. Given that knowledge is the sort of thing that (like masters or slaves) has only relative being, i.e., that knowledge is what it is in relation to something else, it follows that if X is knowledge (whether general or particular) in us, then the object of X (i.e., what X is knowledge *of*) is in us. But now, since no form is in us, whatever is in us is not a form. So, if X is the kind of knowledge that is in us (i.e., the kind of knowledge that humans have), then the object of X is not a form. In other words, no knowledge that humans have has any form as its object, i.e., humans do not know any forms.

The upshot of GD1 is that, given (B) and the fact that knowledge has only relative being, **II** entails the falsity of **KF**. If the premises of this argument are acceptable, Socrates can escape the difficulty by abandoning one of the higher theory's axioms (namely, **II**) or one of its theorems (namely, **KF**), or both. Since **KF** follows from the conjunction of **P**, **SOK**, and **PHK**, it follows that rejecting **P** would leave us the option of rejecting **KF**. Whether this is the option Plato would have chosen is something we are not yet in a position to determine.

At the conclusion of GD1, Parmenides claims that, supposing that forms are as the higher theory says they are, it is possible to establish a conclusion even more "shocking" (134c4) than that humans cannot know any forms, namely that gods cannot know human affairs. The relevant argument, GD2, may be divided into three Steps (134c6–134e8):

Step 1 (134c6–12)

PARMENIDES: Surely you would say that if in fact there is knowledge – a kind itself [*auto ti genos*] – it is much more precise than is knowledge that belongs to us. And the same goes for beauty and all the others.
SOCRATES: Yes.
PARMENIDES: Well, whatever else partakes of knowledge itself, wouldn't you say that god more than anyone else has this most precise knowledge?
SOCRATES: Necessarily.

Step 2 (134d1–8)

PARMENIDES: Tell me, will god, having knowledge itself, then be able to know things that belong to our world?

SOCRATES: Yes, why not?

PARMENIDES: Because we have agreed, Socrates, that those forms do not have their power in relation to things in our world, but that things in each group have their power in relation to themselves.

SOCRATES: Yes, we did agree on that.

Step 3 (134d9–e8)

PARMENIDES: Well then, if this most precise mastery and this most precise knowledge belong to the divine, the gods' mastery could never master us, nor could their knowledge know us or anything that belongs to us. No, just as we do not govern them by our governance and know nothing of the divine by our knowledge, so they in their turn are, for the same reason, neither our masters nor, being gods, do they know human affairs.

SOCRATES: If god is to be stripped of knowing, our argument may be getting too bizarre [*thaumastos*].[23]

Let us now analyze each Step in turn. At Step 1, Parmenides introduces what appear to be two premises: (i) that if X is a knowledge and X is a form, then X is more precise than any knowledge that is in us, and (ii) that if X is a knowledge and X is more precise than any knowledge that is in us, then the gods have X. These assumptions then entail:

(iii) If X is a knowledge and X is a form, then the gods have X.

At Step 2, Parmenides reminds Socrates of two assumptions on which both earlier agreed (at 133c8–9 and 133d2–4, and again at 133e6–134a1), namely that "forms do not have their power in relation to things in our world, but . . . things in each group have their power in relation to themselves" (134d5–7). These assumptions are (A) ("If X is a form and X is what it is in relation to Y, then Y is a form") and (B) ("If X is in us and X is what it is in relation to Y, then Y is in us"). At Step 3, Parmenides concludes, apparently on the basis of (iii) and one or both of (A) and (B), that the gods do not know human affairs. How is this supposed to follow?

Begin with (A), the claim that if X is a form and X is what it is in relation to Y, then Y is a form. Given that knowledge is the sort of thing that has only relative being, it follows that (iv) if X is a form and X is a knowledge of Y, then Y is a form. Now recall that in Step 1 of GD1 Parmenides had

[23] It would be better to translate *thaumastos* as it was translated when it appeared in Socrates' speech, namely as "astonishing" or "amazing" (see pp. 48-49 and 51). The claim that an argument is "bizarre" suggests a worry as to the argument's validity. But Socrates' point here is not that the argument may be invalid, but rather that the argument is astonishing, presumably by virtue of the fact that its conclusion is both remarkable and unexpected.

already established on the basis of axiom **II** that no form is in us, i.e., that if Y is a form, then Y is not in us. Putting this result together with (iv), we may conclude:

(v) If X is a form and X is a knowledge of Y, then Y is not in us.

The conclusion Parmenides would like to establish (call it "C2") is that the gods do not know human affairs:

(C2) If X is a knowledge of Y and the gods have X, then Y is not in us.

Now, interestingly, it is possible to use (v) to derive (C2), not by using (iii), but by using something approaching *the converse of (iii)*! The premise that is needed to derive (C2) from (v) is (iii)*, which I now place next to (iii) for comparison:

(iii)* If X is a knowledge and the gods have X, then X is a form.
(iii) If X is a knowledge and X is a form, then the gods have X.[24]

To prove (C2), let us assume its antecedent and prove its consequent. Assume, then, that X is a knowledge of Y and the gods have X. By (iii)*, *but not by (iii)*, it follows that X is a form. Thus, X is a form and X is a knowledge of Y. By (v), it then follows that Y is not in us. Discharging the assumption, we conclude (C2) that if X is a knowledge of Y and the gods have X, then Y is not in us.

To complete the argument, what remains to be added is the unspoken assumption, implicitly agreed upon by all, that it is absurd to suppose that the gods could not know human affairs. Since (C2) is absurd, the upshot is that one of the axioms of the higher theory (namely, **II**) entails an absurdity. If the premises of this argument are acceptable, Socrates has no choice but to abandon **II** in order to avoid inconsistency. In particular, he cannot hope to avoid this problem by rejecting **RP** (or **P**, or **NCC**, or **U**).

Given that (iii) cannot be used to derive (C2) from **II**, it might be thought that Plato intended to put an invalid argument in Parmenides' mouth. But I would rather analyze the argument with an eye to the principle of charity, which suggests that Plato somewhat sloppily tried to introduce (iii)* as a premise at Step 1 without realizing that the words he put in Parmenides' mouth at that Step express (iii) instead. Evidence for this derives from the intrinsic plausibility of (iii)*, at least from within Plato's mature world-view. For Plato, the gods are not part of the sensible world, and do not consort

[24] Ignoring the fact that both (iii) and (iii)* are universal generalizations, the logical form of (iii) is "[(A&B)→C]," which is equivalent to "[A→(B→C)]," and the logical form of (iii)* is "[(A&C)→B]," which is equivalent to "[A→(C→B)]." Strictly speaking, then, it is not that (*iii*)* is the converse of (*iii*), but rather that *the consequent of* (*iii*)* is the converse of *the consequent of* (*iii*).

with sensibles. The world they live in is the heavenly world of the forms. It follows that whatever power they possess must be a form. Since knowledge is a power, whatever knowledge the gods have must be a form, and hence (iii)* must be true.[25]

Taking a bird's-eye view of both GD1 and GD2, it becomes clear that Plato did not mean for both (A) and (B) to be treated as premises of both arguments. Rather, whereas GD1 relies on (B), GD2 relies on (A). But GD1 and GD2 also have premises in common, most notably the assumption that nothing that is itself by itself is in us (which, when combined with **II**, yields the important result that no form is in us) and the assumption that knowledge is the sort of thing that has only relative being, i.e., that knowledge is what it is in relation to something else (namely, truth). If the premises of the second argument are acceptable, then there is at least one way of deriving absurd results from one of the higher theory's axioms without in any way relying on **RP**, **P**, **NCC**, or **U**. This is shocking indeed. Just how shocking is something we have yet to understand.

2.7 CONCLUSION

In response to Socrates' brash dismissal of Zeno's anti-pluralist arguments, Parmenides has thrown everything but the kitchen sink at various versions of the higher theory of forms. Whether Socrates proposes to solve the Dionysodorean problem by construing partaking as "getting a share" or "resembling," the higher theory, as Parmenides points out in a dizzying display of devastating demonstrations, is internally inconsistent. If the crowning glory of Plato's middle period is not to be cast aside entirely, then it will need to be modified.

Without looking ahead to the second part of the dialogue, the logical features of Parmenides' criticisms in the first part reveal the various options available to one who wishes to retain at least part of the higher theory without falling into inconsistency. Analysis of these features yields the following results: (1) the problem of the extent of the forms stems from the result of combining **E**, **SP**, and **RP**; (2) the Whole–Part dilemma stems

[25] As James Messina pointed out to me, the fact that GD2 *as written* is invalid could be viewed as Plato's reason for rejecting it as an objection to the high(er) theory. But I prefer to think (as I argue in the text) that Plato unintentionally lapsed into confusion. I am inclined to reject Messina's hypothesis in part because Parmenides suggests, at 133b4–9, that it is impossible to answer the GD arguments without dealing with "many distant considerations." If the problem with GD2 is simply that it is invalid, then there is no need to refer to "distant" matters in order to explain its failure as an objection to the high(er) theory. On my view, GD2 raises a real difficulty that cannot be fully solved without considering the nature of the gods. And what could be more "distant" than "considerations" relating to *theology*?

from the result of combining the Pie Model conception of partaking (that partaking is getting a share) with **C**, **O**, and **RP**; (3) of the four problems raised at the conclusion of the Whole–Part dilemma, the first two stem from the result of combining the Piece-of-Pie Model (that partaking of a form is getting a part of it as one's share of it) with **C** and **NCC**, the third from the result of combining the Piece-of-Pie Model with **C** and **P**, and the fourth from the result of combining the Piece-of-Pie Model with **C** and an assumption (that X's partaking of a form amounts to having something added to X) that conflicts with the "safe" theory of causation that lies at the heart of the higher theory; (4) the problem of the Third Man stems from the result of combining **OM**, **SP**, **NSP**, **O**, and **RP**, while the same argument reveals that a contradiction follows from the result of combining **OM**, **SP**, **NSP**, and **U**; (5) the Anti-Noematic argument shows that a contradiction follows from the result of combining the noematic thesis (that all forms are thoughts) with auxiliary premises (A1*) and (A2*) and with **SP**, **NSP**, **O**, and **RP**, while the argument that comes on the heels of the Anti-Noematic argument shows that absurdity is derivable from the result of combining the noematic thesis with **OM** and with the Pie Model conception of partaking; (6) Parmenides' criticism of the paradigmatistic version of the higher theory establishes that absurdity is derivable from the result of combining Paradigmatism (that forms are natural patterns and partaking amounts to resembling) with **OM**, **NSP**, **O**, and **RP**; (7) the problem raised by GD1 stems from the result of combining plausible auxiliary premises with **II** and **KF**; and (8) the problem raised by GD2 stems from the result of combining plausible auxiliary premises with **II** and with the thesis that the gods can know human affairs.

As should now be clear, all of these problems, except for GD2, may be avoided by jettisoning **RP**, **P**, **NCC**, and **U**. So, if Parmenides or Socrates can provide independent proof that these four theses of the higher theory are false, then their abandonment will be justified and will enable a modified version of the higher theory to live another day (assuming, of course, that the extraction of these principles from the higher theory does not force the rest of the theory to collapse). In the following chapters, I will argue that the point of the second half of the *Parmenides* (and subsequent dialogues) is precisely to provide this independent proof. The overall message of the *Parmenides*, then, will be that it is possible to save, and to be justified in saving, the higher theory of forms from Parmenides' well-taken criticisms, but only by acknowledging that forms can (and do) have contrary properties.

CHAPTER 3

The theory modified: methodology

In the first two chapters I set out the high theory of forms (as outlined by middle-period Socrates), described the subtle changes to this theory effected by young Socrates in his speech at *Parmenides* 128e5–130a2, and reconstructed the criticisms of the theory offered by Parmenides at 130b1–134e8. At 133b1 Parmenides describes the last of these criticisms as a great difficulty [*aporia*], and were the dialogue as a whole similar to those of Plato's early period, we would expect it to end soon after Socrates confesses to seemingly irredeemable perplexity. But, as the rest of the dialogue reveals, Parmenides has only just begun to flex his logical muscles. The main question on the minds of those who have read and understood Parmenides' criticisms of the higher theory is whether there is any way to save this theory, whether it be by attacking the validity of the criticisms themselves, or, with their validity having been acknowledged, by modifying the theory without destroying its major theoretical advantages (such as fruitfulness and explanatory power).

The purpose of this chapter is to analyze the method Parmenides describes as the means by which (most of) the criticisms he has raised may be answered. Parmenides' description of his method occupies the transitional section at *Parmenides* 134e9–137c3. With a proper understanding of this section, it becomes possible to read the second part of the *Parmenides* as a direct and rational response to the problems raised in the first part of the dialogue.

Having completed the last of his criticisms of the higher theory, Parmenides raises the question as to what would count as a proper response. One possibility would be to abandon **OM**, the thesis that for any property F and any plurality of F things, there is a form of F-ness by virtue of partaking of which each member of the plurality is F, and **II**, the thesis that every form is itself by itself. To give up **OM** would be to give up the main assumption on which **E** and **C** depend, and hence one of the main reasons for thinking that **P**, **SP**, **NI1**, and **KF** are true. To give up **II** would

be to give up the main assumption on which **NSP** and **NSE** depend, and hence the main reason for thinking these theorems to be true. If all of these theorems are abandoned because we haven't been given good enough reason to believe them, then Parmenides' criticisms can indeed be avoided. Thus, the problem of the extent of the forms can be met by rejecting **E** or **SP**, the Whole–Part dilemma (and all four problems raised immediately thereafter) by rejecting **C**, the Third Man by rejecting **OM**, **SP**, and **NSP**, the Anti-Noematic argument by rejecting **SP** and **NSP**, the argument that comes on the heels of the Anti-Noematic argument by rejecting **OM**, the criticism of Paradigmatism by rejecting **OM** and **NSP**, GD1 by rejecting **II** and **KF**, and GD2 by rejecting **II**.

The problem with this solution is that it is no solution at all: to give up **OM** and **II** is to capitulate to Parmenides' criticisms. If the higher theory has a heart and soul, it lies in **OM**. Without **OM**, hardly anything remains of the higher theory: no longer do we have any reason to believe in the existence of forms or in their being responsible for the properties that we find among sensible things. And once the forms disappear, the main explanatory advantages of the higher theory evaporate as well: no longer do we have an explanation for the otherwise puzzling fact that sensibles have numerous and contrary properties. As for **II** and **NSP**, giving them up will not on its own avoid all the difficulties raised. And although it may be possible to abandon **II** and **NSP** without eviscerating the higher theory, a solution to the difficulties that did not involve abandoning either principle would be superior (all other things being equal) to one that did.

The challenge, then, is to find a response to Parmenides' criticisms that does not require abandonment of **OM** or **II**. And this is precisely the challenge that Parmenides offers to take up on Socrates' behalf as the dialogue proceeds. At 135a5–7, Parmenides tells Socrates that one who criticizes the higher theory for the reasons he has just given "seems to have a point" and "is extraordinarily hard to win over." What it would mean to "win over" such a critic, Parmenides then makes clear (135a7–b1):

> Only a very gifted man can come to know that for each thing there is some kind [*genos*], a being itself by itself [*ousia autē kath' autēn*].

The critic of the higher theory will be "won over" if his criticisms can be met without abandoning the thesis that "for each thing there is some kind, a being itself by itself," a thesis that incorporates both **II** ("a being itself by itself") and a truncated version of **OM** ("for each thing, there is some kind"). Parmenides reveals how great of a challenge it would be to

accomplish this feat by describing the person who meets it as "very gifted" (135a7), even a "prodigy" (135b1).

As Parmenides sees it, then, the challenge is to parry the criticisms of the higher theory without abandoning either **OM** or **II**. Although this is a tall order, Parmenides insists that failure to meet the challenge would have the most undesirable consequence. As he puts it to Socrates at 135b5–c2:

> If someone, having an eye on all the difficulties we have just brought up and others of the same sort, won't allow that there are forms [*eidē*] for things and won't mark off a form [*eidos*] for each one, he won't have anywhere to turn his thought, since he doesn't allow that for each thing there is a form [*idean*][1] that is always the same. In this way he will destroy the power of dialectic [*dialegesthai*] entirely.

The point of this passage is that the rejection of **OM** ("for each thing there is a form that is always the same"), and hence the abandonment of any reason to accept **E** ("there are forms for things"), would result in the destruction of dialectic (*dialegesthai*).

Now there are two possible ways of understanding *dialegesthai* in this context. If the word is understood non-technically, then it means "discourse" or "conversation."[2] If it is understood technically, then it is likely to mean what middle-period Socrates takes it to mean in Books VI and VII of the *Republic*. As is well known, at the end of Book VI (*Republic* 511d8–e2), Socrates finds four epistemic powers in the mind: imagination (*eikasia*), belief (*pistis*), thought (*dianoia*), and understanding (*noēsis*) (or knowledge). Socrates distinguishes these powers by their objects and by the method with which they study these objects. Thus, whereas the objects of belief are sensibles (510a5–6), the objects of imagination are images of sensibles (509e1–510a3). And whereas the objects of thought are arithmetical and geometrical (510b2–511b2), the objects of understanding are forms (511b3–c2). Moreover, whereas the objects of imagination and belief are studied by sense perception (509d6–510a6), the objects of thought are studied by the method of hypothesis (510b4–9), and the objects of understanding are studied by the power of dialectic (511b3–4). As Socrates describes it, dialectic takes the method of hypothesis one step further, searching first for an "unhypothetical first principle of everything" and then deriving conclusions from this principle "without making use of anything visible at all, but only of forms themselves, moving on from forms to forms, and ending in forms" (511b5–c2). In Book VII, Socrates refines this description, adding

[1] Gill and Ryan (1996, 138) translate *idean* here as "character." I prefer "form" for the same reasons as those stated on p. 65 n. 5.

[2] See Gill and Ryan (1996, 138 n. 19).

that dialectic "systematically attempts to grasp with respect to each thing itself what the being of it is" (533b2–3), that it involves "giv[ing] an account of the being of each thing" (534b3–4) and, in particular, "distinguish[ing] in an account the form of the good from everything else" (534b8–c1). As Socrates sees it, then, it is impossible for anyone to obtain knowledge or understanding without using the power of dialectic. And since this power is exercised in the domain of the forms (and nowhere else), the very possibility of knowledge or understanding requires that forms exist.

In light of these passages, the technical interpretation of *dialegesthai* at *Parmenides* 135c makes sense. That Parmenides would think, on young Socrates' behalf, that the "power of dialectic" would be destroyed if we "won't allow that there are forms for things" is easily and clearly explained by the technical description of "the power of dialectic" at *Republic* 511c1–2 as making use "only of forms themselves." It is less clear why Parmenides would think, whether on his own behalf or anyone else's, that refusal to acknowledge the existence of forms would destroy a human being's ability to engage in discourse or conversation. Still, one can reconstruct a possible position that is consistent with the higher theory and within which it makes sense to assume that there could be no discourse if forms did not exist. On this view, forms play an ineliminable role in Plato's mature theory of linguistic meaning. As Socrates says in the *Cratylus*, a name is designed to express (or signify: 436e3) a thing's being (393d4–5) or nature (428e2), and to do so by imitation (423e7, 430a12–b1). If a name performs its function well, then it is correct; otherwise, not (422d1–3, 428e1–2). The true "craftsman of names" is one "who looks to the natural name of each thing and is able to put its form (*eidos*) into letters and syllables" (390e1–5). On this view, names signify forms (or their natures), and thus would have no meaning if forms did not exist. Since discourse is conducted through the use of names, it follows that forms are necessary conditions for the possibility of discourse, and hence necessary conditions for the possibility of dialectic (in the non-technical sense).

Thus, whether one understands dialectic technically or non-technically, there is a plausible case to be made that the rejection of **OM** and **II** would result in the impossibility of dialectic, and hence the abandonment of the search for knowledge or understanding. So, if knowledge is to be possible, **OM** and **II** must be retained. But how?

As Parmenides goes on to claim at 135c8–d1, in order to find the answer to this question, one must not try to mark off (or define: *horizesthai*) the forms before having been "properly trained" [*gumnasthēnai*]. When Socrates asks (at 135d7) what this sort of training involves, Parmenides says that it should

come in two moments. The first moment resembles Zeno's argument, but transposed from the realm of visible things to the realm of "those things that one . . . might think to be forms" (135d8–e4). Zeno had argued that (1) if the things that are are many (i.e., if the many are), then they are both like and unlike; but (2) things that are like cannot be unlike, and things that are unlike cannot be like; so, (C) the things that are are not many (i.e., it is not the case that the many are). Socrates had responded by rejecting premise (2), claiming, as he now puts it at 135e5–7, that "here, among visible things, it's not at all hard to show that things are both like and unlike." For Parmenides, then, the first moment requires that one prove, of *forms* rather than visible things, that if they are, then they have contrary properties (of various sorts).

The fact that Parmenides finds it important to acknowledge that the things that are can have contrary properties is revealed by his having been "impressed" by the fact that, in his speech, Socrates "didn't allow [Zeno] to remain among visible things and observe their wandering [*tēn planēn*],"[3] but rather "asked [Zeno] to observe [this wandering] instead among those things that one might . . . think to be forms" (135d8–e4). So Parmenides thinks we ought to recognize that the things that one might take to be forms (as satisfying the axioms and theorems of the higher theory) actually *wander*. Given that Socrates replies that he did what Parmenides says he did because he thought it easy "to show that things are both like and unlike," it is reasonable to suppose that Socrates thinks of being both like and unlike as an instance of the relevant sort of "wandering." What this suggests is that the "wandering" that Parmenides thinks we should observe in the realm of the things that are amounts to the possession of contrary properties. This suggestion is confirmed by a passage at the end of *Republic* V, where Socrates characterizes things that "participate in both opposites" (479b8), things that "roll around as intermediates between what is not and what purely is" (479d4–5), as "wandering intermediates" [*metaxu planēton*] (479d9).

Thus, the first moment of the training Parmenides recommends as a way of retaining **OM** and **II** in the face of his criticisms of the higher theory requires proof of conditionals of the form "if the G is, then the G is both F and con-F." The second moment of this recommended training requires

[3] Gill and Ryan (1996, 139) add "between opposites" after "wandering" as part of their translation of this sentence. The words "between opposites" do not correspond to any words in the primary text, and so I have omitted them for the sake of accuracy. But, as I argue below, the addition of these words as an elucidatory gloss on the meaning of "wandering" is perfectly justified, and thus Gill and Ryan's translation, though not literal, does justice to the sense of the original.

that one "not only hypothesize, if each thing is, and [then] examine the consequences of that hypothesis," but "also hypothesize, if that same thing [*to auto touto*] is not" (135e9–136a2). Thus the training recommended by Parmenides requires not only proof of conditionals with antecedents of the form "if the G is," but also proof of conditionals with antecedents of the form "if the G is not," where "the G" refers to *the very same entity* [*to auto touto*] in both sets of antecedents.[4] Although Parmenides does not here describe the consequents of the conditionals to be established in the second moment, it is reasonable to suppose that he means them to be the same as the consequents of the conditionals to be established in the first moment. Thus, it would appear that the second moment requires proof of conditionals of the form "if the G is not, then the G is both F and con-F."

If this is correct, the training Parmenides recommends requires proof of the following sorts of propositions:

If the G is, then the G is both F and con-F.
If the G is not, then the G is both F and con-F.

This interpretation of Parmenides' general description of the relevant training is confirmed by the examples he goes on to give at 136a4–b6, and by his reprise of the description at 136b6–c4. But the examples and the reprise also add another layer to Parmenides' account of the recommended training:

Examples (136a4–b6):

If you like, take as an example this hypothesis that Zeno entertained: if many are [*ei polla estí*], what must the consequences be both for the many themselves in relation to [*pros*] themselves and in relation to [*pros*] the one, and for the one in relation to itself and in relation to the many? And, in turn, on the hypothesis, if many are not [*ei mē esti polla*], you must again examine what the consequences will be both for the one and for the many in relation to themselves and in relation to each other. And again, in turn, if you hypothesize, if likeness is or if it is not [*ei estin homoiotēs ē ei mē estin*], you must examine what the consequences will be on each hypothesis, both for the things hypothesized themselves and for the others, both in relation to themselves and in relation to each other. And the same method applies to unlike, to motion, to rest, to generation and destruction, and to being itself and not-being.

[4] The words *to auto touto* play havoc with interpretations (such as those of Cornford [1939], Miller [1986], or Sayre [1983, 1996]) that attempt to dissolve (some or all of) the apparent contradictions of the second part of the *Parmenides* by assuming that the referent of "the one" in one deduction differs from the referent of "the one" in another. For additional reasons to reject this "multisubjectist" approach (as Meinwald calls it), see Meinwald (1991, 24–26) and Allen (1997, 210 ff.).

Reprise (136b6–c4):

> And, in a word, concerning whatever you might hypothesize as being or as not being or as having any other property, you must examine the consequences for each thing you hypothesize in relation to itself and in relation to each one of the others, whichever you select, and in relation to several of them and to all of them in the same way; and, in turn, you must examine the others, both in relation to themselves and in relation to whatever other thing you select on each occasion, whether what you hypothesize you hypothesize as being or as not being.

Parmenides applies his description of the relevant training to two examples, one in which "G" is replaced by "many," the other in which "G" is replaced by "like." In the first case, the idea is to show that if many-ness is, then it has contrary properties, and that if many-ness is not, then it has contrary properties. In the second, the idea is to show that, whether likeness is or is not [136b1–2: *ei estin homoiotēs ē ei mē estin*], it has contrary properties.[5] But Parmenides specifies much more clearly what the consequents of these conditionals should look like. In the first case, the many must be shown to be F and con-F, both in relation to itself and in relation to the one (where the one is one of the others). In the second, likeness must be shown to be F and con-F, both in relation to itself and in relation to the others. In general, as Parmenides claims, for each property G, the G must be shown to be F and con-F (for a range of properties F), both in relation to itself and in relation to each one of the things that are other than the G (including, as in the case of the many and the one, the con-G).

The training Parmenides recommends therefore requires proof of propositions of the form (1), (2), (3), and (4):

(1) If the G is, then the G is both F and con-F in relation to itself.
(2) If the G is, then the G is both F and con-F in relation to the others.
(3) If the G is not, then the G is both F and con-F in relation to itself.
(4) If the G is not, then the G is both F and con-F in relation to the others.

But this isn't all there is to the relevant sort of training. Parmenides insists that the consequences to be derived from the two kinds of antecedent ("the G is" and "the G is not") should concern the others, both in relation to themselves and in relation to the G. Thus, there are four more types of propositions to be proved upon every exercise of the method:

[5] Notice how the phrase *ei estin homoiotēs ē ei mē estin* strongly suggests that it is the very same thing (in this case, likeness) that is the subject of the antecedents of both conditionals. This further confirms those interpretations, including mine (see below), that accept that "the one" refers to the same thing across all the Deductions in the second half of the *Parmenides*.

(5) If the G is, then the others are both F and con-F in relation to themselves.
(6) If the G is, then the others are both F and con-F in relation to the G.
(7) If the G is not, then the others are both F and con-F in relation to themselves.
(8) If the G is not, then the others are both F and con-F in relation to the G.

Now there is some controversy over how to interpret what have come to be known as the "in-relation-to" qualifications in propositions (1)–(8). What does it mean to say of something that it bears a certain property in relation to itself [*pros heauto*], or that it bears that property in relation to the others [*pros ta alla*]? On one interpretation (call it the "Meinwald Reading"), the phrases *pros heauto* and *pros ta alla* have technical meanings that are not revealed by the surface of the text: for X to be F *pros heauto* is for the F to be definitionally true of X, and for X to be F *pros ta alla* is for X's display of features to conform to [the nature of] the F.[6] Opposed to this interpretation is the hypothesis that neither *pros heauto* nor *pros ta alla* has a special technical sense, but that the *pros* in both phrases (and everywhere else it appears in the text) has its customary meaning, namely "in relation to" (call this the "Straightforward Reading"). On the Straightforward Reading, to say that X is F *pros* Y is just to say that it is in some particular relation to Y that X bears the property of being F. For example, I might say that Simmias is tall *pros* Phaedo, meaning thereby that Simmias is tall*er than* Phaedo. Or I might say that Simmias is different *pros* Phaedo, meaning thereby that Simmias is different *from* Phaedo. Or I might say (albeit falsely) that Simmias is the same *pros* Phaedo, meaning thereby that Simmias is the same *as* Phaedo. Or I might say that Simmias is equal *pros* Phaedo, meaning thereby that Simmias is equal *to* Phaedo. Here the only difference between Attic Greek and English is that the latter uses four different words (namely, "than," "from," "as," and "to") where the former uses one (*pros*).

Before moving on, I want to provide some (prima facie) reasons for rejecting the Meinwald Reading in favor of the Straightforward Reading. Notice first that the ordinary untechnical use of *pros* makes numerous appearances in the dialogues of the middle period. To instance only a few examples, consider the use of *pros* at *Symposium* 211a and at *Hippias*

[6] This interpretation is defended by both Meinwald (1991, 1992) and Peterson (1996, 2000). A similar interpretation is defended by Sayre (1983, 1996). Sayre (1996, 110–114) claims that a predication *pros heauto* is one that is drawn with the subject primarily in view, while a predication *pros ta alla* is one that is drawn with something other than the subject primarily in view. Unlike Meinwald, Sayre does not point to any specific set of passages in defense of his interpretation of the in-relation-to qualifications. If, as I argue below, Meinwald's reading is unsupported, then Sayre's reading, which is even more speculative, is unsupported too.

Major 289b. At *Symposium* 211a3–4, Diotima tells us that the beautiful is not "beautiful in relation to [*pros*] one thing and ugly in relation to [*pros*] another." At *Hippias Major* 289b6–7, Socrates claims that "the finest (i.e., most beautiful) girl is foul (i.e., ugly) compared to [*pros*] the class of gods." There is nothing special about the use of *pros* in these contexts: in saying that there is nothing *pros* which the beautiful is ugly, Diotima means no more than that the beautiful is not ugli*er than* anything else; and in saying that the most beautiful girl is ugly *pros* the gods, Socrates means no more than that she is ugli*er than* the gods, and thus that the gods are *more* beautiful *than* she.

The evidence for the Meinwald Reading is relatively meager. Consider, for example, Meinwald's (1991) own reasons for thinking that Plato uses *pros* technically. Meinwald cites passages that, in her view, provide evidence for the claim that Attic Greek speakers countenanced different ways of using the word *pros*. In the first place, according to one common use of *pros*, to say that A is R *pros* B is to say that A is related by R to B. Thus, one might say that Phaedo is tall *pros* Socrates, meaning thereby that Phaedo is tall in relation to Socrates, i.e., that Phaedo is tall*er than* Socrates. Or one might say that Phaedo speaks *pros* Socrates, meaning thereby that Phaedo speaks in relation to Socrates, i.e., that Phaedo speaks *to* Socrates. But Meinwald cites evidence that Plato's contemporaries also used *pros* in a different way in "A is R *pros* B," namely to refer to a relation other than R that A is said to bear to B. Thus, for example, I might say that I won't speak with you *pros* (in relation to) a proclamation, by which I mean that it is *as a result of* the proclamation that I will not engage you in conversation.

By itself, the fact that *pros* could be used in either of these ways is insufficient to show that *Plato himself* countenances both uses in the *Parmenides*. Recognizing this, Meinwald cites texts she takes to show that Plato does in fact have his characters use *pros* in both ways. In particular, Meinwald focuses on two passages (*Parmenides* 161a6–b4 and 161c7–d1) in which she finds evidence that *pros* is used in the second way. Since both passages deserve similar treatment, I am going to reserve my comments for the first.

The first passage (at 161a6–b4) reads as follows in Meinwald's translation (omitting the contributions of Aristotle, and turning Parmenides' rhetorical questions into indicative statements):

> And <The One> has Unlikeness in relation to (*pros*) the others. For the others being different from The One would be different in kind. And things different in kind are other in kind. And things other in kind are unlike. Accordingly, if indeed they are unlike The One, it is clear that the unlike things would be unlike to an unlike thing. Then The One would have Unlikeness, in relation to (*pros*) which the others are unlike it. (*Eiē dē an kai tōi heni anomoiotēs, pros hēn ta alla anomoia autōi estin*.)

As Meinwald points out, the last sentence of this passage (as it appears in her translation) says not only that the one has unlikeness, but also that the others are unlike (the one) in relation to (*pros*) unlikeness. But surely, as she says, to say that the others are unlike *pros* unlikeness is not to say that the others are unlike unlikeness. This therefore rules out the first reading of *pros* and mandates the second. Meinwald (1991, 62) then "supposes" that the relevant relation that the others are being said to bear to unlikeness is that of "conformability": to say that the others are unlike *pros* unlikeness is then to say that the others' display of features conforms to unlikeness.

As I see it, there are two salient problems with Meinwald's reading of this passage. In the first place, the idea that conformability is the relation Plato has in mind as being expressed by the use of *pros* in the last sentence is pure speculation. Meinwald (1991, 62) calls her supposition "a conservative start." But this is unmotivated. Conservative, relative to what? There is no evidence in favor of the supposition, period. As such, it is not better, or more conservatively, motivated than any other supposition. Second, there is another way of reading the final sentence of the passage. Notice that the presence of a comma after *anomoiotēs* turns "in relation to which the others are unlike it" into an unrestrictive clause. But punctuation does not appear in the original text. It is added by editors to facilitate the parsing of sentences. In this case, the omission of the comma (which wasn't there in the first place) turns the unrestrictive into a restrictive clause. Read with the restrictive clause, the sentence says that the one has (a kind of) unlikeness in relation to which the others are unlike it. The kind of unlikeness to which the sentence refers is made clear in the rest of the passage: it is the fact of being other in kind. Omission of the comma therefore yields the following translation: The one has a kind of unlikeness (namely, being other in kind) and the others are unlike the one in relation to (i.e., in respect of) the very same kind of unlikeness (namely, by being other in kind to the one). Read in this way, the sentence suggests that Plato does not in fact countenance the possibility of reading *pros* as encapsulating the relation of "conformability."[7]

The evidence Meinwald cites in support of her claim that Plato countenances *pros heauto* predications in the *Parmenides* is even more tenuous. Meinwald (1991, 64–67) focuses on an argument that strikes her as fallacious unless the conclusion derived from the relevant hypothesis is read *pros*

[7] I am grateful to George Rudebusch for pointing out that the comma here turns a restrictive clause into an unrestrictive clause, and for describing how the sentence might be read if the comma were omitted. For more extensive discussion of the argument at 161a6–b4 (D5A4), see below, pp. 214-215.

heauto. The passage in Meinwald's translation (again omitting Aristotle's contributions and turning Parmenides' rhetorical questions into indicative statements) runs as follows (139c3–d1):

> And [The One] won't be other than another, while it is one. For it's not fitting for The One to be other than something, but only for The Other Than Another, and not for anything else. Therefore it won't be other by being one. But if not by this, it won't be by itself, and if not by itself neither <will> it <be other>; and it being in no way other will be other than nothing.

As I read the passage (see discussion of D1A10 below, pp. 123-124), the argument contained therein is unsound, relying on the following false premise: If X is not different (other) by itself, then X itself is not different (other) in any way. By contrast, Meinwald thinks the conclusion, properly interpreted as a *pros heauto* predication, actually follows from the argument's premises. As she puts it, if the reasoning establishes (as I agree it establishes) that [if the one is, then] the one is not other *by being one*, then we have a "demonstration" that [if the one is, then] the one is not other *pros heauto*, i.e., we have a "demonstration" that [if the one is, then] it is not the case that the other is definitionally true of the one. However, the "demonstration" Meinwald identifies here is an invalid piece of reasoning: it simply does not follow from the fact that the one is not other *by being one* that it is not the case that the other is definitionally true of the one. (Although it may well be necessarily true that it is not the case that the other is definitionally true of the one, this is not mandated by the fact that the one is not other *by being one*.) So on Meinwald's rendition the argument is no better than it is on mine. If this is so, then I see no reason to suppose that the best way to read the conclusion requires us to suppose that it involves a *pros heauto* predication.

I conclude that the evidence favoring the Meinwald Reading is inconclusive. There is no reason to suppose that Plato intends his characters to use *pros* in anything other than its perfectly ordinary non-technical sense. By contrast, there is a great deal of evidence from the second part of the *Parmenides* to substantiate the hypothesis that Plato always uses *pros* non-technically. For example, in his description of the method to be used in the Deductions, Parmenides says that one should strive to establish that (1) if the G is, then the G is both F and con-F *in relation to itself*. In the Second Deduction, we later find Parmenides proving that, if the one is, then the one is "both different from . . . itself and the same as . . . itself" (147b7–8), "both like and unlike itself" (148d3–4), both "greater and less than itself" (151a1–2), "older and younger than itself" (152e2–3), and more. If

these Second Deduction results are instances of (1), as they certainly appear to be, then being different *pros* oneself amounts to no more than being different *from* oneself, being the same *pros* oneself amounts to no more than being the same *as* oneself, being like (unlike) *pros* oneself amounts to being like (unlike) oneself, being great (less) *pros* oneself amounts to being greate*r* (less) *than* oneself, and so on. Another example: Parmenides says that one should strive to establish that (2) if the G is, then the G is both F and con-F *in relation to the others*. And, sure enough, among the results of the Second Deduction we find that, if the one is, then the one is "both different from the others . . . and the same as the others" (147b7), "like and unlike the others" (148c1), "greater and less than . . . the others" (151b6–7), "older than [the others]" (153b7), and "younger than the others" (153d3–4). Again, if these results are clear instances of (2), as they certainly appear to be, then there is no reasonable alternative but to understand *pros* as having its ordinary untechnical sense.

Thus, concerning the issue of how best to interpret the "in-relation-to" qualifications in Parmenides' description of the method to be followed by someone who wishes to be properly trained, I will henceforth take the Straightforward Reading on board. As we will see, this reading receives further confirmation from the fact that it contributes to making good sense of the second part of the dialogue.[8]

Having provided a general description of the method to be followed by someone who wishes "to achieve a full view of the truth" (136c5), Parmenides is then goaded by those present "to give a demonstration of what he was recommending" (136e7–8). Acceding to this request, Parmenides suggests that the demonstration begin with his own hypothesis, one "about the

[8] By contrast, the Meinwald Reading does not successfully explain why Parmenides portrays the Deductions as providing a successful response to the problems raised in the first part of the dialogue. As indirect evidence for her reading, Meinwald (1991; 1992) claims that the *pros heauto*/*pros ta alla* distinction provides a general way of stopping the Third Man regress. The basic idea is that, although it is true that the large is large *pros heauto* (since the large is definitionally true of the large), it is false that the large is large *pros ta alla* (since – so Meinwald claims – the large does not display the feature of being large). By contrast, sensible large things are large *pros ta alla*, but not large *pros heauto*. Because it is in different senses that the large and sensible things are large, the members of the group composed of the large and its sensible participants are not all large in the same sense. But **OM** applies, and hence generates a second form of largeness, only to those groups whose members are F *in the same sense*. Thus, **OM** does not apply, and the regress cannot get started.

However, as Frances (1996) has elegantly shown, this regress-blocking strategy fails in the case of any form of F-ness that is F *pros ta alla*. For example, since the one displays the feature of being one (thing), it is true *pros ta alla* that the one is one. So the one and its sensible participants are all one *in the same sense*. So **OM** applies to the one (even if not to the large) and, with the assistance of **NSP**, generates an infinite regress of forms of oneness. Frances also points out that it does not help to suppose, on Meinwald's behalf, that **OM** is meant to apply only to groups of things that are F *pros heauto*. For there are also groups of *pros heauto* truths that can be used to generate an infinite regress.

one itself," namely "*eite hen estin eite mē hen*" (137b4). Literally translated, this hypothesis reads: "if it is one or if it is not one." What Parmenides seems to be recommending, then, is an exercise of the method that leads to conditional results with antecedents of the form "if the one is one" and "if the one is not one." The problem with this literal rendition of Parmenides' recommendation is that it appears untrue both to the general description of the method and to the results actually produced in the Deductions. If we are to believe the general description as applied to the case in which "G" is replaced by "one," then we should expect the Deductions to produce conditional results with antecedents of the form "if the one is" and "if the one is not." And, sure enough, in all the Deductions other than the First, these are the sorts of results that Parmenides in fact explicitly produces. Thus, in the Second Deduction (at 142b3 ff.), in the Third (at 157b6 ff.), and in the Fourth (at 159b3 ff.), the hypothesis under consideration is clearly "if [the] one is"; moreover, in the Fifth Deduction (at 160b5 ff.), in the Sixth (at 163c1 ff.), in the Seventh (at 164b5 ff.), and in the Eighth (at 165e2–3), the hypothesis under consideration is clearly "if [the] one is not." It is only in the First Deduction that the relevant hypothesis appears to be "if the one is one." Thus, at the end of the first section of the First Deduction (at 137d3), Parmenides describes the result achieved as: "If the one is to be one [*ei hen estai to hen*], it will neither be a whole nor have parts."

As if it weren't difficult enough to resolve the apparent inconsistency between the general description and the First Deduction, it is also difficult to know what to make of what Parmenides says at the start of the Second Deduction. There (at 142b1–2), Parmenides recommends that he and Aristotle (his interlocutor) "return to the hypothesis from the beginning, in the hope that another kind of result may come to light as [they] go back over it," and then puts this recommendation into effect by asking what the consequences for the one will be on the supposition that "one is" [142b3: *hen ei estin*]. In particular, Parmenides asks (142b5–6): "If one is [*hen ei estin*], can it *be*, but not partake of being?" Although it is true that the phrase *hen ei estin* could be taken to mean either "if one is" or "if it is one," the particular question Parmenides asks strongly suggests that the phrase means the former, not the latter. For while there is a *clear* inferential path from the supposition that *the one is* to the conclusion that *the one partakes of being* (via the assumption that whatever is partakes of being), there is no *clear* inferential path from the supposition that *the one is one* to the conclusion that *the one partakes of being*. So here we have Parmenides claiming to "return to the hypothesis from the beginning," presumably the hypothesis governing the First Deduction, by entertaining the hypothesis that *the one*

is at the start of the Second. And this suggests that, at the beginning of the Second, Parmenides assumes that the hypothesis governing the First Deduction is not that *the one is one*, but rather that *the one is*.

Despite the fact that Parmenides clearly seems to take "the one is one" for his hypothesis in the First Deduction, some scholars have proposed that the evidence in favor of interpreting the First Deduction as governed by the hypothesis that "the one is" is strong enough to justify emending *eite hen estin eite mē hen* at 137b4 (by, say, lopping off the second token of *hen*) in such a way as to make the phrase read: "if one is or if it is not." This would bring the phrase in line with Parmenides' general description of the project instantiated in the Deductions, though at the cost of requiring another emendation at 137d3 (where the first token of *hen* in *ei hen estai to hen* must be eliminated in order to make the phrase mean "if the one is to be" rather than "if the one is to be one").[9]

All things considered, I find myself in sympathy with those who think that the kind of result that Parmenides wishes to extract from the First Deduction has "if the one is" (and not merely "if the one is one") as its antecedent. I say this because I think (on grounds to be discussed below) that Parmenides employs the axioms and theorems of the higher theory as background assumptions in the Deductions, and, as we have already seen, it is a theorem of the higher theory (namely, **O**) that each form is one, and hence that *if the one is, then the one is one*. If, as the unemended phrases at 137b4 and 137d3 strongly suggest, the results of the First Deduction are conditionals of the form "if the one is one, then P," then the additional assumption "if the one is, then the one is one" is sufficient to establish conditionals of the form "if the one is, then P." Thus, whether the phrases at 137b4 and 137d3 are emended or not, the arguments of the First Deduction are powerful enough to establish not only that "if the one is one, then P," but also "if the one is, then P." So, in large part for the sake of overall consistency, I will henceforth (*pace* Gill and Ryan) accept the suggested emendations, and assume, in line with the general description, that the hypothesis under discussion is "if the one is."

Before embarking on an analysis of the Deductions themselves, it is important to note that, despite what Parmenides tells us of the method in his general description of it, conditionals of the form (1)–(8) are not the only sorts of conditionals he aims to establish in the Deductions. For, as becomes evident after only a cursory look at the Deductions, part of

[9] See Meinwald (1991, 44), who follows the lead of Wundt (1935, 6), Cornford (1939, 108), and Allen (1983, 15). For a summary of the relevant issues of interpretation here, see Gill (1996, 65–68).

Parmenides' purpose is to prove that, whether the one is or is not, the one and the others are (for a range of properties F) not only both F and con-F, but also *not* F and *not* con-F. Thus, in the First Deduction, Parmenides argues that, if the one is, then the one is neither in motion nor at rest, neither different from itself nor the same as itself, neither like nor unlike anything, neither one nor many, and so on; and in the Fourth Deduction, Parmenides argues that, if the one is, then the others are neither one nor many, neither like nor unlike the one, and so on. Moreover, in the Sixth Deduction, Parmenides argues that, if the one is not, then the one is neither in motion nor at rest; and in the Eighth Deduction, he argues that, if the one is not, then the others are neither one nor many, neither like nor unlike, neither the same nor different, and so on. Thus, in addition to establishing results (1)–(8), the method Parmenides endorses as a means to reach the truth requires proof of (1*)–(8*):

(1*) If the G is, then the G is both not F and not con-F in relation to itself.
(2*) If the G is, then the G is both not F and not con-F in relation to the others.
(3*) If the G is not, then the G is both not F and not con-F in relation to itself.
(4*) If the G is not, then the G is both not F and not con-F in relation to the others.
(5*) If the G is, then the others are both not F and not con-F in relation to themselves.
(6*) If the G is, then the others are both not F and not con-F in relation to the G.
(7*) If the G is not, then the others are both not F and not con-F in relation to themselves.
(8*) If the G is not, then the others are both not F and not con-F in relation to the G.

If we now look at where these various results appear in the Deductions, we find the following pattern:

First Deduction (137c4–142a8): (1*) and (2*)
If the one is, then the one is both not F and not con-F in relation to itself and in relation to the others.

Second Deduction (142b1–155e3): (1) and (2)
If the one is, then the one is both F and con-F in relation to itself and in relation to the others.

Third Deduction (157b6–159b1): (5) and (6)
If the one is, then the others are both F and con-F in relation to themselves and in relation to the one.

Fourth Deduction (159b2–160b4): (5*) and (6*)
If the one is, then the others are both not F and not con-F in relation to themselves and in relation to the one.

Fifth Deduction (160b5–163b6): (3) and (4)
If the one is not, then the one is both F and con-F in relation to itself and in relation to the others.

Sixth Deduction (163b7–164b4): (3*) and (4*)
If the one is not, then the one is both not F and not con-F in relation to itself and in relation to the others.

Seventh Deduction (164b5–165e1): (7) and (8)
If the one is not, then the others are both F and con-F in relation to themselves and in relation to the one.

Eighth Deduction (165e2–166c5): (7*) and (8*)
If the one is not, then the others are both not F and not con-F in relation to themselves and in relation to the one.

What this pattern reveals is that what sort of result goes into which Deduction depends on the answers to three separate and independent questions:

A. Is the *antecedent* of the result *Positive* (+) ("the one is") or *Negative* (−) ("the one is not")?
B. Is the *consequent* of the result *About The One* (+) ("the one is both F and con-F [in relation to itself and the others]" or "the one is both not F and not con-F [in relation to itself and the others]") or *About The Others* (−) ("the others are both F and con-F [in relation to themselves or the one]" or "the others are both not F and not con-F [in relation to themselves or the one]")?
C. Is the *consequent* of the result *Positive* (+) ("the one is both F and con-F [in relation to itself and the others]" or "the others are both F and con-F [in relation to themselves and the one]") or *Negative* (−) ("the one is both not F and not con-F [in relation to itself and the others]" or "the others are both not F and not con-F [in relation to themselves and the one]")?

The contents of the Deductions are then determined as follows:

First Deduction:	A(+), B(+), C(−)
Second Deduction:	A(+), B(+), C(+)
Third Deduction:	A(+), B(−), C(+)
Fourth Deduction:	A(+), B(−), C(−)
Fifth Deduction:	A(−), B(+), C(+)
Sixth Deduction:	A(−), B(+), C(−)
Seventh Deduction:	A(−), B(−), C(+)
Eighth Deduction:	A(−), B(−), C(−)

This way of representing the content of the Deductions imposes structure on what would otherwise appear to be a loosely organized set of dizzyingly complex arguments.[10]

[10] This mode of representation agrees with the one offered by Gill (1996, 58). In defense of their interpretation of the in-relation-to qualifications (see above, p. 102 ff.), Meinwald and Sayre claim that the Meinwald Reading (or something like it – see p. 102 n. 6) correctly predicts that the second part of the *Parmenides* consists of eight Deductions. This is because they take the third principle of division to be whether the predications in the consequents of the results are to be read *pros heauto* or *pros ta alla*. But, as I have argued, the Meinwald Reading is unsupported, and, as I explain in the text, there is a different, but equally plausible, explanation for the fact that the number of Deductions is eight. This explanation, which (unlike Meinwald's or Sayre's) lies at the very surface of the text, is that the third principle of division concerns whether the consequents of the results are positive or negative.

CHAPTER 4

The First Deduction

In the previous chapter, we saw that there is a method to the Deductions that occupy Parmenides (and his interlocutor, Aristotle) for the rest of the dialogue. The point of the Deductions is to establish eight sorts of results, beginning with the first: that if the one is, then the one is both not F and not con-F in relation to itself and in relation to the others. In the next four chapters, I provide a complete logical reconstruction of all eight Deductions (along with a complete reconstruction of the Appendix to the first two). In this chapter, I concentrate on the First.

Let me begin by highlighting two principles that will play a significant role in the reasoning to be analyzed. Recall that, according to **BP**, itself a corollary of **C**, for anything other than the F, partaking of the F is both necessary and sufficient for being F, i.e., X partakes of the F if and only if X is F (see p. 31). The first principle is a stronger version of **BP** (call it "**SBP**"):

(**SBP**) To say that X partakes of the F is to say that X is F.

It should be evident that **SBP** is stronger than (i.e., entails) **BP**, but not vice versa. According to **SBP**, the propositions expressed by "X partakes of the F" and "X is F" are more than merely materially equivalent: they are identical.

The second principle (call it the "**Principle of Elision**," **PE**) comes in two main forms, the first of which is already familiar (see p. 61 n. 4):

(**PE1**) To say that *X is F in some way* is to say that *X is F*.
(**PE2**) To say that *X is in some way* is to say that *X is*.

(Notice that, because the proposition that X is F relative to Y entails that X is F in some way, it follows from **PE1** that if X is F relative to Y, then X is F. Notice also that, because the proposition that X is F entails that X is *in*

some way, it follows from **PE2** that if X is F, then X is.)[1] Similar principles (to which Parmenides appeals, but less often) include the following:

(**PE3**) To say that *X comes to be F in some way* is to say that *X comes to be F*.
(**PE4**) To say that *X ceases to be F in some way* is to say that *X ceases to be F*.
(**PE5**) To say that *X appears to be F in some way* is to say that *X appears to be F*.

As we will see, many of the arguments in the Deductions make no sense unless it is supposed that Parmenides takes these **Principles of Elision** for granted.

The logical reconstruction to follow is governed by the following organizational conventions. Each Deduction receives a number ("D1" for the First Deduction, "D2" for the Second, and so on) and each argument within each Deduction receives a number ("A1" for the first argument, "A2" for the second, and so on). In addition, the Appendix to the First and Second Deductions is called "App." For example, I use "D2A5" to refer to the fifth argument of the Second Deduction, "D4A2" to refer to the second argument of the Fourth Deduction, "AppA3" to refer to the third argument of the Appendix, and so on. Within each argument, each new premise receives a number ("P1" for the first premise, "P2" for the second, and so on), and so does each lemma ("L1" for the first lemma, "L2" for the second, and so on).

Occasionally, a given stretch of reasoning is powerful enough to issue in more than one significant conclusion. Although logicians might prefer dividing the reasoning into two or more arguments that share at least some of their premises and lemmata, I find this mode of representing the reasoning more cumbersome than is required. Instead, I present the reasoning as having two or more conclusions (as in the case of, say, D1A2 or D1A6), each of which receives a number ("C1" for the first conclusion, "C2" for the second, and so on). Thus, "D3A4P5" refers to the fifth premise of the fourth argument of the Third Deduction, "D5A1L2" to the second lemma of the first argument of the Fifth Deduction, and "D2A27C3" to the third conclusion of the twenty-seventh argument of the Second Deduction.

In adopting these conventions, I do not claim that Plato presents the reasoning as neatly divided, nor do I think that there is only one way to divide the text of any Deduction into arguments, or to represent

[1] Brown (1986) draws attention to the fact that similar principles are needed to make sense of some of the Eleatic Visitor's arguments in the *Sophist* (see above, p. 61 n. 4) – see also Gill (1996, 70–71). As I see it, this is no accident: Plato's commitment to **PE** throughout his work is fundamental and pervasive.

the reasoning within any given argument. But I think that Plato had something approximating the reconstruction I am about to give in mind as he wrote the Deductions, and that something akin to the representation of the Deductions that appears below is needed to help us understand what Plato considered to be the moral of the dialogue taken as a whole.

Each of the arguments is followed by an analysis that contains a determination of whether Plato takes the argument to be valid or invalid, sound or unsound, and (when appropriate) a comment that discusses the reasoning and/or draws connections with passages elsewhere in Plato's corpus. After discussing the arguments within a single Deduction, I offer a *Summary* that distills the main points to be drawn from considering that Deduction in the context of the Deductions that precede and/or succeed it.

The reader who does not wish to plow through ninety-four chunks of reasoning in order to get to the punchline may wish to skip ahead and read the *Summaries* before dipping into the detailed logical reconstruction of particular arguments as needed.

D1A1 *(137c4–5)*

Although Parmenides offers no explicit argument for the claim (call it "C") that if the one is, then the one is not many, it is plain that the only reasonable way to sustain C is on the basis of something like the following argument. From **SP** ("for all F, the F is F"), or from the result of conjoining **O** ("every form is one") with the assumption that the one is a form, it follows that the one is one. This result in turn entails (P1) that if the one is, then the one is one. **CON** then entails (P2) that the property of being one and the property of being many are contraries (or opposites: see above, pp. 20-21), and so, by **RP** ("no form can have contrary properties"), the one cannot be both one and many. Consequently, (C) if the one is, then the one is not many.

This argument (call it "D1A1") is clearly valid. But it is important to notice that D1A1 is not sound unless axiom **RP** of the higher theory is true. As we will see, this fact is crucial to attaining a proper understanding of the Deductions as a whole.

D1A2 *(137c5–d3)*

D1A2 establishes two results, (C1) that if the one is, then the one has no parts, and hence (C2) that if the one is, then the one is not a whole.

Assume (P1) that anything that has parts is many. By D1A1C, if the one is, then the one is not many. But, by P1, if the one is not many, then the one has no parts. So D1A1C and P1 together entail (C1) that if the one is, then the one has no parts. Now assume (P2) that a whole is that [thing with parts] from which no part is missing. P2 entails (L1) that anything that is a whole must have parts. And the conjunction of L1 and C1 entails (C2) that if the one is, then the one is not a whole.

D1A2 is clearly valid. Whether it is sound depends on the truth values of P1, P2, and D1A1C. But P1 and P2 are unexceptionable. (As we have already seen, P1 follows from the claim that a thing [with parts] is identical to its parts [p. 51 n. 53], a claim that reappears at *Theaetetus* 204a and 205a. P1 also explains Socrates' earlier claim (at 129c) that his being many follows from his having many parts. And at *Theaetetus* 205a, Socrates insists on something very close to P2, namely that a whole is "that from which nothing anywhere is lacking.") Thus, the question whether Plato takes D1A2 to be sound reduces to the question whether he takes D1A1 to be sound.

D1A3 *(137d4–6)*

D1A3 establishes (C) that if the one is, then the one has no beginning, middle, or end.

Assume (P1) that the beginning, middle, and end of X are parts of X. By D1A2C1, if the one is, then the one has no parts. But, by P1, if the one has no parts, then the one has no beginning, middle, or end. So D1A2C1 and P1 together entail (C) that if the one is, then the one has no beginning, middle, or end.

D1A3 is plainly valid. Whether it is sound depends on the truth values of P1 and D1A2C1. I take it that, from Plato's perspective, P1 is obvious. (Note that P1 is needed to prove D2A30C1 and D2A30C2 below.) Thus, the question whether Plato takes D1A3 to be sound reduces to the question whether he takes D1A2 to be sound.

D1A4 *(137d6–8)*

D1A4 establishes (C) that if the one is, then the one is unlimited.

Assume (P1) that the beginning and end of X are [the] limits of X. By D1A3C, if the one is, then the one has no beginning or end. But, by P1, if the one has no beginning or end, then the one has no limits (i.e., the one is unlimited). So D1A3C and P1 together entail (C) that if the one is, then the one is unlimited.

D1A4 is plainly valid. And Plato plainly takes P1 to be true. (Note that P1 reappears at 145a. There Parmenides states that something that is limited has extremities, where it is clear from the context that a thing's extremities are its beginning and end. Thus, Parmenides commits himself at 145a to the proposition that something that is limited has a beginning and an end, where these are the thing's extremities. It is but a small step from this to P1. Note also that Parmenides appeals to P1 to justify the move from D7A5C1 to D7A5C2 below.) Thus, the question whether Plato takes D1A4 to be sound reduces to the question whether he takes D1A3 to be sound.

D1A5 *(137d8–138a1)*

D1A5 establishes (C) that if the one is, then the one has no shape.

The reasoning relies on three new premises: (P1) that to be round is to have extremities that are equidistant in every direction from the middle, from which it follows that any round thing must have a middle; (P2) that to be straight is to have a middle that stands in the way of the two extremities, from which it follows that any straight thing must have a middle; and (P3) that anything that has shape must be either round or straight. From P1 and P2, it follows that anything that is either round or straight has a middle. But, by D1A3C, if the one is, then the one has no middle. So P1, P2, and D1A3C together entail (L1) that if the one is, then the one is neither round nor straight. The conjunction of L1 with P3 then entails (C) that if the one is, then the one has no shape.

D1A5 is clearly valid. Whether it is sound depends on the truth values of P1, P2, P3, and D1A3C. Now it might be thought that if P1 and P2 are treated as definitions of "round" and "straight" (as they certainly appear to be), then P3 is obviously false: surely something can have shape without being round or straight (as these terms are defined in P1 and P2). This seems right, but it is also the kind of objection that D1A5 could easily be massaged to avoid. The general point is that having shape is either a matter of being [finitely] two-dimensional (straight) or three-dimensional (round, or relevantly akin to something round) (see the Analysis of D1A6 below), where every [finitely] two-dimensional and three-dimensional object has a "middle" or something akin to a middle, i.e., something that lies between extremities. Far from being obviously false, these are eminently reasonable assumptions, at least from Plato's perspective. Thus, the question whether Plato takes D1A5 to be sound reduces to the question whether he takes D1A3 to be sound.

D1A6 *(138a2–b6)*

D1A6 establishes three results: (C1) that if the one is, then the one is not in another, (C2) that if the one is, then the one is not in itself, and hence (C3) that if the one is, then the one is nowhere.

Parmenides provides two different ways of establishing C1. The first relies on two new premises, (P1) that if X is in Y, then X is contained all around by Y and X touches Y in many places with many parts, and (P2) that if X is contained all around by Y and X touches Y in many places with many parts, then X is round. From P1 and P2 it follows that if X is in another, then X is round, and hence that if the one is in another, then the one is round. But, by D1A5L1, if the one is, then the one is neither round nor straight. So P1, P2, and D1A5L1 together entail (C1) that if the one is, then the one is not in another. The second eschews P2 in favor of the assumption (P3) that if X touches Y in many places with many parts, then X has parts. From P1 and P3 it follows that if X is in another, then X has parts, and hence that if the one is in another, then the one has parts. But, by D1A2C1, if the one is, then the one has no parts. So the conjunction of P1, P3, and D1A2C1 also entails C1.

The reasoning for C2 relies on P1 and two further premises, (P4) that if X both contains itself and is contained by itself, then X is two, and (P5) that if X is two, then X is many. First P1 alone entails (L1) that if X is in itself, then X both contains itself and is contained by itself. Taken together, P4 and L1 entail (L2) that if X is in itself, then X is two. Moreover, L2 and P5 together entail (L3) that if X is in itself, then X is many, and hence that if the one is in itself, then the one is many. But, by D1A1C, if the one is, then the one is not many. So L3 and D1A1C together entail (C2) that if the one is, then the one is not in itself.

The reasoning for C3 relies on C1, C2, and an additional premise which says (P6) that whatever is neither in itself nor in another is nowhere. The argument is simple. By C1 and C2, if the one is, then the one is neither in itself nor in another. The conjunction of this result with P6 then entails (C3) that if the one is, then the one is nowhere.

D1A6 is clearly valid. Whether it is sound depends on whether P1–P6, D1A5L1 or D1A2C1, and D1A1C are true. P1 might appear questionable, for it might be thought that something (say, a balloon) could be (floating) in something else (say, a large sphere) without touching it anywhere. This is correct, but it is also plausible that a counterexample of this sort lies beyond both Plato's experience and his thought-experiment-generating abilities. (Note also that Parmenides relies heavily on P1 in the sequel, as part of

his proof of D2A17L1, D2A21C1, D2A21C2, D2A22C1, D2A22C2, and D2A23C2.)

P2 might also appear questionable, for it might be thought that something (say, a book) could be contained all around by something else (say, a hollow sphere) without being round (in the technical sense of D1A5P1, i.e., spherical). But again, if "round" is taken to mean "three-dimensional" (see the Analysis of D1A5), then P2 seems unexceptionable. And, in any event, the argument can go through without reliance on P2, since the conclusion P2 is used to obtain can be obtained in a different way (by relying on D1A2C1, P1, and P3). From Plato's perspective, P3–P6 appear uncontroversial, and it is worth noting that Parmenides relies on P5 to prove D4A3C3. Thus, the question whether Plato takes D1A6 to be sound reduces to the question whether he takes D1A2 and D1A1 to be sound.

D1A7 *(138b7–139a3)*

D1A7 establishes (C) that if the one is, then the one is not in motion. The argumentative strategy is clear. Parmenides assumes that there are two main forms of motion, alteration and spatial movement, and assumes further that there are two main forms of spatial movement, rotation and translation. As he will show, if the one is, then the one is not subject to alteration, rotation, or translation. Hence, if the one is, then the one does not move.

In the first part of D1A7, Parmenides argues as follows. By D1A1P1, if the one is, then the one is one. Now assume (P1) that anything that is altered from itself is not one, and hence that if the one is one, then the one is not altered from itself. So D1A1P1 and P1 together entail (L1) that if the one is, then the one is not altered from itself.

In the second part of D1A7, Parmenides finds two roads to the result (L2) that if the one is, then the one does not spin in a circle in the same location. The first road relies on two new premises, namely (P2) that anything that spins in a circle in the same location must be poised on its middle and has other parts that move around the middle, and (P3) that anything that is poised on its middle has a middle. P2 and P3 together entail that anything that spins in a circle in the same location has a middle. But, by D1A3C, if the one is, then the one does not have a middle. Thus, P2, P3, and D1A3C together entail (L2) that if the one is, then the one does not spin in a circle in the same location. The second road relies on D1A2C1, P2, and a further premise which says (P4) that anything that has parts that move around the middle must have parts. P2 and P4 together entail that anything that spins in a circle in the same location has parts. But, by D1A2C1, if the

one is, then the one has no parts. Thus, P2, P4, and D1A2C1 together entail L2.

In the third part of D1A7, Parmenides argues (L3) that if the one is, then the one does not change from one place to another. The reasoning relies on D1A2C1 and five new premises, P5–P9. By (P5), if X changes from one place to another, then X comes to be in something. By (P6), if X comes to be in Y, then X is neither entirely in Y nor entirely outside Y at one time. By (P7), if X is not entirely in Y, then X has a part that is outside Y. By (P8), if X is not entirely outside Y, then X has a part that is inside Y. And by (P9), if X has a part that is outside Y or X has a part that is inside Y, then X has parts. P5 and P6 together entail that if X changes from one place to another, then there is something Y such that X is neither entirely in Y nor entirely outside Y at one time. This result, combined with P7 and P8, entails that if X changes from one place to another, then there is something Y such that X has a part that is outside Y or X has a part that is inside Y. Thus, by P9, if X changes from one place to another, then X has parts. But, by D1A2C1, if the one is, then the one has no parts. It follows directly (L3) that if the one is, then the one does not change from one place to another.

To establish C, all that remains is for the results of the three parts of D1A7 to be combined with two major premises: (P10) that if X is in motion, then X alters from itself or moves spatially, and (P11) that if X moves spatially, then X either spins in a circle in the same location or changes from one place to another. L2 and L3 together entail that if the one is, then the one neither spins in a circle in the same location nor changes from one place to another. By P11, it follows that if the one is, then the one does not move spatially. But L1 says that if the one is, then the one is not altered from itself. Hence, if the one is, then the one neither is altered from itself nor moves spatially. By P10, then, it follows (C) that if the one is, then the one is not in motion.

D1A7 is clearly valid. Whether it is sound depends on the truth values of P1–P11, D1A1P1, and D1A2C1. (D1A3C may be, but need not be, used to derive L2.) Of all the new premises, the only ones at which one might balk are P10, P11, and P1. At *Theaetetus* 181c–d and at *Parmenides* 162d, Plato reaffirms both P10 and P11. In the former passage, Socrates says there that there are three kinds of motion: alteration, spinning in a circle in the same location (rotation), and changing from one place to another (translation). In the latter, Parmenides claims that "if [something] isn't altered and doesn't rotate in the same thing or switch place," then it could not move in any way. What Socrates describes as "alteration" in the *Theaetetus* reappears as both "alteration" and "alteration from oneself" in D1A7 (and in D5A10). The

context in which both these phrases appear makes it clear that Parmenides takes the proposition that the one is not altered from itself to entail the proposition that the one is not altered. Under the circumstances, it is reasonable to suppose that Plato treats alteration to be no more and no less than alteration from oneself. This supposition is confirmed by the examples of alteration provided by Socrates at *Theaetetus* 181c–d, namely growing old, becoming black instead of white, or hard instead of soft. As these examples suggest, to be altered is to become other than what one was, i.e., to become other than (i.e., to be altered from) oneself (at a previous time) (see D5A12P1).[2]

Given this understanding of alteration, it becomes easier to see why Parmenides would be as confident as he is in the truth of P1. For we can make use of this reading of alteration to prove P1 as follows:

1. If X is altered from itself, then X becomes other than what X was.
2. What the one was is one.
3. To be other than F is to be not F.

So, 4. If the one is altered from itself, then the one becomes not one. [1, 2, 3]

5. If X becomes not F, then X is not F (at some time or other).

So, P1. If the one is altered from itself, then the one is not one (at some time or other). [4, 5]

It is therefore reasonable to suppose that Plato accepts all of P1–P11. Thus, the question whether Plato takes D1A7 to be sound ultimately reduces to the question whether he takes D1A1P1 to be true and D1A2 to be sound.

D1A8 *(139a3–b3)*

D1A8 establishes (C) that if the one is, then the one is not at rest. The reasoning relies on the conclusions of D1A6, and two new premises: (P1) that anything that is neither in itself nor in another is never in the same thing, and (P2) that whatever is never in the same thing is not at rest. The argument is straightforward. By D1A6C1, if the one is, then the one is not in another. By D1A6C2, if the one is, then the one is not in itself. Thus, if the one is, then the one is neither in itself nor in another. By P1, if the one is neither in itself nor in another, then the one is never in the same thing. And, by P2, if the one is never in the same thing, then the one is not at

[2] For more statements in this vein, see *Cratylus* 439d, where Socrates treats "becoming a different thing," "altering," and "no longer being as [one] was" as mutually equivalent.

rest. So D1A6C1, D1A6C2, P1, and P2 together entail (C) that if the one is, then the one is not at rest.

D1A8 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D1A6C1, and D1A6C2. P1 appears unexceptionable, and P2 appears reasonable (especially if places are ranked among the relevant "things," for it should be clear that what is never in the same *place* is not at rest).[3] Moreover, P2 is repeated at 146a, and is needed to obtain D2A9C2. At 163e, Parmenides insists that "what is at rest must always be in some same thing," which is logically equivalent to the claim that what is not always in the same thing is not at rest. P2 then follows from the result of conjoining this claim with the obvious statement that what is never in the same thing is not always in the same thing. So it is reasonable to suppose that Plato takes P1 and P2 for granted. The question whether he takes D1A8 to be sound therefore reduces to the question whether he takes D1A6 to be sound.

D1A9 *(139b4–c3)*

D1A9 attempts to establish two conclusions, (C1) that if the one is, then the one is not different from itself, and (C2) that if the one is, then the one is not the same as another.

Begin with three assumptions: (P1) that if X is different from itself, then X is different from what it is, (P2) that what the F is, is F, and (P3) that if X is different from F, then X is not F. By P1, if the F is different from itself, then the F is different from what the F is. From this and P2 it follows that if the F is different from itself, then the F is different from F. And from this and P3 it follows that if the F is different from itself, then the F is not F. By replacing "one" for "F," we obtain the following lemma, (L1) that if the one is different from itself, then the one is not one. But, by D1A1P1, if the one is, then the one is one. Consequently, L1 and D1A1P1 together entail (C1) that if the one is, then the one is not different from itself.

Assume now (P4) that if X is the same as another, then X is not itself, and (P5) that if X is not itself, then X is not just what X is. P4 and P5 together entail that if X is the same as another, then X is not just what X is, and hence that if the F is the same as another, then the F is not just what the F is. By P2 ("what the F is, is F"), then, it follows that if the F is the same as another, then the F is not F. By replacing "one" for "F," we obtain a second lemma, (L2) that if the one is the same as another, then the one

[3] The relevant portion of the text does not have a Greek word corresponding to the English word "thing." Literally, P2 reads: "what is never in the same is not at rest."

is not one. But, again by D1A1P1, if the one is, then the one is one. Hence, L2 and D1A1P1 together entail (C2) that if the one is, then the one is not the same as another.

It is something of a vexed question whether D1A9 is sound. On balance, I think it is not. The problem is that the phrase "different from" appears to mean different things depending on whether it is followed by a singular term (such as "itself" or "the one") or a predicate (such as "one"). Where "X" is a singular term, to say that X is different from Y (where "Y" is a *singular term*) is to say that X is not numerically identical to Y. Thus, when Plato says (as he does at 142b) that being is not the same as (i.e., different from) the one, what he means is that being is not numerically identical to the one. Or when, at *Sophist* 250c, the Eleatic Stranger says that that which is (i.e., being) is different from change and different from rest, he means that being is not numerically identical to either change or rest, so that, as he puts it, being "is a third thing." On the other hand, assuming again that "X" is a singular term, to say that X is different from Y (where "Y" is a *predicate*) is to say that X is not Y, in the sense of not having the property of being Y. Thus, when Parmenides says that the one would be "different from one, and would not be one," he means not that the one would not be (numerically identical to) *the one*, but that the one would not be *one*, in the sense of not having the property of being one.

Given the ambiguity of "X is different from Y" (depending on whether "Y" is a singular term or a predicate), the following problem arises. In order for P1 to be true, "what it is" needs to be read as a singular term referring to X. And in order for L1 to follow from P1, P2, and P3, "what the F is" in P2 must also be read as a singular term referring to the F. Now the second occurrence of "is" in P2 might be read as the "is" of identity or as the "is" of predication. If it is read as the "is" of identity, then L1 follows from P1, P2, and P3, but P2 is clearly false: it is false, perhaps even meaningless, to say that the F is identical to F (where "F" is a predicate). But if the second occurrence of "is" in P2 is read as the "is" of predication, then P2 turns out to be true (at least within the higher theory, since it is a mere restatement of **SP**), but L1 does not follow from P1, P2, and P3. Thus, if D1A9 is valid, then it is unsound; and if its premises are true, then it is invalid. Either way, the argument is unsound; it gives the appearance of being sound only because it fudges the distinction between the "is" of predication and the "is" of identity.

Assuming that the argument is unsound, the relevant passage can be read in two ways: we can assume either that Plato is aware, or that he is unaware, of the argument's unsoundness. If we choose the former, there are difficult

questions to answer: Why would Plato produce a string of clearly valid and (leaving aside **RP**) quite possibly sound arguments, followed by an unsound argument that is far from obviously unsound, followed (though not immediately, as we will see) by another string of clearly valid and (again leaving aside **RP**) quite possibly sound arguments? If Plato is thinking of the Deductions as a test of his readers' logical acumen, why does he choose such a convoluted way of presenting such a test? And why isn't he more forthright about the fact that he is aiming to test his readers' logical abilities? Moreover, as we will see, Parmenides appeals to C2 to prove a host of further results in D1. Why would Plato have what arguments D1A1–D1A8 already reveal to be a logically sophisticated Parmenides rely on the conclusion of an argument that Plato himself thinks unsound? I prefer the latter hypothesis: although the argument is unsound, Plato is unaware of its unsoundness. As I see it, this hypothesis does not in any way detract from Plato's philosophical brilliance. Even the most sophisticated of modern-day philosophers are trapped by background assumptions they don't see themselves making. That Plato is no different is no skin off his nose.

It is interesting, though far from surprising, to note that neither C1 nor C2 depends on **RP**. Though Parmenides is at some pains to show it, nothing could be more obvious than that, if X is, then X is neither different from itself nor the same as another. So, even if D1A9 is unsound, it would be difficult to fault Parmenides for relying, as he does in the sequel, on C2.

D1A10 *(139c3–d1)*

D1A10 attempts to establish (C) that the one is not different from another. This is a tall order.

Assume (P1) that it is proper to different-from-another and to nothing else to be different from something, and (P2) that if it is proper to different-from-another and to nothing else to be different from something, then it is not proper to the one to be different from something. P1 and P2 together entail (L1) that it is not proper to the one to be different from something. Now assume (P3) that if it is not proper to the one to be different from something, then the one is not different by being one, and (P4) that if the one is not different by being one, then the one is not different by itself. From L1 and P3 it follows that the one is not different by being one, and by P4 it then follows (L2) that the one is not different by itself.

Now assume (P5) that if X is not different by itself, then X itself is not different in any way, (P6) that if X itself is not different in any way, then X is different from nothing, and (P7) that if X is different from nothing,

then X is not different from another. By P5, if the one is not different by itself, then the one itself is not different in any way. So L2 and P5 together entail that the one itself is not different in any way. From this and P6 it then follows that the one is different from nothing. And from this and P7 it follows (C) that the one is not different from another.

D1A10 is clearly valid. Whether it is sound depends entirely on the truth values of P1–P7. Although reason might be found to question P1, P3, and P4, I take it that the most questionable premise is P5. For from the fact that X is not different *by itself* (i.e., by being what it is), it does not follow that X itself is not different in any way. In fact, it seems obvious that a thing should be different from (in sense of not being numerically identical to) anything that is other than it, even though its being what it is is not responsible for the fact that it is different. So it is not surprising that Parmenides should fail in his attempt to argue for something that seems obviously false, even self-contradictory, namely that the one does not differ from anything that is other than it, i.e., that the one does not differ from anything that differs from it.

The likely unsoundness of this argument raises the question whether Plato is aware of the argument's unsoundness, and, if so, why he would find it useful to put what he takes to be an unsound argument in the mouth of Parmenides. One possibility, already canvassed at the end of D1A9, is that Plato is interested in providing his readers with a test of their logical and critical abilities. For reasons similar to the ones mentioned in my analysis of D1A9, I think this is unlikely. As I see it, it is more likely that Plato wants the Deductions to instantiate a very specific pattern requiring proof in D1 of the claim that, if the one is, then the one is not different from another. We will be in a position to assess these reasons only after we are able to survey the results of all eight Deductions as a whole.

D1A11 *(139d1–e6)*

D1A11 attempts to establish (C) that if the one is, then the one is not the same as itself. This too is a tall order, and, like D1A9 and D1A10, D1A11 fails. But the failure is instructive.

Assume (P1) that if it were the case that whenever X comes to be the same as the many X comes to be one, then there would be a time when the many was one. Now, by D1A1P2, being one and being many are contrary properties. Hence, by **RP**, no form can be both one and many. Given that the many is a form, it follows that the many cannot (at any time) be one. From P1, then, it follows (L1) that it is not the case that whenever X comes

to be the same as the many, X comes to be one, and hence (L2) that it is not the case that whenever X comes to be the same as something, X comes to be one.

Now assume (P2) that if the nature of the F is the same as the nature of the G, then whenever X comes to be G, X comes to be F, and (P3) that to be the same is just to be the same as something. If "F" is replaced by "one" and "G" is replaced by "same," then P2 and P3 together entail (L3) that if the nature of the one is the same as the nature of the same, then whenever X comes to be the same as something, X comes to be one. The conjunction of L2 and L3 then entails (L4) that the nature of the one is not [identical to] the nature of the same.

Finally, assume (P4) that *if* the nature of the F is not [identical to] the nature of the G, *then* if X is G relative to itself, X is not F relative to itself, and (P5) that if the one is not one with itself, then the one is not one. By P4, *if* the nature of the one is not [identical to] the nature of the same, *then* if X is the same as (i.e., relative to) itself, X is not one with (i.e., relative to) itself. So L4 and P4 together entail (L5) that if the one is the same as itself, then the one is not one relative to (i.e., with) itself. And L5 and P5 together entail that if the one is the same as itself, then the one is not one. But, by D1A1P1, if the one is, then the one is one. So L5, P5, and D1A1P1 together entail (C) that if the one is, then the one is not the same as itself.

This argument is clearly valid. Whether it is sound depends on the truth values of P1–P5, D1A1P1, D1A1P2, and **RP**. P1 is obvious. P2 is an instance of the general principle of substitutivity, according to which "F" and "G" are everywhere intersubstitutable if the nature of the F is identical to the nature of the G (or, what amounts to the same, at least for Plato: if the F is identical to the G). This principle reappears later as D1A16P2, and plays a role in the proof of D2A32L10.[4] P3 is an instance of **PE1**, and of a less general principle of elision, according to which something's being F (where "F" is a relative term) is a matter of its being F in relation to something (so that, e.g., something's being large is a matter of its being larger than something, and something's being the same is a matter of its being the same as something). Moreover, Parmenides relies on P3 to prove D2A12C. P5 is an instance of the general claim that, if X is not F in some way (e.g., in relation to X), then X is not F. This claim is itself a consequence of **PE1**.

P4 is clearly the most problematic premise in this argument. For it seems possible (for some properties F and G and for some entity X) for the nature

[4] This principle of substitutivity also plays an important role in the early dialogues (most notably in Socrates' criticism of Euthyphro's definition of piety as what is loved by all the gods – see *Euthyphro* 9d–11b).

of the F to be different from the nature of the G and yet for X to be both F and G relative to itself. For example, it seems possible for a chair to be both [numerically] the same as and similar to itself, even though the nature of [numerical] sameness differs from the nature of similarity. I think that P4 is indeed false, and that the argument is unsound. (Given that the argument's conclusion is that, if the one is, then the one is not the same as itself, this evaluation should not come as a surprise.) The relevant question, though, is whether Plato takes the argument to be sound. And here I am inclined to be charitable. P4 says that if the nature of the F is not [identical to] the nature of the G, then, from the fact that X is G relative to itself, it follows that it is not the case that X is F relative to itself. This principle is (at least superficially) similar to the principle that if the nature of the F is not [identical to] the nature of the G, then it is not the case that from the fact that X is G relative to itself it follows that X is F relative to itself. The latter principle is plainly true, and the similarity is significant enough to suggest the possibility of confusion, even in the mind of a philosopher as great as Plato. As I see it, then, the best explanation for Plato's offering us an argument that happens to be unsound is that he unwittingly confused a false principle with a true principle. In the end, the question whether Plato takes D1A11 to be sound reduces to the question whether he takes the premises of D1A1 to be true.

D1A12 *(139e6–140a6)*

D1A12 establishes (C) that if the one is, then the one is not like another or itself.

Assume (P1) that if X has any property apart from being one, then X is more than one, and (P2) that if X is more than one, then X is many. Now, by D1A1C, if the one is, then the one is not many. But, by P2, if the one is more than the one, then the one is many. Thus, D1A1C and P2 together entail that if the one is, then the one is not more than one. This result, combined with P1, then entails (L1) that if the one is, then the one does not have any property apart from being one.

Now, by D1A11L4, the nature of the one is not [identical to] the nature of the same. Consequently, the property of being the same is "apart from" the property of being one, and hence, (L2) if X has a property the same as another or itself, then X has a property apart from being one. By L2, if the one has a property the same as another or itself, then the one has a property apart from being one. So L1 and L2 together entail (L3) that if the one is, then the one does not have a property the same as another or itself. Now

assume (P3) that for X to be like Y is for X to have a property the same as Y, and hence that if the one does not have a property the same as another or itself, then the one is not like another or itself. The conjunction of L3 and P3 then entails (C) that if the one is, then the one is not like another or itself.

D1A12 is plainly valid.[5] Whether it is sound depends on the truth values of P1–P3, D1A1C, and D1A11L4. Let us begin with P1 and P2: if X has a property apart from being one, then surely X has more than one property (X is, as we might say, more than one [thing]); moreover, as we have already seen (p. 72), Plato holds that a thing's having many properties (and thus its being more than one [thing]) is sufficient for its being many. (Note also that P2 is used to prove D3A4C and a host of results in D7, including D7A2C, D7A3C1, D7A3C2, and D7A4C2.) P3 is Plato's eminently reasonable definition of what it is for something to be like. The definition reappears in several places below: (i) in the very next argument, as part of the reasoning for D1A13L2, (ii) verbatim at 148a, as part of the reasoning for D2A13C, and (iii) as part of the reasoning for D2A14L3, D2A16C1, D3A7C1, D3A7C2, and D7A6C1. D1A11L4, which says that the one and the same differ in nature, follows from the uncontroversial premises of D1A11. So it is reasonable to suppose that Plato takes D1A11L4 to be true. Thus, the question whether Plato takes D1A12 to be sound reduces to the question whether he takes D1A1 to be sound.

D1A13 *(140a6–b5)*

D1A13 establishes (C) that if the one is, then the one is not unlike itself or another.

Assume (P1) that if X has a property different from itself or another, then X has a property apart from being one, and hence that if the one does not have a property apart from being one, then the one does not have a property different from itself or another. Now, by D1A12L1, if the one is, then the one does not have any property apart from being one. So P1 and D1A12L1 together entail (L1) that if the one is, then the one does not have a property different from itself or another.

[5] Gill (1996, 81 n. 134) claims that D1A12 is invalid because it commits the fallacy of denying the antecedent. As she sees it, "Parmenides assumes that same entails like (139e8) and argues not same, so not like." If this were the form of Parmenides' argument, then it would indeed be fallacious for the reason Gill cites. But, as should be plain from my reconstruction, this is not how Parmenides in fact argues for D1A12C.

Now assume (P2) that if for X to be like Y is for X to have a property the same as Y, then for X to be unlike Y is for X to have a property different from Y. Now, by D1A12P3, for X to be like Y is for X to have a property the same as Y. P2 and D1A12P3 together entail (L2) that for X to be unlike Y is for X to have a property different from Y, and hence that if the one does not have a property different from itself or another, then the one is not unlike itself or another. Taken together, then, L1 and L2 entail (C) that if the one is, then the one is not unlike itself or another.

D1A13 is plainly valid.[6] Whether it is sound depends on the truth values of P1, P2, D1A12P3, and D1A12L1. P1 is the counterpart of D1A12L2, and it is reasonable to suppose that Plato takes it to be true for reasons that are similar to the argument for D1A12L2: just as it follows from the fact that the same and the one are different in nature that having a property the same [as oneself or another] entails having a property apart from being one, so it follows from the fact that the different and the one are different in nature that having a property different [from oneself or another] entails having a property apart from being one. P2 is an instance of a more general and eminently reasonable principle, to wit: If F-ness is the same as G-ness, then con-F-ness is the same as con-G-ness (i.e., opposites of identical forms are themselves identical). As our discussion of D1A12 indicates, it is also reasonable for Parmenides to rely on all the premises of D1A12. Thus, given that D1A12L1 follows from D1A12P1, D1A12P2, and D1A1C, the question whether Plato takes D1A13 to be sound reduces to the question whether he takes D1A1 to be sound.

D1A14 *(140b6–d8)*

D1A14 establishes two conclusions, (C1) that if the one is, then the one is not equal to itself or another, and (C2) that if the one is, then the one is not unequal to itself or another.

Assume (P1) that if X is equal to Y, then X is of the same measures as Y, (P2) that if X is of the same measures as Y, then X partakes of the same relative to Y, and (P3) that if X partakes of the same relative to Y, then X is the same as itself or another. It follows from P1–P3 that if X is equal to Y, then X is the same as itself or another, and hence (L1) that if the one is equal to itself or another, then the one is the same as itself or another. Now,

[6] Gill (1996, 81 n. 134) claims that D1A13 is invalid because it commits the fallacy of denying the antecedent (see previous note). As she sees it, "[Parmenides] assumes that different entails unlike (140a7–b1) and argues not different, so not unlike." My reaction to this claim parallels my reaction to a similar claim in the previous note.

by D1A9C2, if the one is, then the one is not the same as another, and by D1A11C, if the one is, then the one is not the same as itself. Hence, if the one is, then the one is not the same as itself or another. Combined with L1, this result then entails (C1) that if the one is, then the one is not equal to itself or another.

Now consider five further premises, (P4) that if X is unequal to Y, then (i) X is commensurate to Y and X is greater than Y or (ii) X is commensurate to Y and X is less than Y or (iii) X is not commensurate to Y and X is greater than Y or (iv) X is not commensurate to Y and X is less than Y, (P5) that if X is commensurate to Y and X is greater than Y, then X has more measures than Y, (P6) that if X is commensurate to Y and X is less than Y, then X has fewer measures than Y, (P7) that if X is not commensurate to Y and X is greater than Y, then X is of larger measures than Y, and (P8) that if X is not commensurate to Y and X is less than Y, then X is of smaller measures than Y. From these assumptions it follows that if X is unequal to Y, then (i) X has more measures than Y or (ii) X has fewer measures than Y or (iii) X is of larger measures than Y or (iv) X is of smaller measures than Y.

Now add two further assumptions, (P9) that if X has more measures than Y or X is of larger measures than Y, then X has many measures, and (P10) that if X has fewer measures than Y or X is of smaller measures than Y, then X has few measures or one measure. When the result derived from P4–P8 is combined with P9 and P10, what follows is that if X is unequal to Y, then X has many measures, few measures, or one measure, and hence (L2) that if X is unequal to itself or another, then X has many measures, few, or one. Now assume (P11) that things have as many parts as measures, and (P12) that if X has many parts or few parts, then X is many. Taken together, P11 and P12 entail (L3) that if X has many measures or few, then X is many, and hence that if the one has many measures or few, then the one is many. Now, by D1A1C, if the one is, then the one is not many. Thus, by L3, if the one is, then the one does not have many measures or few.

Let us now add two more premises, (P13) that if X has one measure, then X is equal to its measure, and (P14) that if X is equal to its measure, then X is equal to another. P13 and P14 together entail that if the one has one measure, then the one is equal to another. But, by C1, if the one is, then the one is not equal to another. So P13, P14, and C1 together entail (L4) that if the one is, then the one does not have one measure.

The result of combining L3 and L4 is that if the one is, then the one does not have many measures, or few, or one. But then, by L2, if the one is unequal to itself or another, then the one has many measures, or few, or

one. So L2, L3, and L4 together entail (C2) that if the one is, then the one is not unequal to itself or another.

The argument is plainly valid. Whether it is sound depends on the truth values of P1–P14, D1A1C, D1A9C2, and D1A11C. Though numerous, the new premises are all straightforward. (It is also worth noting that many of these premises – in particular, P1, P5, P6, P7, P8, and P11 – are used to prove D2A23C1 and D2A23C2.)

As for previous results, though D1A9C2 is derived by means of an unsound argument, it is intuitively obvious, and though D1A11C is derived by means of an unsound argument, Plato might not have had the philosophical wherewithal to recognize it as such. So the question whether Plato takes D1A14 to be sound reduces to the question whether he takes D1A1 to be sound.

D1A15 *(140e1–141a4)*

D1A15 establishes two conclusions, (C1) that if the one is, then the one is not the same age as itself or another, and (C2) that if the one is, then the one is neither younger nor older than itself or another.

Assume (P1) that if X is the same age as Y, then X is both like Y and equal to Y [in age], and hence that if the one is not like another or itself or the one is not equal to another or itself [in age], then the one is not the same age as itself or another. Now, by D1A12C, if the one is, then the one is not like another or itself, and by D1A14C1, if the one is, then the one is not equal to itself or another. So P1, D1A12C, and D1A14C1 together entail (C1) that if the one is, then the one is not the same age as itself or another.

Now assume (P2) that if X is younger or older than Y, then X is both unlike Y and unequal to Y [in age], and hence that if the one is not unlike itself or another or the one is not unequal to itself or another, then the one is neither younger nor older than itself or another. But, by D1A13C, if the one is, then the one is not unlike itself or another, and by D1A14C2, if the one is, then the one is not unequal to itself or another. So P2, D1A13C, and D1A14C2 together entail (C2) that if the one is, then the one is neither younger nor older than itself or another.

D1A15 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D1A12C, D1A14C1, D1A13C, and D1A14C2. P1 and P2 are simply obvious. (Note also that P2 is used to prove D2A27C2, D2A27C3, and D2A30C2.) So the question whether Plato takes D1A15 to be sound reduces to the question whether he takes D1A12, D1A13, and D1A14 to be sound.

D1A16 *(141a5–d6)*

D1A16 establishes (C) that if the one is, then the one is not in time.

Assume (P1) that to be older is to be different from younger, and (P2) that if to be F is to be G, then "F" and "G" are intersubstitutable *salva veritate*. Taken together, P1 and P2 entail (L1) that if X comes to be *older than* Y, then X comes to be *different from younger* Y. Now assume (P3) that if Y is younger than X, then X is older than Y, and (P4) that if X comes to be different from Y, then Y comes to be different from X. Taken together, P3 and P4 entail (L2) that if X comes to be *different from younger* Y, then Y comes to be *different from older* X. Now assume (P5) that to be younger is to be different from older. By L1 and L2, if X comes to be *older than* Y, then Y comes to be *different from older* X. So P5, L1, and L2 together entail that if X comes to be *older than* Y, then Y comes to be *younger than* X, and hence (L3) that if X comes to be older than itself, then X comes to be younger than itself.

Now consider five additional premises: (P6) that if X is in time, then X comes to be older than itself, (P7) that if X is in time, then X *is* for a time equal to itself, (P8) that if X *is* for a time equal to itself, then X is the same age as itself, (P9) that if X comes to be older than itself, then X is older than itself [at some point], and (P10) that if X comes to be younger than itself, then X is younger than itself [at some point]. P6 and P9 together entail that if X is in time, then X is older than itself [at some point]. P7 and P8 together entail that if X is in time, then X is the same age as itself. And P6, L3, and P10 together entail that if X is in time, then X is younger than itself [at some point]. These three results, taken together, now entail (L4) that if X is in time, then X is older than itself [at some point], younger than itself [at some point], and the same age as itself. Now by D1A15C1, if the one is, then the one is not the same age as itself, and by D1A15C2, if the one is, then the one is neither younger nor older than itself. Whether we combine D1A15C1 or D1A15C2 with L4, the result is the same, namely (C) that if the one is, then the one is not in time.

D1A16 is plainly valid. Whether it is sound depends on the truth values of P1–P10 and either D1A15C1 or D1A15C2. Of all the new premises, those that might be thought controversial are P6, P9, and P10. (P1–P5 reappear as premises in the argument for D2A32C2; P2 is a generalization of D1A11P2 that is used to establish D5A4L1 and D7A1L1; P3 is used to establish D2A28C, D2A31C, D2A32C1, and D2A33C1; and both P7 and P8 are used to prove D2A27C1.) P6 says that something that is in time comes to be older than itself. Whether this should be read as true or false depends

on how "comes to be older than itself" is interpreted. If the phrase means "comes to be older at T2 than it will be at T2," then P6 is clearly false. But if the phrase means "comes to be older at T2 than it is at T1," then P6 is clearly true. Charity then dictates that P6 be given the latter, rather than the former, interpretation. (P6 is also used to establish D2A25C1 and D2A26C1.) Similar remarks apply to P9 and P10. P9 says that something that comes to be older than itself is, at some point, older than itself. If P9 is read to mean that something that comes to be older at T2 than it is at T1 is, at some time, older than it is *at that time*, then P9 is false. But if P9 is read to mean that something that comes to be older at T2 than it is at T1 is, at some time, older than it is *at some other time*, then P9 is plainly true. Again, charity dictates that P9 be given the latter, rather than the former, interpretation. *Mutatis mutandis* for P10. (Note also that P9 and P10 are both used to establish D2A27C3.) Thus, the question whether Plato takes D1A16 to be sound reduces to the question whether he takes D1A15 to be sound.

D1A17 *(141d7–142a1)*

D1A17 establishes four separate conclusions, (C1) that if the one is, then the one neither comes to be nor ceases to be, (C2) that if the one is, then the one does not partake of being, (C3) that if the one is, then the one is not, and (C4) that if the one is, then the one is not one.

Assume (P1) that "was," "has come to be," and "was coming to be" signify "partakes of time past," (P2) that "will be," "will come to be," and "will be coming to be" signify "partakes of time hereafter," (P3) that "is" and "comes to be" signify "partakes of time present," and (P4) that if "F" signifies "G," then X is F if and only if X is G. P1 and P4 together entail (L1) that if X was, has come to be, or was coming to be, then X partakes of time past. P2 and P4 together entail (L2) that if X will be, will come to be, or will be coming to be, then X partakes of time hereafter. And P3 and P4 together entail (L3) that if X is or comes to be, then X partakes of time present. Now assume (P5) that if X partakes of time past, hereafter, or present, then X partakes of time. Taken together, P5, L1, L2, and L3 entail (L4) that if X was, or has come to be, or was coming to be, or will be, or will come to be, or will be coming to be, or is, or comes to be, then X partakes of time.

Now assume (P6) that if X ceases to be, then X was [at some point]. It follows directly from P6 that if X comes to be or ceases to be, then X comes to be or was [at some point]. Combined with L4, this result entails that if X comes to be or ceases to be, then X partakes of time. But, according to

SBP, to say that X partakes of time is to say that X is in time. Hence, if X comes to be or ceases to be, then X is in time. But, by D1A16C, if the one is, then the one is not in time, and hence (C1) if the one is, then the one neither comes to be nor ceases to be.

Now assume (P7) that if X partakes of being, then X was, or has come to be, or was coming to be, or will be, or will come to be, or will be coming to be, or is, or comes to be. Taken together, P7 and L4 entail that if X partakes of being, then X partakes of time, and hence, by **SBP**, that if X partakes of being, then X is in time. But, again by D1A16C, if the one is, then the one is not in time. What follows is (C2) that if the one is, then the one does not partake of being. Taken together, C2 and **SBP** then entail (C3) that if the one is, then the one is not. Now assume (P8) that if X is one, then X is, and hence that if the one is not, then the one is not one. Taken together, C3 and P8 entail (C4) that if the one is, then the one is not one.

D1A17 is plainly valid. Whether it is sound depends on the truth values of P1–P8, **SBP**, and D1A16C. Plato considers **SBP** a fundamental assumption, and it would be difficult to find fault with any of P1–P8. From his point of view, P1–P3, P6, and P7 are all obvious.[7] P4 is really just an instance of D1A16P2. P5 is an instance of the following general principle: If X partakes of the F in way W, then X partakes of the F. What makes this principle obvious is that it follows from the conjunction of **SBP** and **PE1**: if X partakes of the F in way W, then X partakes of the F in some way; hence, by **SBP**, X is F in some way; hence, by **PE1**, X is F; hence, by **SBP** again, X partakes of the F. And P8 is an instance of the principle if X is F, then X is, which follows from **PE2**. (Notice also that Plato relies on P1–P4 to establish D2A33C2.) So the question whether Plato takes D1A17 to be sound reduces to the question whether he takes D1A16 to be sound.

Notice that C3 ("if the one is, then the one is not") is equivalent to the claim that the one is not, which itself follows from D1A1P1 ("if the one is, then the one is one") and C4 ("if the one is, then the one is not one"). But it is important that both C3 and C4 depend on **RP**, and so cannot be true unless **RP** is true.

It is also worth noting that D1A17 poses a serious challenge to Meinwald's (1991) interpretation of the second part of the *Parmenides*. The problem stems from C4, the conclusion that if the one is, then the one is not one. As Meinwald reads it, D1 is a *pros heauto* section, and hence the consequent

[7] It is true, as Gill (1996, 74–75) points out, that Plato claims at *Timaeus* 37e–38a that "is" (but not "was" or "will be") can properly be used to describe eternal objects. But it does not follow from this that P3 is false: "is" still means the same as "partaking of time present." The point being made in the *Timaeus* passage is simply that there is no past or future for eternal things.

of C4 should be read *pros heauto*. So read, the conclusion states that if the one is, then it is not the case that the one is one *pros heauto*. The problem is that, on Meinwald's understanding of *pros heauto* predication, it *is* the case that the one is one *pros heauto*: this is because all self-predications *pros heauto* are true by definition. If this is so, then Plato is committed either to the unsoundness of one or more of the arguments of D1 or to the claim that the one is not (or to both). But neither of these options is attractive: the first option entails that Meinwald's interpretation fails to accomplish one of its main aims (namely, to show how every argument of the Deductions turns out to be sound); the second option entails that the gymnastic exercise fails to save the very form that Parmenides himself says it is the point of the exercise to save.

Aware of the seriousness of this difficulty, Peterson (1996) attempts to mitigate it on Meinwald's behalf by providing a reading of the relevant conditional that does not render its consequent false when read *pros heauto*. Peterson points out that the relevant consequent, literally understood, says that the one is not *so as to be* one. She then suggests that this claim tells us "that it is not *because of* Being or *by* Being or as *requiring* being that the One is one. 'It is not so as to be one' means: it is not the case that the One is *pros heauto*, with the result that (in explanation of the truth that) the One is one *pros heauto*" (Peterson 1996, 189). But this reading is strained beyond the range of acceptability. To say that X is not so as to be F is just to say that X is not F. The "so as to be" locution merely emphasizes that the fact that the one is not one follows from the immediately preceding claim, to the effect that the one in no way is. This is no more than an instance of (the contrapositive of) the general principle according to which, if X is F, then X is (see above). As I read it, then, Peterson's reading of "it is not so as to be one" foists onto the text more than it can possibly bear.

Meinwald herself casts her lot with those who find Aristotle's response at the very end of D1 indicative of the fact that Plato doubts the results derived there. As she puts it (1991, 180 n. 14): "The increasing uncertainty and rejection of conclusions by the interlocutor set these lines apart from the rest in any case." The purported indication of doubt comes from the following exchange (at 142a6–8):

PARMENIDES: Is it possible that these things are so for the one?
ARISTOTLE: I certainly don't think so.

Meinwald, like many others,[8] supposes that "these things" refers back to the results just derived, including the claim that the one is not named or

[8] See, for example, Forrester (1972), Miller (1986, 181), and Gill (1996, 64). For more on this, see Peterson (1996, 179 n. 16).

spoken of, and, importantly, the claim that the one is not one. She therefore understands Aristotle to be saying that he finds it difficult to accept that the one is not one. But nothing requires that "these things" be read as anaphoric on the derived results: "these things" could also be read as referring back to the properties of being named, being spoken of, and, importantly, being one (see the Analysis of D1A18 below). On this reading, Parmenides is simply summarizing what he has just been arguing for, namely that the properties of being named, being spoken of, and being one *are not true of* the one. And Aristotle's reply signals agreement, rather than disagreement, with this summary! As Peterson herself notes, at the very end of D8 Aristotle emphatically accepts the results of all previous Deductions, including D1, with the comment: "Most true" (Peterson 1996, 179). This provides further evidence for the reading that portrays Aristotle as *agreeing* with Parmenides at the end of D1. But on this reading, as I have argued, Plato is hardly expressing doubt about the claim that [if the one is, then] the one is not one: on the contrary, both interlocutors agree that the claim follows from the reasoning of D1A17.

D1A18 *(142a1–a8)*

D1A18 establishes (C) that if the one is, then the one is not named or spoken of, nor is it the object of an account, knowledge, perception, or opinion.

Assume (P1) that if X is not, then nothing belongs to X and nothing is of X, and (P2) that X is named or spoken of if and only if a name belongs to X. Taken together, P1 and P2 entail (L1) that if the one is not, then the one is not named or spoken of. Now assume (P3) that X is the object of an account/knowledge/perception/opinion if and only if there is an account/knowledge/perception/opinion of X. Taken together, P1 and P3 entail (L2) that if the one is not, then the one is not the object of an account, knowledge, perception, or opinion. L1 and L2 together entail (L3) that if the one is not, then the one is not named or spoken of, nor is it the object of an account, knowledge, perception, or opinion. But, by D1A17C3, if the one is, then the one is not. So L3 and D1A17C3 entail (C) that if the one is, then the one is not named or spoken of, nor is it the object of an account, knowledge, perception, or opinion.

D1A18 is plainly valid. Whether it is sound depends on the truth values of P1–P3 and D1A17C3. Properly understood, P1 is a reasonable premise. For if X is not, in the sense that there is no way in which X is, then it is impossible for anything to belong to X or to be of X. For if something were to belong to X or be of X, then X would be such that something belongs to it and would be such that something is of it, and hence X would be in

some way. P2 and P3 are simply obvious. So the question whether Plato takes D1A18 to be sound reduces to the question whether he takes D1A17 to be sound.

Summary

A pattern has begun to emerge from our analysis of the arguments that compose the First Deduction. Of the eighteen arguments discussed, it is clear that (leaving aside the issue of the truth value of **RP**) Plato takes fifteen to be sound. The independent premises of these fifteen arguments are either obvious or reasonable, some appear in other dialogues of the middle-to-late period, and many appear as premises in subsequent reasoning. Only three arguments are arguably unsound: D1A9, D1A10, and D1A11. However, as I have argued, it is most charitable to assume that Plato is not aware that D1A9 and D1A11 are unsound. And it is interesting to note that D1A10 is a spinning wheel in the context of D1 as a whole: D1A10C does not depend on any of the results obtained in D1A1–D1A9 and is not used to prove any of the results in D1A11–D1A18. It is therefore quite possible that, even while suspecting that D1A10 might be unsound, Plato uses it because he needs something like it to complete the argumentative structure described in the transitional section (see above, pp. 109-110).

Apart from the question whether Plato takes the arguments of D1 to be sound, there is also the question of the degree to which these arguments are logically intertwined. And here the answer is stark: The results of every single argument other than D1A9 and D1A10 depend either directly or indirectly on **RP**, the thesis that no form can have contrary properties. Under these circumstances, the most reasonable conclusion for Plato to draw is that if any one of the conclusions of these arguments is false, then **RP** is false. Since one of these conclusions states that the one is not (see D1A17), Plato can conclude that **RP** is false if he can prove that it is not the case that the one is not, that is, if he can prove that the one is.

Analysis of D1 reveals the existence of another logical pattern that leads to the same result. D1 establishes that if **RP** is true, then (for a large number of F's) the one is neither F nor con-F. But notice that the claim that X is not con-F entails that X is F. For example, it follows from the claim that X is not many that X is one. Consequently, from the claim that the one is neither F nor con-F, it follows that the one is both F and not F. Hence, D1 establishes that, if **RP** is true and the one is, then (for a number of F's) the one is both F and not F, i.e., partakes of the F and does not partake of the F (by **SBP**). But notice also that one of the results of D1 is that, assuming **RP**,

if the one is, then the one is not in time (D1A16C), i.e., does not partake of time (by **SBP**). Putting these results together, we arrive at the following: if **RP** is true and the one is, then the one both partakes of the F and does not partake of the F without partaking of time. But, as Parmenides claims at 155e, it is only by partaking at one time and not partaking at another (and hence, by partaking of time) that something could "both partake and not partake of the same thing." Thus, for any F, it is impossible for the one to partake of the F and not partake of the F if the one does not partake of time. Consequently, **RP** and the claim that the one is cannot both be true: if the one is, then **RP** must be false.

CHAPTER 5

The Second Deduction

The Second Deduction is by far the longest stretch of reasoning in the *Parmenides*. It consists of thirty-three separate arguments covering close to fourteen Stephanus pages (142b1–155e3), which represents roughly one-third of the dialogue. The purpose of D2 is to establish results of the form: If the one is, then the one is both F and con-F (in relation to itself and in relation to the others). So if D2 succeeds, Parmenides will have shown that if the one is, then **RP** is false.

D2A1 *(142b1–c7)*

D2A1 establishes two conclusions, (C1) that if the one is, then the one partakes of being, and (C2) that if the one is, then the one is not the same as being.

Recall first that, by **SBP**, to say that X partakes of being is to say that X is. This entails (C1) that if the one is, then the one partakes of being.

Now assume (P1) that if X partakes of the F, then the F is, (P2) that if the F is and the G is the same as the F, then to say that X partakes of the F is to say that X partakes of the G, and (P3) that to say that X is is not to say that X is one. By P1, if the one partakes of being, then being is. So C1 and P1 together entail (L1) that if the one is, then being is. Now, by P3, to say that the one is is not to say that the one is one. And, by **SBP**, to say that the one is is to say that the one partakes of being, and to say that the one is one is to say that the one partakes of the one. So P3 and **SBP** together entail (L2) that to say that the one partakes of being is not to say that the one partakes of the one. But, by P2, if being is and the one is the same as being, then to say that the one partakes of being is to say that the one partakes of the one. So L2 and P2 together entail (L3) that either it is not the case that being is or the one is not the same as being. Thus, L1 and L3 together entail (C2) that if the one is, then the one is not the same as being.

D2A1 is plainly valid. Whether it is sound depends on the truth values of P1–P3 and **SBP**. First, it is plain that nothing can partake of the F unless the F is [in some way], for it is clear that if something partakes of the F, then the F *is* such that something partakes of it. So P1 is obvious. (Note also that P1 is used to establish D2A3C.) Second, nothing could be plainer than that saying of something that it is is not the same as saying of it that it is one: to be is to be *in some way*, and not necessarily to be *one*. So P3 is also obvious.

P2 is the only questionable premise. For it may reasonably be argued that, even when A and B are forms, it does not follow from the fact that A is and is the same as B that *to say* that X partakes of A is just *to say* that X partakes of B. Imagine, for example, that, after a great deal of philosophical argument, we finally discover that the good is and is the same as the beautiful. Even so, it does not follow from this that the proposition expressed by "virtue partakes of the good" is the same as the proposition expressed by "virtue partakes of the beautiful." And the reason for this is that it is consistent with the good's being the same as the beautiful that the meaning of the word "good" is not the same as the meaning of the word "beautiful." As is now well known, it is possible for two names that differ in meaning (e.g., "Mark Twain" and "Samuel Clemens") to pick out the same referent. Similarly, it seems possible for two predicates to differ in meaning while corresponding to the same form.

However, this reason for denying P2 depends on making a distinction akin to the distinction between meaning and reference. Although this distinction is familiar to us, it is not clear that it is familiar to Plato. In the *Cratylus*, which is Plato's middle-period treatise on names, names are treated as having descriptive content and reference. For example, the descriptive content of "Astyanax" is the property of being a ruler (lord of the city), while its referent is Hector's son (392b–393b). A name is correct insofar as its descriptive content applies to its referent. There is therefore a sense in which Plato allows names to have both sense (in the way of having descriptive content) and reference. But Plato does not identify the *propositional content* of a name (i.e., the entity contributed to the propositions expressed by the sentences of which the name is a part) with its *descriptive content*. In fact, it seems perfectly consistent with the *Cratylus* to suppose that Plato treats every name as Millian, i.e., such that its *propositional content* is identical to its *referent*. And on this supposition, P2 would be true.

Since **SBP** is a fundamental assumption, the upshot is that Plato almost certainly (and reasonably) considers D2A1 to be sound.

D2A2 *(142c7–d9)*

D2A2 establishes two conclusions, (C1) that if the one is, then the one is a whole, and (C2) that if the one is, then being and the one are parts of the one.

Assume (P1) that if X is one, then X is a whole, and hence that if the one is one, then the one is a whole. By D1A1P1, if the one is, then the one is one. Thus, P1 and D1A1P1 entail (C1) that if the one is, then the one is a whole.

Now assume (P2) that if X and Y are not the same and X and Y belong to Z, then X and Y are parts of Z, and (P3) that to say that the F belongs to X is to say that X partakes of the F. By **SBP**, to say that X partakes of the F is to say that X is F. So P3 and **SBP** together entail (L1) that to say that X is F is to say that the F belongs to X, and hence that to say that the one is one is to say that the one belongs to the one. But, by D1A1P1, if the one is, then the one is one. So L1 and D1A1P1 together entail (L2) that if the one is, then the one belongs to the one. Now, by L1, to say that the one is is to say that being belongs to the one. So L1 entails (L3) that if the one is, then being belongs to the one. Now, by P2, if being and the one are not the same and being and the one belong to the one, then being and the one are parts of the one. But, by D2A1C2, if the one is, then being and the one are not the same, and by L2 and L3, if the one is, then being and the one belong to the one. So L2, L3, P2, and D2A1C2 together entail (C2) that if the one is, then being and the one are parts of the one.

D2A2 is plainly valid. Whether it is sound depends on the truth values of P1–P3, D1A1P1, **SBP**, and D2A1C2. P1 follows from the intuitive idea that something's being one thing is a matter of its being unified (rather than scattered), and hence a whole (rather than a mere collection). (Notice that Plato also accepts the converse of P1 at D4A2L1. So Plato thinks, not unreasonably, that something is one if and only if it is a whole.) From Plato's point of view, P2 and P3 are obvious, as are D1A1P1 and **SBP**. (Notice also that P3 is used to justify D2A5C.) So the question whether Plato takes D2A2 to be sound reduces to the question whether he takes D2A1 to be sound.

D2A3 *(142d9–143a3)*

D2A3 establishes (C) that if the one is, then the one is infinitely many.

By D2A1C1, if the one is, then the one partakes of being. And by D2A1P1, if X partakes of the F, then the F is, and hence if the one partakes of being,

then being is. So D2A1C1 and D2A1P1 together entail (L1) that if the one is, then being is. Now by D2A2L1, to say that X is F is to say that the F belongs to X, and hence to say that being is is to say that being belongs to being. So D2A2L1 entails (L2) that if being is, then being belongs to being.

Now assume (P1) that if the F is, then the F is one, and hence that if being is, then being is one. But, by D2A2L1, to say that being is one is to say that the one belongs to being, and hence if being is one, then the one belongs to being. So P1 and D2A2L1 together entail (L3) that if being is, then the one belongs to being. Now L1, L2, and L3 together entail (L4) that if the one is, then being and the one belong to being. But, by D2A1C2, if the one is, then being and the one are not the same, and by D2A2P2, *if* being and the one are not the same *and* being and the one belong to being, *then* being and the one are parts of being. So the conjunction of L4, D2A1C2, and D2A2P2 entails (L5) that if the one is, then being and the one are parts of being.

But now, by D2A2C2, if the one is, then being and the one are parts of the one. Taken together with L5, this result entails that if the one is, then being and the one are parts of being *and* being and the one are parts of the one. What follows from this is (L6) that if the one is, then being and the one are parts of the one, which parts have being and the one as parts, which parts have being and the one as parts, and so on, ad infinitum.

Assume now (P2) that if X is a part of Y and Y is a part of Z, then X is a part of Z, and (P3) that if X has infinitely many parts, then X is infinitely many. Taken together, L6 and P2 entail (L7) that if the one is, then the one has infinitely many parts. But, by P3, if the one has infinitely many parts, then the one is infinitely many. So L7 and P3 together entail (C) that if the one is, then the one is infinitely many.

D2A3 is plainly valid. (It is also extremely elegant.) Whether it is sound depends on the truth values of P1–P3, D2A1P1, D2A1C1, D2A1C2, D2A2P2, D2A2L1, and D2A2C2. As should be clear, Plato accepts all of P1–P3. P1 simply follows from **O**, the theorem of the higher theory according to which every form is one. (P1 is also used to prove both D4A3C1 and D4A3C2.) P2 simply spells out the obvious mereological fact that the "part" relation is transitive. (P2 is also used to derive D7A2C.) And P3 merely spells out a further consequence of the identification of a thing with its parts (see p. 51 n. 53), namely that, since a thing is as many as its parts, a thing's having infinitely many parts is sufficient for its being infinitely many. (P3 is also used to establish D7A2C.) As we have seen, D2A1P1 and D2A2P2 are obvious, and D2A2L1 depends on **SBP**, which is a fundamental assumption.

Thus, the question whether Plato takes D2A3 to be sound reduces to the question whether he takes D2A1 and D2A2 to be sound.

D2A4 *(143a4–b8)*

D2A4 establishes two conclusions, (C1) that if the one is, then the different is not the same as the one, and (C2) that if the one is, then the different is not the same as being.

Assume (P1) that if X is not the same as Y, then X is different from Y, and (P2) that if X is different from something, then X is different. By D2A1C2, if the one is, then the one is not the same as being. By P1, if the one is not the same as being, then the one is different from being, and hence is different from something. And by P2, if the one is different from something, then the one is different. So the conjunction of P1, P2, and D2A1C2 entails (L1) that if the one is, then the one is different. Now assume (P3) that if X is F, then it is by the F that X is F, and hence that if the one is different, then it is by the different that the one is different. Taken together, P3 and L1 entail (L2) that if the one is, then it is by the different that the one is different.

Now assume (P4) that if X is F by X, then X is F by something that is the same as X, (P5) that if Y is the same as X, then Y is the same as something, and (P6) that if X is the same as something, then X is the same. P4 and P5 together entail that if X is F by X, then X is F by something that is the same as something, and hence (i) that if the one is different by the one, then the one is different by something that is the same as something. Now, by P6, if the one is the same as something, then the one is the same. So (i) and P6 together entail (L3) that if the one is different by the one, then the one is different by something that is the same.

Assume further (P7) that it is not the case that X is F by something that is con-F, and (P8) that being the same and being different are contrary properties. P7 and P8 together entail (L4) that it is not the case that the one is different by something that is the same. The conjunction of L3 and L4 then entails (L5) that it is not by the one that the one is different. And L2 and L5 (when combined with Leibniz's Law) together entail (C1) that if the one is, then the different is not the same as the one.

The reasoning for C2 is similar to the reasoning for C1. By P1, if being is not the same as the one, then being is different from the one. By P2, if being is different from something, then being is different. P1 and P2 together entail (ii) that if being is not the same as the one, then being is different. Now assume (P9) that if X is not the same as Y, then Y is not the same as X, and hence that if the one is not the same as being, then being

is not the same as the one. By D2A1C2, if the one is, then the one is not the same as being. So P9 and D2A1C2 together entail (iii) that if the one is, then being is not the same as the one. The conjunction of (ii) and (iii) then entails (L6) that if the one is, then being is different. Now, by P3, if being is different, then it is by the different that being is different. Thus, L6 and P3 together entail (L7) that if the one is, then it is by the different that being is different.

Recall now that, by P4, if being is different by being, then being is different by something that is the same as being, and hence (by P5) being is different by something that is the same as something, and hence (by P6) being is different by something that is the same. So P4, P5, and P6 together entail (L8) that if being is different by being, then being is different by something that is the same. But, by P7, it is not the case that being is F by something that is con-F, and, by P8, being the same and being different are contrary properties. So P7 and P8 together entail (L9) that it is not the case that being is different by something that is the same. The conjunction of L8 and L9 now entails (L10) that it is not by being that being is different. But, by L7, if the one is, then it is by the different that being is different. So the conjunction of L7 with L10 (when combined with Leibniz's Law) entails (C2) that if the one is, then the different is not the same as being.

D2A4 is plainly valid. Whether it is sound depends on the truth values of P1–P9 and D2A1C2. Of all the independent premises, P1, P4, P5, P8, and P9 are obvious, P3 is simply a restatement of theorem **C** of the higher theory, according to which all things (other than the F) are F by virtue of partaking of the F, and P7 is simply a restatement of **NCC**, according to which whatever makes something F cannot be con-F. The remaining premises, P2 and P6, both follow from **PE1**: for if X is different from (the same as) something, then X is different (the same) in some way, and hence, by **PE1**, X is different (the same). Thus, the question whether Plato takes D2A4 to be sound reduces to the question whether he takes D2A1 to be sound and whether he takes **C** and **NCC** to be true.

D2A5 *(143c1–144e7)*

D2A5, which is by far the longest stretch of reasoning in the Deductions, is designed to establish (C) that if the one is, then the one is infinitely many (which is the same conclusion as D2A3C).

Assume (P1) that if X is not the same as Y, then X and Y form a pair, (P2) that if X and Y form a pair, then X and Y are correctly called "both," (P3) that if X and Y are correctly called "F," then X and Y are F, and (P4)

that if X and Y are both, then X and Y are two. Taken together, these four premises entail (L1) that if X is not the same as Y, then X and Y are two, and hence that if the one is not the same as being, then the one and being are two. But, by D2A1C2, if the one is, then the one is not the same as being. So D2A1C2 and L1 together entail (L2) that if the one is, then the one and being are two. Moreover, by D2A4C1, if the one is, then the different is not the same as the one. But, by L1, if the different is not the same as the one, then the different and the one are two. So D2A4C1 and L1 together entail (L3) that if the one is, then the different and the one are two. Furthermore, by D2A4C2, if the one is, then the different is not the same as being. But, by L1, if the different is not the same as being, then the different and being are two. So D2A4C2 and L1 together entail (L4) that if the one is, then the different and being are two.

Now assume (P5) that each of two things is one. When P5 is combined with either L3 or L4, the result is (L5) that if the one is, then the different is one. When P5 is combined with either L2 or L4, the result is (L6) that if the one is, then being is one. And when P5 is combined with either L2 or L3, the result is (L7) that if the one is, then the one is one. (Notice that L7 merely repeats D1A1P1.)

Now assume (P6) that any group formed by adding one thing to two things is three, and (P7) that if X and Y are two, then there are two. Recall that by L2, if the one is, then the one and being are two, and that by L5, if the one is, then the different is one. Taken together, then, P6, L2, and L5 entail (L8) that if the one is, then the one, being, and the different are three. (The same result could be obtained in a similar way from the conjunction of P6, L3, and L6, or from the conjunction of P6, L4, and L7.) Now, by P7, if the one and being are two, then there are two. So P7 and L2 together entail (L9) that if the one is, then there are two. (The same result could be obtained in a similar way from the conjunction of P7 and L3, or from the conjunction of P7 and L4.)

Now assume (P8) that two is two times one, (P9) that two times is twice, (P10) that if there is twice one, then there is twice something, and (P11) that if there is twice something, then there is twice. What follows from P8–P11 is that if there are two, then (by P8) there is two times one, and (by P9) there is twice one, and (by P10) there is twice something, and (by P11) there is twice. So if there are two, then there is twice. But, by L9, if the one is, then there are two. Therefore, P8–P11 and L9 together entail (L10) that if the one is, then there is twice.

Now assume (P12) that if X, Y, and Z are three, then there are three, and hence that if the one, being, and the different are three, then there are

three. By L8, if the one is, then the one, being, and the different are three. So P12 and L8 together entail (L11) that if the one is, then there are three. Assume now (P13) that three is three times one, (P14) that three times is thrice, (P15) that if there is thrice one, then there is thrice something, and (P16) that if there is thrice something, then there is thrice. What follows from P13–P16 is that if there are three, then (by P13) there is three times one, and (by P14) there is thrice one, and (by P15) there is thrice something, and (by P16) there is thrice. So if there are three, then there is thrice. But, by L11, if the one is, then there are three. Therefore, P13–P16 and L11 together entail (L12) that if the one is, then there is thrice.

Assume now (P17) that if there is M times and there are N, then there are M times N. By P9, twice is two times. And, by L10, if the one is, then there is twice, and hence (by P9) there is two times. But, by L9, if the one is, then there are two. Taken together, then, P17, P9, L10, and L9 entail (L13) that if the one is, then there are twice two (i.e., four). Moreover, by P14, thrice is three times. And, by L12, if the one is, then there is thrice, and hence (by P14) there is three times. But, by L11, if the one is, then there are three. Taken together, then, P17, P14, L12, and L11 entail (L14) that if the one is, then there are thrice three (i.e., nine). Similar reasoning now establishes that if the one is, then there are twice three and thrice two (i.e., six). For, by L10 and P9, if the one is, then there is two times, and by L11, if the one is, then there are three. Hence, P17, P9, L10, and L11 entail (L15) that if the one is, then there are twice three (i.e., six). Moreover, by L12 and P14 (as we have seen), if the one is, then there is three times. And by L9, if the one is, then there are two. Hence, P17, P14, L12, and L9 entail (L16) that if the one is, then there are thrice two (i.e., six).

Assume now (P18) that two is even, (P19) that three is odd, and (P20) that if there is even times even, odd times odd, even times odd, and odd times even, then number is. Now, by P9, two times is twice. So, by P18, twice two is [a case of] even times even. But, by L13, if the one is, then there are twice two. Therefore, (L17) if the one is, then there is even times even. Similar reasoning now establishes that if the one is, then there is odd times odd, even times odd, and odd times even. For, by P14, three times is thrice. So, by P19, thrice three is [a case of] odd times odd. But, by L14, if the one is, then there are thrice three. Therefore, (L18) if the one is, then there is odd times odd. Moreover, by P9, two times is twice. So, by P18 and P19, twice three is [a case of] even times odd. But, by L15, if the one is, then there are twice three. Therefore, (L19) if the one is, then there is even times odd. And also, by P14, P18, and P19, thrice two is [a case of] odd times even. But, by L16, if the one is, then there are thrice two. Therefore, (L20)

if the one is, then there is odd times even. Now, taken together, L17–L20 entail that if the one is, then there is even times even, odd times odd, even times odd, and odd times even. What then follows by P20 is (L21) that if the one is, then number is.

Now, by **SBP**, to say that X is is to say that X partakes of being, and hence to say that number is is to say that number partakes of being. So L21 and **SBP** together entail (L22) that if the one is, then number partakes of being. Assume now (P21) that number has infinitely many parts, (P22) that if X partakes of being, then each part of X partakes of being, and (P23) that if X has infinitely many parts and each part of X partakes of being, then there are infinitely many beings. By P21 and L22, if the one is, then number has infinitely many parts and number partakes of being, and hence, by P22, if the one is, then number has infinitely many parts and each part of number partakes of being. What then follows from P23 is (L23) that if the one is, then there are infinitely many beings (i.e., there are infinitely many things that are). By D2A2P3, to say that the F belongs to X is to say that X partakes of the F, and, by **SBP**, to say that X partakes of being is to say that X is. Thus, by **SBP** and D2A2P3, to say that X is is to say that being belongs to X. This result, combined with L23, then entails (L24) that if the one is, then there are infinitely many things to which being belongs (i.e., being belongs to infinitely many things).

Now assume (P24) that if X belongs as a whole to infinitely many things, then the whole of X is in infinitely many things, (P25) that the infinitely many things to which the one belongs are in many places, (P26) that if the whole of X is in infinitely many things that are in many places, then the whole of X is in many places, and (P27) that the whole of X cannot be in many places. Taken together, P24, P25, and P26 entail that if X belongs as a whole to infinitely many things, then the whole of X is in many places. Thus, by P27, it cannot happen that being belongs as a whole to infinitely many things. Hence, by L24, if the one is, then there are infinitely many things to which being belongs, but not as a whole. Now assume (P28) that if X belongs to infinitely many things but not as a whole, then X belongs as divided to these things, and (P29) that if X belongs as divided to infinitely many things, then X is divided and has infinitely many parts. When combined with the result just obtained from L24, P28 and P29 entail (L25) that if the one is, then there are infinitely many parts of being.

Now assume (P30) that each part of being is one part, and (P31) that if X is one part, then X is one. Taken together, P30, P31, and L25 entail that if the one is, then there are infinitely many parts of being, each of which is

one. Now, by D2A2L1, to say that X is F is to say that the F belongs to X, and hence, to say that X is one is to say that the one belongs to X. Therefore, (L26) if the one is, then there are infinitely many things (namely, the parts of being) to which the one belongs.

Recall now that, taken together, P24, P25, and P26 entail that if X belongs as a whole to infinitely many things, then the whole of X is in many places, but that, by P27, the whole of the one cannot be in many places. Thus, P24–P27 entail that it cannot happen that the one belongs as a whole to infinitely many things. Consequently, by P28 and P29, if the one belongs to infinitely many things, it must belong as divided and hence must have infinitely many parts. But, by L26, if the one is, then the one belongs to infinitely many things. Consequently, (L27) if the one is, then the one has infinitely many parts. But, by D2A3P3, if X has infinitely many parts, then X is infinitely many. So the conjunction of L27 and D2A3P3 entails (C) that if the one is, then the one is infinitely many.

D2A5 is plainly valid. Whether it is sound depends on whether P1–P31, **SBP**, D2A1C2, D2A2L1, D2A4C1, D2A4C2, and D2A3P3 are true. The independent premises divide neatly into two categories, fundamental mathematical truths (P1–P21) and fundamental metaphysical assumptions (P22–P31). It is reasonable to assume that Plato takes the mathematical assumptions to be obvious. Of the metaphysical assumptions, only a few deserve careful scrutiny (the rest are plain). P22 says that if something partakes of being, then each part of it partakes of being. From **SBP** we know that to partake of being is just to be. So all P22 says is that no thing can *be* unless its parts (if it *has* parts) also *are*, which is plainly true. P23 is also clearly true, since (given **SBP**) it is equivalent to the plainly true claim that if the infinitely many parts of a thing *are*, then there are infinitely many beings. P24 is an instance of the general principle that if X belongs as a whole to Y, then the whole of X is in Y, which simply spells out the relationship between the concept of *belonging to* something and the concept of being *in* something. P25 points out, truly, that all the things that may be called "one" are scattered in many different places. P26 states, again truly, that if the whole of X is in each of a number of things that are in many places, then the whole of X must itself be in many places. P27–P29 are some of the main assumptions of the Whole–Part dilemma (see p. 56 ff. above). P30 says that each part of being is one part. This is an instance of the general principle that each is one, a principle that provides support for theorem **O** of the higher theory and underlies P5 (see pp. 37-38). And P31 (which reappears as part of the argument for D4A2C1) says that anything that is one part is one. This follows from **PE1**: for if X is one part, then X

is one in some way, and hence, by **PE1**, X is one. As we have seen, **SBP** and D2A3P3 are fundamental, and since D2A2L1 relies on **SBP**, it too is reasonable. So the question whether Plato takes D2A5 to be sound reduces to the question whether he takes D2A1 and D2A4 to be sound.

D2A5 is one of the few places in the *Parmenides* where Parmenides insists on arguing for a result he takes himself to have already established. The conclusion of D2A5 ("if the one is, then the one is infinitely many") is identical to the conclusion of D2A3. What explains the redundancy? The most likely hypothesis is that Plato is showing off by providing an argument that, besides leading him to a previously derived conclusion, also brings out his own construction of the number series in a way that reveals the set of numbers to be infinite. A philosopher's being primarily interested in establishing one result (in this case, as I will argue, the falsity of **RP**) does not prevent him from being interested in establishing a number of different results for different reasons. This is one place where Plato thinks he can, in virtuosic fashion, take care of two things at once.

D2A6 *(144e8–145a4)*

D2A6 establishes four separate conclusions, (C1) that if the one is, then the one has parts, (C2) that if the one is, then the one is a whole, (C3) that if the one is, then the one is limited, and (C4) that if the one is, then the one is unlimited.

Assume (P1) that if X has infinitely many parts, then X has parts, and hence that if the one has infinitely many parts, then the one has parts. By D2A5L27, if the one is, then the one has infinitely many parts. So P1 and D2A5L27 together entail (C1) that if the one is, then the one has parts. Now assume (P2) that if X has parts, then X is a whole, and hence that if the one has parts, then the one is a whole. C1 and P2 together entail (C2) that if the one is, then the one is a whole. Assume further (P3) that if X is a whole and X has parts, then X contains its parts, and (P4) that if X contains anything, then X is limited. From C1 and C2, it follows that if the one is, then the one is a whole and the one has parts. Hence, if the one is, then (by P3) the one contains its parts, and (by P4) the one is limited. Thus, P3, P4, C1, and C2 together entail (C3) that if the one is, then the one is limited. Finally, assume (P5) that if X is infinitely many (i.e., unlimited in multitude), then X is unlimited, and hence that if the one is infinitely many, then the one is unlimited. By D2A5C, if the one is, then the one is infinitely many. So D2A5C and P5 together entail (C4) that if the one is, then the one is unlimited.

D2A6 is plainly valid. Whether it is sound depends on the truth values of P1–P5, D2A5L27, and D2A5C. P1 and P3 are obvious. P2 says that anything that has parts is a whole. On reflection, this should be uncontroversial: whatever we can speak of as *having* parts must have sufficient unity for us to be able to refer to it as a single thing, and therefore counts as a whole. (Notice also that P2 is used to derive both D3A2C2 and D4A2C3. P2 is also the converse of D1A2L1. There is therefore reason to hold that Plato accepts the following biconditional: X is a whole if and only if X has parts.) P4 states that anything that has the property of containing something must be a limit (i.e., limited). Otherwise put, nothing that is unlimited could possibly contain anything. This is a perfectly reasonable assumption: it makes no sense to speak of X's containing Y (or, equivalently, of Y's being in X) unless Y is in some way surrounded by X. But it is not possible for X to surround something unless X has boundaries, i.e., unless X is limited. P5 follows from **PE1**: for if X is infinitely many, and hence unlimited in multitude, then X is unlimited in some way, and hence, by **PE1**, X is unlimited. (Note that P5 is also used to derive D3A5C2.) So the question whether Plato takes D2A6 to be sound reduces to the question whether he takes D2A5 to be sound.

D2A7 *(145a4–b5)*

D2A7 establishes two conclusions, (C1) that if the one is, then the one has a beginning, a middle, and an end, and (C2) that if the one is, then the one has shape.

Assume (P1) that if X is a whole, then X has a beginning, a middle, and an end, and hence that if the one is a whole, then the one has a beginning, a middle, and an end. By D2A6C2, if the one is, then the one is a whole. So D2A6C2 and P1 together entail (C1) that if the one is, then the one has a beginning, a middle, and an end.

Now assume (P2) that if X has a beginning, a middle, and an end, then the middle is equidistant from the beginning and the end (i.e., from the extremities), (P3) that if X has a middle that is equidistant from its extremities, then X is either round or straight or some combination of round and straight, and (P4) that if X is round or straight or some combination of round or straight, then X has shape. Taken together, P2 and P3 entail that if X has a beginning, a middle, and an end, then X is either round or straight or some combination of round or straight. And this result, combined with P4, entails (L1) that if X has a beginning, a middle, and an end, then X has shape, and hence that if the one has a beginning, a middle, and an end,

then the one has shape. The conjunction of L1 and C1 then entails (C2) that if the one is, then the one has shape.

D2A7 is plainly valid. Whether it is sound depends on the truth values of P1–P4 and D2A6C2. P2–P4 are obvious. (P3 arguably follows from D1A5P1 ["to be round is to have extremities that are equidistant in every direction from the middle"] and D1A5P2 ["to be straight is to have a middle that stands in the way of the two extremities"].) Concerning P1, we have already seen that a whole contains its parts (D2A6P3) and anything that serves as a container must be limited (D2A6P4). Hence, if X is a whole, then X is limited. To be limited, as Parmenides says at 145a4–5, is to have extremities, i.e., a beginning and an end. So a whole must have a beginning and an end. And since it is reasonable to assume that anything that has a beginning and an end must also have something that lies between them, namely a middle, it follows that (as P1 says) anything that is a whole must have a beginning, an end, and a middle. So the question whether Plato takes D2A7 to be sound reduces to the question whether he takes D2A6 to be sound.

D2A8 *(145b6–e6)*

D2A8 establishes three conclusions, (C1) that if the one is, then the one is in itself, (C2) that if the one is, then the one is not nowhere, and (C3) that if the one is, then the one is in another.

Assume (P1) that if X is a whole, then all of X's parts are in X, and (P2) that if X is a whole, then X is [identical to] all of X's parts. Taken together, P1 and P2 entail that if X is a whole, then X is in X, and thus that if the one is a whole, then the one is in itself. But, by D2A6C2, if the one is, then the one is a whole. Hence, P1, P2, and D2A6C2 together entail (C1) that if the one is, then the one is in itself.

Now assume (P3) that if X is nowhere, then X is nothing, and (P4) that if X is, then X is not nothing. By P4, if the one is, then the one is not nothing, and by P3, if the one is not nothing, then the one is not nowhere. So P3 and P4 together entail (C2) that if the one is, then the one is not nowhere.

Now assume (P5) that if X is a whole, then X is greater than any of its parts, and (P6) that if X is greater than Y, then X is not in Y. P5 and P6 together entail that if X is a whole, then X is not in any of its parts, and hence that if the one is a whole, then the one is not in any of its parts. But, by D2A6C2, if the one is, then the one is a whole. So P5, P6, and D2A6C2 together entail (L1) that if the one is, then the one is not in some one of its parts. Now assume (P7) that if X is a whole and X is in all of its parts, then X is in some one of its parts, and hence that if the one is a whole and

the one is in all of its parts, then the one is in some one of its parts. So D2A6C2, L1, and P7 together entail (L2) that if the one is, then the one is not in all of its parts.

Finally, assume (P8) that if X is a whole and X is neither in some one of its parts nor in all of its parts, then X is either in another or X is nowhere. But if the one is, then (by D2A6C2) the one is a whole and (by L1) the one is not in some one of its parts and (by L2) the one is not in all of its parts. But, by P8, if the one is a whole and the one is not in some one of its parts and the one is not in all of its parts, then the one is either in another or the one is nowhere. So D2A6C2, L1, L2, and P8 together entail that if the one is, then either the one is in another or the one is nowhere. But, by C2, if the one is, then the one is not nowhere. Therefore, (C3) if the one is, then the one is in another.

D2A8 is plainly valid. Whether it is sound depends on the truth values of P1–P8 and D2A6C2. P1 says that all the parts of a whole are in it. Arguably, this follows from D2A6P3, which says that a whole (with parts) contains its parts, for surely X contains Y if and only if Y is in X. P2–P6 are plainly true. Though P8 is slightly more complicated ("If X is a whole and X is neither in some one of its parts nor in all of its parts, then X is either in another or X is nowhere"), it is difficult to argue against it. For a whole that is not in one of its parts (and what kind of whole could possibly *be* in only one of its parts?) must be in all of its parts (i.e., in itself) or in another, if it is to be anywhere. The one remaining premise, P7, does appear false, for it seems possible for a whole to be in all of its parts (i.e., to be in itself) without being, as a whole, in some one of its parts. But I would argue that, though this is indeed possible, it is ultimately irrelevant. What matters is *not* whether a whole can be in all of its parts without being *as a whole* in some one of its parts: what matters is whether a whole can be in all of its parts without being *in some way*, *either wholly or partially*, in one of its parts. And surely, as P7 insists, it is not possible for a whole to be in all of its parts without being *even partially* in one of its parts. So ultimately I think that P7 is defensible on the sorts of grounds Plato would accept. And even if P7 is false, it is not at all clear that Plato is in a position to see this. So it makes sense to suppose that Plato takes D2A8 to be sound if he takes D2A6 to be sound.

D2A9 *(145e7–146a8)*

D2A9 establishes two conclusions, (C1) that if the one is, then the one is [always] at rest, and (C2) that if the one is, then the one is [always] in motion.

Assume (P1) that if X is [always] in itself, then X is [always] in the same thing, and (P2) that if X is [always] in the same thing, then X is [always] at rest. By D2A8C1, if the one is, then the one is in itself. Hence, if the one is, then (by P1) the one is [always] in the same thing, and therefore (by P2) is [always] at rest. Thus, P1, P2, and D2A8C1 together entail (C1) that if the one is, then the one is [always] at rest.

Assume now (P3) that if X is [always] in another, then X is not [ever] in the same thing, and (P4) that if X is not [ever] at rest, then X is [always] in motion. By D1A8P2, if X is never in the same thing, then X is not at rest. Taken together, D1A8P2 and P3 entail (L1) that if X is [always] in another, then X is not [ever] at rest. And the conjunction of L1 and P4 entails (L2) that if X is [always] in another, then X is [always] in motion, and hence that if the one is [always] in another, then the one is [always] in motion. But, by D2A8C3, if the one is, then the one is in another. So D2A8C3 and L2 together entail (C2) that if the one is, then the one is [always] in motion.

There is some controversy as to whether D2A9 is valid. Gill (1996, 64 n. 107) charges that the arguments for C1 and C2 constitute "obvious example[s] of invalid reasoning . . . [that] rely on equivocations [with respect to] the meaning of 'in the same thing' and 'in a different thing' in these arguments and in [D2A8]." Gill does not elaborate, but she may be simply taking for granted what Patterson (1999, 98–100) actually spells out. Patterson argues that in D2A8 the one is shown to be "in the same" *by virtue of being in itself as parts in a whole*, but the premise needed to establish in D2A9 that the one is at rest is that the one is "in the same" *by virtue of being in the same place*. If this were the case, then Plato would indeed be equivocating on "in the same." But this is something he does not in fact do. Patterson assumes, without reason, that Plato takes being at rest to be the same as being in the same *place*, i.e., that Plato conceives of rest as an absolute, rather than as a relative, state. But, as **PE1** indicates, being at rest, for Plato, is a matter of being at rest *in some respect or other*, which respect may well involve relation to something. Suppose, for example, that my hand, which is holding a ball, is also moving. As Plato might put it, the ball is at rest relative to my hand, but in motion relative to my head. If being at rest is a relative matter, then, in proving that the one is in itself, Plato has proved that the one is at rest *relative to itself* (even if he has not proved that the one is absolutely at rest, or at rest relative to everything). And, by **PE1**, if something is at rest relative to itself, then it is at rest. (*Mutatis mutandis* for motion.) So there is no equivocation between D2A8 and D2A9.

In fact, D2A9 is plainly valid. Whether it is sound depends on the truth values of P1–P4, D1A8P2, D2A8C1, and D2A8C3. P1–P4 are obvious. P2,

for one, spells out what Plato means by something's being at rest, namely its being [always] in the same [thing]. (Note that the converse of P2 appears at D6A2P4, and the contrapositive of the converse of P2 appears at D1A8P2.) As we have seen, it is reasonable to suppose that Plato takes D1A8P2 for granted. So the question whether Plato takes D2A9 to be sound reduces to the question whether he takes D2A8 to be sound.

D2A10 *(146a9–d1)*

D2A10 establishes two conclusions, (C1) that if the one is, then the one is the same as itself, and (C2) that if the one is, then the one is different from itself.

Assume (P1) that if X is and Y is, then X is the same as Y *or* X is different from Y *or* X is related as part to Y *or* X is related as whole to Y. If we replace "X" for "Y" in P1, we obtain (L1): If X is, then X is the same as itself *or* X is different from itself *or* X is related as part to itself *or* X is related as whole to itself. Assume further (P2) that if X is, then X is not related as part to itself, and (P3) that if X is related as whole to Y, then Y is related as part to X, and hence that if X is related as whole to itself, then X is related as part to itself. Taken together, P2 and P3 entail (L2) that if X is, then X is not related as whole to itself. Now assume (P4) that if X is, then X is not different from X, and (P5) that X is different from X if and only if X is different from itself. Taken together, P4 and P5 entail (L3) that if X is, then X is not different from itself. The conjunction of L3, P2, and L2 entails that if the one is, then the one is not different from itself, not related as part to itself, and not related as whole to itself. But, by L1, if the one is, then the one is the same as itself *or* the one is different from itself *or* the one is related as part to itself *or* the one is related as whole to itself. Consequently, (C1) if the one is, then the one is the same as itself.

Recall now that, by D2A8C1, if the one is, then the one is in itself. D2A8C1 alone entails (L4) that if the one is, then what the one is in is the one. Now, by D2A8C3, if the one is, then the one is in another. D2A8C3 alone entails (L5) that if the one is, then the one is in something that is different from the one. But L4 and L5 together entail (L6) that if the one is, then what the one is in (namely, the one) is different from the one. When combined with P5, L6 then entails (C2) that if the one is, then the one is different from itself.

D2A10 is plainly valid. Whether the argument for C1 is sound depends solely on the truth values of P1–P5. Whether the argument for C2 is sound depends on the truth values of P5, D2A8C1, and D2A8C3. P1–P5 are plainly

true. So the argument for C1 is plainly sound. (Given that C1 is self-evident on its own, this is hardly surprising.) And the question whether Plato takes the argument for C2 to be sound reduces to the question whether he takes D2A8 to be sound.

D2A11 *(146d1–5)*

D2A11 establishes (C) that if the one is, then the one is different from the others.

Assume (P1) that if X is different from itself, then X is different from something, (P2) that if X is different from something, then X is different from something that is different from X (i.e., that if X is different from Y, then Y is different from X), (P3) that if X is different from the F, then X is not F, and (P4) that the others are those that are not one. By D2A10C2, if the one is, then the one is different from itself. Hence, by P1, if the one is, then the one is different from something, and so (by P2) the one is different from something that is different from the one, and so (by P3) the one is different from something that is not one, and so (by P4) the one is different from the others. Thus, taken together, D2A10C2 and P1–P4 entail (C) that if the one is, then the one is different from the others.

D2A11 is plainly valid. Whether it is sound depends on the truth values of P1–P4 and D2A10C2. P1–P2 are obvious. (P2 is also used to establish D2A13C and D7A1C4.) P3 is equivalent to its contrapositive, namely that if X is F, then [there is some way in which] X is not different from the F. This follows from **SP**, which says that the F is F. For if X and the F are both F, then there is a way in which X and the F do not differ (namely, in both being F). And P4 simply defines what "the others" are, namely those that are not one. (P4 reappears as support for D2A12C, D2A19C, D2A28C, and D5A1C1.) So the question whether Plato takes D2A11 to be sound reduces to the question whether he takes D2A10 to be sound.

D2A12 *(146d5–147b8)*

D2A12 attempts to establish (C) that if the one is, then the one is the same as the others. This is a tall order, and, as we will see, the attempt fails.

Assume (P1) that the same and the different are contraries, and (P2) that if the F and the G are contraries, then the F is never in the G and the G is never in the F. Taken together, P1 and P2 entail (L1) that the different is never in the same. Assume further (P3) that if X is in something for some time, there is some time in which X is in the same. The conjunction of

L1 and P3 entails (L2) that the different is never in anything, from which it follows that the different is neither in the one nor in the others. Now assume (P4) that if X is F by Y, then Y is in X, and hence that if the one is different [from the others] by the different, then the different is in the one, and that if the others are different [from the one] by the different, then the different is in the others. L2 and P4 together entail (L3) that it is not the case that the one is different [from the others] by the different, and it is not the case that the others are different [from the one] by the different.

Now, by D2A4P4, if X is F by X, then X is F by something that is the same as X, and hence if the one is different [from the others] by the one, then the one is different by something that is the same as the one, and if the others are different [from the one] by the others, then the others are different by something that is the same as the others. But, by D1A11P3, to be the same is just to be the same as something. Taken together, then, D2A4P4 and D1A11P3 entail (i) that if the one is different [from the others] by itself, then the one is different by something that is the same, and (ii) that if the others are different [from the one] by themselves, then the others are different by something that is the same. But, by D2A4P7, it is not the case that X is F by something that is con-F, and, by D2A4P8, being the same and being different are contrary properties. From D2A4P7 and D2A4P8, it follows (iii) that it is not the case that the one is different by something that is the same, and (iv) that it is not the case that the others are different by something that is the same. Putting (i)–(iv) together, we must conclude (L4) that it is not the case that the one is different [from the others] by itself, and it is not the case that the others are different [from the one] by themselves.

Assume now (P5) that *if* it is not the case that X is different from Y by the different *and* it is not the case that X is different from Y by itself *and* it is not the case that Y is different from X by the different *and* it is not the case that Y is different from X by itself, *then* X is not different from Y and Y is not different from X. From P5, it follows that *if* it is not the case that the one is different from the others by the different *and* it is not the case that the one is different from the others by itself *and* it is not the case that the others are different from the one by the different *and* it is not the case that the others are different from the one by themselves, *then* the one is not different from the others and the others are not different from the one. Since the conjunction of L3 and L4 amounts to the antecedent of this instance of P5, we may conclude by *modus ponens* (L5) that the one is not different from the others and the others are not different from the one.

Now, by D1A1P1, if the one is, then the one is one. Assume (P6) that if the F is F, then the F is not not-F, and hence that if the one is one, then the one is not not-one. Taken together, D1A1P1 and P6 entail that if the one is, then the one is not not-one. But, by D2A11P4, the others are those that are not-one. Thus, if the one is, then the one is not the others. But, by **SBP**, to say that X is F is to say that X partakes of the F, and hence to say that the one is the others is to say that the one partakes of the others. Hence, if the one is, then the one does not partake of the others. Assume now (P7) that if X is part of the F, then X partakes of the F, and hence that if the one is part of the others, then the one partakes of the others. Since we have it that if the one is, then the one does not partake of the others, it follows directly (L6) that if the one is, then the one is not part of the others.

Again, by D2A11P4, the others are those that are not-one. Since the one is one, it follows that the others are not the one. But, by **SBP**, if the others are not the one, then the others do not partake of the one. Hence, the others do not partake of the one. But, by P7, if the others are part of the one, then the others partake of the one. Therefore, (L7) the others are not part of the one.

By D2A10P1, if the one is and the others are, then the one is the same as the others *or* the one is different from the others *or* the one is part of the others *or* the others are part of the one. Now L5, L6, and L7 together entail (L8) that if the one is, then the one is not different from the others *and* the one is not part of the others *and* the others are not part of the one. So D2A10P1 and L8 together entail (L9) that if the one is and the others are, then the one is the same as the others. But since (by D2A11P4) the others are not-one, it follows from **PE2** ("to say that X is *in some way* is to say that X *is*") that the others are. So L9, D2A11P4, and **PE2** together entail (C) that if the one is, then the one is the same as the others.

D2A12 is plainly valid. Whether it is sound depends on the truth values of P1–P7, D1A1P1, D1A11P3, **SBP**, D2A4P7, D2A4P8, D2A10P1, D2A11P4, and **PE2**. P1, P3, and P6 are obvious. The rest of the premises are controversial. P2 says that, of two contrary forms, neither could ever be in the other. Although this is far from obvious, it is possible to construct an argument for it on the basis of familiar assumptions, including theorems of the higher theory. Here is the argument: If the F and the G are forms, then it follows from the fact that the G is in the F that the F partakes of the G, and hence (by **SBP**) that the F is G. But, by **SP**, the F is also F. So, if the F and the G are contrary forms and the G is ever in the F, then the F is both F and G. But, by **RP**, no form can have contrary properties. Consequently, if the

F and the G are contraries, then the G is never in the F and (by parity of reasoning) the F is never in the G. QED.

What P4 says is that if X is F by Y (i.e., if Y is responsible for X's being F), then Y is in X. Again, this is something that follows from familiar assumptions, including theorems of the higher theory. Here is the argument: By **C**, Y cannot be responsible for X's having any property unless X partakes of Y. But to say that Y is in X is just to say that X partakes of Y. Thus, if X is F by Y, then Y must be in X. QED.

P5 says, in essence, that it must be either X or the different that is responsible for the fact that X is different from Y. This simply follows from theorem **C**, which tells us that it is in fact the different that is responsible for anything's being different from something.

The most puzzling independent premise of this argument is clearly P7, which says that every part of a form must partake of it. As I see it, Plato has no a priori argument for P7. But there is ample inductive evidence for it, in the sense that all available instances of it are well confirmed: any part of being must be, any part of the one is one thing, any part of the same is the same [as something], any part of the like is like something, and so on. Plato may think that since P7 is well confirmed and not falsified, the most reasonable thing to do is to accept it.

So whether D2A12 is sound depends on whether D1A1P1, D1A11P3, **SBP**, D2A4P7, D2A4P8, D2A10P1, D2A11P4, and **PE2** are true. Of these premises, the only one Plato might have doubts about is D2A4P7 (which is the same as **NCC**). The rest he treats as obvious.

D2A13 *(147c1–148a6)*

D2A13 establishes (C) that if the one is, then the one is like the others.

Recall that, by D2A11P2, if X is different from something, then X is different from something that is different from X (i.e., that if X is different from Y, then Y is different from X). It is an instance of this claim that if the one is different from the others, then the others are different from the one. Now, by D2A11C, if the one is, then the one is different from the others. Taken together, then, D2A11P2 and D2A11C entail (L1) that if the one is, then the one is different from the others and the others are different from the one. Now, by D2A4P2, if X is different from something, then X is different, and hence if the one is different from the others, then the one is different *and* if the others are different from the one, then the others are different. The conjunction of L1 and D2A4P2 then entails (L2) that if the one is, then the one is different and the others are different.

Assume now (P1) that if X is F and Y is F, then X has a property the same as Y, from which it follows that if the one is different and the others are different, then the one has a property the same as the others. Taken together, L2 and P1 entail (L3) that if the one is, then the one has a property the same as the others. But, by D1A12P3, for X to be like Y is for X to have a property the same as Y, and hence for the one to be like the others is for the one to have a property the same as the others. When combined with D1A12P3, L3 entails (C) that if the one is, then the one is like the others.

D2A13 is plainly valid. Whether it is sound depends on the truth values of P1, D1A12P3, D2A4P2, D2A11P2, and D2A11C. Of these propositions, the premises are all obvious. (Note that P1 is used to derive D2A14C, D3A7C1, and D3A7C2.) So the question whether Plato takes D2A13 to be sound reduces to the question whether he takes D2A11 to be sound.

D2A14 *(148a6–c3)*

D2A14 attempts to establish (C) that if the one is, then the one is unlike the others.

By D2A4P3, if X is F, then it is by the F that X is F. From this we may conclude (L1) that if the one is different from the others and the others are different from the one, then it is by the different that the one is different from the others and it is by the different that the others are different from the one. Now, by D2A13L1, if the one is, then the one is different from the others and the others are different from the one. Hence, (i) if the one is, then it is by the different that the one is different from the others and it is by the different that the others are different from the one. Assume now (P1) that to say that it is by X that A is F relative to B is to say that X makes A [be] F relative to B. From this it follows (ii) that to say that it is by the different that the one is different relative to (i.e., from) the others is to say that the different makes the one different relative to (i.e., from) the others, and (iii) that to say that it is by the different that the others are different from the one is to say that the different makes the others different relative to (i.e., from) the one. The conjunction of (i), (ii), and (iii) then entails (L2) that if the one is, then the different makes the one different from the others and the different makes the others different from the one.

Now, by D2A13P1, if X is F and Y is F, then X has a property the same as Y, and by D1A12P3, for X to be like Y is for X to have a property the same as Y. Taken together, D2A13P1 and D1A12P3 entail (L3) that if X is F and Y is F, then X and Y are like [relative to] each other, from which

it follows that if the one is different [from the others] and the others are different [from the one], then the one and the others are like [relative to] each other.

Assume now (P2) that if X makes A and B be F relative to each other and it follows from the fact that A and B are F that A and B are G relative to each other, then X makes A and B be G relative to each other. It follows from P2 that if the different makes the one and the others different relative to each other and it follows from the fact that the one and the others are different that the one and the others are like [relative to] each other, then the different makes the one and the others like [relative to] each other. When combined with L2 and L3, P2 entails (L4) that if the one is, then the different makes the one like the others.

Assume now (P3) that if A is con-F relative to B and the F makes A be G relative to B, then the con-F makes A be con-G relative to B, and (P4) that being like the others and being unlike the others are contrary properties. By D2A4P8, being the same and being different are contrary properties. Taken together, then, P3, P4, and D2A4P8 entail (iv) that if the one is the same relative to the others and the different makes the one like [relative to] the others, then the same makes the one unlike [relative to] the others. But, by D2A12C, if the one is, then the one is the same as (i.e., the same relative to) the others. When combined with L4, D2A12C entails (v) that if the one is, then the one is the same relative to the others and the different makes the one like [relative to] the others. From (iv) and (v) we may then conclude (L5) that if the one is, then the same makes the one unlike the others. It merely remains to add (P5) that if X makes A be F relative to B, then A is F relative to B, and hence that if the same makes the one unlike the others, then the one is unlike the others. Taken together, then, L5 and P5 entail (C) that if the one is, then the one is unlike the others.

D2A14 is plainly valid.[1] Whether it is sound depends on the truth values of P1–P5, D1A12P3, D2A4P3, D2A4P8, D2A12C, D2A13P1, and D2A13L1. P1, P2, P4, and P5 are obvious. The only potentially problematic premise is P3.

P3 is a highly abstract principle. It becomes easier to decide whether it is true by looking at instances of it. The particular instance needed for the argument to go through is this: If A is the same relative to B and the

[1] Gill (1996, 80–81) finds this argument "peculiar," in part because she thinks Plato might have argued for D2A14C more straightforwardly by relying on previous assumptions from D1A12 and D1A13 (namely, that same entails like and different entails unlike). However, I don't think that Parmenides argues for D1A12 and D1A13 in the way Gill thinks he does (see p. 127 n. 5 and p. 128 n. 6). So I don't find Parmenides' argument at D2A14 in any way "peculiar."

different makes A unlike B, then the same makes A like B. This seems reasonable. In general, if the F makes A be G, then it must be the con-F that makes A be con-G (if A is con-F). But P3 does have its detractors. For example, Gill (1996, 83–84) finds the instance of P3 on which Parmenides relies "scandalously" false. As she puts it: "The strangeness of [the instance of P3 needed for the argument] reveals that something is seriously amiss in the conception of the abstract relations sameness and difference and likeness and unlikeness that Parmenides presents for young Aristotle's consideration. No doubt Parmenides expects his young interlocutor (and their audience) to be shocked by the conclusion." Now it may be that Gill is right to balk at the relevant instance of P3. But it does not follow that *Plato* finds it unreasonable, or intends his reader to be shocked by it. P3 itself is a general, abstract claim that seems well confirmed by many of its instances, and there is no particular reason to suppose that Plato takes it to be in any way problematic. If he had thought there was a problem here, he could easily have had Parmenides' interlocutor express confusion or resistance. But, as Gill notes, Aristotle is completely acquiescent.

So whether D2A14 is sound depends on whether D1A12P3, D2A4P3, D2A4P8, D2A12C, D2A13P1, and D2A13L1 are true. Of these premises and lemmata, the only one to the truth of which Plato is not clearly committed is D2A12C.

D2A15 *(148c3–d1)*

D2A15 establishes two conclusions, (C1) that if the one is, then the one is like the others, and (C2) that if the one is, then the one is unlike the others.

Assume (P1) that if X has a property the same as Y, then X has a property that is not of another kind relative to Y, and hence that if the one has a property the same as the others, then the one has a property that is not of another kind relative to the others. By D2A13L3, if the one is, then the one has a property the same as the others. Taken together, P1 and D2A13L3 entail (L1) that if the one is, then the one has a property that is not of another kind relative to the others.

Now assume (P2) that if X has a property that is not of another kind relative to Y, then X is not unlike Y, and hence that if the one has a property that is not of another kind relative to the others, then the one is not unlike the others. Taken together, L1 and P2 entail (L2) that if the one is, then the one is not unlike the others. Assume further (P3) that X is not unlike Y if and only if X is like Y. The conjunction of L2 and P3 then entails (C1) that if the one is, then the one is like the others.

Assume now (P4) that if X has a property different from Y, then X has a property of another kind from Y, and (P5) that if X has a property of another kind from Y, then X is unlike Y. Taken together, P4 and P5 entail (L3) that if X has a property different from Y, then X is unlike Y, and hence that if the one has a property different from the others, then the one is unlike the others. Now, by D2A11C, if the one is, then the one is different from the others. And assume (P6) that if X is different from Y, then X has a property of another kind from Y, and hence that if the one is different from the others, then the one has a property of another kind from the others. Taken together, D2A11C and P6 entail that if the one is, then the one has a property of another kind (i.e., different) from the others. When combined with L3, this result entails (C2) that if the one is, then the one is unlike the others.

D2A15 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D2A11C, and D2A13L3. P1–P6 are all conceptual truths. (P1–P3 entail part of D1A12P3, namely that if X has a property the same as Y, then X is like Y. And P5–P6 entail part of D1A13L2, namely that if X has a property different from Y, then X is unlike Y.) D1A13L2 depends on D1A12P4 and D1A13P2, both of which are unimpeachable. D2A13L3 depends on D2A13P1, D2A4P2, and D2A11P2 (which are all obvious), as well as D2A11C. So the question whether Plato takes D2A15 to be sound reduces to the question whether he takes D2A11 to be sound.

D2A16 *(148d1–4)*

D2A16 establishes two conclusions, (C1) that if the one is, then the one is like itself, and (C2) that if the one is, then the one is unlike itself.

Assume (P1) that if X is the same as Y, then X has a property the same as Y, and hence that if the one is the same as itself, then the one has a property the same as itself. By D2A10C1, if the one is, then the one is the same as itself. So, taken together, P1 and D2A10C1 entail (L1) that if the one is, then the one has a property the same as itself. But now, by D1A12P3, for X to be like Y is for X to have a property the same as Y, and hence, if the one has a property the same as itself, then the one is like itself. So, taken together, L1 and D1A12P3 entail (C1) that if the one is, then the one is like itself.[2]

Now, by D2A10C2, if the one is, then the one is different from itself. But, by D2A15P6, if X is different from Y, then X has a property different from Y, and hence, if the one is different from itself, then the one has a

[2] C1 also follows from the conjunction of L1 with D2A15P1–P3.

property different from itself. So, taken together, D2A10C2 and D2A15P6 entail (L2) that if the one is, then the one has a property different from itself. But, by D1A13L2, for X to be unlike Y is for X to have a property different from Y, and hence, if the one has a property different from itself, then the one is unlike itself. So the conjunction of L2 and D1A13L2 entails (C2) that if the one is, then the one is unlike itself.[3]

D2A16 is plainly valid. Whether it is sound depends on the truth values of P1, D1A12P3, D1A13L2, D2A10C1, D2A10C2, and D2A15P6. P1 is unimpeachable, as are D1A12P3, D1A13L2, and D2A15P6. So the question whether Plato takes D2A16 to be sound reduces to the question whether he takes D2A10 to be sound.

D2A17 *(148d5–e4)*

D2A17 establishes two conclusions, (C1) that if the one is, then the one touches itself, and (C2) that if the one is, then the one touches the others.

Recall that, by D1A6P1, if X is in Y, then X is contained all around by Y and X touches Y in many places with many parts. Taken on its own, D1A6P1 entails (L1) that if X is in Y, then X touches Y, and hence that if the one is in itself, then the one touches itself. But, by D2A8C1, if the one is, then the one is in itself. Hence, taken together, L1 and D2A8C1 entail (C1) that if the one is, then the one touches itself. Moreover, by D2A8C3, if the one is, then the one is in another. But, by L1, if the one is in another, then the one touches another. Hence, L1 and D2A8C3 entail (C2) that if the one is, then the one touches another.

D2A17 is plainly valid. Whether it is sound depends on the truth values of D1A6P1, D2A8C1, and D2A8C3. We have already seen that the questionable status of D1A6P1 is probably something that Plato would not have been able to see. So whether Plato takes D2A17 to be sound reduces to the question whether he takes D2A8 to be sound.

D2A18 *(148e4–149a3)*

D2A18 establishes (C) that if the one is, then the one does not touch itself.

Assume (P1) that if X touches Y, then X occupies a place next to Y, (P2) that if X occupies a place next to itself, then X is in two places at the same time, and (P3) that if X is in two places at the same time, then X is not one. By P1, if the one touches itself, then the one occupies a place next to itself,

[3] C2 also follows from the conjunction of D2A10C2 with D2A15P4–P6.

and hence (by P2) the one is in two places at the same time, and hence (by P3) the one is not one. So the conjunction of P1, P2, and P3 entails (L1) that if the one touches itself, then the one is not one. But, by D1A1P1, if the one is, then the one is one. So, taken together, L1 and D1A1P1 entail (C) that if the one is, then the one does not touch itself.

D2A18 is plainly valid. Whether it is sound depends on the truth values of P1–P3 and D1A1P1. P1–P3 are obvious, and D1A1P1 ("if the one is, then the one is one") is simply a consequence of **SP**. So, from Plato's perspective, there is no reason to call the soundness of D2A18 into question.

D2A19 *(149a3–d7)*

D2A19 establishes (C) that if the one is, then the one does not touch the others.

There are two ways to argue for C. Here is the first. Assume (P1) that if X is not one, then X does not have number, and hence that if the others are not one, then the others do not have number. By D2A11P4, the others are those that are not one. So, taken together, P1 and D2A11P4 entail (L1) that the others do not have number. Assume now (P2) that if X is one and Y does not have number, then X and Y are not two, and hence that if the one is one and the others do not have number, then the one and the others are not two. By D1A1P1, if the one is, then the one is one. So the conjunction of L1, P2, and D1A1P1 entails (L2) that if the one is, then the one and the others are not two.

Assume now (P3) that if X touches Y, then X and Y are separate, and hence, if the one touches the others, then the one and the others are separate. By D2A18P1, if X touches Y, then X occupies a place next to Y, and hence, if the one touches the others, then the one occupies a place next to the others. So, taken together, P3 and D2A18P1 entail (i) that if the one touches the others, then the one and the others are separate and the one occupies a place next to the others. Now assume (P4) that if X and Y are separate and X occupies a place next to Y, then X and Y are two, and hence that if the one and the others are separate and the one occupies a place next to the others, then the one and the others are two. P4 and (i) together entail (ii) that if the one touches the others, then the one and the others are two. But now, by L2, if the one is, then the one and the others are not two. Hence, L2 and (ii) together entail (C) that if the one is, then the one does not touch the others.

Here is the second way to argue for C. Assume (P5) that if the one is one and the others do not have number, then there is only one thing. By

D1A1P1, if the one is, then the one is one, and by L1, the others do not have number. So, P5, D1A1P1, and L1 together entail (L3) that if the one is, then there is only one thing. Now assume (P6) that for any N items $\{x_1, \ldots, x_n\}$ that are separate and such that x_i occupies a place next to x_{i+1}, there are N–1 contacts. Taken on its own, P6 entails (L4) that if there is only one thing, then there is no contact. The conjunction of L3 and L4 then entails (L5) that if the one is, then there is no contact. Assume now (P7) that if there is no contact, then the one does not touch the others. Taken together, L5 and P7 entail (C) that if the one is, then the one does not touch the others.

Both of these arguments for C are plainly valid. Whether the first is sound depends on whether P1–P4, D1A1P1, D2A11P4, and D2A18P1 are true; whether the second is sound depends on whether P1, P5–P7, D1A1P1, and D2A11P4 are true. P1 is an odd claim, but it makes sense once we understand the meaning Plato assigns to it. P1 says that if X is not one, then X does not have number. The main point here is the obvious claim that if X is countable (has number), then X must be a unit (one). P2–P7 are obvious. D1A1P1, D2A11P4, and D2A18P1 are unimpeachable. Thus, from Plato's perspective, there is no reason to question the soundness of these arguments.

D2A20 *(149d8–150e5)*

D2A20 establishes two conclusions, (C1) that if the one is, then the one is equal to itself, and (C2) that if the one is, then the one is equal to the others.

Assume (P1) that if X is in the whole of Y, then either X is stretched equally throughout Y or X contains Y, (P2) that if X is stretched out equally throughout Y, then X is equal to Y, and (P3) that if X contains Y, then X is larger than Y. Taken together, P1, P2, and P3 entail (L1) that if X is in the whole of Y, then either X is equal to Y or X is larger than Y, and hence that if the small is in the whole of the one, then either the small is equal to the one or the small is larger than the one.

Assume further (P4) that if X is equal to Y or X is larger than Y, then X is not smaller than Y, and (P5) that if X is not smaller than something, then X is not smaller. Taken together, P4 and P5 entail (i) that if X is equal to Y or X is larger than Y, then X is not smaller, and hence that if the small is equal to the one or the small is larger than the one, then the small is not smaller. But now assume (P6) that it is not the case that the small is not smaller. The conjunction of P6 and (i) entails (ii) that the small is neither

equal to the one nor larger than the one. So L1 and (ii) entail (L2) that the small is not in the whole of the one.

Now P1 alone entails (L3) that if X is wholly in (i.e., in the whole of) a part P of Y, then either X is stretched equally throughout P or X contains P. By P2, if X is stretched out equally throughout Y, then X is equal to Y, and, by P3, if X contains Y, then X is larger than Y. Taken together with L3, P2 and P3 entail (L4) that if X is wholly in a part P of Y, then either X is equal to P or X is larger than P, and hence that if the small is wholly in a part P of the one, then the small is either equal to P or the small is larger than P. Now, by (i) above, if the small is equal to P or the small is larger than P, then the small is not smaller. Taken together, (i) and L4 entail (iii) that if the small is wholly in a part P of the one, then the small is not smaller. By P6, it is not the case that the small is not smaller. So (iii) and P6 together entail (L5) that the small is not wholly in a part of the one.

Now assume (P7) that if X is in a being, then either X is in the whole of that being or X is wholly in a part of that being, and hence that if the small is in a being, then either the small is in the whole of that being or the small is wholly in a part of that being. By L2, the small is not in the whole of the one, and, by L5, the small is not wholly in a part of the one. Hence, P7, L2, and L5 together entail (L6) that the small is not in any being (i.e., in anything that is). Taken on its own, then, L6 entails (L7) that if the one is, then the small is not in the one.

Now assume (P8) that if the large is in a being X, then there is a being Y such that X is greater than Y, (P9) that if X is greater than Y, then Y is less than X, and (P10) that if a being Y is less than X, then the small is in Y. Taken together, P8 and P9 entail (iv) that if the large is in a being X, then there is a being Y such that Y is less than X. When combined with P10, (iv) then entails (v) that if the large is in a being X, then there is a being Y such that the small is in Y. But, by L6, the small is not in any being. So the conjunction of (v) and L6 entails that the large is not in any being (i.e., in anything that is) and hence (L8) that if the one is, then the large is not in the one.

Now assume (P11) that if a being Y is greater than X, then the large is in Y, and hence that if the one is and the one is greater than something, then the large is in the one. By P10, if the one is and the one is less than something, then the small is in the one. But, by L7 and L8, if the one is, then neither the small nor the large is in the one. So, when conjoined with P10 and P11, L7 and L8 entail (L9) that if the one is, then the one is neither greater nor less than anything (whether itself or the others).

Now assume (P12) that if X is neither greater nor less than Y, then X does not exceed Y and Y does not exceed X, (P13) that if X does not exceed Y and Y does not exceed X, then X and Y are equally matched, and (P14) that if X and Y are equally matched, then X is equal to Y. Taken together, P12, P13, and P14 entail (L10) that if X is neither greater nor less than Y, then X is equal to Y, and hence (vi) that if the one is neither greater nor less than itself, then the one is equal to itself, and (vii) that if the one is neither greater nor less than the others, then the one is equal to the others. L9 and (vi) together entail (C1) that if the one is, then the one is equal to itself. And L9 and (vii) together entail (C2) that if the one is, then the one is equal to the others.

D2A20 is plainly valid. Whether it is sound depends on the truth values of P1–P14. (Unlike many of the previous arguments, D2A20 does not rely on already established conclusions or lemmata.) P4, P9, and P12–P14 are obvious. (Notice also that P9 is used to derive D2A21C1 and D2A22C1.) P1 makes sense when "in" is understood on the model of physical containment. Imagine, for example, that I have filled a hollowed-out pumpkin with mud so that the mud is not merely in part of the pumpkin, but in the whole of the pumpkin. According to P1, one of two things follows: either the mud just fills the pumpkin and is thus stretched out equally throughout the pumpkin, or the pumpkin is so overwhelmed with mud that the mud can be said to contain the entire pumpkin. This seems correct. It is therefore more charitable than not to assume that Plato must be presupposing something like this model in asserting P1. On this model, P2 and P3 are unimpeachable: if the mud is stretched out equally throughout the pumpkin, then the mud and the pumpkin are equal, at least with respect to the space they occupy (P2), and if the mud overwhelms the pumpkin, then the mud is clearly larger (in the sense of occupying a larger space) than the pumpkin (P3). (Notice also that P3 is used to derive both D2A21C1 and D2A22C1.) P5 is just an instance of **PE1**: If X is not smaller than something, then there is a way in which X is not smaller, and hence, by **PE1**, X is not smaller. P6 follows from **SP**. For **SP** says that the small is small. But to be small is to be smaller than something, and hence, by **PE1**, to be smaller. So, according to **SP**, the small is smaller, and hence it is not the case that the small is not smaller. But this is just what P6 says. P7 is eminently reasonable, especially given the physical containment model described above. For it seems difficult to deny that nothing can be in Y without being either in the whole of Y or [wholly] in a part of Y: if there is mud in the pumpkin, then it will either be in the whole of the pumpkin or [wholly] in part of the pumpkin; there is no other alternative.

P8 depends on the assumption that the F's being in X is a matter of X's being F. For then we can say that if the large is in X, then X is large. But to be large is to be larger than something. Thus, if the large is in X, then there is a being Y such that X is greater (i.e., larger) than Y. P10, which is similar to the converse of P8, can be derived in a similar way: If a being Y is less (i.e., smaller) than X, then Y is smaller than something, and hence Y is small; but then, since the small's being in X follows from X's being small, the small must be in Y; therefore, if a being Y is less than X, then the small is in Y. Similarly for P11: If a being Y is greater (i.e., larger) than X, then Y is larger than something, and hence Y is large, and hence the large is in Y.

Since there are no good reasons for Plato to deny any of P1–P14, it follows that he takes D2A20 to be sound.

D2A21 *(150e5–151a2)*

D2A21 establishes two conclusions, (C1) that if the one is, then the one is both greater than and less than itself, and (C2) that if the one is, then the one is unequal to itself.

By D2A8C1, if the one is, then the one is in itself. But, by D1A6L1, if X is in itself, then X both contains itself and is contained by itself, and hence, if the one is in itself, then the one both contains itself and is contained by itself. Thus, D2A8C1 and D1A6L1 together entail (L1) that if the one is, then the one both contains itself and is contained by itself. But, by D2A20P3, if X contains Y, then X is larger (i.e., greater) than Y, and hence, if the one contains itself, then the one is greater than itself. Moreover, by D2A20P9, if X is greater than Y, then Y is less than X, and hence, if the one is greater than itself, then the one is less than itself. So, taken together, L1, D2A20P3, and D2A20P9 entail (C1) that if the one is, then the one is both greater than and less than itself.

Now assume (P1) that if X is greater than Y or X is less than Y, then X is unequal to Y, and hence that if the one is greater than or less than itself, then the one is unequal to itself. The conjunction of C1 and P1 then entails (C2) that if the one is, then the one is unequal to itself.

D2A21 is plainly valid. Whether it is sound depends on the truth values of P1, D1A6L1, D2A8C1, D2A20P3, and D2A20P9. P1, which follows from the eminently reasonable converse of D1A14P4, is unimpeachable, as are D2A20P3 and D2A20P9. (Notice also that P1 is used to derive D2A22C2.) D1A6L1 follows directly from D1A6P1. Although we have seen reason to be skeptical of D1A6P1, we have also seen that it is plausible to suppose that Plato is not similarly skeptical. So the question whether Plato takes

D2A21 to be sound reduces to the question whether he takes D2A8 to be sound.

D2A22 *(151a2–b7)*

D2A22 establishes two conclusions, (C1) that if the one is, then the one is both greater than and less than the others, and (C2) that if the one is, then the one is unequal to the others.

By D2A8C2, if the one is, then the one is not nowhere. Now assume (P1) that if X is not nowhere, then X is somewhere, and (P2) that if X is somewhere, then X is in something other than X. Taken together, D2A8C2, P1, and P2 entail (L1) that if the one is, then the one is in something other than the one. Assume now (P3) that there is nothing apart from the one and the others. Taken together, P3 and L1 entail (L2) that if the one is, then the one is in the others. Assume now (P4) that if X is in Y and X is somewhere, then Y is somewhere, and so if the one is in the others and the one is somewhere, then the others are somewhere. But D2A8C2 and P1 together entail (L3) that if the one is, then the one is somewhere. Moreover, L2 and L3 together entail (L4) that if the one is, then the one is in the others and the one is somewhere. So the conjunction of P4 and L4 entails (L5) that if the one is, then the others are somewhere. But, by P2, if the others are somewhere, then the others are in something other than the others. So, taken together, L5 and P2 entail (L6) that if the one is, then the others are in something other than the others. But, by P3, there is nothing apart from the one and the others. So L6 and P3 together entail (L7) that if the one is, then the others are in the one. And the conjunction of L2 and L7 entails (L8) that if the one is, then the one is in the others and the others are in the one.

By D1A6P1, if X is in Y, then X is contained all around by Y and X touches Y in many places with many parts, and hence, (L9) if the one is in the others, then the one is contained by the others (i.e., the others contain the one), and (L10) if the others are in the one, then the others are contained by the one (i.e., the one contains the others). But, by D2A20P3, if X contains Y, then X is larger (i.e., greater) than Y, and hence, (L11) if the others contain the one, then the others are greater than the one, and (L12) if the one contains the others, then the one is greater than the others. Now L9, L10, L11, and L12 together entail (L13) that if the one is in the others and the others are in the one, then the one is greater than the others and the others are greater than the one. But now, by D2A20P9, if X is greater than Y, then Y is less than X, and hence, if the others are greater than the

one, then the one is less than the others. So the conjunction of L13 and D2A20P9 entails (L14) that if the one is in the others and the others are in the one, then the one is both greater than and less than the others. But, by L8, if the one is, then the one is in the others and the others are in the one. Hence, L8 and L14 together entail (C1) that if the one is, then the one is both greater than and less than the others.

But now, by D2A21P1, if X is greater than Y or X is less than Y, then X is unequal to Y, and hence, if the one is greater than or less than the others, then the one is unequal to the others. So the conjunction of C1 and D2A21P1 entails (C2) that if the one is, then the one is unequal to the others.

D2A22 is plainly valid. Whether it is sound depends on the truth values of P1–P4, D1A6P1, D2A8C2, D2A20P3, D2A20P9, and D2A21P1. P1–P4 are obvious. We have already seen that Plato is probably not skeptical about D1A6P1, and that both D2A20P3 and D2A20P9, as well as D2A21P1, are unimpeachable. So the question whether Plato takes D2A22 to be sound reduces to the question whether he takes D2A8 and D2A11 to be sound.

D2A23 *(151b7–e2)*

D2A23 establishes two conclusions, (C1) that if the one is, then the one is more than, less than, and equal to itself in number, and (C2) that if the one is, then the one is more than, less than, and equal to the others in number.

By D1A14P5, if X is commensurate to Y and X is greater than Y, then X has more measures than Y. Moreover, by D1A14P7, if X is not commensurate to Y and X is greater than Y, then X is of larger (i.e., more) measures than Y. Taken together, D1A14P5 and D1A14P7 entail (L1) that if X is greater than Y, then X is of more measures than Y. Now, by D1A14P6, if X is commensurate to Y and X is less than Y, then X has fewer measures than Y, and, by D1A14P8, if X is not commensurate to Y and X is less than Y, then X is of smaller (i.e., fewer) measures than Y. Thus, D1A14P6 and D1A14P8 together entail (L2) that if X is less than Y, then X is of fewer measures than Y.

Now, by D2A21C1, if the one is, then the one is both greater than and less than itself, and, by D2A20C1, if the one is, then the one is equal to itself. Taken together, D2A21C1 and D2A20C1 entail (i) that if the one is, then the one is greater than, less than, and equal to itself. But, by D1A14P1, if X is equal to Y, then X is of the same measures as Y, and hence, if the one is equal to itself, then the one is of the same measures as itself. Now, by L1, if the one is greater than itself, then the one is of more measures

than itself, and, by L2, if the one is less than itself, then the one is of fewer measures than itself. Thus (i), when combined with D1A14P1, L1, and L2, entails (L3) that if the one is, then the one is of more measures than, of fewer measures than, and of the same (i.e., equal) measures to itself. But now, by D1A14P11, things have as many parts as measures. Thus, L3 and D1A14P11 together entail (L4) that if the one is, then the one is of more parts than, of fewer parts than, and of parts equal to itself.

Now, by D2A22C1, if the one is, then the one is both greater than and less than the others, and, by D2A20C2, if the one is, then the one is equal to the others. Taken together, D2A22C1 and D2A20C2 entail (ii) that if the one is, then the one is greater than, less than, and equal to the others. By D1A14P1, if X is equal to Y, then X is of the same measures as Y, and hence if the one is equal to the others, then the one is of the same measures as the others. Further, by L1, if the one is greater than the others, then the one is of more measures than the others, and, by L2, if the one is less than the others, then the one is of fewer measures than the others. Thus (ii), when combined with D1A14P1, L1, and L2, entails (L5) that if the one is, then the one is of more measures than, of fewer measures than, and of the same (i.e., equal) measures to the others. But now, by D1A14P11, things have as many parts as measures. Thus, L5 and D1A14P11 together entail (L6) that if the one is, then the one is of more parts than, of fewer parts than, and of parts equal to the others.

Assume now (P1) that if X is of more parts than Y, then X is more than Y in number, (P2) that if X is of fewer parts than Y, then X is less than Y in number, and (P3) that if X is of parts equal to Y, then X is equal to Y in number. Taken together, P1, P2, and P3 entail (L7) that if X is of more parts than, of fewer parts than, and of parts equal to Y, then X is more than, less than, and equal to Y in number. But then, by L7, if the one is of more parts than, of fewer parts than, and of parts equal to itself, then the one is more than, less than, and equal to itself in number. This result, combined with L4, then entails (C1) that if the one is, then the one is more than, less than, and equal to itself in number. Moreover, also by L7, if the one is of more parts than, of fewer parts than, and of parts equal to the others, then the one is more than, less than, and equal to the others in number. This result, when combined with L6, then entails (C2) that if the one is, then the one is more than, less than, and equal to the others in number.

D2A23 is plainly valid. Whether it is sound depends on the truth values of P1–P3, D1A14P1, D1A14P5, D1A14P6, D1A14P7, D1A14P8, D1A14P11, D2A20C1, D2A20C2, D2A21C1, and D2A22C1. P1–P3 are obvious. The premises of D1A14 on which this argument relies are reasonable and

straightforward. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A20, D2A21, and D2A22 to be sound.

D2A24*(151e3–152a3)*

D2A24 establishes (C) that if the one is, then the one partakes of time. The reasoning, which relies entirely on D1A17L4, is simple. By D1A17L4, if X was, or has come to be, or was coming to be, or will be, or will come to be, or will be coming to be, or is, or comes to be, then X partakes of time. Thus, if X is, then X partakes of time, and hence, (C) if the one is, then the one partakes of time.

D2A24, which actually recapitulates part of the reasoning of D1A17 (though in slightly different terms), is plainly valid. Whether it is sound depends on the truth value of D1A17L4. D1A17L4 depends on the first five premises of D1A17, each one of which is unimpeachable. So it is reasonable to suppose that Plato takes D2A24 to be sound.

D2A25 *(152a3–b2)*

D2A25 establishes two conclusions, (C1) that if the one is, then the one comes to be older than itself, and (C2) that if the one is, then the one comes to be younger than itself.

By D2A24C, if the one is, then the one partakes of time. Now assume (P1) that if X partakes of time, then X is in time, and hence, that if the one partakes of time, then the one is in time. Taken together, D2A24C and P1 entail (L1) that if the one is, then the one is in time. But now, by D1A16P6, if X is in time, then X comes to be older than itself, and hence, if the one is in time, then the one comes to be older than itself. The conjunction of L1 and D1A16P6 now entails (C1) that if the one is, then the one comes to be older than itself. But now, by D1A16L3, if X comes to be older than itself, then X comes to be younger than itself. Hence, C1 and D1A16L3 together entail (C2) that if the one is, then the one comes to be younger than itself.

D2A25 is plainly valid. Whether it is sound depends on the truth values of P1, D1A16P6, D1A16L3, and D2A24C. P1 is obvious. (Notice that P1 is also used to derive D2A27C1.) As we have seen, D1A16P6 can be interpreted in a way that makes it come out true. And D1A16L3 depends on the first five premises of D1A16, each of which is uncontroversial. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A24 to be sound.

D2A26 *(152b2–e3)*

D2A26 establishes two conclusions, (C1) that if the one is, then the one always is older than itself, and (C2) that if the one is, then the one always is younger than itself.

Assume (P1) that everything that comes to be F reaches the now, and (P2) that whenever a thing that comes to be F reaches the now, it stops its coming to be and then is F. Now, by D2A25C1, if the one is, then the one comes to be older than itself. But, by P1, everything that comes to be older than itself reaches the now, and hence, by P2, whenever the one reaches the now, it stops its coming to be and then is older than itself. Thus, D2A25C1, P1, and P2 together entail (L1) that if the one is, then, whenever the one reaches the now, the one is older than itself. Assume now (P3) that if X is older than Y, then Y is younger than X, and hence, that if the one is older than itself, then the one is younger than itself. Taken together, L1 and P3 entail (L2) that if the one is, then, whenever the one reaches the now, the one is younger than itself. Assume now (P4) that if X is, then X always is (reaches the) now, and hence, that if the one is, then the one always is (reaches the) now. When combined with P4, L1 entails (C1) that if the one is, then the one always is older than itself. And when combined with P4, L2 entails (C2) that if the one is, then the one always is younger than itself.

D2A26 is plainly valid. Whether it is sound depends on the truth values of P1–P4 and D2A25C1. On reflection, P1–P4 are reasonable and straightforward. P1 says that anything that comes to be something must "reach the now." If I come to have gray hair, then I reach a point in time not unreasonably referred to as "now." So P1 seems true. P2 says that anything that comes to be F and reaches the now stops coming to be and simply *is* F. So, for example, if I come to have gray hair and reach the point in time called "now," then the process of coming to have gray hair stops and I now *have* gray hair. This seems right, and so P2 seems true as well. P3 is simply the equally obvious converse of D1A16P3 ("if Y is younger than X, then X is older than Y"). Plato can therefore say that X is older than Y *if and only if* Y is younger than X. And P4 says that anything that is F is F *now*. Thus, to say that I have gray hair is to say that I *now* have gray hair. Nothing could be more reasonable than that. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A25 to be sound.

D2A27 *(152e3–10)*

D2A27 establishes three conclusions, (C1) that if the one is, then the one is the same age as itself, (C2) that if the one is, then the one is neither older

nor younger than itself, and (C3) that if the one is, then the one neither comes to be older nor comes to be younger than itself.

By D1A15P2, if X is younger or older than Y, then X is both unlike Y and unequal to Y [in age]. D1A15P2 alone entails (L1) that if X is the same age as Y, then X is neither older nor younger than Y. Now, by D2A25L1, if the one is, then the one is in time. But, by D1A16P7, if X is in time, then X is for a time equal to itself, and hence, if the one is in time, then the one is for a time equal to itself. So D2A25L1 and D1A16P7 together entail (L2) that if the one is, then the one is for a time equal to itself. Now, by D1A16P8, if X is for a time equal to itself, then X is the same age as itself, and hence, if the one is for a time equal to itself, then the one is the same age as itself. Thus, L2 and D1A16P8 together entail (C1) that if the one is, then the one is the same age as itself. Now, by L1, if the one is the same age as itself, then the one is neither older nor younger than itself. So C1 and L1 together entail (C2) that if the one is, then the one is neither older nor younger than itself. Now, by D1A16P9, if X comes to be older than itself, then X is older than itself [at some point], and, by D1A16P10, if X comes to be younger than itself, then X is younger than itself [at some point]. Taken together, D1A16P9 and D1A16P10 entail (L3) that if X is neither older nor younger than itself, then X neither comes to be older nor comes to be younger than itself, and hence that if the one is neither older nor younger than itself, then the one neither comes to be older nor comes to be younger than itself. When combined with L3, C2 then entails (C3) that if the one is, then the one neither comes to be older nor comes to be younger than itself.

D2A27 is plainly valid. Whether it is sound depends on the truth values of D1A15P2, D1A16P7, D1A16P8, D1A16P9, D1A16P10, and D2A25L1. D1A15P2 is obvious, as are D1A16P7 and D1A16P8–P10. D2A25L1 depends on D2A25P1 (which is plainly true) and D2A24C. So the question whether Plato takes D2A27 to be sound reduces to the question whether he takes D2A24 to be sound.

D2A28 *(152e10–153b7)*

D2A28 establishes (C) that if the one is, then the one is older than the others.

By D2A11P4, the others are those that are not one. Now assume (P1) that if X is *an* F, then X is one, and hence that if the others are *a* different thing, then the others are one. Taken together, D2A11P4 and P1 entail (L1) that the others are not *a* different thing. Assume now (P2) that if X is different but not a different thing, then X is different things, (P3) that different things have multitude, and (P4) that anything that has multitude partakes

of a greater number than anything that is one. Taken together, these three assumptions entail (i) that if X is different but not a different thing, then X partakes of a greater number than anything that is one, and hence that if the others are different but not a different thing, then the others partake of a greater number than anything that is one. But, by D2A13L2, if the one is, then the others are different. Thus, D2A13L2, L1, and (i) together entail (ii) that if the one is, then the others partake of a greater number than anything that is one. But, by D1A1P1, if the one is, then the one is one. So (ii) and D1A1P1 together entail (L2) that if the one is, then the others partake of a greater number than the one.[4]

Assume now (P5) that if X partakes of a greater number than Y, then X is more than Y, (P6) that if X is more than Y, then X has come to be (and comes to be) later than Y, and (P7) that if X has come to be later than Y, then X is younger than Y. These three assumptions entail (iii) that if X partakes of a greater number than Y, then X is younger than Y, and hence that if the others partake of a greater number than the one, then the others are younger than the one. But, by D1A16P3, if X is younger than Y, then Y is older than X. So (iii) and D1A16P3 entail (iv) that if X partakes of a greater number than Y, then Y is older than X, and hence that if the others partake of a greater number than the one, then the one is older than the others. But, by L2, if the one is, then the others partake of a greater number than the one. Hence, (iv) and L2 together entail (C) that if the one is, then the one is older than the others.

D2A28 is plainly valid. Whether it is sound depends on the truth values of P1–P7, D1A1P1, D1A16P3, D2A11P4, and D2A13L2. P1 says that anything you can rightly call "a something-or-other" is one thing. My house is a house, and so it is one [thing]. My computer is a computer, and so it is one [thing]. And so on. (Note also that P1 is used to derive D2A30C1, D2A30C2, D4A2C2, and D4A2C3.) P2 says that anything that is different but not *a* [single] different thing must be different *things*. This seems reasonable: in general, if X is F but not *an* F, then X must be a number of things that are F. P3–P5 and P7 are obvious. (Note that P7 is used to derive D2A29C.)

P6 is a bit tricky. What the premise says is that anything that is more than Y must come to be (and have come to be) later than Y. To understand P6, it helps to consider an example. Suppose that my Lego house is made of

[4] Patterson (1999, 92) worries that the consequent of L2 appears to contradict D2A19L1, to the effect that the others do not have number. But there is no real contradiction here. Strictly understood (see the Analysis of D2A19), D2A19L1 should be read as saying that the others are not *countable*. Here, the consequent of D2A28L2 says that the others are *numerous*, which is perfectly compatible with their being uncountable.

one hundred pieces, but your Lego house is made of ten pieces. Arguably, since my Lego house has so many more pieces than yours, my Lego house must have come to be (i.e., must have come into existence) later than yours (assuming that we started building them at the same time, and that we built them at the same rate). With these assumptions in the background, it is reasonable to suppose that P6 is true generally.[5]

D1A1P1 is simply a consequence of theorem **O** or theorem **SP** of the higher theory. D1A16P3 is obvious, and D2A11P4 is simply Plato's definition of the others. D2A13L2 depends on D2A4P2 and D2A11P2 (which are unimpeachable), and D2A11C. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A11 to be sound.

D2A29 *(153b8–d5)*

D2A29 establishes (C) that if the one is, then the one is younger than the others.

Assume (P1) that if X is one and X is whole and X has an end, then X has come to be one and whole at the same time as its end, and hence, that if the one is one and the one is whole and the one has an end, then the one has come to be one and whole at the same time as its end. But, by D1A1P1, if the one is, then the one is one; by D2A2C1, if the one is, then the one is a whole; and, by D2A7C1, if the one is, then the one has a beginning, a middle, and an end, and hence, if the one is, then the one has an end. Thus, taken together, P1, D1A1P1, D2A2C1, and D2A7C1 entail (L1) that if the one is, then the one has come to be one and whole at the same time as its end.

Assume now (P2) that if X has come to be one and whole at the same time as its end, then X has come to be later than those things that precede the end. Hence, (L1) and (P2) entail (i) that if the one is, then the one has come to be later than those things that precede the end. But what are

[5] Patterson (1999, 92) claims that D2A28 "conflates ordinality with cardinality," and that it "might be just the thing to force the critical reader to make a clear distinction between being one and being first, being many and being far back in line." I take it that Patterson is reacting negatively to P6, perhaps because he is thinking of cases like one in which the building process that issues in my one-hundred-piece Lego house begins earlier (or runs at a faster rate) than the building process that issues in your ten-piece Lego house. Under such conditions, it seems possible for something that is more (in the relevant sense) to come to be earlier, rather than later, than something that is less.

This is not an unreasonable objection to P6. But it is not in the least bit clear that Plato would have been aware of it. P6 is well confirmed by instances in which building processes begin at the same time and run at the same rate. Perhaps this is the sort of case on which Plato is focused. There is no evidence whatever that Plato is trying to force his readers to ferret out the falsity of P6.

"those things that precede the end"? According to (P3), if X has a beginning and an end, then the beginning comes first, and after the beginning all the things other than X up to the end, and hence, if the one has a beginning and an end, then the things that are other than the one precede the end. Thus, (P3) and (i) entail (ii) that if the one is, then the one has come to be later than the things that are other than the one.

By D2A13L1, if the one is, then the others are different from the one. Now assume (P4) that to say that X is different from Y is to say that X is other than Y, and hence, if the others are different from the one, then the others are other than the one. D2A13L1 and P4 together entail (iii) that if the one is, then the others are other than the one. Taken together, (ii) and (iii) entail (L2) that if the one is, then the one has come to be later than the others. But now, by D2A28P7, if X has come to be later than Y, then X is younger than Y, and hence, if the one has come to be later than the others, then the one is younger than the others. So L2 and D2A28P7 together entail (C) that if the one is, then the one is younger than the others.

D2A29 is plainly valid. Whether it is sound depends on the truth values of P1–P4, D1A1P1, D2A2C1, D2A7C1, D2A13L1, and D2A28P7. P1 says that any one whole that has an end has come to be one and whole at the same time as its end. Imagine, for example, that you are building a house. What P1 says is that your house hasn't come to be one or whole until such time as it is finished. Before the building project is completed, what you have is a number of things (floorboards, stones, mortar, countertops, etc.) that do not yet amount to a single whole. This seems absolutely right. P2 and P3 are also obvious: if your house has come to be one and whole at the same time as the roof's being nailed down, then the house has come into existence later than every part of the project that preceded the roof's being nailed down; and if your house has a beginning (the groundbreaking) and an end (the last nail in the roof), then what comes first is the beginning and after that all the things other than the house itself all the way up to the end. (Note that P3 is also used to derive D2A30C1 and D2A30C2.) P4 simply points out that "different" and "other" are to be treated as synonyms. (Note also that P4 is used to derive D3A1C, D3A4C, D5A4C1–C3, and D7A1C4.) As we have seen, D1A1P1 follows from theorems **O** and **SP** of the higher theory. D2A13L1 depends on D2A11P2 (which is unimpeachable) and D2A11C. And D2A28P7 is obvious. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A2, D2A7, and D2A11 to be sound.

D2A30 *(153d5–154a4)*

D2A30 establishes two conclusions, (C1) that if the one is, then the one is the same age as the others, and (C2) that if the one is, then the one is neither older nor younger than the others.

By D2A7C1, if the one is, then the one has a beginning and an end. But, by D1A3P1, the beginning and end of X are parts of X, and hence the beginning and end of the one are parts of the one. Now assume (P1) that if X and Y are parts of Z, then all those things that come between X and Y are parts of Z, and hence that if the beginning and end of the one are parts of the one, then all those things that come between the beginning and end of the one are parts of the one. Taken together, D2A7C1, D1A3P1, and P1 entail (L1) that if the one is, then all those things that come between the beginning and end of the one are parts of the one. But now, by D2A29P3, if X has a beginning and an end, then the beginning comes first and after the beginning all the things other than X up to the end, and hence, if the one has a beginning and an end, then all those things that come between the beginning and end are the things that are other than the one. Thus, D2A7C1, D2A29P3, and L1 together entail (L2) that if the one is, then the things that are other than the one are parts of the one, and hence each of the things that are other than the one is a part of the one. Now, as we saw in our discussion of the immediately preceding argument, D2A13L1 and D2A29P4 entail (iii) that the others are the things that are other than the one. And the conjunction of (iii) and L2 entails (L3) that if the one is, then each of the others is a part of the one. Now, by D2A28P1, if X is *an* F, then X is one, and hence, if X is *a* part (of something), then X is one. Taken together, L3 and D2A28P1 entail (L4) that if the one is, then each of the others is one.

Assume now (P2) that if the F is, then the F has come to be at the same time as the things that are F, and (P3) that if X has come to be at the same time as Y, then X is the same age as Y. By P2, if the one is, then the one has come to be at the same time as the things that are one, and by P3, if the one has come to be at the same time as the things that are one, then the one is the same age as the things that are one. Hence, P2 and P3 together entail (L5) that if the one is, then the one is the same age as the things that are one. And L4 and L5 together entail (C1) that if the one is, then the one is the same age as [each of] the others. But, by D2A27L1, if X is the same age as Y, then X is neither older nor younger than Y, and thus, if the one is the same age as the others, then the one is neither older nor younger than

the others. Hence, C1 and D2A27L1 entail (C2) that if the one is, then the one is neither older nor younger than the others.

D2A30 is plainly valid. Whether it is sound depends on the truth values of P1–P3, D1A3P1, D2A7C1, D2A13L1, D2A27L1, D2A28P1, D2A29P3, and D2A29P4. P1 is obvious. For suppose that Z has two parts, X and Y. What P1 says is that all the things that come between X and Y are parts of Z. Imagine, for example, that my house has two parts, a roof and a floor. What P1 says, rightly, is that everything that comes between the roof and the floor (including walls, doors, and windows) is a part of my house. What P2 says is that, on the assumption that the F is (and has therefore come to be), the F must have come to be at the same time as the things that are F, i.e., the things that partake of the F. For if X partakes of the F, then it cannot be that X is but the F is not. So, if X partakes of the F, then X cannot have come to be earlier than the F. But couldn't it happen that all F things come to be later than the F? If it could, then there could be such things as uninstantiated forms. I take it that Plato thinks that this is impossible: if the F is, then there must be *something* that partakes of it. *Why* Plato accepts this is not clear. But we can speculate that Plato's acceptance of the thesis that all forms have instances derives from **SP**, which says that the F is F. It follows from this theorem of the higher theory that if the F is, then there must be *something* that is F, and hence forms cannot exist uninstantiated.

P3, D1A3P1, D2A28P1, D2A29P3, and D2A29P4 are obvious. D2A13L1 depends on D2A11P2 (which is obvious) and D2A11C. D2A27L1 depends on D1A15P2, which is obvious. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A7 and D2A11 to be sound.[6]

D2A31 *(154a4–c5)*

D2A31 establishes (C) that if the one is, then the one neither comes to be older nor comes to be younger than the others.

[6] Patterson (1999, 92–93) worries, and reasonably so, about how (assuming that the one is) D2A28C, D2A29C, and D2A30C1 could all be true together, that is, how it could be true that the one is older, younger, and the same age as the others. The way to alleviate this worry, I believe, is to focus on the way in which the others are conceived in each of these arguments. In D2A28, the others are taken to be all those things other than the one that bear no relation to the one. In D2A29, the others are taken to be all those things other than the one itself that are parts of it. In D2A30, the others are taken to be all those things other than the one that partake of it. Thus, thought of one way, the others are such that the one is older than they; thought of another way, the others are such that the one is younger than they; and thought of yet a third way, the others are such that the one is the same age as they. There is therefore no more than the appearance of incompatibility among these three conclusions.

Assume (P1) that if X is older or younger than Y, then X always differs in age from Y by the same amount, and (P2) that if X always differs in age from Y by the same amount, then X neither comes to be older nor comes to be younger than Y. P1 and P2 together entail (L1) that if X is older or younger than Y, then X neither comes to be older nor comes to be younger than Y, and hence that if the one is older or younger than the others, then the one neither comes to be older nor comes to be younger than the others. Now, by D2A28C, if the one is, then the one is older than the others, and, by D2A29C, if the one is, then the one is younger than the others. Hence, when combined with either of D2A28C or D2A29C, L1 entails (C) that if the one is, then the one neither comes to be older nor comes to be younger than the others.

D2A31 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D2A28C, and D2A29C. P1 is obvious if one assumes that the progress of time is uniform, but not if one assumes the opposite. For if time moves more quickly for X than it does for Y, then it is not going to be true that X and Y always differ in age by the same amount. If X starts out younger than Y, then at some point X and Y will be the same age, and at some point X will become older than Y. So I take it that Plato is assuming (not unreasonably, given the evidence at his disposal) that time moves uniformly. P2 is unimpeachable. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A28 and D2A29 to be sound.

D2A32 *(154c5–155c8)*

D2A32 establishes two conclusions, (C1) that if the one is, then the one comes to be younger than the others, and (C2) that if the one is, then the one comes to be older than the others.

By D2A28C, if the one is, then the one is older than the others. Assume now (P1) that if X is older than Y, then X has come to be for more time than Y, and hence that if the one is older than the others, then the one has come to be for more time than the others. Taken together, D2A28C and P1 entail (L1) that if the one is, then the one has come to be for more time than the others. Now assume (P2) that if X has come to be for more time than Y, then there are positive numbers M and N such that $M > N$ and the age of X now is M and the age of Y now is N, and hence that if the one has come to be for more time than the others, then there are positive numbers M and N such that $M > N$ and the age of the one now is M and the age of the others now is N. Taken together, L1 and P2 entail (L2) that if the one

is, then there are positive numbers M_o and N_o such that $M_o > N_o$ and the age of the one now is M_o and the age of the others now is N_o. Assume further (P3) that if the age of X now is M and the age of Y now is N, then for any time T in the future, there is a positive number Z such that the age of X at T is M + Z and the age of Y at T is N + Z; and hence, if the age of the one now is M_o and the age of the others now is N_o, then for any time T in the future, there is a positive number Z such that the age of the one at T is $M_o + Z$ and the age of the others at T is $N_o + Z$. When combined, L2 and P3 entail (L3) that if the one is, then for any time T in the future there is a positive number Z such that the age of the one at T is $M_o + Z$ and the age of the others at T is $N_o + Z$.

Now let us define what it is for two things to differ in age. Assume (P4) that if A and B are positive numbers such that A > B and the age of X at T is A and the age of Y at T is B, then X's difference in age in relation to Y at T is A/B. Hence, if M_o and N_o are positive numbers such that $M_o > N_o$ and the age of the one at T is M_o and the age of the others at T is N_o, then the one's difference in age in relation to the others at T is M_o/N_o. Moreover, if $M_o + Z$ and $N_o + Z$ are positive numbers such that $M_o + Z > N_o + Z$ and the age of the one at T is $M_o + Z$ and the age of the others at T is $N_o + Z$, then the one's difference in age in relation to the others at T is $M_o + Z/N_o + Z$. Taken together, L2 and P4 entail (L4) that if the one is, then the one's difference in age in relation to the others now is M_o/N_o. Moreover, L3 and P4 together entail (L5) that if the one is, then for any time T in the future, there is a positive number Z such that the one's difference in age in relation to the others at T is $M_o + Z/N_o + Z$. Now assume further (P5) that if M, N, and Z are positive numbers and M > N, then $M + Z/N + Z < M/N$, and hence that $M_o + Z/N_o + Z < M/N$. Taken together, L4, L5, and P5 entail (L6) that if the one is, then the one's difference in age in relation to the others in the future will be less than the one's difference in age in relation to the others now (and in the past).

Assume now (P6) that if X's difference in age in relation to Y in the future will be less than it was before, then X comes to be younger than Y, and hence that if the one's difference in age in relation to the others in the future will be less than it was before, then the one comes to be younger than the others. Taken together, L6 and P6 entail (C1) that if the one is, then the one comes to be younger than the others.

Consider now that, by D2A29C, if the one is, then the one is younger than the others. Moreover, by D1A16P3, if X is younger than Y, then Y is older than X, and hence, if the one is younger than the others, then the

others are older than the one. The conjunction of D2A29C and D1A16P3 entails (L7) that if the one is, then the others are older than the one. Now, in the same way that the conjunction of D2A28C and P1–P5 yields L6, the conjunction of L7 and P1–P5 yields (L8): If the one is, then the others' difference in age in relation to the one in the future will be less than the others' difference in age in relation to the one now (and in the past). Now, by P6, if the others' difference in age in relation to the one in the future will be less than it was before, then the others come to be younger than the one. So L8 and P6 together entail (L9) that if the one is, then the others come to be younger than the one.

Now, by D1A16P1, to be older is to be different from younger, and, by D1A16P5, to be younger is to be different from older. Moreover, by D1A16P2, if to be F is to be G, then "F" and "G" are intersubstitutable *salva veritate*. Taken together, D1A16P1 and D1A16P2 entail (L10) that "older" and "different from younger" are intersubstitutable *salva veritate*, and D1A16P5 and D1A16P2 together entail (L11) that "younger" and "different from older" are intersubstitutable *salva veritate*. Now, by D1A16P4, if X comes to be different from Y, then Y comes to be different from X, and hence, if younger X comes to be different from older Y, then older Y comes to be different from younger X. Taken together with L10 and L11, D1A16P4 entails (L12) that if [younger] X comes to be younger than Y, then [older] Y comes to be older than X, and hence that if the others come to be younger than the one, then the one comes to be older than the others. Finally, the conjunction of L9 and L12 entails (C2) that if the one is, then the one comes to be older than the others.

D2A32 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D1A16P1, D1A16P2, D1A16P4, D1A16P5, D2A28C, and D2A29C. P1 and P2 are obvious. P3 is obvious, on the assumption that time moves uniformly. For what P3 says, in essence, is that if two things differ in age, then they will always differ in age by the same amount. (This simply follows from D2A31P1.) P4 is potentially controversial. What P4 says is that the difference in age between X and Y (where X is older than Y) is the result of dividing the age of X by the age of Y. The reason this is prima facie unacceptable is that the conventional way of determining "difference in age" is not by division, but by subtraction. Ordinarily, one would expect Plato to say that the difference in age between X and Y should be taken to be the result of subtracting the age of Y from the age of X. Still, this is not fatal to the argument here. For it is reasonable to suppose that Plato assumes that there are two different ways of calculating "difference in age," and that neither way is naturally or obviously superior to the other.

Alternatively, one can simply read P4 as stipulative. Either way, P4 comes out as a reasonable (or obvious) claim. P5 is an obvious arithmetical truth. For suppose that M and N are positive numbers such that $M > N$. If Z is a positive number, then $MZ > NZ$, and therefore $MZ + MN > NZ + MN$; hence $M(N + Z) > N(M + Z)$, and therefore $M/N > M + Z/N + Z$, which means that $M + Z/N + Z < M/N$. QED. Understood in the proper way, P6 is also obvious, for one thing one might well mean in saying that X comes to be younger than Y is that the difference in age between X and Y will be less than it was before. As we have seen, D1A16P1–P5 are all uncontroversial assumptions. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A28 and D2A29 to be sound.

D2A33 *(155c8–e3)*

D2A33 establishes three conclusions, (C1) that if the one is, then the one partakes of time past, future, and present, (C2) that if the one is, then the one is and comes to be, was and was coming to be, and will be and will be coming to be, and (C3) that if the one is, then the one could be named and spoken of, as well as be the object of an account, knowledge, perception, and opinion.

By D2A24C, if the one is, then the one partakes of time. By D2A32C2, if the one is, then the one comes to be older than the others, and so comes to be older than something. And, by D2A32C1, if the one is, then the one comes to be younger than the others, and so comes to be younger than something. Assume now (P1) that if X partakes of time and X comes to be older than something and X comes to be younger than something, then X partakes of time past, future, and present, and hence that if the one partakes of time and the one comes to be older than something and the one comes to be younger than something, then the one partakes of time past, future, and present. Taken together, D2A24C, D2A32C2, D2A32C1, and P1 entail (C1) that if the one is, then the one partakes of time past, future, and present.

Recall now that, by D1A17P1, "was," "has come to be," and "was coming to be" signify "partakes of time past," that, by D1A17P2, "will be," "will come to be," and "will be coming to be" signify "partakes of time future," that, by D1A17P3, "is" and "comes to be" signify "partakes of time present," and that, by D1A17P4, if "F" signifies "G," then X is F if and only if X is G. Taken together, these four assumptions entail (L1) that if the one partakes of time past, future, and present, then the one is and comes to be, was and was

coming to be, and will be and will be coming to be. And the conjunction of L1 and C1 entails (C2) that if the one is, then the one is and comes to be, was and was coming to be, and will be and will be coming to be.

Assume now (P2) that if X is, was, and will be, then something could belong to X and something could be of X in the present, past, and future, and hence that if the one is, was, and will be, then something could belong to the one and something could be of the one in the present, past, and future. When combined with P2, C2 entails (L2) that if the one is, then something could belong to the one and something could be of the one in the present, past, and future. Assume further (P3) that names [are the sorts of things that] belong to things, and (P4) that knowledge, perception, opinion, and accounts are [the sorts of things that are] of things. When combined with P3 and P4, L2 entails (L3) that if the one is, then a name could belong to the one and there could be an account, knowledge, perception, or opinion of the one. And finally recall that, by D1A18P2, X is named or spoken of if and only if a name belongs to X, and hence the one is named or spoken of if and only if a name belongs to the one; and, by D1A18P3, X is the object of an account/knowledge/perception/opinion if and only if there is an account/knowledge/perception/opinion of X, and so the one is the object of an account/knowledge/perception/opinion if and only if there is an account/knowledge/perception/opinion of the one. Taken together, L3, D1A18P2, and D1A18P3 entail (C3) that if the one is, then the one could be named and spoken of, as well as be the object of an account, knowledge, perception, and opinion.

D2A33 is plainly valid. Whether it is sound depends on the truth values of P1–P4, D1A17P1–P4, D1A18P2, D1A18P3, D2A24C, D2A32C1, and D2A32C2. P1–P4 are obvious, as are D1A17P1–P4, D1A18P2, and D1A18P3. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A24 and D2A32 to be sound.

Summary

A clear pattern has begun to emerge from a detailed reconstruction and examination of the logical interconnections obtaining among the arguments in the Second Deduction. In the first place, none of the arguments in D2 relies in any way on **RP**. This fact has numerous ramifications, not the least of which is that the result of combining the arguments in D1 and D2 cannot be said to entail that the one is not. At first sight, D1 looks like an extended series of arguments for claims of the form, "If the one is, then the one is not F and not con-F," and D2 looks like an extended series

of arguments for claims of the form, "If the one is, then the one is F and con-F," where the consequents of the two conditionals are to be treated as mutually contradictory. If this were so, then Plato would be committed to holding that a contradiction follows from the hypothesis that the one is, and hence would be committed to holding that the one is not.[7] This would be an unfortunate result. For it would require that the form of oneness is not among the things that are.

The main problem with this is that it contradicts Parmenides' assertion at 135a–b (repeated at 135b–c) that the "gifted man" should be able to know that "for each thing there is some kind, a being itself by itself," which requires that there be such a thing as *the one itself*. Worse, it would require that there be *no* forms among the things that are. The reason is that, as Parmenides tells us at 136b–c, the method employed in the Deductions should apply to "unlike, to motion, to rest, to generation and destruction, and to being itself and not-being . . . in a word . . . [to] whatever you might ever hypothesize as being or as not being." But if the same pattern of reasoning showing that the one is not were applied to every other form, the result would be that there could be no forms at all! The upshot is that, if the Deductions were read this way, Parmenides would be viewed as recommending something incoherent, namely the abandonment of the higher theory as a way of resurrecting it.

This way of looking at the Deductions has the potential to cause further interpretive havoc. The reason, as we will see, is that, by parity of reasoning, D5 looks like an extended series of arguments for claims of the form, "If the one is not, then the one is F and con-F," and D6 looks like an extended series of arguments for claims of the form, "If the one is not, then the one is not F and not con-F," where the consequences of the two conditionals are also to be treated as mutually contradictory. If this were so, then Plato would be committed to holding that a contradiction follows from the hypothesis that the one is not, and hence would be committed to holding that the one is. So D1, D2, D5, and D6, taken together, would, or so it appears, force Plato to accept the self-contradictory claim that the one both is and is not. Thus, not only would this way of looking at the Deductions force us to read Parmenides as recommending the abandonment of the higher theory as a way to save it, but it would also force us to read Parmenides as arguing for a contradiction!

[7] This is how Gill (1996, 93) reads D1 and D2. As she puts it: "This contradiction [between the conclusions of D1 and D2] forces us to reject the positive hypothesis [that the one is] in favor of the negative hypothesis [that the one is not]." See also Ryle (1939; 1966).

Luckily, however, our analysis shows that we are not required to read D1 and D2 in this way. Although D2 is indeed designed to establish conclusions of the form, "If the one is, then the one is F and con-F," D1 is *not* designed to establish conclusions of the form, "If the one is, then the one is not F and not con-F." Rather, what D1 is designed to establish is that *if **RP** is true* and the one is, then the one is not F and not con-F. If the arguments of both Deductions were sound, the most that would follow is that *either the one is not or **RP** is false*. If it could then be shown that the one is, it would not follow that Plato is committed to the truth of a contradiction; rather, he would be committed to the falsity of **RP**.[8]

It is therefore welcome news for Plato that his arguments in D2 do not rely on **RP**. Further, it is difficult to believe that this is not intentional on Plato's part. Surely Plato would be aware of the fact that he would be committed to a contradiction if none (or all) of his arguments in D1, D2, D5, and D6 depend on **RP**.

The second important fact about the arguments of D2 is that it is reasonable to suppose that Plato takes thirty out of the thirty-three arguments to be sound. There are only three arguments that Plato might be able to recognize as unsound. The first of these is D2A4, which is based on **NCC** and **C**. Since Plato surely takes D2A3 to be sound, he is committed to the claim that if the one is, then the one is [infinitely] many. Since being one and being many are contrary properties, it follows that if the one is, then **P** is false. But, as we will see, D6 shows that the one is, and hence that **P** is indeed false. Unfortunately, **P** is a direct consequence of the conjunction of **C** and **NCC**, from which it follows that **C** and **NCC** cannot both be true. In the end, then, Plato is committed to the unsoundness of D2A4. Luckily, Plato offers a different argument for D2A4C1 and D2A4C2 in the *Sophist*, an argument it is reasonable to suppose Plato takes to be sound (see below, p. 242 n. 1). Thus, Plato has the wherewithal, perhaps even at the time of the *Parmenides*, to replace D2A4 with an apparently sound argument to the same conclusions. If the replacement is made, then Plato has no reason

[8] Interpretations such as Meinwald's and Sayre's also avoid attributing to Plato commitment to a contradiction. They dispose of apparent contradictions among pairs of consequents belonging to conditionals established in different Deductions by supposing that one member of the pair appears in a *pros heauto* Deduction while the other appears in a *pros ta alla* Deduction. So, for example, it can be true that the one is not many (as in D1) and that the one is many (as in D2), for D1 and D2 are governed by different "in-relation-to" qualifications: D1 is to be read *pros heauto*, while D2 is to be read *pros ta alla*. In this way, Meinwald and Sayre avoid foisting onto Plato commitment to the contradictory claim that the one both is and is not.

In this respect, my interpretation fares just as well as Meinwald's and Sayre's. However, my interpretation, which does not depend on the speculative and problematic *pros heauto/pros ta alla* distinction, is more firmly grounded in the text of the dialogue (see pp. 102-106).

to worry about the soundness of the numerous arguments in D2 that rely on the conclusions of D2A4.

Of the other two questionable arguments in D2, D2A12 relies on **NCC**. But Plato is almost certainly committed to the falsity of **NCC**. For, as we have seen, Plato is committed to the falsity of the conjunction of **NCC** and **C**, and almost certainly committed to the truth of **C** or something similar. Luckily, the unsoundness of D2A12 does not wreak havoc in the Deductions. For, in the first place, D2A14 is the only result that D2A12C is used to establish, and D2A14 is otiose (since D2A14C is identical to one of the conclusions of the plainly sound argument D2A15). And, in the second place, the removal of D2A12 from the Deductions need cause no more than a slight imbalance in the results of D2. The reason for this is that D2A10 (the soundness of which is not in dispute) is sufficient to establish a similar result, namely that if the one is, then the one is the same (by virtue of the fact that it is the same as itself).

In the end, it appears inconceivable that Plato thinks of the arguments of D2 as a mere logical exercise designed to pose a challenge for students who are learning how to distinguish valid from invalid, or sound from unsound, arguments. It is much more likely that Plato did not immediately recognize that D2A4, D2A12, and D2A14 were unsound (by his lights), and that if he had, he would have found a way to mitigate or erase the effects of unsoundness. One of the upshots of D2, then, is that Plato is committed to the claim that if the one is, then the one possesses a host of contrary properties (limited/unlimited, at rest/in motion, same/different, like/unlike, equal/unequal, older/younger), i.e., that if the one is, then **RP** is false. As we have seen, this is the same as the main upshot of D1.

The last important fact about D2 is that it provides us with the beginnings of an argument for the falsity of both **P** and **U**. For, first, D2A3 shows that if the one is, then the one is many. But since each of the two theorems **O** and **SP** requires that the one be one, it follows (without reliance on **RP**) that if the one is, then the one is both one and many. So, if it can be shown that the one is (as I think D6 does), then it follows that the one is both one and many, and hence that **P** is false. The significance of this lies in the fact that the rejection of **P** answers the third criticism of the Piece-of-Pie version of the higher theory offered immediately after the Whole–Part dilemma (see pp. 62-63). It also provides us with a possible answer to the first part of the Greatest Difficulty. For **P** is used to derive **KF**, and hence the falsity of **P** leaves us with insufficient reason to believe **KF**. And if we need not

accept **KF**, then we have an answer to GD1, an argument that derives a contradiction from **KF** and **II**.[9]

Second, D2A3 also shows that if the one is, then there are infinitely many forms of oneness and infinitely many forms of being. But again, if Plato thinks the arguments of D6 are sound (as I think he does), then he is committed to the claim that the one is, and hence to the existence of infinitely many forms of oneness and being. However, this result contradicts **U**, the theorem of the higher theory according to which there is exactly one form per predicate. So Plato is forced to reject **U**, a welcome result on the whole since it enables him to find a way to save **OM**, **SP**, and **NSP** from a contradiction generated with the help of **U** by the end of the Second Step of the Third Man argument (see pp. 73-75).[10]

[9] Gill (1996, 107) agrees that one of the aims of the *Parmenides* is to highlight the falsity of the assumption that the one cannot be both one and many. She reasons that this assumption "must be false because there is a world to be explained." I myself fail to see why the fact that there is a world to be explained (whatever this amounts to) provides any reason for thinking that the one can be both one and many. Rather, I claim that the Deductions can be read as providing a straightforward argument for the assumption's falsity. D1 and D2 jointly entail that if the one is, then the one is both one and many. If D6 shows (as I argue below) that the one is, it follows directly that the one is both one and many.

[10] Since **U** follows from the conjunction of **E** and **NMTO**, the rejection of **U** mandates the rejection of either **E** or **NMTO**. Since **E** follows directly from **OM**, which is one of the fundamental axioms of the higher theory, Plato will not want to abandon **E**. This leaves him with the only other option, that of abandoning **NMTO**, the thesis that there is no more than one form per predicate. Since **NMTO** is the conclusion of the Third Bed argument in *Republic* X, it follows that Plato's rejection of **U** commits him to finding some mistake in that argument. One possibility, left open by our reconstruction of the Third Bed argument (see pp. 27-28), is to reject the assumption that nothing that partakes of the being of a bed deserves to be called "the being of a bed," more generally, that nothing that partakes of a form of F-ness deserves to be treated as a form of F-ness. If the Third Bed argument fails, then **OM** can be retained even while **U** is abandoned.

CHAPTER 6

From the Appendix to the Fourth Deduction

Immediately after the first two Deductions, Parmenides begins a new stretch of reasoning (155e4–157b5) that initially appears to be a Third Deduction. As he puts it at 155e4: "Let's speak of it [i.e., the one] yet a third time." But appearances are misleading. This stretch of five arguments comprises what would be better described as an "Appendix" to the first two Deductions. There are two main reasons for this. First, the Appendix does not fit into the overall description of the Deductions provided by Parmenides in the transitional section. Rather, what Parmenides there counts as the material one would expect to find in the Third Deduction (namely, arguments leading to results about the others on the supposition that the one is) actually appears immediately after the Appendix (at 157b6–159b1). Second, Parmenides begins the Appendix by saying (at 155e4–6): "If the one is as we've described it – being both one and many and neither one nor many . . ." This makes it rather clear that Parmenides means to use the section to consider consequences that may be obtained from results reached in the first two Deductions. For it is in D2 that Parmenides establishes that [if the one is, then] the one is many (D2A3, D2A5), and it is in D1 that Parmenides establishes that [if the one is, then] the one is not one (D1A17) and not many (D1A1).

The purpose of this chapter is to provide a logical reconstruction of the Appendix, followed by a logical reconstruction of the Third and Fourth Deductions. The Appendix is designed to establish that the results of D1 and D2 together entail that if the one is, then there is a moment outside of time (the so-called "instant") at which the one changes from being F to being con-F. But its more important function is to introduce an additional assumption that is crucial to the moral to be drawn from the Deductions as a whole. The assumption, stated in AppA1, is that in order for something to partake and not partake of the same thing, it must do so at different times, and hence must be in time. The function of the Third Deduction is

to establish results of the form: If the one is, then the others are both F and con-F in relation to themselves and in relation to the one. And the function of the Fourth Deduction is to establish results of the form: If the one is, then the others are both not F and not con-F in relation to themselves and in relation to the one. As we will see, with the help of D2 and D3 (or with the help of D4 and the important assumption culled from AppA1), Plato can show that if the one is, then there are forms other than the one that have contrary properties, and hence that if the one is, then **RP** must be false.

6.1 THE APPENDIX TO THE FIRST TWO DEDUCTIONS

AppA1 *(155e4–156a1)*

AppA1 establishes (C) that if the one is, then there are times T1 and T2 such that T1 is distinct from T2 and the one partakes of being at T1 and the one does not partake of being at T2.

By D2A24C, if the one is, then the one partakes of time, and, by D2A1C1, if the one is, then the one partakes of being. Assume now (P1) that if X partakes of time and X partakes of being, then there is a time T1 at which X partakes of being, and so, if the one partakes of time and the one partakes of being, then there is a time T1 at which the one partakes of being. Taken together, D2A24C, D2A1C1, and P1 entail (L1) that if the one is, then there is a time T1 at which the one partakes of being.

Now, by D1A17C2, if the one is, then the one does not partake of being. Thus, by D2A24C and D1A17C2, if the one is, then the one partakes of time but does not partake of being. Assume now (P2) that if X partakes of time and X does not partake of being, then there is a time T2 at which X does not partake of being, and so, if the one partakes of time and the one does not partake of being, then there is a time T2 at which the one does not partake of being. Taken together, D2A24C, D1A17C2, and P2 entail (L2) that if the one is, then there is a time T2 at which the one does not partake of being.

Assume now (P3) that nothing can partake and not partake of the same thing at the same time. The conjunction of L1, L2, and P3 then entails (C) that if the one is, then there are times T1 and T2 such that T1 is distinct from T2 and the one partakes of being at T1 and the one does not partake of being at T2.

AppA1 is plainly valid. Whether it is sound depends on the truth values of P1–P3, D1A17C2, D2A1C1, and D2A24C. P1–P3 are obvious. So the

question whether Plato takes the argument to be sound reduces to the question whether he takes D1A17, D2A1, and D2A24 to be sound.[1]

AppA2 *(156a1–b1)*

AppA2 establishes two conclusions, (C1) that if the one is, then there is a [definite] time at which the one comes to be, and (C2) that if the one is, then there is a [definite] time at which the one ceases to be.

By AppA1C, if the one is, then there is a time at which the one partakes of being. Assume now (P1) that if there is a time at which X partakes of Y, then there is a [definite] time at which X gets a share of Y, and hence that if there is a time at which the one partakes of being, then there is a [definite] time at which the one gets a share of being. Taken together, AppA1C and P1 entail (L1) that if the one is, then there is a [definite] time at which the one gets a share of being. Now assume further (P2) that to get a share of being is to come to be. The conjunction of L1 and P2 now entails (C1) that if the one is, then there is a [definite] time at which the one comes to be.

By AppA1C, if the one is, then there is a time at which the one does not partake of being. Assume now (P3) that if there is a time at which X does not partake of Y, then there is a [definite] time at which X parts from Y, and hence that if there is a time at which the one does not partake of being, then there is a [definite] time at which the one parts from being. Taken together, AppA1C and P3 entail (L2) that if the one is, then there is a [definite] time at which the one parts from being. Now assume (P4) that to part from being is to cease to be. The conjunction of L2 and P4 now

[1] Patterson (1999, 95–96) worries that "adding temporal qualifications" (as Parmenides does at AppA1) is not the only way to avoid contradiction. As *Republic* IV shows, the claim that A is F is compatible with the claim that A is con-F, as long as the respect in which A is F differs in some way from the respect in which A is con-F. Thus, Simmias can be both tall and short, if he is tall when compared with Socrates but short when compared with Phaedo.

As I see it, this is all true but irrelevant. For in AppA1 Plato is not worried about reconciling the claim that A is F with the claim that A is *con-F*. He is worried, rather, about how to reconcile the claim that A is F (i.e., partakes of the F) with the claim that *A does not partake of the F*. Here, and only here, does Plato say that, when A is in time, A must partake at one time and not partake at another. Appeal to "respects" would not help him achieve the relevant reconciliation: he cannot say that contradiction can be avoided by saying that A partakes of the F in one respect but does not partake of the F in another respect, unless the relevant respect concerns *when* the partaking and not-partaking take place.

Patterson claims further that "there are no grounds for tacking on temporal qualifications, for the premises of the arguments of [D1] and [D2] 'proving' that the one has and lacks both oneness and plurality are in no way temporally qualified." I disagree. As **PE1** tells us, to say that A is F is just to say that A is F in some way or other. So there is a sense in which every predication contains a hidden, elided qualification. What AppA1 does is bring out the particular qualification that is needed to avoid contradiction.

entails (C2) that if the one is, then there is a [definite] time at which the one ceases to be.

AppA2 is plainly valid. Whether it is sound depends on the truth values of P1–P4 and AppA1C. Although P2 and P4 are obvious, P1 and P3 are arguably false. Assuming that X partakes of being at some time, it simply does not follow that X must get a share of being (i.e., come to be) at some definite time: for X might always have been, in which case X never actually comes to be. So it looks like P1 is false. Similarly, assuming that there is a time at which X does not partake of being, it does not follow that X must part from being (i.e., cease to be) at some definite time: for X might come to be from a state of not being and then continue to be thereafter without ever ceasing to be. So it looks like P3 is false. Perhaps Plato is tacitly assuming that nothing that partakes of time exists infinitely in the past or infinitely in the future. This assumption would be sufficient to guarantee the truth of P1 and P3. But there is no textual evidence to suggest that Plato is making this assumption. It therefore remains unclear whether Plato takes the argument to be sound, though there is some reason to suppose that he not altogether unreasonably takes P1–P4 to be true. Arguably, then, the question whether Plato takes the argument to be sound reduces to the question whether he takes AppA1 to be sound.

AppA3 *(156b1–8)*

AppA3 establishes nine conclusions: if the one is, then there is a time at which the one ceases to be many (C1), there is a time at which the one ceases to be one (C2), there is a time at which the one is combined (C3), there is a time at which the one is separated (C4), there is a time at which the one is made like (C5), there is a time at which the one is made unlike (C6), there is a time at which the one is increased (C7), there is a time at which the one is decreased (C8), and there is a time at which the one is made equal (C9).

By D1A1P2, being one and being many are contrary properties, and, by **RP**, no form can have contrary properties. Since the one is a form, D1A1P2 and **RP** entail that the one cannot be both one and many, and hence (L1) that if the one comes to be one at T, then the one ceases to be many at T. Similarly, D1A1P2 and **RP** entail (L2) that if the one comes to be many at T, then the one ceases to be one at T. Now, by AppA2C1, if the one is, then there is a time at which the one comes to be. But, by D1A1P1, if the one is, then the one is one, and hence, if the one comes to be, then the one comes to be one. So L1, AppA2C1, and D1A1P1 together entail (C1) that if the one

is, then there is a time at which the one ceases to be many. Now, by D2A3C or D2A5C, if the one is, then the one is [infinitely] many, and hence, if the one comes to be, then the one comes to be many. So L2, AppA2C1, and D2A3C (or D2A5C) entail (C2) that if the one is, then there is a time at which the one ceases to be one.

Assume now (P1) that if X comes to be one at T, then X is combined at T, (P2) that if X comes to be many at T, then X is separated at T, (P3) that if X comes to be like at T, then X is made like at T, (P4) that if X comes to be unlike at T, then X is made unlike at T, (P5) that if X comes to be greater at T, then X is increased at T, (P6) that if X comes to be less at T, then X is decreased at T, (P7) that if X comes to be equal at T, then X is made equal at T, and (P8) that if X is F relative to Y, then X is F.

By AppA2C1, if the one is, then there is a time at which the one comes to be, and hence, by D1A1P1, if the one is, then there is a time at which the one comes to be one. But, by P1, if the one comes to be one at T, then the one is combined at T. So, taken together with P1, AppA2C1 and D1A1P1 entail (C3) that if the one is, then there is a time at which the one is combined. Again, by AppA2C1 and D2A3C (or D2A5C), if the one is, then there is a time at which the one comes to be many. But, by P2, if the one comes to be many at T, then the one is separated at T. So, taken together with P2, AppA2C1 and D2A3C (or D2A5C) entail (C4) that if the one is, then there is a time at which the one is separated.

Again, by AppA2C1, if the one is, then there is a time at which the one comes to be. But, by D2A13C, if the one is, then the one is like the others. And, by P8, if the one is like [relative to] the others, then the one is like. Taken together, AppA2C1, D2A13C, and P8 entail (L3) that if the one is, then there is a time at which the one comes to be like. But, by P3, if the one comes to be like at T, then the one is made like at T. So the conjunction of L3 and P3 entails (C5) that if the one is, then there is a time at which the one is made like. Further, by D2A14C, if the one is, then the one is unlike the others. And by P8, if the one is unlike [relative to] the others, then the one is unlike. So, taken together, AppA2C1, D2A14C, and P8 entail (L4) that if the one is, then there is a time at which the one comes to be unlike. But, by P4, if the one comes to be unlike at T, then the one is made unlike at T. So the conjunction of L4 and P4 entails (C6) that if the one is, then there is a time at which the one is made unlike.

Now, by D2A22C1, if the one is, then the one is greater than the others. And, by P8, if the one is greater than the others, then the one is greater. Taken together, then, AppA2C1, D2A22C1, and P8 entail (L5) that if the one is, then there is a time at which the one comes to be greater. But, by

P5, if the one comes to be greater at T, then the one is increased at T. So the conjunction of L5 and P5 entails (C7) that if the one is, then there is a time at which the one is increased. Moreover, by D2A22C1 again, if the one is, then the one is less than the others. And, by P8, if the one is less than the others, then the one is less. Taken together, then, AppA2C1, D2A22C1, and P8 also entail (L6) that if the one is, then there is a time at which the one comes to be less. But, by P6, if the one comes to be less at T, then the one is decreased at T. So the conjunction of L6 and P6 entails (C8) that if the one is, then there is a time at which the one is decreased. Finally, by D2A20C2, if the one is, then the one is equal to the others. And, by P8, if the one is equal to the others, then the one is equal. Taken together, then, AppA2C1, D2A20C2, and P8 entail (L7) that if the one is, then there is a time at which the one comes to be equal. But, by P7, if the one comes to be equal at T, then the one is made equal at T. So the conjunction of L7 and P7 entails (C9) that if the one is, then there is a time at which the one is made equal.

AppA3 is plainly valid. Whether it is sound depends on the truth values of P1–P8, D1A1P1–P2, **RP**, D2A3C (or D2A5C), D2A13C, D2A14C, D2A20C2, D2A22C1, and AppA2C1. P1–P7 and D1A1P2 are obvious. P8 is a simple consequence of **PE1**: for if X is F relative to Y, then X is F in some way, and hence, by **PE1**, X is F. (Note that P8 is used to derive AppA5C3, AppA5C4, D5A7C1, D5A7C2, and D5A7C3.) As we have seen, D1A1P1 follows from theorem **SP** of the higher theory. So the question whether Plato takes the argument to be sound reduces to the question whether he takes **RP** to be true and D2A3 (or D2A5), D2A13, D2A14, D2A20, D2A22, and AppA2 to be sound.

AppA4 *(156c1–e7)*

AppA4 establishes (C) that if the one is, then there is something (call it the "instant") (i) that is in no time at all and (ii) at which the one changes both from being in motion to being at rest and from being at rest to being in motion and (iii) at which the one is neither at rest nor in motion.

By AppA2C1, if the one is, then there is a time at which the one comes to be. But, by D2A9C1, if the one is, then the one is at rest. Taken together, AppA2C1 and D2A9C1 entail (L1) that if the one is, then there is a time at which the one comes to be at rest. Assume now (P1) that if X comes to be F, then X changes from being con-F to being F, and hence that if the one comes to be at rest, then the one changes from being in motion to being at rest. Taken together, L1 and P1 entail (L2) that if the one is, then the one

changes from being in motion to being at rest. Now, by D2A9C2, if the one is, then the one is in motion. Taken together, AppA2C1 and D2A9C2 entail (L3) that if the one is, then there is a time at which the one comes to be in motion. By P1, if the one comes to be in motion, then the one changes from being at rest to being in motion. So the conjunction of L3 and P1 entails (L4) that if the one is, then the one changes from being at rest to being in motion.

Assume now (P2) that if X is, then there is no time at which X is neither F nor con-F, and (P3) that if there is something S at which X changes from being F to being con-F, then X is neither F nor con-F at S. By P2, if the one is, then there is no time at which the one is neither at rest nor in motion. And, by P3, if there is something S at which the one changes from being in motion to being at rest, or from being at rest to being in motion, then the one is neither at rest nor in motion at S. Taken together, P2 and P3 entail (L5) that if the one changes from being in motion to being at rest, or from being at rest to being in motion, then this change does not happen at a *time*. But, by L2 and L4, if the one is, then the one changes from being in motion to being at rest, and the one changes from being at rest to being in motion. So, taken together, L2, L4, and L5 entail (L6) that if the one is, then the one changes from being in motion to being at rest and changes from being at rest to being in motion, but not at a *time*.

Finally, assume (P4) that if X changes from being F to being con-F and from being con-F to being F, but not at a *time*, then there is something (call it the "instant") that is in no time at all and at which X changes both from being F to being con-F and from being con-F to being F. By P4, if the one changes from being in motion to being at rest and from being at rest to being in motion, but not at a *time*, then there is something (call it the "instant") that is in no time at all and at which the one changes both from being in motion to being at rest and from being at rest to being in motion. Taken together, then, P3, P4, and L6 entail (C) that if the one is, then there is something (the "instant") (i) that is in no time at all and (ii) at which the one changes both from being in motion to being at rest and from being at rest to being in motion and (iii) at which the one is neither at rest nor in motion.

AppA4 is plainly valid. Whether it is sound depends on the truth values of P1–P4, D2A9C1, D2A9C2, and AppA2C1. P1, P2, and P4 are obvious. P3 says that, whenever something changes from being F to being con-F, it cannot be either F or con-F. The reason for this is plainly that when X is in the process of changing from one property to its contrary, it does not possess either property. It is only at the beginning and end of the relevant

process that X possesses one or other of the properties.[2] (Note also that P1–P4 are used to derive AppA5C2–C4.) So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A9 and AppA2 to be sound.

AppA5 *(156e7–157b5)*

AppA5 establishes four conclusions, (C1) that if the one is, then there is something (call it the "instant") (i) that is in no time at all and (ii) at which the one changes both from not-being to being and from being to not-being and (iii) at which the one neither is nor is not, (C2) that if the one is, then there is something (the "instant") (i) that is in no time at all and (ii) at which the one changes both from being one to being many and from being many to being one and (iii) at which the one is neither one nor many, (C3) that if the one is, then there is something (the "instant") (i) that is in no time at all and (ii) at which the one changes both from being like to being unlike and from being unlike to being like and (iii) at which the one is neither like nor unlike, and (C4) that if the one is, then there is something (the "instant") (i) that is in no time at all and (ii) at which the one changes both from being small to being large and from being large to being small and (iii) at which the one is neither large nor small.

By AppA2C1, if the one is, then there is a time at which the one comes to be. Now assume (P1) that if X comes to be, then X changes from not-being to being, and hence, if the one comes to be, then the one changes from not-being to being. Taken together, AppA2C1 and P1 entail (L1) that if the one is, then the one changes from not-being to being.

By AppA2C2, if the one is, then there is a time at which the one ceases to be. Now assume (P2) that if X ceases to be, then X changes from being to not-being, and hence, if the one ceases to be, then the one changes from being to not-being. Taken together, AppA2C2 and P2 entail (L2) that if the one is, then the one changes from being to not-being.

[2] Gill (1996, 86) claims that P3 violates the Law of Excluded Middle. As she puts it: "At the instant of change the one is neither F nor not-F. But logic demands that it be one or the other." But, in the first place, Parmenides is here focusing on contraries, not contradictories. It may be that the Law of Excluded Middle holds for contradictories (F and not-F), but it is probably false that the same law holds for contraries (F and con-F). As I write, I am forty years old. Does this make me young? Though I would prefer that it be otherwise, probably not. Does this make me old? Surely not. So I am neither young nor old. I am somewhere in the middle. Second, even if Parmenides applies the corresponding premise to contradictories, who is to say that Plato would accept the Law of Excluded Middle for contradictories? To say that logic "demands" that the law hold is, in the absence of independent evidence to support the claim that Plato accepts the law, potentially anachronistic.

Assume now (P3) that if there is something S at which X changes from not-being to being, then X neither is nor is not at S, and (P4) that if there is something S at which X changes from being to not-being, then X neither is nor is not at S. By P3 and P4, if there is something S at which the one changes from not-being to being, or at which the one changes from being to not-being, then the one neither is nor is not at S. But consider (P5) that there is no time at which X neither is nor is not, and hence that there is no time at which the one neither is nor is not. Taken together with P3 and P4, then, P5 entails (L3) that if there is something S at which the one changes from not-being to being, or at which the one changes from being to not-being, then S is not a time. And the conjunction of L1, L2, and L3 entails (L4) that if the one is, then the one changes from not-being to being and changes from being to not-being, but not at a *time*.

Assume now (P6) that if X changes from not-being to being and changes from being to not-being, but not at a *time*, then there is something (call it the "instant") that is in no time at all and at which X changes both from not-being to being and from being to not-being. By P6, if the one changes from not-being to being and from being to not-being, but not at a *time*, then there is something (the "instant") that is in no time at all and at which the one changes both from not-being to being and from being to not-being. Taken together, L4 and P6 entail (C1) that if the one is, then there is something (the "instant") (i) that is in no time at all and (ii) at which the one changes both from not-being to being and from being to not-being and (iii) at which the one neither is nor is not.

Now, by D1A1P1, if the one is, then the one is one, and by D2A3C (or D2A5C), if the one is, then the one is many. Taken together with AppA2C1, these assumptions entail (L5) that if the one is, then there is a time at which the one comes to be one and there is a time at which the one comes to be many. Now, by AppA4P1, if X comes to be F, then X changes from being con-F to being F, and hence, if the one comes to be one, then the one changes from being many to being one, and if the one comes to be many, then the one changes from being one to being many. Taken together, L5 and AppA4P1 entail (L6) that if the one is, then the one changes from being many to being one and changes from being one to being many. Now, by AppA4P3, if there is something S at which the one changes from being many to being one, or changes from being one to being many, then the one is neither one nor many at S. But, by AppA4P2, if the one is, then there is no time at which the one is neither one nor many. Taken together, then, L6, AppA4P3, and AppA4P2 entail (L7) that if the one is, then the one changes from being many to being one and changes from being one to

being many, but not at a *time*. But, by AppA4P4, if the one changes from being many to being one and changes from being one to being many, but not at a *time*, then there is something (the "instant") that is in no time at all and at which the one changes both from being many to being one and from being one to being many. The conjunction of L7 and AppA4P4 then entails (C2) that if the one is, then there is something (the "instant") (i) that is in no time at all and (ii) at which the one changes both from being one to being many and from being many to being one and (iii) at which the one is neither one nor many.

Similar reasoning on the basis of D2A13C, AppA2C1, AppA3P8, and AppA4P1–P4 establishes C3, and similar reasoning on the basis of D2A22C1, AppA2C1, AppA3P8, and AppA4P1–P4 establishes C4.

AppA5 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D1A1P1, D2A3C (or D2A5C), D2A13C, D2A22C1, AppA2C1, AppA2C2, AppA3P8, and AppA4P1–P4. P1 and P2, which are akin to AppA4P1, are obvious. Similarly for P3 (which is akin to AppA4P2), P4 and P5 (which are both akin to AppA4P3), and P6 (which is akin to AppA4P4). D1A1P1, as we have seen, simply follows from theorem **SP** of the higher theory. AppA3P8, which follows from **PE1**, is obvious, and AppA4P1–P4 are unimpeachable. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A3 (or D2A5), D2A13, D2A22, and AppA2 to be sound.

Summary

The purpose of the Appendix is to derive some consequences from the first two Deductions considered together. All of these consequences depend in one way or another on **RP**. For AppA3, AppA4, and AppA5 depend for their soundness on the soundness of AppA2, which depends for its soundness on the soundness of AppA1, which depends for its soundness on the soundness of D1A17, which depends for its soundness on the truth of **RP**. If, as I will argue, Plato is committed to the falsity of **RP**, it follows that he is not committed to any of the conclusions derived in the Appendix.

Still, the Appendix does offer us an independent premise that is crucial to the sequel. This premise, which appears in the text of AppA1, states that in order for something to partake and not partake of the same thing, it must do so at different times, and hence must be in time. Now one of the consequences of D1 (namely, D1A16) has it, *on the assumption that **RP** is true*, that if the one is, then the one is not in time. But one of the consequences of D2 (namely, D2A24) has it that if the one is, then the one

is in time. Since the one either is or is not in time, it follows that if the one is, then **RP** must be false. Were Plato able to show that the one is, he would then have an argument sufficient to establish the falsity of **RP**. It remains to be seen whether Plato can actually prove that the one is.

6.2 THE THIRD DEDUCTION

D3A1 *(157b6–c1)*

D3A1 establishes (C) that if the one is, then the others are not the one.

By D2A13L1, if the one is, then the others are different from the one. But, by D2A29P4, to say that X is different from Y is to say that X is other than Y, and hence to say that the others are different from the one is to say that the others are other than the one. Taken together, D2A13L1 and D2A29P4 entail (L1) that if the one is, then the others are other than the one. But now assume (P1) that to say that X is other than Y is to say that X is not Y, and hence to say that the others are other than the one is to say that the others are not the one. The conjunction of L1 and P1 entails (C) that if the one is, then the others are not the one.

D3A1 is plainly valid. Whether it is sound depends on the truth values of P1, D2A13L1, and D2A29P4. As Plato sees it, P1 and D2A29P4 are true by definition. D2A13L1 depends on D2A11P2 (which is unimpeachable) and D2A11C. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A11 to be sound.

D3A2 *(157c1–5)*

D3A2 establishes three conclusions, (C1) that if the one is, then the others have parts, (C2) that if the one is, then the others are a whole, and (C3) that if the one is, then the others are one.

By D2A11P4, the others are those that are not one. Now assume (P1) that if X is not one, then X is many, and (P2) that if X is many, then X has [many] parts. By P1, if the others are not one, then the others are many. And, by P2, if the others are many, then the others have parts. So D2A11P4, P1, and P2 together entail that the others have parts, and hence (C1) that if the one is, then the others have parts. Now, by D2A6P2, if X has parts, then X is a whole, and hence, if the others have parts, then the others are a whole. When combined with D2A6P2, C1 entails (C2) that if the one is, then the others are a whole. Finally, by D2A28P1, if X is an F, then X is one, and hence, if the others are a whole, then the others are one. So, when

combined with D2A28P1, C2 entails (C3) that if the one is, then the others are one.

D3A2 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D2A6P2, D2A11P4, and D2A28P1. All of these premises are unimpeachable. (Note that P2 is used to derive D7A2C.) So there is no reason for Plato to question the soundness of D3A2.

D3A3 *(157c5–e5)*

D3A3 establishes two conclusions, (C1) that if the one is, then the others are one, and (C2) that if the one is, then the others are a whole.

By D3A2C1, if the one is, then the others have parts. Now assume (P1) that if the others have parts and each part of the others is part of many, then it is part of each of the many [parts of the others], (P2) that if each part of the others is part of each part of the others, then it is part of itself, but (P3) that nothing can be part of itself. Taken together, D3A2C1, P1, P2, and P3 entail (L1) that if the one is, then each part of the others is not part of many.

Assume now (P4) that if the others have parts and there is a part of the others that is part of all of the others but not of each, then there is a part of all the others that is not part of one of the others, (P5) that if X is not part of one of the F's, then X is not part of each of the F's, (P6) that if X is not part of each of the F's, then X is part of none of the F's, and (P7) that if X is part of none of the F's, then X is not part of all of the F's. Taken together, P5, P6, and P7 entail (L2) that if X is not part of one of the F's, then X is not part of all of the F's, or equivalently, if X is part of all of the F's, then X is part of one of the F's. Thus, according to L2, there cannot be a part of all the others that is not part of one of the others. Hence, L2 and P4 entail (L3) that the others do not have parts *or* any part of the others that is part of all [of the others] is part of each. But, by D3A2C1, if the one is, then the others have parts. So L3 and D3A2C1 together entail (L4) that if the one is, then any part of the others that is part of all is part of each.

Now, by P2 and P3, it is not the case that each part of the others is part of each part of the others. Thus, L4, P2, and P3 together entail (L5) that if the one is, then each part of the others is not part of all. (If each part were part of all, then, by L4, it would be part of each. But, by P2 and P3, it cannot be part of each.)

Now, by L1 and L5, if the one is, then each part of the others is part of neither many nor all. But consider (P8) that if a part of X is part of neither many nor all, then it must be part of one, and hence, if a part of the others

is part of neither many nor all, then it must be part of one. So L1 and L5, when combined with P8, entail (L6) that if the one is, then each part of the others is part of one. But, by D2A2P1, if X is one, then X is a whole, and hence anything that is part of one is part of one whole. So L6 and D2A2P1 together entail (L7) that if the one is, then each part of the others is part of one whole. But consider (P9) that if each part of X is part of one whole, then X is one and X is a whole, and hence that if each part of the others is part of one whole, then the others are one and the others are a whole. So the conjunction of L7 and P9 entails both (C1) that if the one is, then the others are one, and (C2) that if the one is, then the others are a whole.

D3A3 is plainly valid. Whether it is sound depends on the truth values of P1–P9, D2A2P1, and D3A2C1. All of the independent premises of this argument are obvious, except for P6, which is rather plainly false.[3] P6 entails that something that is not part of each of A and B is, *ipso facto*, not part of A *and* not part of B. This is clearly false. If X is part of A but not of B, then it is true that X is not part of each of A and B, but it is false that X is part of neither A nor B. Although D1A17P1 and D2A2P1 are obvious and Plato accepts the soundness of D3A2, there is simply no getting around the fact that P6 is false, and hence that D3A3 is unsound.

Is this something that Plato is in a position to determine for himself? The answer is not clear. The argument is complicated, and Plato may have made a simple mistake. In any event, the mistake is not fatal to the project of D3. First, Plato does not rely on P6 to prove any other result in the Deductions. And second, the conclusions of D3A3 simply mimic D3A2C2 and D3A2C3. Since Plato takes D3A2 to be sound, he can rely on D3A2 to establish the conclusions of D3A3, and hence eliminate D3A3 from D3 at absolutely no logical cost.[4]

D3A4 *(157e5–158b4)*

D3A4 establishes (C) that if the one is, then the whole and the part of the others are many.

[3] Here I find myself in agreement with Gill (1996, 88–89).

[4] Gill thinks that the unsoundness of D3A3 provides confirmation of the interpretive hypothesis that the Deductions have an aporetic purpose. As she sees it, the second part of the dialogue "highlights conflicts by means of antinomies and exposes errors based on invalid reasoning or misconceptions, and it challenges us, as readers, to notice what has gone wrong" (Gill [1996, 64]). However, as I argue in the text, D3A3 is completely otiose within the context of the Deductions taken as a whole. Although Plato may intend the reader to see that D3A3 is unsound, he may also be less than confident about its soundness, or simply unaware of its unsoundness. The text simply underdetermines the choice among these different interpretive hypotheses.

By D3A2C1, if the one is, then the others have parts. Assume now (P1) that if X is correctly called "each," then X is one, and hence that if the others have parts (to each of which we can refer as "each"), then each part of the others is one. Taken together, D3A2C1 and P1 entail (L1) that if the one is, then each part of the others is one. But consider (P2) that if X is one but X does not partake of the one, then X is the one (or, equivalently, if X is one and X is not the one, then X partakes of the one), and (P3) that no part of the others is the one. By P2, if each part of the others is one but is not the one, then it partakes of the one. So the conjunction of L1, P2, and P3 entails (L2) that if the one is, then each part of the others partakes of the one. Assume now (P4) that if X partakes of Y, then X is different from Y. By P4, if a part of the others partakes of the one, then it is different from the one. Hence, by L2 and P4, if the one is, then each part of the others is different from the one. Moreover, by D2A11C, if the one is, then the one is different from the others. But, by D2A11P2, if X is different from Y, then Y is different from X, and hence, if the one is different from the others, then the others are different from the one. Thus, by D2A11C and D2A11P2, if the one is, then [the whole of] the others are different from the one. So L2, P4, D2A11C, and D2A11P2 together entail (L3) that if the one is, then the whole and the part of the others are different from the one.

Now, by D2A29P4, to say that X is different from Y is to say that X is other than Y, and hence, if X is different from the one, then X is other than the one. But, by definition, the others are those things that are other than the one. But then, if X is different from the one, then X is among the others. Now, by D2A11P4, the others are those that are not one. Hence, D2A29P4 and D2A11P4 together entail (L4) that if X is different from the one, then X is not one, and hence that if the whole and the part of the others are different from the one, then the whole and the part of the others are not one.

Assume now (P5) that the whole and the part are not nothing, and (P6) that if X is not one and X is not nothing, then X is more than one. By P6, if the whole and the part of the others are not one and also not nothing, then the whole and the part of the others are more than one. And, by L3 and L4, if the one is, then the whole and the part of the others are not one. Thus, P5, P6, L3, and L4 entail (L5) that if the one is, then the whole and the part of the others are more than one. But, by D1A12P2, if X is more than one, then X is many, and hence, if the whole and the part of the others are more than one, then they are many. So the conjunction of L5 and D1A12P2 entails (C) that if the one is, then the whole and the part of the others are many.

D3A4 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D1A12P2, D2A11P2, D2A11P4, D2A11C, D2A29P4, and D3A2C1. P1, P5, P6, D1A12P2, and D2A11P2 are obvious, and both D2A11P4 and D2A29P4 are true by definition. (Note that P6 is used to derive D7A2C.) P2 follows from the assumption that everything that is one is either the one itself or one of things that partake of the one. The reason for this is theorem **C**, which entails that all things (other than the one) are one by virtue of partaking of the one. With respect to P3, if the one were part of the others, then it would be part of those things that are not one and hence, by **SP**, it would be part of things that are distinct from the one itself. But nothing can be a part of something that is distinct from itself. So the one cannot possibly be part of the others, and P3 must be true. P4 ("nothing partakes of itself") is a slightly stronger form of **NSP** ("no form partakes of itself"), and would surely be no less acceptable to Plato than is **NSP** itself. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D2A11 and D3A2 to be sound.

D3A5 *(158b5–c7)*

D3A5 establishes two conclusions, (C1) that if the one is, then the whole and the part of the others are unlimited in multitude, and (C2) that if the one is, then the whole and the part of the others are unlimited.

By D3A4C, if the one is, then the whole and the part of the others are many. Assume now (P1) that if X is many and each of X's parts is many, then, no matter how small the part P of X, P is many, and (P2) that if no matter how small the part P of X, P is many, then X and each of its parts is unlimited in multitude. By P1, if the whole of the others is many and each part of the whole of the others is many, then, no matter how small the part P of the whole of the others, P is many. And, by P2, if no matter how small the part P of the whole of the others, P is many, then the whole of the others and each its parts is unlimited in multitude. Taken together, D3A4C, P1, and P2 entail (C1) that if the one is, then the whole and the part of the others are unlimited in multitude. But, by D2A6P5, if X is unlimited in multitude, then X is unlimited. So C1 and D2A6P5 together entail (C2) that if the one is, then the whole and the part of the others are unlimited.

D3A5 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D2A6P5, and D3A4C. P1 and P2 are unimpeachable. D2A6P5 follows from **PE1**, and hence must be treated as uncontroversial. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D3A4 to be sound.

D3A6 *(158c7–d8)*

D3A6 establishes (C) that if the one is, then the whole and the part of the others are limited.

By D3A2C1, if the one is, then the others have parts, and by D3A2C2, if the one is, then the others are a whole. Assume now (P1) that *if* X is a whole and X has parts, *then* X is limited in relation to its parts and every part of X that is one is (i) limited in relation to every other part of X that is one and (ii) limited in relation to X. By P1, if the others are a whole and the others have parts, then the others are limited in relation to their parts and every part of the others that is one is (i) limited in relation to every other part of the others that is one and (ii) limited in relation to the others. Thus, D3A2C1, D3A2C2, and P1 together entail (L1) that if the one is, then the others are limited in relation to their parts and every part of the others that is one is (i) limited in relation to every other part of the others that is one and (ii) limited in relation to the others.

Now assume (P2) that if X is limited in relation to Y, then X is limited. By P2, if the others (as a whole) are limited in relation to their parts, then the others (as a whole) are limited. Moreover, also by P2, if each part P of the others that is one is (i) limited in relation to every other part of the others that is one and (ii) limited in relation to the others, then P is limited. So L1 and P2 together entail (L2) that if the one is, then the whole of the others and each part of the others that is one is limited. But, by D3A4P1, each part of the others is one. Hence, L2 and D3A4P1 together entail (C) that if the one is, then the whole and the part of the others are limited.

D3A6 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D3A2C1, D3A2C2, and D3A4P1. The basic idea behind P1 is that a whole and its unitary parts are limited in relation to each other, and each unitary part is limited in relation to every other unitary part. I do not know how to evaluate P1. For Plato, the limits of a thing are its boundaries, and I do not know what it means for a thing to be limited *in relation to another thing*. This cannot amount to lack of containment, since a whole contains its parts and yet is supposed to be limited in relation to its parts. So I find P1 perplexing. But it does not follow that I am tempted to treat P1 as false from Plato's point of view. Parmenides states P1 unequivocally, and since virtually all of Parmenides' explicitly stated premises have come out to be either sensible or obvious, I am going to give Parmenides the benefit of the doubt. The governing assumption here is that there is almost certainly some interpretation of the "unlimited-in-relation-to" relation that makes P1 come out true. P2 simply follows from **PE1**: for if X is limited

in relation to Y, then X is limited in some way, and hence, by **PE1**, X is limited. And D3A4P1 is uncontroversial. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D3A2 to be sound.

D3A7 *(158e1–159a6)*

D3A7 establishes four conclusions, (C1) that if the one is, then each of the others is like itself, (C2) that if the one is, then each of the others is like each of the others other than itself, (C3) that if the one is, then each of the others is unlike itself, and (C4) that if the one is, then each of the others is unlike each of the others other than itself.

By D2A13P1, if X is F and Y is F, then X has a property the same as Y. Taken on its own, D2A13P1 entails (L1) that if X is F, then X has a property the same as X, and hence, if each of the others is unlimited (or limited), then it has a property the same as itself. Now, by D3A5C2, if the one is, then the whole and the part of the others are unlimited, and by D3A6C, if the one is, then the whole and the part of the others are limited. So, by D3A5C2 and D3A6C, if the one is, then each of the others is both unlimited and limited. So L1, taken together with either D3A5C2 or D3A6C, entails (L2) that if the one is, then each of the others has a property the same as itself. But now, by D1A12P3, for X to be like Y is for X to have a property the same as Y, and hence, if each of the others has a property the same as itself, then each of the others is like itself. So the conjunction of L2 and D1A12P3 entails (C1) that if the one is, then each of the others is like itself.

As we showed above, D3A5C2 and D3A6C entail that if the one is, then each of the others is both limited and unlimited. But, by D2A13P1, if X is F and Y is F, then X has a property the same as Y, and hence, if each of the others is unlimited (or limited), then it has a property the same as each of the others other than itself. Thus, by D2A13P1, if the one is, then each of the others has a property the same as each of the others other than itself. So the conjunction of D2A13P1 with either D3A5C2 or D3A6C entails (L3) that if the one is, then each of the others has a property the same as each of the others other than itself. But now, by D1A12P3, for X to be like Y is for X to have a property the same as Y. Hence, if each of the others has a property the same as each of the others other than itself, then each of the others is like each of the others other than itself. So L3 and D1A12P3 together entail (C2) that if the one is, then each of the others is like each of the others other than itself.

As we showed above, by D3A5C2 and D3A6C, if the one is, then each of the others is both unlimited and limited. Assume now (P1) that being limited and being unlimited are contrary properties, and (P2) that if X is F and Y is con-F, then X has a property different from Y. Taken together, P1 and P2 entail (L4) that if each of the others is unlimited and limited, then each of the others has a property different from itself. Thus, D3A5C2, D3A6C, and L4 together entail (L5) that if the one is, then each of the others has a property different from itself. But, by D1A13L2, for X to be unlike Y is for X to have a property different from Y, and hence, if each of the others has a property different from itself, then each of the others is unlike itself. So the conjunction of L5 and D1A13L2 entails (C3) that if the one is, then each of the others is unlike itself.

Again, by D3A5C2 and D3A6C, if the one is, then each of the others is both unlimited and limited. Now, taken together, P1 and P2 entail not only L4, but also (L6) that if each of the others is unlimited and limited, then each of the others has a property different from each of the others other than itself. So the conjunction of D3A5C2, D3A6C, and L6 entails (L7) that if the one is, then each of the others has a property different from each of the others other than itself. But, by D1A13L2, for X to be unlike Y is for X to have a property different from Y, and hence, if each of the others has a property different from each of the others other than itself, then each of the others is unlike each of the others other than itself. So the conjunction of L7 and D1A13L2 entails (C4) that if the one is, then each of the others is unlike each of the others other than itself.

D3A7 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D1A12P3, D2A13P1, D1A13L2, D3A5C2, and D3A6C. P1, P2, and D2A13P1 are obvious. D1A12P3 is true by definition, and D1A13L2 depends on D1A12P3 (which is true by definition) and D1A13P2 (which is eminently reasonable). So the question whether Plato takes the argument to be sound reduces to the question whether he takes D3A5 and D3A6 to be sound.

D3A8 *(159a6–b1)*

This is not so much an argument as the promise of a number of arguments establishing results of the form: If the one is, then the others are both F and con-F. In D2, D1A1P1 ("if the one is, then the one is one"), D2A2C1 ("if the one is, then the one is a whole"), and the Independent Results (i.e., the results generated without relying on the premises, lemmata, or conclusion of any previous argument) are sufficient to generate all of the other results of the form: If the one is, then the one is both F and con-F. (I leave proof of

this as an exercise for the reader.) By parity of reasoning, D3A2C2 ("if the one is, then the others are a whole"), D3A3C1 ("if the one is, then the others are one"), and the Independent Results corresponding to the Independent Results of D2 are sufficient to generate all of the results mentioned above, as well as a host of others. In particular, it can be shown, *without reliance on **RP***, that if the one is, then (i) the others are the same as, and different from, each other, (ii) the others are in motion and at rest, (iii) the others are the same as, and different from, themselves, (iv) the others touch, and do not touch, themselves, (v) the others touch, and do not touch, each other, (vi) the others are greater than, equal to, and less than themselves, (vii) the others are greater than, equal to, and less than each other, (viii) the others are older than, the same age as, and younger than themselves, (ix) the others are older than, the same age as, and younger than each other, (x) the others come to be, and do not come to be, younger than each other, and (xi) the others come to be, and do not come to be, older than each other. So we have a logical explanation of why Plato did not bother completing the reasoning in D3 in a way that matches his extensive discussion of these matters in D2. The explanation is that the arguments needed to complete the reasoning in D3 are very similar in form to the arguments used to prove the corresponding results in D2. Plato thinks, not without well-placed confidence, that his readers should be able to work this out for themselves.

Summary

The first thing to note about D3 is that none of its results depends in any way on **RP**. For each argument of D3 ultimately depends for its soundness on the soundness of one or both of D3A2 and D2A11, both of which Plato takes to be sound. The pattern of argument in D3 therefore indicates that Plato thinks he has derived, *without reliance on **RP** and by means of a number of sound arguments*, a number of results of the form: If the one is, then the others are both F and con-F. As we have also seen, Plato thinks he can prove, again without relying on **RP**, that if the one is, then there are forms of being and difference distinct from the one (see D2A1 and D2A4). Being distinct from, and hence other than, the one, these two forms of being and difference must be among "the others" that D3 has shown are both F and con-F if the one is. Thus, Plato can appeal to D2 and D3 as proof of the fact that if the one is, there are forms other than the one that have contrary properties. If this is so, and Plato can show (as I believe he does in D6) that the one is, then he will have shown that there are forms that have contrary properties, and hence that **RP** must be false.

6.3 THE FOURTH DEDUCTION

D4A1 *(159b2–d4)*

D4A1 establishes (C) that if the one is, then the others are not [in any way] one.

Assume (P1) that if there is nothing apart from X and Y, then there is nothing apart from X and Y in which X and Y could be, (P2) that if there is nothing apart from X and Y in which X and Y could be, then X and Y are never in the same thing, and (P3) that if X and Y are never in the same thing, then X and Y are separate. Taken together, P1, P2, and P3 entail (i) that if there is nothing apart from X and Y, then X and Y are separate, and hence, if there is nothing apart from the one and the others, then the one and the others are separate. But, by D2A22P3, there is nothing apart from the one and the others. Hence, (i) and D2A22P3 together entail (L1) that if the one is, then the one and the others are separate.

Now assume (P4) that if X and Y are separate, then X could not be in Y as a whole, and hence, if the one and the others are separate, then the one could not be in the others as a whole. Taken together, L1 and P4 entail (L2) that if the one is, then the one could not be in the others as a whole.

By D1A2C1, if the one is, then the one has no parts. Now assume (P5) that if X has no parts, then it couldn't be that parts of X are in Y, and hence that if the one has no parts, then it couldn't be that parts of the one are in the others. Taken together, D1A2C1 and P5 entail (L3) that if the one is, then it couldn't be that parts of the one are in the others.

Assume now (P6) that if X [in some way] partakes of Y, then either the whole of Y is in X or a part of Y is in X. By P6, if the others [in some way] partake of the one, then either the whole of the one is in the others or a part of the one is in the others. But, by L2, if the one is, then the whole of the one is not in the others. And, by L3, if the one is, then it couldn't be that parts of the one are in the others. So the conjunction of P6, L2, and L3 entails (L4) that if the one is, then the others do not [in any way] partake of the one. But now, by **SBP**, to say that X partakes of the F is to say that X is F, and hence, if the others do not [in any way] partake of the one, then the others are not [in any way] one. So L4 and **SBP** together entail (C) that if the one is, then the others are not [in any way] one.

D4A1 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D1A2C1, **SBP**, and D2A22P3. P1 and P3–P6 are obvious. (Note that P6 is one of the uncontroversial presuppositions of the Whole–Part dilemma [see pp. 56-57].) P2 is questionable: if there is nothing apart from

X and Y in which X and Y could be, then the only way for X and Y to be in the same thing would be for X and Y to be in X or for X and Y to be in Y. In that case, Y would be in (and so, part of) X or X would be in (and so, part of) Y. Perhaps, then, Plato is assuming that X and Y are not parts of each other. But this seems to be something that Plato is trying to show (at least with respect to the one and the others), and so it would not be legitimate for him to make the needed assumption if he wished to avoid begging the question. Perhaps, then, this is a problematic feature of the argument that Plato does not see. For Plato makes it quite explicit that something like P2 is required to establish L1. I am therefore going to assume that the argument is unsound, but that it is not at all clear that Plato thinks it unsound.

As we have seen, **SBP** is unimpeachable, and D2A22P3 simply follows from the definition of "the others." So, leaving aside P2, the question whether Plato takes the argument to be sound reduces to the question whether he takes D1A2 to be sound.

D4A2 *(159d4–e1)*

D4A2 establishes three conclusions, (C1) that if the one is, then the others are not many, (C2) that if the one is, then the others are not a whole, and (C3) that if the one is, then the others do not have parts.

Assume (P1) that if the F's were many, then each of the F's would be one part of a whole, and hence, if the others were many, then each of the others would be one part of a whole. Now, by D2A5P31, if X is one part, then X is one, and hence, if each of the others is one part [of a whole], then it is one. But, by D4A1C, if the one is, then the others are not [in any way] one, and so (by D2A5P31) it is not the case that each of the others is one part [of a whole], and so (by P1) the others are not many. Thus, D4A1C, D2A5P31, and P1 together entail (C1) that if the one is, then the others are not many.

By D4A1C, if the one is, then the others are not [in any way] one. But, by D2A28P1, if X is an F, then X is one. Taken on its own, D2A28P1 entails (L1) that if X is a whole, then X is one, and hence that if the others are a whole, then the others are [in some way] one. So the conjunction of L1 and D4A1C entails (C2) that if the one is, then the others are not a whole.

Now, by D2A6P2, if X has parts, then X is a whole, and hence, if the others have parts, then the others are a whole. Thus, C2 and D2A6P2 together entail (C3) that if the one is, then the others do not have parts.

D4A2 is plainly valid. Whether it is sound depends on the truth values of P1, D2A5P31, D2A6P2, D2A28P1, and D4A1C. The reason for accepting P1 is that many things can be thought of as a whole and therefore as constituting

a whole. (Here are all the scattered parts of my bicycle. Still, they are all the parts of my bicycle. In a sense, they *are* my [now scattered] bicycle.) In such a case, each of the many things that are thought of as a whole would be one part of the whole, and hence P1 would be true. D2A5P31 follows from **PE1**, while D2A6P2 and D2A28P1 are uncontroversial. So the question whether Plato takes D4A2 to be sound reduces to the question whether he takes D4A1 to be sound.

D4A3 *(159e2–160a3)*

D4A3 establishes three conclusions, (C1) that if the one is, then the others are not like, (C2) that if the one is, then the others are not unlike, and (C3) that if the one is, then the others are not both like and unlike.

By D4A2C1, if the one is, then the others are not many. But, by D1A6P5, if X is two, then X is many, and hence, if the others are two, then the others are many. So D4A2C1 and D1A6P5 together entail (L1) that if the one is, then the others are not two. Now, by **SBP**, to say that X partakes of the F is to say that X is F, and so to say that the others are two is to say that the others partake of two. So L1 and **SBP** together entail (L2) that if the one is, then the others do not partake of two.

Assume now (P1) that the like and the unlike are contraries, and (P2) that if X and Y are contraries, then X is not the same as Y (and hence, if the like and the unlike are contraries, then the like is not the same as the unlike). Moreover, recall that, by D2A5L1, if X is not the same as Y, then X and Y are two (and hence, if the like is not the same as the unlike, then the like and the unlike are two). Taken together, P1, P2, and D2A5L1 entail that the like and the unlike are two. But this result, when combined with L2, entails (L3) that if the one is, then the others do not partake of the like and the unlike.

Assume now (P3) that the like is one, (P4) that the unlike is one, and (P5) that if X does not partake of the one, then X does not partake of one. By D4A1L4, if the one is, then the others do not partake of the one. But, by P5, if the others do not partake of the one, then the others do not partake of one. But since the like is one (by P3), the conjunction of P3, P5, and D4A1L4 entails (L4) that if the one is, then the others do not partake of the like. Moreover, given that the unlike is one (by P4), the conjunction of P4, P5, and D4A1L4 entails (L5) that if the one is, then the others do not partake of the unlike.

Now, by **SBP**, to say that X partakes of the F is to say that X is F. Hence, if the others are like, then the others partake of the like. So L4 and **SBP**

together entail (C1) that if the one is, then the others are not like. Furthermore, by **SBP**, if the others are unlike, then the others partake of the unlike. So L5 and **SBP** together entail (C2) that if the one is, then the others are not unlike. And finally, by **SBP**, if the others are both like and unlike, then the others partake of both the like and the unlike. So L3 and **SBP** together entail (C3) that if the one is, then the others are not both like and unlike.

D4A3 is plainly valid. Whether it is sound depends on the truth values of P1–P5, D1A6P5, **SBP**, D2A5L1, D4A1L4, and D4A2C1. P1 and P2 are obvious. On the assumption that "the F" refers to a form, P3 and P4 are consequences of theorem **O** of the higher theory. And P5, which is definitely needed to establish C1 and C2, involves a slide from "the one" to "one" (something that is very easy to do in Attic Greek, in which the definite article is often elided).[5]

D1A6P5 is elementary, **SBP** is a fundamental assumption, and D2A5L1 depends on the mathematically obvious D2A5P1–P4. D4A1L4 depends on D4A1P1–P6 (which, aside from the potentially problematic D4A1P2, are unimpeachable), D2A22P3 (which is unimpeachable), and D1A2C1. So, leaving aside D4A1P2, the question whether Plato takes the argument to be sound reduces to the question whether he takes D1A2 and D4A2 to be sound.

D4A4 *(160a4–b4)*

D4A4 establishes nine conclusions, to the effect that if the one is, then the others are not the same (C1), different (C2), in motion (C3), at rest (C4), coming to be (C5), ceasing to be (C6), greater (C7), equal (C8), or less (C9).

Assume (P1) that each of the same, the different, motion, rest, coming-to-be, ceasing-to-be, the greater, the less, and the equal, is one. By D4A1L4, if the one is, then the others do not partake of the one. And, by D4A3P5, if X does not partake of the one, then X does not partake of one (and hence, if the others do not partake of the one, then the others do not partake of one). Now, by P1, the same is one. So D4A1L4, D4A3P5, and P1 together entail (L1) that if the one is, then the others do not partake of the same. But, by **SBP**, if the others do not partake of the same, then the others are

[5] A conspicuous example of this slide appears at *Hippias Major* 296e7–297a1, where Socrates reasons as follows: By hypothesis, the beneficial is [identical to] the fine; but the beneficial is the maker of *good* (*agathon*), and to be a maker is to be a cause; therefore, the fine is a cause of *the good* (*tou agathou*). The same sort of slide appears at various points in the *Parmenides* as well. For example, Parmenides refers to *the one* as "one" at the start of the Second, Third, Sixth, Seventh, and Eighth Deductions (142b3, 142b5, 157b6, 159b3, 160b5–7, 163c1, 164b5, and 165e2–3).

not [the] same. The conjunction of L1 and **SBP** then entails (C1) that if the one is, then the others are not [the] same. Similar reasoning (on the basis of D4A1L4, D4A3P5, P1, and **SBP**) establishes (C2) that if the one is, then the others are not different, (C3) that if the one is, then the others are not in motion, (C4) that if the one is, then the others are not at rest, (C5) that if the one is, then the others are not coming to be, (C6) that if the one is, then the others are not ceasing to be, (C7) that if the one is, then the others are not greater, (C8) that if the one is, then the others are not equal, and (C9) that if the one is, then the others are not less.

D4A4 is plainly valid. Whether it is sound depends on the truth values of P1, **SBP**, D4A1L4, and D4A3P5. P1 follows from the result of conjoining theorem **O** of the higher theory, which says that each form is one, with the Platonic assumption that anything that may rightfully be called "the F" is a form. As we have also seen, **SBP** is foundational, D4A1L4 derives from a number of unimpeachable premises conjoined with D1A2C1, and D4A3P5 is defensible. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D1A2 to be sound.

Notice that once Parmenides has shown that if the one is then the others do not partake of the one, he can conclude that if the one is then the others do not partake of any form or any number of forms. (One of these conclusions is that if the one is, then the one does not partake of time.) The pattern of argument is identical to the pattern of argument establishing each of C1–C9.

Summary

There is a pattern to D4 no less than there is a pattern to D1. The end result of D4 is that, *on the assumption that **RP** is true*, it can be shown that if the one is, then the others are neither F nor con-F, i.e., that if the one is, then the others are both F and not F. Among these results is the (implicit) conclusion that if the one is, then the others are not in time. However, as we have already seen, Plato takes it to be impossible for something that is not in time to be both F and not F. For the only way he can conceive of something's being both F and not F is for it to be F at one time and not F at another (see Appendix above). The result of this is that the conjunction of **RP** with the hypothesis that the one is leads to absurdity. Hence, if it can be shown that the one is, then it will thereby be shown that **RP** is false.

CHAPTER 7

From the Fifth to the Eighth Deduction

The last four Deductions take up no more than six or so Stephanus pages (160b5–166c5). Parmenides has lost interest in establishing his results in as virtuosic a fashion as is displayed in the first two Deductions. Still, these Deductions are important to the plan of the dialogue.

7.1 THE FIFTH DEDUCTION

D5A1 *(160b5–d2)*

D5A1 establishes two conclusions, (C1) that if the one is not, then the one is different from the others, and (C2) that if the one is not, then we have knowledge of the one.

Assume (P1) that in saying "the one is not" what we are saying is not is contrary to the not-one. Taken on its own, P1 entails (L1) that if the one is not, then the one and the not-one are contraries. Now, by D2A11P4, the others are those that are not one. Taken on its own, D2A11P4 entails (L2) that the others are the not-one. Hence, by L1 and L2, if the one is not, then the one and the others are contraries. Now, by D4A3P2, if X and Y are contraries, then X is not the same as Y, and, by D2A4P1, if X is not the same as Y, then X is different from Y. Taken together, then, D4A3P2 and D2A4P1 entail (L3) that if X and Y are contraries, then X is different from Y (and hence, if the one and the others are contraries, then the one is different from the others). Thus, L1, L2, and L3 together entail (C1) that if the one is not, then the one is different from the others.

Assume now (P2) that in saying "if the one is not," we know what it means to say "if the one is not," and (P3) that if we know what it means to say "if X is F," then we have knowledge of X. By P3, if we know what it means to say "the one is not," then we have knowledge of the one. Hence, P2 and P3 together entail (C2) that if the one is not, then we have knowledge of the one.

D5A1 is plainly valid. Whether it is sound depends on the truth values of P1–P3, D2A4P1, D2A11P4, and D4A3P2. P1 and P2 are surely true. And there is at least one sense in which, as Plato would have it, P3 is also true. For P3 follows from a general assumption to the effect that, when speakers understand what they say, they know what they are talking about: if this assumption is true, then Parmenides and Aristotle, who understand what they say, and hence know what it means to say "if X is F," must (in some sense) know X (which is what they are talking about). Of the remaining premises, D2A4P1 and D4A3P2 are obvious, and D2A11P4 is definitionally true. So there is every reason to suppose that Plato takes D5A1 to be sound.

D5A2 *(160d3–e2)*

D5A2 establishes (C) that if the one is not, then the one is different in kind from the others.

By D2A15P4, if X has a property different from Y, then X has a property of another kind from Y. Taken on its own, D2A15P4 entails (L1) that if X is different from Y, then X is different in kind from Y (and hence, if the one is different from the others, then the one is different in kind from the others). But, by D5A1C1, if the one is not, then the one is different from the others. So D5A1C1 and L1 together entail (C) that if the one is not, then the one is different in kind from the others.

D5A2 is plainly valid. Whether it is sound depends on the truth values of D2A15P4 and D5A1C1. D2A15P4 is a conceptual truth. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D5A1 to be sound.

D5A3 *(160e2–161a5)*

D5A3 establishes (C) that if the one is not, then the one partakes of *something*, *that*, and *this*.

Assume (P1) that if the one is not, then the one can be mentioned, and (P2) that if X can be mentioned, then X partakes of *something* (and hence that if the one can be mentioned, then the one partakes of *something*). P1 and P2 together entail (L1) that if the one is not, then the one partakes of *something*.

Assume now (P3) that if the one is not, then the one is that one (i.e., the one that is not), and (P4) that if X is that one (i.e., the one that is F), then X partakes of *that*. By P4, if the one is that one (i.e., the one that is not), then the one partakes of *that*. So P3 and P4 together entail (L2) that if the one is not, then the one partakes of *that*.

Now assume (P5) that if the one is not, then the one is this one (i.e., the one that is not), and (P6) that if X is this one (i.e., the one that is F), then X partakes of *this*. By P6, if the one is this one (i.e., the one that is not), then the one partakes of *this*. So P5 and P6 entail (L3) that if the one is not, then the one partakes of *this*. Finally, L1, L2, and L3 together entail (C) that if the one is not, then the one partakes of *something*, *that*, and *this*.

D5A3 is plainly valid. Whether it is sound depends on the truth values of P1–P6. P3 and P5 are obvious, and there is no reason to believe that Plato would balk at the other independent premises. For example, one can understand why Plato would accept P1. For suppose that the one is not and that we are saying so. Then it is clear that the one can be mentioned (since we are saying of it that it is not). As for P2, if X can be mentioned, then X *is something* that can be mentioned. Hence (by **PE1**) X is something, and thus (by **SBP**) partakes of *something*. And it is for similar reasons that P4 and P6 are acceptable: if X is that/this one (i.e., the one that is F), then (by **PE1**) X is that/this, and hence (by **SBP**) X partakes of *that*/*this*. So there is every reason to think that Plato takes D5A3 to be sound.

D5A4 *(161a6–b4)*

D5A4 establishes three conclusions, (C1) that if the one is not, then the one is unlike the others, (C2) that if the one is not, then the others are unlike the one, and (C3) that if the one is not, then the one partakes of the unlike (i.e., has unlikeness) in relation to the others.

By D2A29P4, to say that X is different from Y is to say that X is other than Y. In other words, to be different is to be other. But, by D1A16P2, if to be F is to be G, then "F" and "G" are intersubstitutable *salva veritate*, and hence, if to be different is to be other, then "different" and "other" are intersubstitutable *salva veritate*. So D2A29P4 and D1A16P2 together entail (L1) that if X is different in kind from Y, then X is other in kind from Y. Now, by D2A15P5, if X has a property of another kind from Y, then X is unlike Y. Taken on its own, D2A15P5 entails (L2) that if X is other in kind from Y, then X is unlike Y. But now, by D5A2C, if the one is not, then the one is different in kind from the others. And, by L1, if the one is different in kind from the others, then the one is other in kind from the others. Moreover, by L2, if the one is other in kind from the others, then the one is unlike the others. So D5A2C, L1, and L2 together entail (C1) that if the one is not, then the one is unlike the others.

Assume now (P1) that if X is unlike Y, then Y is unlike X (and hence, if the one is unlike the others, then the others are unlike the one). P1 and

C1 together entail (C2) that if the one is not, then the others are unlike the one.

By **SBP**, to say that X partakes of the F is to say that X is F, and hence to say that the one is unlike [in relation to] the others is to say that the one partakes of the unlike (i.e., has unlikeness) in relation to the others. So C1 and **SBP** together entail (C3) that if the one is not, then the one partakes of the unlike (i.e., has unlikeness) in relation to the others.

D5A4 is plainly valid. Whether it is sound depends on the truth values of P1, **SBP**, D1A16P2, D2A15P5, D2A29P4, and D5A2C. P1 encapsulates the obvious principle of the symmetry of unlikeness. **SBP** and D2A29P4 are fundamental assumptions, as are D1A16P2 and D2A15P5. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D5A2 to be sound.

D5A5 *(161b4–c2)*

D5A5 establishes two conclusions, (C1) that if the one is not, then the one partakes of the like in relation to itself, and (C2) that if the one is not, then the one is like itself.

Assume (P1) that if X is F and X partakes of the unlike in relation to itself, then "if X is F" would be about something that partakes of the unlike in relation to itself. Now, by **SBP**, to say that X partakes of the F is to say that X is F, and so to say that something partakes of the unlike [in relation to itself] is to say that it is unlike [in relation to itself]. So P1 and **SBP** together entail (L1) that if X is F and X partakes of the unlike in relation to itself, then "if X is F" would be about something that is unlike in relation to itself. Now assume (P2) that if X is unlike Y, then X is other than Y, and hence that if something is unlike [in relation to] itself, then it is other [in relation to] itself (i.e., other than itself). So L1 and P2 together entail (L2) that if X is F and X partakes of the unlike in relation to itself, then "if X is F" would be about something that is other than itself.

By D2A15P3, X is not unlike Y if and only if X is like Y. But, by **SBP**, to say that X is unlike Y is to say that X partakes of the unlike in relation to Y, and to say that X is like Y is to say that X partakes of the like in relation to Y. So D2A15P3 and **SBP** together entail (L3) that if X does not partake of the unlike in relation to Y, then X partakes of the like in relation to Y.

Assume now (P3) that "if X is F" is not about something other than X, and hence that "if the one is not" is not about something other than the one. It follows from P3 and L2 that if the one is not, then the one does not partake of the unlike in relation to itself. But, by L3, if the one does not

partake of the unlike in relation to itself, then the one partakes of the like in relation to itself. So P3, L1, and L3 together entail (C1) that if the one is not, then the one partakes of the like in relation to itself. But, by **SBP**, if the one partakes of the like [in relation to itself], then the one is like [in relation to] itself. So C1 and **SBP** together entail (C2) that if the one is not, then the one is like itself.

D5A5 is plainly valid. Whether it is sound depends on the truth values of P1–P3, **SBP**, and D2A15P3. P1–P3 and D2A15P3 are obvious. (Note that P3 is used to derive D5A10C1 and D5A10C2.) **SBP** is a fundamental assumption. So there is every reason to believe that Plato takes D5A5 to be sound.

D5A6 *(161c3–d1)*

D5A6 establishes three conclusions, (C1) that if the one is not, then the one is unequal to the others, (C2) that if the one is not, then the others are unequal to the one, and (C3) that if the one is not, then the one partakes of the unequal in relation to the others.

There are two routes to the following lemma (L1): If the one is not, then the one is not equal to the others. Here is the first route. Assume (P1) that if X is equal to Y, then X is, and hence that if the one is equal to the others, then the one is. By contraposition, P1 entails (L1) that if the one is not, then the one is not equal to the others. Here is the second route. By D5A4C1, if the one is not, then the one is unlike the others. But, by D2A15P3, X is not unlike Y if and only if X is like Y, and hence the one is unlike the others if and only if the one is not like the others. Now assume (P2) that if X is equal to Y, then X is like Y (in respect of equality), and hence, if the one is not like the others, then the one is not equal to the others. So D5A4C1, D2A15P3, and P2 together entail (L1) that if the one is not, then the one is not equal to the others.

Now assume (P3) that if X is not equal to Y, then X is unequal to Y, and hence that if the one is not equal to the others, then the one is unequal to the others. Taken together, L1 and P3 entail (C1) that if the one is not, then the one is unequal to the others.

Assume further (P4) that if X is unequal to Y, then Y is unequal to X, and hence that if the one is unequal to the others, then the others are unequal to the one. C1 and P4 now entail (C2) that if the one is not, then the others are unequal to the one. Finally, by **SBP**, to say that the one is unequal [in relation] to the others is to say that the one partakes of the unequal in relation to the others. So C2 and **SBP** together entail (C3) that if the one is not, then the one partakes of the unequal in relation to the others.

D5A6 is plainly valid. There are two ways to argue for L1: (i) directly from P1, or (ii) from D2A15P3, D5A4C1, and P2. According to (i), the argument is sound if P1, P3, P4, and **SBP** are true. According to (ii), the argument is sound if P2–P4, **SBP**, D2A15P3, and D5A4C1 are true. P1 follows from **PE2**: for if X is equal to Y, then X is in some way, and hence, by **PE2**, X is. P2–P4 and D2A15P3 are obvious, and **SBP** is a fundamental assumption. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D5A4 to be sound.

D5A7 *(161d1–e2)*

D5A7 establishes three conclusions, (C1) that if the one is not, then the one partakes of the large, (C2) that if the one is not, then the one partakes of the small, and (C3) that if the one is not, then the one partakes of the equal.

Assume (P1) that the large and the small stand apart from each other, (P2) that if X and Y stand apart from each other, then there is something between them, and (P3) that the only thing that could be between the large and the small is the equal. By P2, if the large and the small stand apart from each other, then there is something between them. So, by P1 and P2, there is something between the large and the small. But since (by P3) the only thing that could be between the large and small is the equal, the conjunction of P1, P2, and P3 entails (L1) that the equal is between the large and the small.

Now, by AppA3P8, if X is F in relation to Z, then X is F. But, by **SBP**, to say that X is F is to say that X partakes of the F. So AppA3P8 and **SBP** together entail (L2) that if X partakes of the F in relation to Z, then X partakes of the F.

Assume now (P4) that the large and the small are constitutive of the unequal, and (P5) that if the F is constitutive of the G, then anything that partakes of the G partakes of the F. By P5, if the large is constitutive of the unequal, then anything that partakes of the unequal partakes of the large. So P4 and P5 together entail (L3) that anything that partakes of the unequal partakes of the large. But, by D5A6C3, if the one is not, then the one partakes of the unequal in relation to the others. And, by L2, if the one partakes of the unequal in relation to the others, then the one partakes of the unequal. So D5A6C3 and L2 together entail (L4) that if the one is not, then the one partakes of the unequal. And the conjunction of L3 and L4 entails (C1) that if the one is not, then the one partakes of the large.

Similar reasoning may now be used to establish C2. By P5, if the small is constitutive of the unequal, then anything that partakes of the unequal partakes of the small. So P4 and P5 together entail (L5) that anything that

partakes of the unequal partakes of the small. And the conjunction of L5 and L4 entails (C2) that if the one is not, then the one partakes of the small.

Assume now (P6) that if X partakes of the F and the G, and the H is between the F and the G, then X partakes of the H. By P6, if the one partakes of the large and the small, and the equal is between the large and the small, then the one partakes of the equal. By C1 and C2, if the one is not, then the one partakes of the large and the small, and, by L1, the equal is between the large and the small. So P6, C1, C2, and L1 together entail (C3) that if the one is not, then the one partakes of the equal.

D5A7 is plainly valid. Whether it is sound depends on the truth values of P1–P6, **SBP**, AppA3P8, and D5A6C3. It must be admitted that P1–P6 are all a bit odd. For example, it is not clear what it is for a form to be "constitutive" of another (P1, P2), nor what it is for two forms to "stand apart from each other" (P3, P4), nor why it should be the case that something that partakes of two forms partakes of any form that lies "between" them (P6). Yet Parmenides clearly accepts all six premises, none of which is obviously false. So I am inclined to suppose that Plato has his own reasons for thinking that P1–P6 are true. In particular, I see no reason to suppose that Plato takes the argument to be unsound because he takes one of P1–P6 to be false. **SBP** is a fundamental assumption, and AppA3P8 follows from **PE1**. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D5A6 to be sound.

D5A8 *(161e3–162b8)*

D5A8 establishes two conclusions, (C1) that if the one is not, then the one partakes of being, and (C2) that if the one is not, then the one partakes of not-being.

Assume (P1) that if X is not, then we speak truly in saying "X is not," (P2) that if we speak truly in saying "X is not," then we speak of something, namely X, that is not, and (P3) that if X is something of which we speak, then X is. Taken together, P1 and P2 entail (L1) that if X is not, then we speak of something, namely X, that is not. And P3 and L1 together entail (L2) that if X is not, then X is (and hence that if the one is not, then the one is). But, by **SBP**, if X is, then X partakes of being (and hence, if the one is, then the one partakes of being). So L2 and **SBP** together entail (C1) that if the one is not, then the one partakes of being. Moreover, by **SBP** alone, if X is not, then X partakes of not-being. So, taken on its

own, **SBP** entails (C2) that if the one is not, then the one partakes of not-being.

D5A8 is plainly valid. Whether it is sound depends on the truth values of P1–P3 and **SBP**. P1 is obvious. P2 follows from a general (and seemingly unimpeachable) principle to the effect that when we say truly that X is F, we are speaking of something, namely X, that is F. And P3 follows from **PE2**: for if X is something of which we speak, then X is in some way, and hence, by **PE2**, X is. Moreover, **SBP** is a fundamental assumption. So there is every reason to suppose that Plato takes D5A8 to be sound.

D5A9 *(162b9–c6)*

D5A9 establishes (C) that if the one is not, then the one is in motion.

By D5A8C1, if the one is not, then the one partakes of being, and by D5A8C2, if the one is not, then the one partakes of not-being. Assume now (P1) that if X partakes of being, then X is in the state of being, and (P2) that if X partakes of not-being, then X is not in the state of being. By P1, if the one partakes of being, then the one is in the state of being, and, by P2, if the one partakes of not-being, then the one is not in the state of being. So D5A8C1, P1, and P2 together entail (L1) that if the one is not, then the one is in the state of being and is not in the state of being.

Now assume (P3) that if X is in some state and is not in that state, then X changes from being in the state to not being in the state, and hence that if the one is in the state of being and is not in the state of being, then the one changes from being in the state of being to not being in the state of being. Taken together, L1 and P3 entail (L2) that if the one is not, then the one changes from being in the state of being to not being in the state of being.

Assume also (P4) that if X changes from being in some state to not being in that state, then X changes, and hence that if the one changes from being in the state of being to not being in the state of being, then the one changes. Taken together, L2 and P4 entail (L3) that if the one is not, then the one changes.

Finally, assume (P5) that if X changes, then X is in motion, and hence, if the one changes, then the one is in motion. Taken together, L3 and P5 entail (C) that if the one is not, then the one is in motion.

D5A9 is plainly valid. Whether it is sound depends on the truth values of P1–P5, D5A8C1, and D5A8C2. P1–P3 and P5 are obvious. P4 follows from **PE1**: for if X changes from being in some state to not being in that state, then X changes in some way, and hence, by **PE1**, X changes. So the

question whether Plato takes D5A9 to be sound reduces to the question whether he takes D5A8 to be sound.

D5A10 *(162c6–e3)*

D5A10 establishes two conclusions, (C1) that if the one is not, then the one is not in motion, and (C2) that if the one is not, then the one is at rest.

Assume (P1) that if X is not, then X is nowhere [among the things that are], and (P2) that if X is nowhere, then X cannot change from one place to another. Taken together, P1 and P2 entail (L1) that if X is not, then X cannot change from one place to another (and hence that if the one is not, then the one cannot change from one place to another).

Assume now (P3) that if X is not, then X cannot be in anything that is, (P4) that if X is the same, then X is, and (P5) that if X spins in a circle in the same location, then X is in something that is the same. Taken together, P3 and P4 entail (L2) that if X is not, then X cannot be in anything that is the same. And L2 and P5 together entail (L3) that if X is not, then X does not spin in a circle in the same location, and hence, if the one is not, then the one does not spin in a circle in the same location.

Now, by D5A5P3, "if X is F" is not about something other than X. But assume (P6) that if X were altered from itself, then "if X is F" would be about something other than X. Taken together, D5A5P3 and P6 entail (L4) that X is not altered from itself, and hence that if the one is not, then X is not altered from itself.

Now L1, L3, and L4 together entail (L5) that if the one is not, then the one cannot change from one place to another, does not spin in a circle in the same location, and is not altered from itself. But, by D1A7P10, if X is in motion, then X is altered from itself or moves spatially. And, by D1A7P11, if X moves spatially, then either X spins in a circle in the same location or X changes from one place to another. So D1A7P10 and D1A7P11 together entail (L6) that if X is in motion, then X is altered from itself, spins in a circle in the same location, or changes from one place to another (and hence that if the one is in motion, then the one is altered from itself, spins in a circle in the same location, or changes from one place to another). The conjunction of L5 and L6 then entails (C1) that if the one is not, then the one is not in motion. But, by D2A9P4, if X is not at rest, then X is in motion (and so, if the one is not in motion, then the one must be at rest). So C1 and D2A9P4 together entail (C2) that if the one is not, then the one is at rest.

D5A10 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D1A7P10, D1A7P11, D2A9P4, and D5A5P3. To see why P1 is true, look at its [logically equivalent] contrapositive: If X is somewhere [among the things that are], then X is. This follows from **PE2**: for if X is somewhere [among the things that are], then X is in some way, and hence, by **PE2**, X is. P2 follows from the obvious fact that change of place requires that one start from *somewhere*. P3 follows (again, by **PE2**) from the obvious fact that being in something that is entails being. Similarly for P4: if X is the same, then X is in some way, and hence, by **PE2**, X is. As for P5, we already have it from D1A7P4 that something's spinning in a circle in the same location involves its being poised on its middle and having other parts moving around the middle. Given this, it is reasonable to assume that something's spinning in a circle in the same location involves its being in something (namely, a place) that is the same (as opposed to moving from one place to another). And P6 seems obvious: to be altered from oneself, as Plato understands it, entails being other than oneself. D1A7P10 and D1A7P11 are basic to Plato's theory of motion, as it appears both in the *Parmenides* and in the *Theaetetus*. And D2A9P4 and D5A5P3 are both obvious. So there is every reason to believe that Plato takes D5A10 to be sound.

D5A11 *(162e4–163a7)*

D5A11 establishes two conclusions, (C1) that if the one is not, then the one is altered, and (C2) that if the one is not, then the one is not altered.

By D5A9C, if the one is not, then the one is in motion. Assume now (P1) that if X is in motion, then X is in a different state from what it was, and (P2) that if X is in a different state from what it was, then X is altered. By P1, if the one is in motion, then the one is in a different state from what it was, and, by P2, if the one is in a different state from what it was, then the one is altered. So D5A9C, P1, and P2 together entail (C1) that if the one is not, then the one is altered.

Now, by D5A10C1, if the one is not, then the one is not in motion. But consider (P3) that if X is not in motion, then X is not altered, and hence that if the one is not in motion, then the one is not altered. Taken together, D5A10C1 and P3 entail (C2) that if the one is not, then the one is not altered.

D5A11 is plainly valid. Whether it is sound depends on the truth values of P1–P3, D5A9C, and D5A10C1. P1–P3 are obvious. (Note that P1 and P2 are used to derive D6A2C4.) So the question whether Plato takes D5A11 to

be sound reduces to the question whether he takes D5A9 and D5A10 to be sound.

D5A12 *(163a7–b6)*

D5A12 establishes four conclusions, (C1) that if the one is not, then the one comes to be, (C2) that if the one is not, then the one ceases to be, (C3) that if the one is not, then the one does not come to be, and (C4) that if the one is not, then the one does not cease to be.

Assume (P1) that if X is altered, then X comes to be different from what it was before, and (P2) that if X comes to be different from what it was before, then X ceases to be in its previous state. Assume further (P3) that if X comes to be F, then X comes to be, and (P4) that if X ceases to be F, then X ceases to be. By D5A11C1, if the one is not, then the one is altered. But, by P1, if the one is altered, then the one comes to be different from what it was before, and, by P3, if the one comes to be different from what it was before, then the one comes to be. So D5A11C1, P1, and P3 together entail (C1) that if the one is not, then the one comes to be. Moreover, by P2, if the one comes to be different from what it was before, then the one ceases to be in its previous state, and, by P4, if the one ceases to be in its previous state, then the one ceases to be. Now D5A11C1 and P1 together entail (L1) that if the one is not, then the one comes to be different from what it was before. And the conjunction of L1 and P2 entails (L2) that if the one is not, then the one ceases to be in its previous state. Then, L2 and P4 together entail (C2) that if the one is not, then the one ceases to be.

Now, by D5A11C2, if the one is not, then the one is not altered. But assume (P5) that if X is not altered, then X does not come to be, and hence that if the one is not altered, then the one does not come to be. Taken together, D5A11C2 and P5 entail (C3) that if the one is not, then the one does not come to be. And consider also (P6) that if X is not altered, then X does not cease to be.

D5A12 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D5A11C1, and D5A11C2. P1, P2, P5, and P6 are obvious. P3 and P4 follow from **PE3** and **PE4**: for if X comes to be (ceases to be) F, then X comes to be (ceases to be) in some way, and hence, by **PE3** and **PE4**, X comes to be (ceases to be). So the question whether Plato takes D5A12 to be sound reduces to the question whether he takes D5A11 to be sound.

Summary

As should now be clear, Plato takes all the arguments of D5 to be sound. Moreover, none of the results in D5 depends in any way on **RP**. It follows

that Plato is committed to a series of propositions of the form: If the one is not, then the one is both F and con-F. In other words, Plato is committed to the claim that if the one is not, then **RP** is false. But we have already seen from our analysis of D1, D2, D3, and D4 that Plato is also committed to the claim that if the one is, then **RP** is false. Given that the one either is or is not (see the Analysis of D6A1 below), it follows directly that **RP** is false. This is the first major result of the Deductions. It is here that Plato finally provides us with a justification for responding to most of the problems raised in the first part of the *Parmenides* by abandoning **RP**. What has not yet been shown is that the one (and hence, by parity of reasoning, every form) is. This is the aim of the next Deduction.

7.2 THE SIXTH DEDUCTION

D6A1 *(163b7–d1)*

D6A1 establishes two conclusions, (C1) that if the one is not, then the one in no way is, and (C2) that if the one is not, then the one in no way partakes of being.

Assume (P1) that the words "is not" signify absence of being without qualification, and (P2) that if the words "is not" signify absence of being without qualification, then: if X is not, then X in no way is. P1 and P2 together entail that if X is not, then X in no way is, and hence entail (C1) that if the one is not, then the one in no way is. But, by **SBP**, to say that X partakes of being is to say that X is, and hence, if the one in no way is, then the one in no way partakes of being. So C1 and **SBP** together entail (C2) that if the one is not, then the one in no way partakes of being.

D6A1 is plainly valid. Whether it is sound depends on whether P1, P2, and **SBP** are true. P1 simply follows from **PE2**, namely that to say that *X is* is to say that X is *in some way* (i.e., that X is *with qualification*). This principle entails the claim that to say that it is not the case that X is (i.e., that X is not) is to say that X is *in no way* (i.e., *without qualification*), from which P1 directly follows. P2 and **SBP** are both obvious. (Note that P1 and P2 are both used to derive D7A1C4.) Thus, there is every reason to think that Plato takes D6A1 to be sound.

D6A2 *(163d1–e6)*

D6A2 establishes five conclusions, to wit, that if the one is not, then the one in no way comes to be (C1), in no way ceases to be (C2), is not altered in any way (C3), is not in motion (C4), and is not at rest (C5).

Assume (P1) that coming-to-be is getting a share of being, (P2) that ceasing-to-be is losing a share of being, and (P3) that if X in no way partakes of Y, then X in no way gets a share, or loses a share, of Y. By D6A1C2, if the one is not, then the one in no way partakes of being. But, by P3, if the one in no way partakes of being, then the one in no way gets a share, or loses a share, of being. So D6A1C2 and P3 together entail (L1) that if the one is not, then the one in no way gets a share, or loses a share, of being. But then L1 and P1 together entail (C1) that if the one is not, then the one in no way comes to be. And L1 and P2 together entail (C2) that if the one is not, then the one in no way ceases to be.

Now, by D5A12P3, if X comes to be F, then X comes to be, and hence, if the one in no way comes to be, then the one in no way comes to be different from what it was before. But, by D5A12P1, if X is altered, then X comes to be different from what it was before, and hence, if the one in no way comes to be different from what it was before, then the one is not altered in any way. Taken together, C1, D5A12P3, and D5A12P1 entail (C3) that if the one is not, then the one is not altered in any way. (Note that C3 also follows from the conjunction of C2, D5A12P1, D5A12P2, and D5A12P4.)

Now, by D5A11P2, if X is in a different state from what it was, then X is altered, and, by D5A11P1, if X is in motion, then X is in a different state from what it was. So, taken together, D5A11P2 and D5A11P1 entail (L2) that if X is in motion, then X is altered, and hence that if the one is not altered, then the one is not in motion. But then C3 and L2 together entail (C4) that if the one is not, then the one is not in motion.

Assume now (P4) that if X is at rest, then X is always in the same thing, and (P5) that if X is always in the same thing, then X is [in some way]. By P5, if the one in no way is, then the one is not always in the same thing, and, by P4, if the one is not always in the same thing, then the one is not at rest. So P4 and P5 together entail (L3) that if the one in no way is, then the one is not at rest. But, by D6A1C1, if the one is not, then the one in no way is. So L3 and D6A1C1 together entail (C5) that if the one is not, then the one is not at rest.

D6A2 is plainly valid. Whether it is sound depends on the truth values of P1–P5, D5A11P1, D5A11P2, D5A12P1 and D5A12P3 (or D5A12P2 and D5A12P4), D6A1C1, and D6A1C2. P1–P3 are definitional truths, and P4 is obvious. P5 is an instance of the principle, "If X is F, then X is [in some way]," which follows from **PE2**. D5A11P1 and D5A11P2 are obvious, as are D5A12P1–P4. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D6A1 to be sound.

D6A3 *(163e6–164a4)*

D6A3 establishes five conclusions, to wit, that if the one is not, then the one does not partake of the small (C1), does not partake of the large (C2), does not partake of the equal (C3), does not partake of the like (C4), and does not partake of the different [in kind] (C5).

Assume (P1) that if X partakes of the F, then X partakes of being. By P1, if the one does not partake of being, then the one does not partake of the small, does not partake of the large, does not partake of the equal, does not partake of the like, and does not partake of the different [in kind]. But, by D6A1C2, if the one is not, then the one does not partake of being. Hence, P1 and D6A1C2 entail C1–C5.

D6A3 is plainly valid. Whether it is sound depends on the truth values of P1 and D6A1C2. That Plato accepts P1 is perfectly understandable. For if X partakes of the F, then, by **SBP**, X is F. So X is in some way, and hence, by **PE2**, X is. But, by **SBP** again, to say that X is is just to say that X partakes of being. Thus, if X partakes of the F, then X partakes of being. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D6A1 to be sound.

D6A4 *(164a4–b4)*

D6A4 establishes six conclusions, to wit, that if the one is not, then the others are not like the one (C1), the others are not unlike the one (C2), the others are not the same as the one (C3), the others are not different from the one (C4), none of the following (namely, *of that*, *to that*, *something*, *this*, *of this*, *of another*, *to another*, time past, time future, time present, knowledge, perception, opinion, account, and name) is applicable to the one (C5), and the one is in no state at all (C6).

By D6A1C1, if the one is not, then the one in no way is. Assume now (P1) that if X is related to Y, then Y in some way is (namely, related to X), and (P2) that if X is not related to Y, then X is not like Y, X is not unlike Y, X is not the same as Y, and X is not different from Y. By P1, if the one in no way is, then the others are not related to the one. And, by P2, if the others are not related to the one, then the others are not like the one, are not unlike the one, are not the same as the one, and are not different from the one. So D6A1C1, P1, and P2 together entail (C1) that if the one is not, then the others are not like the one, (C2) that if the one is not, then the others are not unlike the one, (C3) that if the one is not, then the others are not the same as the one, and (C4) that if the one is not, then the others are not different from the one.

Assume now (P3) that if X is and X is applicable to Y, then Y is, and (P4) that each of the following things is: *of that*, *to that*, *something*, *this*, *of this*, *of another*, *to another*, time past, time future, time present, knowledge, perception, opinion, account, and name. To see how to derive C5 from P3 and P4, simply consider an example: knowledge. By P3, if knowledge is and knowledge is applicable to the one, then the one is, and, by P4, knowledge is. Hence, P3 and P4 together entail that if knowledge is applicable to the one, then the one is. But this is the same as saying that if the one is not, then knowledge is not applicable to the one. C5 simply follows by parity of reasoning.

Assume now (P5) that if nothing is applicable to X, then X is in no state at all, and hence, if nothing is applicable to the one, then the one is in no state at all. By C5, if the one is not, then none of a large, and in principle limitless, number of predicates is applicable to the one. From this it may be inferred that if the one is not, then nothing is applicable to the one. So P5 and C5 together entail (C6) that if the one is not, then the one is in no state at all.

D6A4 is plainly valid. Whether it is sound depends on the truth values of P1–P5 and D6A1C1. Concerning P1: If X is related to Y, then Y is something to which X is related, and hence Y in some way is. Concerning P2: If X is not related to Y, then X bears no relation at all to Y, whether that be the relation of likeness, unlikeness, sameness, or difference. Consequently, if X is not related to Y, then X bears none of these relations to Y. P3 says, quite reasonably, that something to which another thing that is applies must *ipso facto* be. For example, it cannot be that the name "Einstein" is and applies to Einstein if Einstein himself does not partake of being. P4 gives us what must be an unexceptionable (to Plato) list of things that are. And P5 just seems obvious: for it does not seem possible for something to be in some state without some other thing's being true of (and hence applicable to) it. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D6A1 to be sound.

Summary

As should now be clear, the point of D6 is to prove, without reliance on **RP**, results of the following form: If the one is not, then the one is neither F nor con-F. From this it follows, again without reliance on **RP**, that if the one is not, then the one is both F and not-F (i.e., partakes of the F and does not partake of the F). Among these results is the claim (at D6A4C5) that if the one is not, then the one does not partake of time present, past, or future,

and hence that if the one is not, then the one does not partake of time. But as we have already seen in our analysis of the Appendix, Plato holds that it is impossible for something that does not partake of time to partake and not partake of the same thing. It follows directly (again, without reliance on **RP**) that it is not the case that the one is not. That is to say, it follows that the one is.

This result, like the falsity of **RP**, is of the utmost importance. For one thing, it provides Plato with yet another way of establishing the falsity of **RP**, thereby reinforcing the result obtained by combining D1 (or D2, or D3, or D4) and D5. For the main result to be obtained from each of D1–D4 is that if the one is, then **RP** is false. But now, given that D6 has shown that the one is, it follows directly by *modus ponens* that **RP** is false. For another, Parmenides has now made good on an important part of what he promised the Deductions would accomplish. He had said (at 135a–b) that "only a very gifted man can come to know that for each thing there is some kind, a being itself by itself," and had insisted (at 135b–c) that the very possibility of thought and dialectic requires that "for each thing there is a [form] that is always the same." Now, at the end of D6, Parmenides (and so Plato) can say that he has established the being of at least one form, namely the one. But not only that. As it happens, none of the reasoning in the Deductions up until this point depends in any way on the fact that the one was chosen as the topic of conversation. *The very same pattern of reasoning establishes parallel results for any form whatever*. (I leave the proof of this as an exercise for the reader.) In the end, there is nothing special about the one on which any Deduction depends. As Parmenides puts it at 136b: "The same method applies to unlike, to motion, to rest, to generation and destruction, and to being itself and not-being." The upshot is that repetition of the patterns of reasoning to be found in the Deductions establishes not only that the one is, but that *every form is*. Parmenides has indeed fulfilled his promise, and thereby reveals himself to be the kind of "gifted man" to whom he had previously referred.[1]

The result that the one is has further ramifications as well, for in conjunction with D2, it provides us with reasons to abandon both **P** and **U**. As we have seen, one of the upshots of D2 was that if the one is, then both **P** and **U** are false. So if, as D6 now tells us, the one is, it follows by *modus ponens*

[1] As an anonymous reviewer helpfully points out, the Greek word for "gifted" here (namely, *euphuēs*) may be taken in the sense of "well-endowed" or "well-suited." In saying that only a "gifted" man could show that every form is, Parmenides would then be saying not that one needs any special expertise to apply the same pattern of reasoning that establishes the being of the one to all other forms, but rather that one needs to be "well-suited" to the task (perhaps by being patient or steady).

that **P** and **U** are indeed false. And the rejection of **P** and **U** is significant inasmuch as it gives Plato a way of responding to some of the criticisms leveled against the higher theory in the first part of the dialogue (notably, the third criticism of the Piece-of-Pie version of the higher theory offered after the Whole–Part dilemma, the first part of the Greatest Difficulty, and one of the consequences of the Third Man argument), each of which relies on either **P** or **U**.

7.3 THE SEVENTH DEDUCTION

D7A1 (164b5–c6)

D7A1 establishes four conclusions, (C1) that if the one is not, then the others are, (C2) that if the one is not, then the others are other, (C3) that if the one is not, then the others are different, and (C4) that if the one is not, then the others are other than each other.

Assume (P1) that we can ask, "What properties must the others have if the one is not?," and (P2) that in asking "What properties must the others have if the one is not?" we are speaking about the others. But, by D5A8P3, if X is something of which we speak, then X is, and hence, if we are speaking about the others, then the others are. Taken together, then, P1, P2, and D5A8P3 entail (C1) that if the one is not, then the others are. Assume now (P3) that if the others are, then the others are other. The conjunction of C1 and P3 now entails (C2) that if the one is not, then the others are other.

Now, by D2A29P4, to say that X is different from Y is to say that X is other than Y (i.e., to be different is to be other). But, by D1A16P2, if to be F is to be G, then "F" and "G" are intersubstitutable *salva veritate*, and hence, if to be different is to be other, then "different" and "other" are intersubstitutable *salva veritate*. So D2A29P4 and D1A16P2 together entail (L1) that the names "different" and "other" are intersubstitutable *salva veritate* (and hence apply to the same things). But then, by L1, if the others are other, then the others are different. So C2 and L1 together entail (C3) that if the one is not, then the others are different.

Recall now that, by D6A1P1, the words "is not" signify absence of being without qualification, and, by D6A1P2, if the words "is not" signify absence of being without qualification, then: if X is not, then X in no way is. Taken together, D6A1P1 and D6A1P2 entail that if X is not, then X in no way is, and hence (L2) that if X is not, then X is not other than anything. Moreover, by D2A11P2, if X is different from Y, then Y is different from X. So L1 and D2A11P2 together entail (L3) that if X is other than Y, then Y is other than X.

Now C2 says that if the one is not, then the others are other. Assume now (P4) that if X is other, then X is other than something, and hence that if the others are other, then the others are other than something. Taken together, C2 and P4 entail (L4) that if the one is not, then the others are other than something. Now, by L3, if the others are other than something, then something is other than the others. So L3 and L4 together entail (L5) that if the one is not, then something is other than the others. But now, by L2, if the one is not, then the one is not other than anything, and hence, if the one is not, then the one is not other than the others. Thus, by L5 and L2, if the one is not, then the "something" that is other than the others cannot be the one. But, by D2A22P3, there is nothing apart from the one and the others. So if the one is not, then the "something" that is other than the others must be the others. Hence, L5, L2, and D2A22P3 together entail (C4) that if the one is not, then the others are other than each other.

D7A1 is plainly valid. Whether it is sound depends on the truth values of P1–P4, D1A16P2, D2A11P2, D2A22P3, D2A29P4, D5A8P3, D6A1P1, and D6A1P2. P1, P2, and P4 are unimpeachable. P3 is no more than an instance of **SP**. D1A16P2 is a fundamental assumption, D2A11P2 is obvious, D2A22P3 follows from the definition of the others, D2A29P4 is a linguistic truth, D5A8P3 and D6A1P1 follow from **PE2**, and D6A1P2 is obvious. Thus, there is every reason to think that Plato takes D7A1 to be sound.

D7A2 *(164c7–d6)*

D7A2 establishes (C) that if the one is not, then the others are infinitely many.

Assume (P1) that if X is not, then nothing partakes of X, and hence that if the one is not, then nothing partakes of the one. But, by **SBP**, to say that X partakes of the F is to say that X is F, and so, if nothing partakes of the one, then nothing is one. Thus, P1 and **SBP** together entail (L1) that if the one is not, then nothing is one.

Now, by D3A4P6, if X is not one and X is not nothing, then X is more than one, and, by D2A8P4, if X is, then X is not nothing. Taken together, D3A4P6 and D2A8P4 entail (i) that if X is and X is not one, then X is more than one. But, by D1A12P2, if X is more than one, then X is many. So (i) and D1A12P2 together entail (L2) that if X is and X is not one, then X is many.

Now, by D7A1C1, if the one is not, then the others are. And, by L1, if the one is not, then the others are not one. But, by L2, if the others are and the others are not one, then the others are many. So D7A1C1, L1, and L2 together entail (L3) that if the one is not, then the others are many.

By D3A2P2, if X is many, then X has many parts, and hence, if the others are many, then the others have many parts. So, by L3 and D3A2P2, if the one is not, then the others have many parts, say, A1, A2, A3, and so on. Suppose, then, that the one is not, and consider, say, A23, which clearly is. By L1, A23 is not one. So A23 is and A23 is not one. So, by L2, A23 is many. Hence, by D3A2P2, A23 has many parts, say, B1, B2, B3, and so on. Now consider B52, which clearly is. By L1, B52 is not one. So B52 is and B52 is not one. So, by L2, B52 is many. Hence, by D3A2P2, B52 has many parts, say, C1, C2, C3, and so on. What this pattern of reasoning shows is that, taken together, L1, L2, L3, and D3A2P2 entail (L4) that if the one is not, then the others have many parts, each of which has many parts, each of which has many parts, and so on, ad infinitum.

Now, by D2A3P2, if X is a part of Y and Y is a part of Z, then X is a part of Z. So something that is a part of a part of the others is itself a part of the others. And something that is a part of a part of a part of the others is itself a part of the others. And so on. What this shows is that, taken together, L4 and D2A3P2 entail (L5) that if the one is not, then the others have infinitely many parts. Moreover, by D2A3P3, if X has infinitely many parts, then X is infinitely many, and hence, if the others have infinitely many parts, then the others are infinitely many. So L5 and D2A3P3 together entail (C) that if the one is not, then the others are infinitely many.

D7A2 is plainly valid. Whether it is sound depends on the truth values of P1, D1A12P2, **SBP**, D2A3P2, D2A3P3, D2A8P4, D3A2P2, D3A4P6, and D7A1C1. P1 is surely unimpeachable. For if something partakes of X, then X is such that something partakes of it, and hence X in some way is; and, by **PE2**, it follows that X is. So, if X is not, then nothing partakes of X. All the other premises are unimpeachable. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D7A1 to be sound.

D7A3 *(164d6–e3)*

D7A3 establishes five conclusions, (C1) that if the one is not, then each of the others appears to be one, (C2) that if the one is not, then each of the others is not one, (C3) that if the one is not, then the others appear to be infinitely many, (C4) that if the one is not, then some of the others appear to be even, others odd, and (C5) that if the one is not, then none of the others is either even or odd.

By D7A2L3, if the one is not, then the others are many. Assume now (P1) that if the others are many, then they can be called "each," and (P2) that if the one is not, then anything that can be called "each" appears to be

one. Taken together, D7A2L3, P1, and P2 entail (C1) that if the one is not, then each of the others appears to be one.

Again, by D7A2L3 and P1, if the one is not, then the others can be called "each." But, by D7A2L1, if the one is not, then nothing is one. Hence, D7A2L3, P1, and D7A2L1 together entail (C2) that if the one is not, then each of the others is not one.

Now, by D7A2C, if the one is not, then the others are infinitely many. Moreover, by C1, if the one is not, then each of the others appears to be one. Assume now (P3) that if the F's are infinitely many and each of the F's appears to be one, then the F's appear to be infinitely many. By P3, if the others are infinitely many and each of the others appears to be one, then the others appear to be infinitely many. Taken together, then, D7A2C, C1, and P3 entail (C3) that if the one is not, then the others appear to be infinitely many.

Now assume (P4) that among things that appear to be many, some appear even, others odd. C3 and P4 together entail (C4) that if the one is not, then some of the others appear to be even, others odd. Moreover, assume (P5) that if X is odd or even, then X is composed of an odd or even number of things that are one. So, if any one of the others is odd or even, then it is composed of an odd or even number of things that are one. But, by D7A2L1, if the one is not, then nothing is one. So, if the one is not, then none of the others is composed of an odd or even number of things that are one. Hence, P5 and D7A2L1 together entail (C5) that if the one is not, then none of the others is either even or odd.

D7A3 is plainly valid. Whether it is sound depends on the truth values of P1–P5, D7A2L1, D7A2L3, and D7A2C. P1, P3, and P5 are all reasonable premises from Plato's point of view. Regarding P2, it is ordinarily the case that anything that can be called "each" is, and does not merely appear to be, one (see D3A4P1). But when the one is not, the fact that "each" is correctly applied to something entails no more than the appearance of unity. For if the one is not, then nothing is one (D7A2L1). It is not exactly clear why Parmenides insists on P4, a premise he needs in order to arrive at the explicitly stated C4; but it is certainly not unreasonable to suppose that we can mentally focus on even and odd groups among those that appear to be many. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D7A2 to be sound.

D7A4 *(164e3–165a5)*

D7A4 establishes three conclusions, (C1) that if the one is not, then among the others there appears to be a smallest, (C2) that if the one is not, then

each of the others (even the other that appears smallest) appears large in relation to its parts, and (C3) that if the one is not, then each of the others appears to come to the equal.

By D7A2C, if the one is not, then the others are infinitely many. Assume now (P1) that if the F's are infinitely many, then among the F's there appears to be a smallest, and hence that if the others are infinitely many, then among the others there appears to be a smallest. Taken together, D7A2C and P1 entail (C1) that if the one is not, then among the others there appears to be a smallest.

By D7A2L5, if the one is not, then the others have infinitely many parts. Assume now (P2) that if X has infinitely many parts, then X appears large in relation to its parts, and hence, if the others have infinitely many parts, then each of the others appears large in relation to its parts. But, by C1, if the one is not, then among the others there appears to be a smallest. So, taken together, D7A2L5, P2, and C1 entail (C2) that if the one is not, then each of the others (even the other that appears smallest) appears large in relation to its parts.

Now, by D7A2C, if the one is not, then the others are infinitely many. And, by D7A1C4, if the one is not, then the others are other than each other. But assume (P3) that if the F's are infinitely many, and each is other than the others, then each of the F's appears small in relation to another of the F's. By P3, if the others are infinitely many and each is other than the others, then each of the others appears small in relation to another of the others. So D7A2C, D7A1C4, and P3 together entail (L1) that if the one is not, then each of the others appears small in relation to another of the others. Now assume (P4) that if X appears to be F in relation to Y, then X appears to be F, and hence, if any one of the others appears small in relation to another of the others, then it appears small. Taken together, L1 and P4 entail (L2) that if the one is not, then each of the others appears small. But now, by C2, if the one is not, then each of the others appears large in relation to its parts. And, by P4, if any one of the others appears large in relation to its parts, then it appears large. Hence, C2 and P4 together entail (L3) that if the one is not, then each of the others appears large. So, by L2 and L3, if the one is not, then each of the others appears both small and large.

But assume (P5) that if X appears both small and large, then X appears to shift from the small to the large, and vice versa, and (P6) that if A appears to shift from X to Y, and Z lies between X and Y, then A appears to come to Z. By P5, if any one of the others appears both small and large, then it appears to shift from the small to the large (and vice versa), and, by P6, if

any one of the others appears to shift from the small to the large, and the equal lies between the small and the large, then it appears to come to the equal. But, by D5A7L1, the equal is between the large and the small. So P5, P6, and D5A7L1 together entail (L4) that if any one of the others appears both small and large, then it appears to come to the equal. And so, L2, L3, and L4 together entail (C3) that if the one is not, then each of the others appears to come to the equal.

D7A4 is plainly valid. Whether it is sound depends on the truth values of P1–P6, D5A7L1, D7A1C4, D7A2L5, and D7A2C. It is not at all clear why Parmenides accepts P1. If there are infinitely many F's, why should it appear to us that one of them is smaller than all the others? Perhaps Parmenides accepts P1 because he assumes that we are unable to discern F's that are smaller than a given magnitude. So although among the infinitely many F's (each of which has infinitely many parts – see D7A2L5) it cannot be the case that one of them *is* smaller than all the others, it *can* be the case that one of them *appears to be* smaller than all the others. P2 follows from the obvious claim that anything that has parts appears to be larger than any of its parts. P3 follows from the obvious claim that, among infinitely many F's, there will always be one that is (and appears to be) larger than any given F. P4 follows from **PE5**: for if X appears to be F in relation to Y, then X appears to be F in some way, and hence, by **PE5**, X appears to be F. P5 is based on the assumption that nothing that appears both small and large can appear to be small and large at the same time: it must therefore appear to shift from the small to the large and vice versa. P6 is unimpeachable: it is not possible for something to appear to shift between X and Y without appearing to come to whatever lies between X and Y. D5A7L1 depends on D5A7P1–P3, each of which is odd, but not unacceptably odd. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D7A1 and D7A2 to be sound.

D7A5 *(165a5–c6)*

D7A5 establishes three conclusions, to wit, that if the one is not, then each of the others appears to have no beginning, middle, or end in relation to itself (C1), appears unlimited in relation to itself (C2), and appears limited in relation to another (C3).

By D7A3C3, if the one is not, then the others appear to be infinitely many. Assume now (P1) that if X appears to be infinitely many, then X appears to have no beginning, middle, or end in relation to itself, and hence that if the others appear to be infinitely many, then each of the others appears

to have no beginning, middle, or end in relation to itself. Taken together, D7A3C3 and P1 entail (C1) that if the one is not, then each of the others appears to have no beginning, middle, or end in relation to itself.

Now, by D1A4P1, the beginning and end of X are the limits of X, and hence the beginning and end of each of the others would be its limits. So, if one of the others appears to have no beginning and no end in relation to itself, it thereby appears unlimited in relation to itself. So C1 and D1A4P1 together entail (C2) that if the one is not, then each of the others appears unlimited in relation to itself.

By D7A1C4, if the one is not, then the others are other than each other. Assume now (P2) that X appears to be limited in relation to anything that is other than X, and hence that any one of the others appears to be limited in relation to anything that is other than it. Taken together, D7A1C4 and P2 entail (C3) that if the one is not, then each of the others appears limited in relation to another.

D7A5 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D1A4P1, D7A1C4, and D7A3C3. P1 seems unimpeachable: infinity is incompatible with boundedness. P2 derives from the fact that the existence of something other than X precludes X's appearing unlimited in relation to it. And D1A4P1 is something Plato takes for granted. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D7A1 and D7A3 to be sound.

D7A6 *(165c6–d4)*

D7A6 establishes two conclusions, (C1) that if the one is not, then each of the others appears to be like itself and each of the others, and (C2) that if the one is not, then each of the others appears to be unlike itself and each of the others.

By D7A3C1, if the one is not, then each of the others appears to be one. Assume now (P1) that if X and Y both appear to be one, then X and Y both appear to have a property the same, and hence, if each of two of the others appears to be one, then each appears to have a property the same as itself and the other. So D7A3C1 and P1 together entail (L1) that if the one is not, then each of the others appears to have a property the same as itself and each of the others. But, by D1A12P3, for X to be like Y is for X to have a property the same as Y, and hence for one of the others to have a property the same as itself and each of the others is for it to be like itself and each of the others. Thus, L1 and D1A12P3 together entail (C1) that if the

one is not, then each of the others appears to be like itself and each of the others.

By D7A3C1, if the one is not, then each of the others appears to be one, and by D7A3C3, if the one is not, then the others appear to be [infinitely] many. Now assume (P2) that if X and Y appear to be F and con-F, then X appears to have a property different from Y, and recall that, by D1A1P2, the property of being one and the property of being many are contraries. So, by P2 and D1A1P2, if each of the others appears to be one and many, then each of the others appears to have a property different from itself and each of the others. Hence, D7A3C1, D7A3C3, P2, and D1A1P2 together entail (L2) that if the one is not, then each of the others appears to have a property different from itself and each of the others. But now, by D2A15L3, if X has a property different from Y, then X is unlike Y, and hence, if one of the others appears to have a property different from itself and each of the others, then it appears to be unlike itself and each of the others. Taken together, L2 and D2A15L3 entail (C2) that if the one is not, then each of the others appears to be unlike itself and each of the others.

D7A6 is plainly valid. Whether it is sound depends on the truth values of P1, P2, D1A1P2, D1A12P3, D2A15L3, D7A3C1, and D7A3C3. P1 corresponds to D2A13P1, but in the realm of what appears to be the case. D2A13P1 entails that if X and Y *are* one, then X and Y both *have* a property the same. P1 says that if X and Y *appear to be* one, then X and Y *appear to* have a property the same. P2 corresponds to D3A7P2, again in the realm of what appears to be the case. D3A7P2 says that if X *is* F and Y *is* con-F, then X *has* a property different from Y. P2 says that if X *appears to be* F and Y *appears to be* con-F, then X *appears to have* a property different from Y. D1A1P2 is obvious, and D1A12P3 is true by definition. D2A15L3 depends on D2A15P5 and D2A15P6, both of which are unimpeachable. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D7A3 to be sound.

D7A7 *(165d4–e1)*

This is a promise of an argument, not an argument itself. It is not clear exactly how the argument would go. We can make educated guesses, depending on the connections between concepts that appear in the premises of previous Deductions. For example, if Parmenides can show that the others appear to change (perhaps because they appear to have contrary properties), then it follows that the others appear to be in motion. And so on.

Summary

D7 is a strange Deduction. Whereas the first two arguments are designed to show, without reliance on **RP**, that if the one is not then (for at least some F's) the others *are* F, the rest of the arguments are designed to show, also without reliance on **RP**, that if the one is not then (for at least some F's) the others *appear to be* F. In this way, D7 breaks the mold, for none of the other Deductions concerns *what appears to be the case* for the one or the others if the one is or if the one is not.

Still, Plato does manage to show, without reliance on **RP**, that if the one is not, then the others are (D7A1C1). This result is significant when considered in combination with corresponding results from D3. In D3, Plato had shown, without reliance on **RP**, that if the one is, then (for many F's) the others are F. But to be F is to be in some way, and hence, by **PE2**, it follows from X's being F that X is. Hence D3 shows that if the one is, then the others are. Putting these results from D3 and D7 together, we arrive at the conclusion that, whether the one is or is not, the others are. Hence, we have it that the others are. If, as it seems Plato supposes, there are forms among the others (forms such as being and difference – see *Summary* of D3), it follows that these forms (other than the one) are. Thus, not only has Plato managed to show that the one is, but he has also shown that all forms other than the one are too (thereby confirming our overall *Summary* of D6).

7.4 THE EIGHTH DEDUCTION

D8A1 *(165e2–8)*

D8A1 establishes two conclusions, (C1) that if the one is not, then none of the others is one, and (C2) that if the one is not, then the others are not many.

By D7A3C2, if the one is not, then each of the others is not one. Taken on its own, this result entails (C1) that if the one is not, then none of the others is one. Now assume (P1) that if none of the F's is one, then the F's are nothing, and (P2) that if the F's are nothing, then the F's are not many. By P1, if none of the others is one, then the others are nothing, and, by P2, if the others are nothing, then the others are not many. So C1, P1, and P2 together entail (C2) that if the one is not, then the others are not many.

D8A1 is plainly valid. Whether it is sound depends on the truth values of P1, P2, and D7A3C2. P1 follows from the obvious claim that if it is

inappropriate to call any of the F's "one," then the F's cannot so much as be counted, and hence amount to nothing. And P2 is obvious: whatever does not amount to anything certainly cannot be many. So the question whether Plato takes the argument to be sound reduces to the question whether he takes D7A3 to be sound.

D8A2 *(165e8–166b3)*

D8A2 establishes (C) that if the one is not, then the others cannot be conceived to be either one or many.

Assume (P1) that if the F is not, then nothing can be conceived as F, and hence that if the one is not, then the others cannot be conceived to be one. Assume further (P2) that if X is conceived as con-F, then X is conceived as not being F, and (P3) that if the F is not, then nothing can be conceived as not being F. By P3, if the one is not, then nothing can be conceived as not being one, and, by P2, if nothing can be conceived as not being one, then nothing can be conceived as being the contrary of one. But, by D1A1P2, being one and being many are contrary properties. Hence, P2, P3, and D1A1P2 together entail that if the one is not, then nothing can be conceived to be many, and hence, (L1) if the one is not, then the others cannot be conceived to be many. Taken together then, P1 and L1 entail (C) that if the one is not, then the others cannot be conceived to be either one or many.

D8A2 is plainly valid. Whether it is sound depends on the truth values of P1–P3 and D1A1P2. P1 and P3 follow from the reasonable claim that it is possible to conceive of something as being F/not being F (and hence as partaking of the F/not partaking of the F) only if the F actually is. Moreover, P2 and D1A1P2 are both obvious. So there is every reason to believe that Plato takes D8A2 to be sound.

D8A3 *(166b3–c5)*

This is the promise of an argument, not an argument itself. There is also a summing up of all previous results.

Summary

In D8, Parmenides argues, without reliance on **RP**, that if the one is not, then nothing is (see 166b3–c5), and so in particular that if the one is not, then the others are not. This result can be combined with the result of D7,

namely that if the one is not, then the others are. In combination, these results tell us that if the one is not, then the others both are and are not. Since it is impossible for the others both to be and not to be, it follows that the one is. This confirms the result reached at the end of D6.

7.5 CONCLUSION

The Deductions in the second part of the Parmenides divide up into roughly ninety-four stretches of reasoning with 180 conclusions. Of these ninety-four arguments, we have found reason to worry on Plato's behalf about the soundness of six: D1A9, D1A10, D1A11, D2A4, D2A12, and D2A14. The other eighty-eight arguments are plainly valid, with premises it is reasonable to assume Plato would accept. Of the six culprits, it is reasonable to assume that Plato may not have the wherewithal to recognize the invalidity of D1A9, that he includes D1A10 (which is completely disconnected from the rest of the Deductions) for the sake of symmetry and completeness, that the unsoundness of D1A11 is most likely based on an understandable confusion, that Plato may see that he could replace D2A4 with a better argument to the same conclusion, that the removal of D2A12 causes no more than a slight imbalance in the Deductions, and that D2A14 is otiose (since Plato argues for D2A14C in D2A15). Given these facts, it seems to me unreasonable in the extreme to suppose that Plato does not originally set out to provide a series of sound arguments in the Deductions. The idea that Plato constructs the Deductions to provide his readers with an exercise in distinguishing between valid/sound and invalid/unsound arguments is unjustified.

The hypothesis that Plato intends to provide a series of sound arguments is overwhelmingly confirmed by the results that can be derived from these arguments on the supposition that they are so intended. From D1 and D5, we are able to conclude that **RP** is false. From D6 (and also from the conjunction of D7 and D8), we can derive the result that the one and forms other than the one are. This result, when combined with the upshot of D2, D3, or D4 (namely, that if the one is, then **RP** is false), is sufficient to conclude that **RP** is false, thereby confirming what may be derived from the combination of D1 and D5. The conclusion that the one and forms other than the one are redeems one of the promises that Parmenides made immediately before embarking on the Deductions. Even more important is the fact that, having established the falsity of **RP** by means of the Deductions, Plato now has independent reasons for rejecting one of the assumptions that was responsible for the inconsistencies derived

from the axioms and theorems of the higher theory of forms in the first part of the dialogue. The rejection of **RP** is not ad hoc, but rather completely justified. Finally, as we have seen, the conjunction of D2 and D6 also establishes the falsity of **P** and **U**, and hence (since **P** follows from the conjunction of **NCC** and **C**) provides reason to reject **NCC** as well. So, if the Deductions are read in the straightforward way I have proposed, Plato can come away from the *Parmenides* with a way of responding to every objection but the second part of the Greatest Difficulty argument.

On the interpretation I am proposing, the *Parmenides* is a unified whole with a very clear and simple purpose. In the first part of the dialogue, objections are raised against the higher theory of forms, as articulated in the middle-period dialogues and in Socrates' provocative speech. Most of these objections rely on **RP**, and some rely on **P**, **NCC**, or **U**. By the end of the first part, we are in a position to see that these objections can be avoided if independent reasons are found to reject **RP**, **P**, **NCC**, and **U**. Providing these independent reasons is precisely what the second part of the *Parmenides* is designed to accomplish. What now remains to be seen is whether there is any evidence from the later dialogues to confirm (or disconfirm) this interpretation.

Conclusion

The fundamental lesson of the *Parmenides*, I claim, is that **RP**, **P**, **NCC**, and **U** should be excised from the higher theory of forms. But, as developmentalists agree, the *Parmenides* is succeeded by (at least) five dialogues: *Theaetetus, Sophist, Statesman, Philebus*, and *Laws*. Do any of these dialogues contain evidence that supports the interpretive conclusion for which I have argued?

Even in the absence of a complete interpretation of Plato's late dialogues, I believe that this question may be answered affirmatively. If my interpretation of the *Parmenides* is largely accurate, then, as I argue below, we can explain (i) why **P**, **RP**, and **NCC** are abandoned in the *Sophist*, and why **RP** is abandoned in the *Philebus*, (ii) why the epistemological investigation in the *Theaetetus* takes the surprising form it does, and (iii) why there is a methodological turn towards division and collection in the late dialogues, particularly in the *Sophist* and *Statesman*.

It is also worth asking what remains of the higher theory once all offending principles have been abandoned. The answer, as we will see, is that while the substance of the theory and the method of dialectical investigation have changed, the arguments of the *Parmenides* have not forced Plato to abandon the forms altogether. The forms remain, but they are no longer the "perfect, and simple, and unshakeable, and blissful" objects in a place "beyond heaven" (*Phaedrus* 250c2–3, 247c3). They have been made more prosaic, laid low, sharing features with the sensible world they were originally meant to outshine.

PURITY, RADICAL PURITY, AND NO CAUSATION BY CONTRARIES

In the *Sophist*, the Eleatic Visitor and his interlocutor, Theaetetus, consider how best to define the sophist. Their investigation brings them to the realization that a sophist is one who is an expert in imitation, where imitation is of two sorts: likeness-making or appearance-making

(236c6–7). This realization requires them to confront the familiar objection that there are no likenesses or appearances because it is impossible to speak or think what is false (236d9–237a1, 264c4–d3). In finding their way through to answering this objection, the two discussants consider differing positions on the nature of being. On one view (the view of the "giants"), being is a sensible body (246a8–b3). On another (the view of the "gods"), being is a non-bodily form (246b6–c2). As the Eleatic Visitor sees it, the "giants" face difficulties in insisting on the corporeality of seemingly non-bodily beings, such as "justice and intelligence and the rest of virtue" (247b1–5), while the "gods" face difficulties in insisting that forms are both unchanging and knowable, since knowing is a kind of doing and hence things are changed by being known (248c11–e6).

The latter difficulty already brings to the fore a tension between **RP** and **KF** within the context of the higher theory. On the one hand, if no form can have contrary properties (**RP**), then no form can change [from having one property to having its contrary]. On the other, the **Stability of Knowledge** (**SOK**) and the **Possibility of Human Knowledge** (**PHK**) require that humans be capable of knowing at least some forms (**KF**). But if, as the Eleatic Visitor suggests, knowing is a kind of doing and things are changed when something is done to them, it follows that forms cannot be known without undergoing change. It seems, then, that the principles proposed by the Eleatic Visitor make it impossible for **RP** and **KF** to be true together.

The discussants also consider how the beings (or kinds) are interrelated (251d5–e1). Are they such that no kind blends with (i.e., has a share of) any other kind, such that every kind blends with every other kind, or such that only some, but not all, kinds blend with other kinds? The Eleatic Visitor and Theaetetus end up agreeing that some kinds blend with others (because, e.g., change and rest are, and hence partake of being – 251e8–252a11), but that not all kinds blend (since, e.g., change cannot partake of rest and rest cannot partake of change – 252d2–11). Rather, what must be accepted is the third position, according to which some kinds blend but others do not (254b8–c1).

At this point, Theaetetus and the Eleatic Visitor consider how change, rest, being, the same, and the different are interrelated. As part of his proof that these kinds number five (and not fewer), the Eleatic Visitor argues that neither change nor rest can be identical to either sameness or difference (255a4–b7). The reasoning is as follows.

Suppose, for *reductio*, that change is identical to sameness. In that case, by a general principle of substitutivity relied on in the Deductions of the

Parmenides (see p. 125), to say that rest is the same is to say that rest changes. Now since everything "shares in sameness in relation to itself," i.e., everything is the same as itself (256a12–b2), rest is the same as itself. But then rest is the same *in some way* (namely, relative to itself), and hence, by **PE1** (see p. 112), rest is the same. However, rest does not change (252d9–10). It follows that change is not identical to sameness. Now suppose, again by *reductio*, that rest is identical to sameness. In that case, by the same principle of substitutivity, to say that change is the same is to say that change rests. But although change is the same (given that everything is the same as itself), change does not rest. So rest is not identical to sameness.

Similarly, suppose by *reductio* that rest is identical to difference. In that case, by the principle of substitutivity, to say that change is different is to say that change rests. But although change is different (since change is different from rest), change does not rest. So rest is not identical to difference. Finally, suppose by *reductio* that change is identical to difference. In that case, to say that rest is different is to say that rest changes. But although rest is different (since rest is different from change), rest does not change. So change is not identical to difference either.[1]

One of the more noteworthy aspects of the proof that neither change nor rest is identical to sameness or difference is its dependence on the rejection of both **RP** and **P**. As part of the proof that neither change nor rest is identical to sameness, it is assumed that change is the same (since change is the same as itself) and that rest is the same (since rest is the same as itself). And as part of the proof that neither change nor rest is identical to the different, it is assumed that change is different (since change is different from rest) and that rest is different (since rest is different from change). Consequently, change is the same and different and rest is the same and different. Since being the same and being different are contrary properties, it follows that both change and rest have contrary properties. Assuming (along with the Eleatic Visitor) that change and rest are forms (since they

[1] The Eleatic Visitor also argues that being is not identical to difference (255c9–d8). Difference, he says, is always said in relation to another (255d1), for to say that something is different is to say that it is different *from* or *in relation to* something (255d6–7). But being is not always said in relation to another (255d4–5), since it is possible for something to be without being *in relation to* anything else. The conclusion then follows by Leibniz's Law.

What we have here is an alternative to Parmenides' argument for D2A4C2 at *Parmenides* 143a4–b8. Unlike the argument from the *Parmenides*, however, the argument at *Sophist* 255c9–d8 relies on unimpeachable premises. Moreover, it is possible to construct a parallel argument for D2A4C1: for while difference is always said of another, the one is not always said of another; hence, if the one is, then difference is not identical to the one.

are among the things that are), it follows that some forms have contrary properties. The premises of these proofs therefore presuppose the falsity of **RP**.

Similar reasoning reveals that the Eleatic Visitor presupposes the falsity of **P**. For it is clear that sameness is both the same (since it is the same as itself) and different (since it is different from the different), and that difference is the same (since it is the same as itself) and different (since it is different from the same). Consequently, sameness is the same and different and difference is the same and different. It follows from this, not only that **RP** is false, but also that, for at least some F's, the F is con-F, and hence that **P** is false as well.

Further investigation reveals that the Eleatic Visitor would favor the rejection of **NCC** as well. For he tells us that change, rest, being, and sameness are different *because they share in* difference (255e3–6), that rest and change are *because they share in* being (256a1 and 256d8–9), and that change is the same *because it has a share of* sameness (256a7–8). The obvious way to generalize from these instances is that it is by virtue of partaking of the F that F things are F. But this is just theorem **C** of the higher theory. It follows that the Visitor endorses **C** while rejecting **P**. Since **P** is logically entailed by the conjunction of **C** and **NCC**, the Visitor is therefore committed to denying **NCC**.

Let us now turn our attention to the *Philebus*. The overall purpose of the *Philebus* is to determine whether the best life is the life of pleasure, the life of knowledge, or the kind of life that involves some admixture of both pleasure and knowledge. At the very beginning of their investigation into this question, Socrates (the protagonist) and Protarchus (the interlocutor) come to agree that, although pleasure is one thing, "it comes in many forms that are in some way even quite unlike each other" (12c6–8). Similarly, as they agree, "shape is all one in genus, but some of its parts are absolutely opposite to one another" (12e7–13a1), and there can be "many and different kinds of knowledge" (14a8–9).

Recall now that there is evidence from the *Parmenides* and the *Theaetetus* that Plato accepts the proposition that a thing is identical to its parts, and hence that a thing is as numerous as its parts (see p. 115). If pleasure, knowledge, and shape have many parts, then each of them is many. But, as Socrates emphasizes in the *Philebus*, each is also one. Thus, each of pleasure, knowledge, and shape is both one and many. If pleasure, knowledge, and shape are forms, it follows that some forms are both one and many. And since being one and being many are contrary properties, it follows that some forms have contrary properties, and hence that **RP** is false.

In the *Philebus*, Socrates goes on to distinguish between one–many puzzles he calls "commonplace" and those that are more "worthy of scrutiny" (14d4–5, 15a3–4). The commonplace puzzles are those that are "taken from the things that come to be or perish" (15a1–2). Among these puzzles is the "quibble" that results from the recognition that a single human being's being identical to his many limbs and parts entails his being many, and thus that there are things that are both one and many. As is clear from the relevant passage (14d8–e4), the Socrates of the *Philebus* is no more impressed by this than the Socrates of the *Parmenides* was impressed by the claim (at 129c4–d2) that he himself is both one and many (one, because he is one among many, and many, because he has many parts). As in the *Parmenides*, what impresses him is the fact that it is possible to argue that some among the things that are (i.e., forms) exhibit both oneness and multiplicity. Again, though, if it is acknowledged that some forms are both one and many, the result is that **RP** is false. In fact, this is precisely what Socrates and Protarchus go on to emphasize. For they base the rest of their discussion on the supposition that each of knowledge and pleasure is both one and many, with the ultimate aim of showing exactly "how each of them is one and many, and how instead of becoming unlimited straightaway, each one of them acquires some definite number before it becomes unlimited" (18e9–19a2).

The available textual evidence therefore indicates that Plato presupposes the falsity of **RP**, **P**, and **NCC** by the time of the *Sophist*, and the falsity of (at least) **RP** by the time of the *Philebus*. Given that the *Sophist* and *Philebus* (thematically) postdate the *Parmenides*, this evidence provides further support for the hypothesis that the main purpose of the *Parmenides* is to advocate, and provide reasons for, the rejection of these principles. Interpretations that do not extract a similar message from the *Parmenides* are left to explain why it is that Plato would have his protagonist endorsing **P** in the *Phaedo* and **RP** in the first part of the *Parmenides*, while rejecting both **P** and **RP** in the *Sophist* and **RP** in the *Philebus*.

KNOWLEDGE

At the end of *Republic* V, Socrates argues that the lovers of sights and sounds (i.e., the lovers of the many beautiful sensible things) opine, but do not know; rather, it is the lovers of the forms (such as the beautiful itself) who know, but do not opine.[2] Socrates arrives at this "Two Worlds"

[2] I am assuming the standard interpretation of the argument (see above, p. 43, n. 47).

conclusion by means of an argument that is based on the assumption that forms are things that purely are, things that remain always the same in all respects. In purely being, forms differ from ordinary sensible objects, things that "always participate in both opposites" (479b8). Whereas a group of ten marbles is both double (because it is double the size of a group of five marbles) and half (because it is half the size of a group of twenty marbles), whereas a beautiful girl is both beautiful (by comparison with a pot) and ugly (by comparison with the gods), whereas Simmias is tall (by comparison with Socrates) and short (by comparison with Phaedo), doubleness is always double and never half, beauty is always beautiful and never ugly, and tallness is always tall and never short.[3] These assumptions are instances of the conjunction of **SP** ("the F is F") and **P** ("the F is not con-F").

On the basis of these assumptions (and more), Plato concludes that forms are the objects of knowledge, while sensibles are the objects of opinion (or belief). As Plato sees it in the *Republic*, sensibles are not knowable and forms are not opinable. It is therefore something of a shock to find Socrates and Theaetetus in the *Theaetetus* considering, at some length, the virtues and vices of three epistemic theories that are all incompatible with the Two Worlds conclusion: (1) the theory that identifies knowledge with perception (151d–186e), (2) the theory that identifies knowledge with true opinion (187a–201c), and (3) the theory that identifies knowledge with true opinion with an account (201c–210b). In Plato's world, perception, like opinion, is set over sensibles: what we perceive, we perceive with the aid of the five senses. Given that the Two Worlds argument establishes that knowledge is not set over sensibles, it is therefore something of a puzzle why Plato would even give theories (1), (2), and (3) the time of day in the *Theaetetus*. Why does he not simply dismiss them out of hand as being incompatible with the Two Worlds conclusion?

The interpretation of the *Parmenides* I have been defending provides a ready answer to this question. As I have argued, one of the main functions of the *Parmenides* is to provide reasons for rejecting **P**. If Plato were to accept those reasons, he would be forced to accept that one of the premises of the Two Worlds argument (namely, that forms are things that purely are) is false. As a result, he would no longer have reason to accept the Two Worlds conclusion: given the unsoundness of the Two Worlds argument, it is possible that knowledge and opinion are set over the same sorts of

[3] The double–half and beautiful–ugly examples appear in the *Republic* (at 479b3–4 and 479b1–2 – see also *Hippias Major* 289a2–b7), and the tall–short example appears in the *Phaedo* (at 102b3–d2).

things and that knowledge can be adequately defined as a kind of opinion. This by itself explains why Plato takes the perception- and opinion-based theories of knowledge as seriously as he does in the *Theaetetus*. Interpretations that do not extract the message I do from the *Parmenides* are left to explain why it is that Plato would have his protagonist endorsing an argument in *Republic* V that rules out of hand the epistemological theories that are given such lengthy and careful treatment by his protagonist in the *Theaetetus*.

THE METHOD OF DIVISION AND COLLECTION

In the middle dialogues, Plato discusses the methodological question concerning how best to attain knowledge. His answer in the *Phaedo* is that the proper way to knowledge is via the method of hypothesis, while his answer in the *Republic* is that knowledge may be obtained only by those who practice dialectic. Although these methods differ slightly, they also share numerous features. As we saw in chapter 1, the method of hypothesis is a bidirectional procedure that begins with an original and plausible hypothesis H, considering both (higher) hypotheses H* that entail H and the (lower) consequences that may be derived from H itself. If careful consideration of the consequences of H* does not reveal inconsistency at the heart of H*, then H is confirmed. Otherwise, H is disconfirmed. Similarly, if no inconsistency is found among the consequences of H, H is confirmed; whereas, if such an inconsistency is found, then H is disconfirmed. The method of dialectic adds two significant wrinkles to this picture. The first is that, in keeping with the Two Worlds argument, the proper method of achieving knowledge must concern "only the forms themselves, moving on from forms to forms, and ending in forms" (*Republic* 511c1–2). The second is that the upward-directed search for confirming hypotheses must end at "the unhypothetical first principle of everything" (511b6–7). Otherwise, the two methods are remarkably similar, reflecting Plato's admiration for the accomplishments of his mathematically gifted contemporaries (such as Theaetetus).

One of the more conspicuous aspects of the later dialogues is the fact that the relevant protagonists completely eschew the method of hypothesis and the method of dialectic in favor of a completely different route to knowledge that has come to be known as the method of division and collection (MDC). The method is not merely described, but is also prominently employed, in the *Sophist* and the *Statesman*.

As Plato describes it, the aim of MDC, like the aim of the method of the middle dialogues, is to give a clear account of what something is (*Sophist* 218b7–c1, *Statesman* 285e3–286a8). Call the something to be defined "the target." In the *Sophist* the target is the sophist, in the *Statesman* the target is the statesman. As these dialogues make clear, the target is a form (*eidos*) or kind (*genos*). In aiming at the target, one starts at Stage 1 with an overarching form F of which the target is clearly a part. At Stage 2 one divides F into two forms (F0 and F1) in accordance with the recommendation to "[cut] through the middle of things," for one is "more likely to encounter real classes" thereby (*Statesman* 262b6–8). One then asks whether the target shares in F0 or F1. If the target shares in F0, then at Stage 3 one divides F0 into two forms (F00 and F01) and decides whether the target shares in F00 or F01; if the target shares in F1, then at Stage 3 one divides F1 into two forms (F10 and F11) and decides whether the target shares in F10 or F11. The process of cutting continues until no further division of the overarching form is necessary to uniquely identify the target. Once the cutting process is complete, the results of the individual Stages of the process are then collected (or woven) into a unified account of the nature of the target form (e.g., see *Sophist* 224c9–d2 and 268c5–d4).

As should now be clear, the very viability of MDC depends on the presupposition that forms or kinds have parts into which they may be divided, and that these parts (which are also forms or kinds) can then be collected into a single whole. If the method works, it is because each form is both one (by virtue of being one whole) and many (by virtue of having many parts). MDC therefore presupposes that forms have at least one pair of contrary properties, and hence that **RP** is false. *Were **RP** to be true*, *MDC would make no sense*.

This is clearly the most striking feature of MDC, and it is one that the interpretation of the *Parmenides* I have proposed readily explains. The textual evidence reveals that Plato subscribes to the method of hypothesis or to the method of dialectic in the middle dialogues, while subscribing to MDC in the late dialogues. What explains this methodological shift is the rejection of **RP** in the *Parmenides*. If **RP** is true, then no form can have contrary properties; in particular, no form can be both one and many, in which case MDC will simply not work. So we can explain the absence of MDC in the middle dialogues as deriving from the fact that Plato accepts **RP** in the middle period. However, if, as the *Parmenides* shows, forms have contrary properties, and most notably the properties of being one and being many, then MDC *can* work. So we can explain the prominence of

MDC in the late dialogues as deriving from the fact that Plato learns of the falsity of **RP** from the arguments of the *Parmenides*. But the falsity of **RP** is precisely what I take the most important lesson of this crucial dialogue to be. Interpretations that do not extract such a message from the *Parmenides* are left to explain why it is that Plato would endorse one method of discovery in the middle dialogues and a completely different method of discovery in the dialogues of the late period.

WHITHER THE FORMS?

Let us then suppose that the interpretation of the *Parmenides* that I have offered is basically correct. The purpose of the dialogue is to subject the higher theory of forms, as developed in the middle dialogues and extended in Socrates' speech, to a series of criticisms that can be met, in a non-ad-hoc manner, by finding independent reasons for thinking that **RP**, **P**, **NCC**, and **U** are all false. One important question concerns exactly what remains of the higher theory once these principles have been excised from it. Is it still a *theory*? Is it recognizable as a theory of *forms*? Or should we think of Plato as having given up on the forms altogether?

Recall the overall structure of the higher theory. At the apex of the theory stand the two axioms, **OM** and **II**. **II** entails **S**, **NSP**, and **NSE**. **OM** entails both **O** and **E** and, with the help of additional assumptions, **NMTO**. (**O** also follows from the conjunction of **PC** and **CON**.) **E** and **NMTO** together entail **U**, and the conjunction of **OM** and **U** entails **C**, which itself entails **BP**. The conjunction of **C** and **NCC** entails **P** (which itself entails **P***), while the conjunction of **C** and **TT** entails **SP**. **P** and **SP**, when conjoined with **SOK** and **PHK**, entail **KF**. **P** and **IS** together entail **NI1**. When **RP** is added to the mix, further entailments can be seen to hold. For **RP** entails **P***, and the conjunction of **RP** and **SP** entails both **P** and **NI2**.

What happens to the theory when **RP**, **P**, **NCC**, and **U** are abandoned? In the first place, **II** remains standing, along with the three theorems it entails, namely **S**, **NSP**, and **NSE**. **OM** remains standing as well, along with its immediate corollaries, **E** and **O**. But there are significant consequences for the rest of the theory. The rejection of **U** forces the rejection of either **E** or **NMTO**. Since **E** follows directly from **OM**, I suspect that Plato would favor the rejection of **NMTO**. **NMTO** derives from the result of conjoining **OM** with additional assumptions (i.e., the Third Bed argument), at least one of which will need to be rejected if **OM** is to remain standing (see above, p. 187 n. 10). The rejection of **U** has further ramifications. For since

C follows from the conjunction of **OM** and **U**, the abandonment of **U** entails that there is insufficient reason to accept **C**. Still, there is a principle resembling **C** that follows from **OM** itself. This is the principle (call it "**C***") that all F things are F by virtue of partaking of some form of F-ness. If **C** is abandoned, then there is insufficient reason to accept **SP**. Still, there is a principle resembling **SP** that follows from **C*** and **TT**, when conjoined with the (not unreasonable) assumption that no form is uninstantiated (see above, p. 178). This is the principle (call it "**SP***") that every form of F-ness is F.

Not much else remains standing once **RP**, **P**, and **NCC** are rejected. Since **P** is used to derive **KF**, the rejection of **P** entails that we no longer have reason to accept **KF**. Since **P** is used to derive **NI1**, the rejection of **P** entails that we no longer have reason to accept **NI1**. And, since **RP** is used to derive **NI2**, the rejection of **RP** entails that we no longer have reason to accept **NI2**.

As should now be evident, the fact that **OM** and **II** have not been toppled, along with the fact that these two axioms, when combined with reasonable auxiliary assumptions, entail important theorems that are either similar or identical to some of the theorems of the higher theory, means that the rejection of **P**, **RP**, **NCC**, and **U** does not spell the end of the forms. The forms are still responsible for the properties of sensible things, and are still distinct from the things that partake of them. But it must be acknowledged that the theory that is left is considerably weaker than the higher theory itself. Given that the late theory provides us with no reason to accept **NI1** or **NI2**, it must allow for the possibility that some or all forms are sensible things.

Recognition of the fact that he could no longer exclude the possibility that forms are sensible is something Plato must have felt as a significant blow. For some readers, much of the magnetic appeal and poetic brilliance of the higher theory derives from picturing the philosopher as having access through reason to a realm of changeless, eternal, indivisible, and, above all, non-sensible entities. When Parmenides shatters this picture, Plato's philosopher is left to gaze at divisible entities that possess contrary properties, entities that may for all she knows be sensible. As it turns out, there may be no exit to the Cave because there is no world outside the Cave: the world of reality may simply be part of the world of appearance.

It is to Plato's eternal credit, I think, that, faced with this devastating blow, he picks himself up off the floor and attempts to paint a new and

enticing picture of philosophical activity with aims no less lofty and perhaps more likely to be achieved. The philosopher that he is on his way to describing (perhaps the subject of the planned sequel to the *Statesman* – see *Sophist* 217a4) recognizes that forms may be divided into parts that can then be reconstituted into a whole, a process that is no less (and perhaps more) capable of delivering definitions of the forms than the middle-period method of dialectic.

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Index of forms discussed

Index of deductions

Index of passages cited

General index