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Perception and Judgment in Plato's *Theaetetus*

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PERCEPTION AND JUDGMENT IN PLATO'S *THEAETETUS*

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Arts and Sciences
at the University of Kentucky

By

Paul DiRado

Lexington, Kentucky

Director: Dr. Eric Sanday, Professor of Philosophy

Lexington, Kentucky

2015

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ABSTRACT OF DISSERTATION

PERCEPTION AND JUDGMENT IN PLATO'S *THEAETETUS*

I will argue that Plato's dialogue *Theaetetus* demonstrates that knowledge is never caused by sense perception. While various kinds of qualities appear to the soul or mind as a result of sense perception—as a result of external bodies impacting with the sense organs—the being (*einai* or *ousia*) of these qualities is something different from the mere appearance of the qualities that occurs through the senses. While white colors appear to the soul through vision, perception itself does not reveal that these many appearances are all instances of one white quality. However, I will demonstrate that it is impossible to know anything, even something as basic as “the chalk is white,” if the knower does not recognize that “white” is some one thing and not merely a plurality of instances. Since sense perception does not disclose the one being of what appears within it, knowledge always requires the soul or mind to go beyond what is receptively disclosed to it through sense perception.

In order to demonstrate this conclusion, Plato uses a *reductio ad absurdum* argument. He develops a theory that argues for the opposite conclusion. According to this theory, perceiving and knowing are the same. In order to justify this result, the theory posits that qualities have no one being that is distinct from their many appearances. I will show that the theory entails a series of unacceptable consequences. The worst of these consequences is that it makes reality itself unintelligible—according to the theory, the world cannot be linguistically described because the world does not possess any concrete determinacy to describe as a result of the theory denying the difference between being and appearances. Plato's Socrates demonstrates that these conclusions are unacceptable on the theory's own terms. As a result, the theory fails and the postulate that being and appearances are identical must be rejected. It is impossible for the mere appearance of a quality through sense perception to ever be knowledge. It will only be possible for knowledge to come about through an activity of the soul that discovers the being of what appears to it.

KEYWORDS: Plato, *Theaetetus*, Perception, Knowledge, Being and Appearances

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May 29th, 2015

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Section 1: Introduction

The claim that the eyes do not see colors will strike most readers, even those with philosophical training, as patently absurd on first hearing it. And yet the refutation of Theaetetus' first proposed definition of knowledge hinges, Socrates argues, on recognizing that *of course* it is false to say that the eyes see color. Strictly speaking, the eyes do not see anything: color is seen *by* a unified human subject *through* the eyes. On first hearing and understanding it, the distinction seems subtle, perhaps even pedantic, as Socrates himself seems to note: "Now as a rule it is no sign of ill-breeding to be easy in the use of language and to take no particular care in one's choice of words; it is rather the opposite that gives a man away. But such exactness is sometimes necessary; and it is necessary here" (184c1-5).¹ In attempting to speak philosophically about sense perception, this level of subtle precision becomes necessary. If precisely what sense perception *is* were rigorously clarified, Socrates thinks it would be overwhelming obvious that sense perception is not capable of supplying knowledge about the world around us. However, sense perception is so fundamental and obvious to human beings, and we rely so heavily on metaphoric and loose ways of thinking about it, that the obvious absurdity of trying to ground knowledge in perception ordinarily goes unmarked and unnoticed.

In this dissertation, I will argue that the extended refutation of the first proposed definition of knowledge in the *Theaetetus*, from 151d to 186e, is intended to rigorously define precisely what sense perception is and why sense perception as such obviously

¹ From the Levett/Burnyeat translation, with modifications. The majority of translations of Plato in this dissertation are my own, in consultation with the Greek editions and translations listed in the Bibliography. The times where I prefer the rendering supplied by another translator to my own, as in this passage, will be noted in the footnotes.

does not and cannot lead to knowledge. The overall structure of the argument is as follows:

- (1) It is impossible to know something without grasping what it is—i.e., without grasping its being.
- (2) “What something is” is *one* thing, while it is capable of appearing in *many* different places at *many* different times.
- (3) What is revealed to the soul through sense perception are the *many* different appearances of things, and not the *one* “what it is” that is common to those many appearances.
- (4) Therefore, the *one* “what it is” is not grasped through any perception.
- (5) Therefore, it is not through sense perception that human beings know anything.

Understanding the compelling force of this argument, however, will require thinking through the relationship between sensory perceptions and the qualities (*poiotēs*, a word that Plato seems to invent in this dialogue) that appear through sense perception. In order for this analysis to be carried out, it will first be necessary for sensory perception to become problematic—sense perception must become something strange and unfamiliar so that it will be taken up as a topic in need of serious analysis and rigorous thinking.

To make sense perception seem strange and so worthy of serious investigation, Socrates spends the overwhelming majority of the dialogue presenting Theaetetus and the reader with a bewildering theory that I will call the Flux Thesis. This Flux Thesis offers a metaphysically complex account of perception and its relationship to knowledge. However, as a result of its characterization of perception, the theory entails staggeringly counterintuitive conclusions, including that all human beings are infallibly correct whenever they perceive, believe, or think something. The obvious wrongness of the theory shows the reader the dangerous philosophical mistakes that can follow from incorrectly thinking about sense perception, while the metaphysical resources that the

theory develops to describe perception allow the reader to offer a superior characterization of sense perception. This pedagogic strategy, I will argue, is in accordance with a more general Platonic approach to philosophical education, dialectic, that is found in other dialogues like the *Republic* and the *Parmenides*.

As a result, the dialogue contains an inner unity that has commonly gone unnoticed in the scholarship. At the beginning of their conversation, Theaetetus argues that knowledge (*epistēmē*) is identical with perception (*aisthēsis*) (151d-e). The actual refutation of this claim, however, only happens in a very small portion of text (184b-186e). Superficially, this final section of the text makes little use of the extended metaphysical and epistemological analysis of the Flux Thesis. In this dissertation, I will show how the Flux Thesis prepares for this final refutation of Theaetetus' first definition of knowledge by clarifying precisely what sense perception is, and how it is related to the qualities that appear within it. If the final stretch of argument is read in light of these accomplishments, it becomes substantially easier to understand and far more compelling than it is often thought to be.

In order to establish this result, I will offer an extended reading of the discussion of Theaetetus' first definition of knowledge. In the remainder of this introduction, I will discuss the methodology that underlies my reading of the *Theaetetus*, focusing especially on what it will mean to read the dialogue as contributing to a Platonic project of dialectical education. In Chapter One, I will discuss dialectical education in Plato's larger corpus in order to show how Plato invokes that education in the early pages of the *Theaetetus*. In Chapter 2, I will show how the Flux Thesis that Socrates' introduces to make sense of Theaetetus' first definition of knowledge presents the reader with a deeply

problematic, but educationally important, account of reality and how reality appears to human beings. In Chapter 3, I will demonstrate how Socrates refutes the Flux Thesis, and show how this refutation introduces both judgments² and qualities into the account. Finally, in Chapter 4, I will demonstrate how Socrates makes use of these resources to prove that it is an activity of the soul above and beyond perception that is responsible for human knowledge, and that it is not through sense perception that human beings attain knowledge of anything.

i. Interpretive Methodology

As I read the *Theaetetus*, Plato deliberately presents views and arguments within the dialogue that he does not endorse. The theory that I am calling the Flux Thesis is one such doctrine. Further, I will argue that theories that Plato is commonly thought to endorse—for instance, the theory of the Forms³ found in the *Republic*—are deliberately excluded from the dialogue. However, my contention is that Plato’s purpose in the *Theaetetus* is not merely disputatious. It is not simply that he is interested in refuting alternatives to his own view so that he can eventually present his own in future works like the *Sophist*. Rather, the procedure of discovering what is wrong in a position like the Flux

² I will usually translate *doxa* as judgment when it is used in the *Theaetetus*, rather than opinion. My reasoning largely agrees with that advanced in McDowell (1973: 193) and Burnyeat (1990: 69-70). While *opine* can be used as a verb to indicate some concrete act of the soul, *opinion* is not usually used to refer to a specific activity. In the *Theaetetus*, *doxa* in the sense of a concrete act is frequently used, whereas *doxa* in the sense of the general dispositional state of soul, which would usually be translated as “opinion,” is less common. I agree with Bostock (1988: 156-7), however, that the distinction between the English words “belief” and “judgment” is philosophically irrelevant to the arguments Plato presents.

³ As a convention, I will capitalize “Form” when I use it to refer in a technical sense to the metaphysical entities postulated by Plato. In Sections 2 and 3, I will discuss in broad overview what I take Plato to mean by these entities and discuss the reasons he gives for finding their existence compelling. However, my reading of the *Theaetetus* will not depend upon any specific reading of the Forms, or even that Plato is correct in talking about them. If the Forms are suggested in the *Theaetetus* at all, it will only be negatively, as potential solutions to certain problems that Plato is returning to again without relying upon any assumptions about Forms or their relationship to things.

Thesis is supposed to be educatively transformative for the reader.⁴ By forcing the reader to struggle with positions sharply at odds with general Platonic positions, the dialogue is structured in such a way that it provokes insight into things like the theory of the Forms that cannot be attained simply by having Plato argue that there are Forms. According to other dialogues like the *Republic* and the *Parmenides*, simply having true beliefs about something like the Forms is not adequate to attain real knowledge of them. Instead, philosophical knowledge requires a radical reorientation of the soul toward the eidetic structure of reality, a “conversion from becoming to being.” The long process of reorienting the soul in this way is called *dialectical education*. The extended refutation of Theaetetus’ first definition of knowledge is carried out this dialectically educative manner.⁵

⁴ There are four major interpretive strategies for dealing with the absence of the Forms and the aporetic ending of the *Theaetetus* found within the scholarship. First, there is what Burnyeat (1990) calls the A-Reading of the dialogue. On this reading, the dialogue should be read as *reductio ad absurdum* argument that deliberately suppresses the Forms in order to highlight their necessity. This interpretation is argued for by, for instance, Cornford (1935), Cherniss (1936: 7), and Silverman (2000). Cornford summarizes this interpretation when he says “The *Theaetetus* will formulate and examine the claim of the senses to yield knowledge. The discussion moves in the world of appearances and proves that, if we try to leave out of account the world of true being [Forms], we cannot extract knowledge from sensible experience.” Second, there is Burnyeat’s B-Reading, which reads the dialogue as demonstrating that the perceptual world is actually knowable in some sense, contrary to Plato’s argument in dialogues like the *Republic*—or at the very least, the earlier account of the unknowability of the perceptual world should be altered in certain respects. Plato therefore is either rejecting, or at least modifying, his earlier understanding of the Forms and knowledge. This reading is advocated by, for instance, Burnyeat (1990). Third, there is what Sedley (2004:5) calls the maieutic interpretation, which reads the third definition of knowledge—true judgment with an account—as being so close to correct that what remains is for the readers of the dialogue to “give birth” to the true account for themselves. The anonymous 1st century commentator on the *Theaetetus*, discussed in Sedley (1996), and Miller (1992) read the dialogue in this way. Fourth, there is the approach that reads the dialogue as commenting on the way in which Plato’s later philosophy is beholden to, but nevertheless moves beyond, its Socratic foundation. Variations of this approach are advocated by Long (1998) and Sedley (2004). As Sedley points out, however, these approaches are not necessarily mutually exclusive, and I will incorporate dimensions of the first three interpretive strategies in my reading.

⁵ Relatively few commentators have drawn any connection between the *Theaetetus* and the dialectical educative procedures of the *Republic*. It is far more common for commentators to see the midwifery of the *Theaetetus* as indicative of an earlier, more Socratic style of education that is thought to either conflict with, or at least differ from, the Platonic education found in the *Republic*. Commentators who do draw a connection between dialectical education and the *Theaetetus* include Sayre (1969), Miller (1992), Williams (1992: xx), and Long (1998: 130-1). Sayre thinks that the *Theaetetus* and the *Sophist* represent a break from the earlier Platonic method of hypothesizing found in the *Phaedo* and *Republic*, a project that Plato

On my reading, the analysis of Theaetetus' first definition of knowledge should be read as a *reductio ad absurdum* intended to provoke the dialectical student to recognize and move past a central prejudice that prevents thinkers from undergoing the sort of educative reorientation that Plato argues is the key to philosophy. This prejudice is a tendency to treat the world of ordinary experience as requiring no explanation outside of the simple brute fact of its appearance.⁶ The wind appears cold, or the dice pile seems to be large, or the action unjust—then it simply is cold or large or unjust, and there is nothing more to say about the coldness or largeness or injustice besides the fact such qualities are present. What *is* is what appears, and it *is* however it happens to appear, and it can be known simply because it appears. This acceptance of how things immediately appear is one of the central roadblocks that would prevent a student from taking seriously the Forms found in other Platonic dialogues.⁷ I will call this prejudice a trust (*pistis*) in the self-explanatory character of appearances—or for short, a trust in appearances.

announces within the account of dialectic in the *Republic*. Miller thinks that the *Theaetetus* contains dialectical elements, particularly in the refutation of the third definition of knowledge that is considered at the end of the dialogue, but that it mostly leaves the task of the turning of the soul to the *Parmenides*. Williams passingly suggests a connection between the two, though he does not pursue it in any depth. Long argues that "... the dialogue [the *Theaetetus*] represents only the necessary beginnings of philosophical education", though he does not connect "philosophical education," which he associates with the methods of the Eleatic Stranger, with dialectical education in the *Republic*.

⁶ Heidegger (2002: 36) characterizes Plato's understanding of this prejudice as the prisoner trapped within the cave being "trapped to self-evidence [selbstverständlichkeiten], and to people who are only guided by this." Miller (2003: 19) characterizes it as an unwillingness to engage in the "suspension of one's normal 'trust' (*pistis*) in sense experience in order to develop concepts adequate to what precedes and is basic to sensibles, namely, the timeless Being of the forms. Yet this is the crucial educational undertaking for one who would enter into philosophy." M. Frede (1987a: 5) characterizes it as: "the view that the beliefs which we have are just a matter of how things appear to us, how they strike us, of what impression, given the contact we have with them, they leave on us. Plato and the philosophical tradition that depends on him, on the other hand, think that we should not rest content with how things strike us, that we have to go beyond that to find out how they really are."

⁷ My reading of the *Theaetetus* is indebted to the development of Platonic dialectical education found in the writings of Miller (1986, 1992, 2003, 2007).

The trust in appearances manifests in a variety of different forms, and it can motivate the development of epistemological, metaphysical, and ethical philosophical theories.⁸ Empiricist epistemologies, on Plato's view, are frequently motivated by some version of this trust.⁹ Markie (2012) defines empiricists as those who "claim that sense experience is the ultimate source of all our concepts and knowledge." To Plato, such views are motivated by a confidence that the appearance of the sensible world can be trusted, and that its meaning is self-evident. The Flux Thesis that it is considered in the *Theaetetus* would be an example of an extreme empiricist view that is motivated by this trust.¹⁰

At the same time, however, the efforts to develop an explicit empirical account of knowledge forces thinkers to move beyond the trust in appearances in one important respect. The trust in appearances is generally speaking so foundational that it normally does not occur as something in need of further exploration or justification. The very

⁸ Ethically, conventionalism and hedonism are two theories motivated by the trust in appearances—there is nothing to goodness/justice/beauty outside of the how those things are conventional grasped, or outside of their immediate bodily appearance in pleasure. Variants of these two views are briefly discussed in the *Theaetetus* at various points from 166e-179b. Metaphysically, materialism is a version of the prejudice—there is nothing other than immediately present inert stuff. Materialism is briefly mentioned in the *Theaetetus* at 155d, and refuting it plays an important role in the dialogue's sequel, the *Sophist* (246a-247e).

⁹ The term "empiricism" is anachronistic—it will not emerge until approximately a century after Plato's death with the emergence of the empiricist school of medicine in the third century. For an overview of the Empiricist school, see Nutton (2013: 150-1), who writes "What counted was effective treatment. Sometimes what was needed was immediately obvious, sometimes one had a flash of inspiration, but in many cases one knew what would be likely to work simply from having had prior experience... The more experience the doctor had, the better he was likely to be; just as for the carpenter or the cobbler, practice made perfect." Nevertheless, the account of medicine that is proposed in the middle of the *Theaetetus* closely agrees with several of the tenets of this medical school of thought. For a further discussion of the philosophical assumptions made by this school, see M Frede (1986, 1987b).

¹⁰ My position is not that Plato was concerned with refuting anything like Early Modern Empiricism of the sort seen in Locke or Berkeley. The Flux Thesis that he considers in the *Theaetetus* is substantially different from these sorts of empiricism, though Berkeley (1744: 143-174) saw enough overlap between the two positions that he mistakenly, in my view, sees a substantial kinship between his view and the Flux Thesis. For more on the relation between Berkeley and the Flux Thesis, see also Burnyeat (1990: 8 n 14). While several of the arguments found in the *Theaetetus* do seem as if they would pose substantial challenges to many kinds of modern empiricist views, defending such a thesis will not be a part of this dissertation.

effort to develop an explicitly empiricist epistemology already begins to undermine the trust in appearances insofar as its advocate must go beyond the immediate obviousness of sensory experience in order to actually *explain* how experience causes knowledge. As a result, such theories of knowledge can be subject to critical scrutiny in a way that the attitude that motivates the theory cannot.

As a result, the radical empiricism of the Flux Thesis offers the reader the opportunity to philosophically interrogate the trust in appearances in a more direct form. The Flux Thesis is a theory designed to ensure that things just are how they seem to be, and that everything that seems to be also is. According to this theory, reality entirely reduces to appearance. As a result, knowledge, the subjective grasp of what is, reduces to how things appear to some subject. As a result of elevating the trust in appearances to the first principle of metaphysics and epistemology, Plato is able to dialectically subject what normally remains a prejudice to direct scrutiny. In trying to follow the bewildering and counterintuitive results of the theory, the reader is forced to both recognize that he or she is in the sway of such a “common-sense” prejudice and that, taken on its own terms, the prejudice leads to paradoxically counter-intuitive conclusions. If things are just as they appear to be, then Plato shows that things can’t be how they actually appear in the course of our daily life. If such an effort were successful, a crucial step in the dialectical educative process will have been accomplished. The reader will be forced to recognize that, in order for the world to have the intelligible structure that it so obviously does, the soul must necessarily move beyond the immediate appearance of the world. Only once such a reader begins to look beyond the immediate appearance of the world will it be

possible for the reader to reorient him or herself away from immediate appearance to the actual eidetic structure underlying that appearance.

In reading the dialogue as dialectically educative in the manner that I have outlined above, I am adopting several interpretive strategies. First, I will be relying on certain interpretively significant narrative connections between several of Plato's dialogues. In particular, I will be considering a narrative sequence that moves from the *Republic*, to the *Parmenides*,¹¹ and then to the *Theaetetus*, *Sophist*, and *Statesman* trilogy.¹² The *Republic* lays out the task of dialectical education, the *Parmenides* explicitly demonstrates what such an education requires, and the *Theaetetus* directly mentions the conversation of the *Parmenides* and directly foreshadows the conversations of the *Sophist* and *Statesman*. In recommending this sequence, I do not mean to suggest that it is the historical sequence in which Plato wrote these dialogues. Though there would generally speaking be nothing too controversial in proposing this sequence of composition,¹³ I will not be concerned with any such questions of dating in this work, and none of my arguments will hinge on them.¹⁴ Rather than deal in such concerns, I will

¹¹ For more on the narrative and thematic connections between the *Parmenides* and the *Theaetetus*, see also Cornford (1935: 1-2) and Cooper (1997: 157-8).

¹² In proposing this narrative sequence, I do not mean to suggest that it is the only way to organize the dialogues, or the only fruitful way. For instance, as Benardete (1984: ix) points out, there is another sequence based upon the chronology surrounding Socrates' death of which the *Theaetetus* is also a part: *Theaetetus*, *Euthyphro*, *Sophist*, *Statesman*, *Apology*, *Crito*, and *Phaedo*.

¹³ For an overview of the stylometric tradition of dating the dialogues, see Brandwood (1992). Many commentators argue for a relatively large gap between the compositions of the *Theaetetus* and the *Sophist*, and some, for instance, Thesleff (1967) argue that the *Theaetetus* shows signs of having undergone substantial revision at a later date.

¹⁴ Besides the fact that I don't find the stylometric tradition definitively compelling on its own, my reading of Plato is largely Unitarian in nature. I generally speaking do not find any sort of serious rupture or change in the Platonic dialogues that would require a historical division to reconcile. As such, historical dating is largely irrelevant to my project here, insofar as I read the so-called early, middle, and late dialogues as largely compatible with one another. The theory of the Forms is consistent with, and in many respects called for by, the *ti esti* questioning of the metaphysics-light Socratic dialogues, and the task of the rethinking the theory of the Forms found in dialogues like the *Parmenides*, *Sophist*, and *Philebus* is already

focus on the narrative interconnections and references present within the dialogues themselves. When I reference other dialogues outside of this sequence—especially the *Meno* and *Phaedo*—it will only be to highlight certain generally Platonic positions, like the Theory of the Forms.

Second, I will take the status of the text as a dialogue seriously in my reading of it. Theaetetus and Theodorus, the two interlocutors of Socrates in this dialogue, both bring strengths and weaknesses to the conversation that help clarify why particular arguments—frequently suspect ones—are raised at various junctures.¹⁵ Such junctures are not merely dramatic and literary, but are philosophically significant insofar as they highlight the actual goal of dialectical education. If the goal of dialectical education is truly to overcome a basic prejudice or trust in appearances, rather than to simply present Theaetetus and the reader with a correct set of formulas or doctrines about the world, then it would be educatively pointless for Socrates to directly present the correct definition of knowledge, whether he knows one or not.¹⁶ Such formulas or doctrines would run the risk of becoming a new self-evident thing in which Theaetetus can uncritically trust. Indeed, getting stuck in a confused or fallacious debate that nevertheless appeals to certain basic assumptions about the world will frequently be more valuable than simply and neatly

announced in dialogues like the *Phaedo* and *Republic*. In support of this largely Unitarian reading, see also White (1992: 279-80) and Sedley (2004, esp. 13-15).

¹⁵ For the importance of this interpretive strategy, see especially Section 7. The character of Socrates also presumably brings strengths and weaknesses to the conversation, and I agree with the more recent scholarly consensus—see for instance Long (1998: 118-9)—that Socrates should not be read as a surrogate through which Plato voices his own views. Given the dialectical structure of the *Theaetetus*, however, this warning is less necessary than it is in other contexts, insofar as there are comparably fewer instances in which Socrates makes direct proposals in the course of the main argument.

¹⁶ I will not be concerned with determining the significance of the character of Socrates in this dialogue or with reconciling his midwifery with the approaches of Parmenides or the Eleatic stranger. Several interesting studies that have explored this issue include Long (1998), Sedley (2004), and Wiitala (2014: 13-21).

arriving at the “correct” answer. Such *aporia* is far more likely to lead to the sort of reorientation of the soul that is the hallmark of dialectical education.¹⁷

On that same point, I am also not reading the *Theaetetus* as laying out Plato’s official doctrines. This is not to say that Plato does not have such doctrines, or that they cannot be determined from his dialogues owing to his authorial absence from them. The claim that I am advancing here is specific to my interpretation of the *Theaetetus*.¹⁸ The dialogue famously ends aporetically, without discovering a satisfactory account of knowledge, false judgment, or *logos*. This result is not accidental, I am arguing, insofar as the purpose of the text is dialectical. Overcoming the trust in appearances does not reveal positively what knowledge, false judgment, and *logos* are—it rather clears the way for a more precise and rigorous evaluation of these matters, something that I think Plato carries out in the *Sophist*. To be sure, the result is not entirely negative—discovering what knowledge is not reveals several criteria that any successful account of knowledge will have to satisfy, and the discovery of these criteria represent a significant

¹⁷ I thus could not disagree more with commentators who, like Runciman (1962: 28), argue that “it is absurd to suppose that he [Plato] would have written what he knew to be a confused and unsound discussion in order to highlight the virtues of a subsequent solution.” Proper education often requires precisely this sort of approach.

¹⁸ Sedley (2004) agrees that such locutions as “In the *Theaetetus*, Plato argues that...” miss the central point of the dialogue. His central reasoning for this conclusion differs from mine, however. If, on his view, the *Republic* and the *Timaeus*, respectively composed before and after the *Theaetetus*, both endorse the Theory of the Forms, and if the *Theaetetus* does not, then Sedley argues that Plato must be suppressing his own considered opinion in the *Theaetetus*. One of the purposes of this suppression is, on Sedley’s view, the reevaluation of how the aporetic inquiry of the historical Socrates provides a foundation from which later Platonic thinking is capable of growing. My only substantial objection to this reading is Sedley’s view that the discussions of the theory of Forms found in the *Republic* can be taken as an authoritative statement of Plato’s decided view. In that dialogue, the character of Socrates could not be more explicit that the positive doctrines found in the *Republic* fall short of the properly dialectical science, as will be discussed in Section 3. Thus, even if the various images used to describe the Forms in places like the Divided Line and the Allegory of the Cave are ultimately correct and images that Plato continues endorse, there remains good reason to think that the theory as described in the *Republic* is still not a settled “doctrine.”

advancement from where the discussion in the text began.¹⁹ But most of the arguments in the *Theaetetus* tell us far more about what approaches to problems Plato thinks will not work than which ones he thinks will.

Indeed, one of the greatest features of the *Theaetetus* is Plato's amazing willingness to exhaustively work out and generously build up theories that he plainly suspects are mistaken dead-ends in order to allow their failure to have educative purpose. The critical reader of the dialogue, the one who approaches Plato's text Platonically, is therefore compelled to do the same. The educative purpose the dialogue requires that the reader work through the implications of the arguments that Socrates presents for him or herself.²⁰ Plato has Socrates himself invoke the necessity of this interpretive approach to the text as the only dialectical and thus philosophically responsible approach to argumentation.²¹ My reading of the dialogue will therefore attempt to embody this command. The danger of this approach—one recognized by Socrates in the text as well—is that this sort of reading will import too much of the interpreter into the dialogue and so fail to do justice to its argument. The only safeguard against this danger is to remain vigilantly beholden to the text, charitably generous in one's reading, and to test the results of the interpretation against the broader trajectory of Plato's work, both within the *Theaetetus* as a whole and as part of the larger sequence of Platonic dialogues. Whether

¹⁹ See also Miller (1992: 105), who writes "... throughout the *Theaetetus* Socrates holds back from letting knowledge be defined in terms of what objects it takes... he proceeds, instead, in the contrary direction, letting the objects of knowledge take shape as a function of the requirements of knowing. If this is right, then the entities Socrates chooses for his examples should be considered not for what they are in themselves but rather for the way they exhibit that which the relevant conception of knowledge implies in its object."

²⁰ See also Burnyeat (1990: xii-xiii, 2-3) and Williams (1992: ix).

²¹ I will discuss this portion of the text extensively in Section 7.

the interpretation that I am offering has succeeded in this regard can only be determined along the way.

Chapter 1: The Theaetetus and the Platonic Tradition of Dialectic

“Accordingly I no longer understand nor am I able to recognize the other clever causes of these things. And whenever someone tells me that something is beautiful through either having bright colors or shape or something other of this sort, I put away all these other reasons because I am confused by them. And I simply, unskillfully and perhaps simple-mindedly hold that nothing else makes it beautiful other than the presence or communion (call it what you like) of the beautiful itself.” (*Phaedo* 100c9-d7)

This chapter will provide the preparatory work necessary to defend the reading of the first definition of knowledge in the *Theaetetus* that I outlined in the introduction. In order to justify my contention that the *Theaetetus* ought to be read as carrying out a program of dialectical education, it will be necessary to explain what Plato takes dialectical education to be and how it lays the foundation for Socrates’ questioning of Theaetetus at the beginning of the dialogue. In Section 2, I will present an overview Plato’s general metaphysical and epistemological orientation insofar as it pertains to the trust in the self-evidence of appearances, especially with reference to the *Meno*, *Phaedo*, *Republic*, and *Parmenides*. The three main topics I will consider are Meno’s paradox, the explanatory inadequacy of perceptual experience owing to the compresence of opposites in the objects of perception, and the relationship between intelligibility and non-contradiction. Gaining a sense of these three features of Plato’s thought will provide the background that is needed to interpret the account of dialectical education found in the *Republic* and the *Parmenides*.

Section 3 will lay out the dialectical method of philosophy itself, and will focus especially on the contrast between this method and a lesser sort of thinking exemplified by mathematics. Unlike mathematics, dialectical education propels the student backwards, toward an understanding of the being or nature of certain foundational concepts that are taken for granted as self-evident in mathematical reasoning. Despite its

limitations, however, mathematics prepares the way for the dialectical student by weakening (though not eliminating) the trust in appearances.

This discussion of dialectic in the *Republic* will then lead to a consideration of how it is actually demonstrated in the *Theaetetus*. The early pages of the *Theaetetus* presents Theaetetus as the sort of person who is capable of dialectical education, particularly in light of his mathematical training. Theaetetus presents the results of a mathematical proof concerning incommensurate line segments that is not only mathematically impressive, but also philosophically impressive. At a crucial juncture in his discussion of his proof, Theaetetus transitions from talking about particular incommensurate line segments to talking about the being or nature of incommensurability itself. This impressive transition indicates that Theaetetus is ready to begin dialectical education and sets the foundation from which the rest of the dialogue will proceed.

Section 2: Inquiry into Intelligibility and the Forms

Plato's arguments for the theory of the Forms is complicated, nuanced, and highly debated in scholarship. In this section, I will only attempt to provide a provisional sketch of certain aspects of that theory. In particular, I will focus on why the trust in the self-explanatory character of appearances must be overcome, and why dialectical education will be philosophically necessary. Along the way, I will flag some of the broader interpretative debates pertaining to the theory of the Forms. The purpose of this analysis is not to lay out or argue for Plato's theory of the Forms, and none of my interpretations of the *Theaetetus* will hinge on any specific component of that theory. My purpose in this section is rather to establish the background necessary to interpret dialectical education

and, as a side benefit, to provide some sense of how conspicuously absent the Forms are from the explicit arguments of the *Theaetetus*.

i. Meno's Paradox

To make sense of dialectical education, it will first be necessary to understand why Plato harbors a suspicion of the perceptual world and its ability to explain itself. Such an understanding will make it clear why Plato thinks the trust in the self-explanatory character of appearances is a problem that needs to be overcome in the first place. I will begin by briefly discussing Meno's paradox. Meno's paradox is a worthwhile starting point for two reasons: (1) it is rooted in an inadequate understanding of the sort of inquiry involved in philosophy because of its trust in appearances, and (2) the mathematical procedures that Socrates relies upon in overcoming the paradox play an important role in dialectical education.

Meno's paradox follows from Socrates' claim to be ignorant about what virtue actually is. Meno, already annoyed with Socrates' questioning, raises an objection that he seems to hope will force Socrates to abandon that pretension. If Socrates were truly ignorant about what virtue is, Meno suggests, it should be impossible for him to ever inquire into what it is for two reasons: (1) Socrates would never be capable of realizing that he had found virtue, if he happened to stumble upon it, and (2) he would not know how to begin looking for it, and so could not start the inquiry (80d-e). Meno's paradox presupposes the following: ignorance about some object is equivalent to having no information whatsoever of the object present in the mind or soul, while learning about the object is equivalent to placing information about the object into the soul. Even if, Meno postulates, the correct information in some fashion was put into the souls' of ignorant

students, they would never recognize that the information they had received was actually the information that they were initially ignorant of and desirous of learning about.

I will assume that there is something worth taking seriously in this objection, whether or not Meno is himself serious in raising it. Socrates, at any rate, takes Meno quite seriously. Why would someone ever think that there is no state intermediate between knowing something—being at the end of an inquiry—and being ignorant about something—not even being capable of starting an inquiry? Part of what would motivate such a belief is a fundamental uncertainty about what the actual point of an inquiry is in the first place. The only sort of inquiry that Meno, in the sway of the trust in appearances, seems to recognize as legitimate is one in which a person makes an absent thing become present and appear. For instance, if Meno could not find an item, he would want to inquire into where that item was, and his search would end once that item had been found and he had taken control of it. He shows this tendency when, as an example, he characterizes virtue as the ability to acquire things for oneself, or the ability to make various sorts of good things become present and secure (78a-c). But an inquiry of this sort only is possible if it is entirely obvious what item Meno was looking for and trying to make appear before him. When he asks Socrates if virtue can be taught, his questioning takes for granted that he already knows what virtue is, and that it can be understood and sought after solely on the basis of the various conventional appearances that he lists to Socrates (71e-72a). The Socratic inquiry into what virtue actually is, however, does not possess this same structure. And Meno is blind to what other form an inquiry could take.

To see why Socratic inquiry cannot be understood as a quest to make an absent item appear before the searcher, I will look at Socrates' reformulation of Meno's claim

into a dilemma. As Socrates reformulates it, the argument that Meno is raising has four premises.

- (1) A thing is either known or not.
- (2) If it is known, then there is no need to inquire into it.
- (3) If it is not known, then it cannot be inquired into (for the reasons Meno indicates).
- (4) Therefore, inquiry and learning are impossible.²²

The dilemma begins from a seemingly innocent use of the principle of the excluded middle, and from there purports to demonstrate that inquiry and learning are impossible. Premise (2) operates from the sense that all inquiries, at root, end once the soul has attained knowledge of what something is. If someone were to know what something like virtue is, then there is no need to inquire into what it is—the knower already knows, and the inquiry would be over before it had even started. Premise (3) is a summary of Meno’s initial formulation of the paradox: those who do not know what something is have no bearing by which they might orient themselves in investigating it, such that they would be at a loss as to how to begin or successfully end the inquiry. Thus, in (4), learning is impossible.

Premise (2) and (3) make good sense if they are understood in terms of the orientation from which I earlier suggested that Meno is operating. As in (2), if Meno is looking for an item, there is no reason to keep looking for that item once it is found. And as in (3), if Meno doesn’t know what the item is, he would never start looking for the item in the first place. If Socrates’ “what is virtue?” inquiry has the same basic structure, it does indeed seem pointless. If what virtue is already appears to the inquirer, why bother

²² This way of rendering the argument is advocated by Fine (1992). I find premises 2 and 3 more compelling than she does, though we agree on the basic structure of Socrates’ response to it.

searching for it? The phenomenon, like virtue, appears, is that not the goal of the search, to make things appear? And if something like virtue is not appearing to someone at all, why would that person ever desire to inquire into it in the first place?

Socrates' formal solution to this paradox lies in rejecting premise (3), which fallaciously infers that because the nature of something is not known that the object of inquiry is utterly absent from the mind that inquires into it. Knowledge does entail that the knower be aware of the thing known, but it does not reduce to this awareness—indeed, as I will argue in this dissertation, large portions of the *Theaetetus* are intended to rigorously prove this very result. Since all that is necessary to begin an inquiry is some sort of awareness of the subject of inquiry, and this awareness need not attain the level of knowledge, the formal paradox collapses.²³

To explain this formal solution to Meno, however, Socrates proposes a radically different understanding of the purpose and structure of philosophical inquiries from the one Meno was initially assuming. Socrates does this through questioning a slave boy about the geometric problem of determining how to double the area of a square (82b-86b). The specifics of the proof are too long and complicated for my purposes here—what is relevant from the example is the way that: (1) the slave boy does not know how to double the area of a square at the start of the inquiry—he thinks to construct a square with double the area of some other square by doubling the sides of the original, which produces a square with quadruple the original area (82d); (2) once Socrates demonstrate

²³ Determining precisely what sort of awareness of thing is a necessary condition for inquiry requires further specification. Fine's (1992: 209) interpretation of this argument is that Socrates is demonstrating that true beliefs are part of knowledge but not reducible to it, and that a person, like the slave boy in the *Meno*, can be properly oriented by such true beliefs in a way that can lead to the satisfactory resolution of an inquiry.

that the slave does not know, the boy then grows perplexed, since at first the solution to the problem seemed apparent (84a-c); and (3) from his perplexity, he is able to move from his ignorance to the correct solution, which involves doubling the diagonal of the original square (84d-85b).²⁴

One of the things demonstrated by the interlude with the slave boy is that philosophical—and indeed mathematical—inquiry does not have the same structure as making an absent thing present. Someone who trusts in appearances assumes that things are either appearing or absent, there to be experienced or entirely gone. There is a sense in which sensory perception can be taken to operate in this way: something is either perceived, or the soul has no perceptual access to it whatsoever. People see the chalk when their eyes are open, then they close their eyes and the chalk is entirely gone from my visual field. The sort of everyday inquiries that Meno showed himself to be concerned with—acquiring wealth, for instance—can be interpreted as having this same structure.²⁵ Someone's keys fail to appear, and he or she searches for them until they become present. Intellectual inquiry of the sort engaged in by Socrates and the mathematician, however, does not operate in this manner. The objects of intellectual inquiry occur to us as provocations and puzzles—things that cannot be understood as either completely present or entirely absent. They call, provoke, and astonish the soul,

²⁴ I take this reconstruction of the slave boy demonstration to be entirely standard. Though I will not look at this proof specifically in any detail, the basic structure of geometric proof plays an important role in the dialectical project and will be discussed in Sections 3 and 4.

²⁵ There is something misleading about this way of understanding even the search for the absent keys, to be sure. Despite being absent, the keys also occur to the soul as a provocation, as something that is conspicuous in its absence and so in need of inquiring after in the first place, as might be objected by someone like Heidegger (1996: Section 16). I will not be concerned with properly characterizing this everyday sort of inquiry here, however, insofar as it will be enough to say that everyday inquiries can be understood in terms of the trust in appearances in the way that I am characterizing them here—what Heidegger would call objective presence.

and do not merely sit within it as inert presences or oblivious absences. Overcoming the reluctance toward intellectual inquiry that lies behind the formal structure of Meno's paradox, and thus being committed to intellectual life and inquiry, will require overcoming the trust in the self-evidence of the appearances of the objects of intellectual inquiry. To the philosopher and the mathematician, the things with which we are ordinarily engaged point beyond themselves in ways that should be experienced as astonishing and in need of further inquiry. This astonishment is the beginning of philosophy, Socrates says in the *Theaetetus* (155d).

ii. The Compresence of Opposites

While philosophical inquiry cannot be thought of as an effort to make some absent thing appear, the explanatory reliability of appearance as such remains largely unexplored within the context of the *Meno* itself. Insofar as dialectical education will require looking for the being or truth of appearances in something beyond appearances, I will turn to the question of what it is about the ordinary appearance of the world that is non-self-explanatory and so calls for the theory of the Forms.

In both the *Phaedo* and the *Republic*, Socrates argues that the objects of perception suffer from the compresence of opposite characteristics, and that it is this compresence that demonstrates the explanatory inadequacy of perceptual appearances. In the *Phaedo*, Socrates begins at 74a by positing both the existence and knowledge²⁶ of what he calls the Equal itself. To explain what he means, he contrasts the Equal itself

²⁶ Gerson (2003: 69n17) thinks the argument requires a belief that there exists a Form of the Equal. I disagree—in recognizing that Equality itself is not the same as the equal sticks or stones, I take person to believe that what it is for the stones to be equal is something that is not identical with either stick or stone. A person must possess an awareness of the being, nature, or “meaning” of the equality that is predicated, though this grasp need not be interpreted as rigorous or systematic in the way that Plato sometimes requires for knowledge.

with equal sticks or stones. Two sticks might well look and be equal in some respects—for instance, they might have equal lengths—but be unequal in other respects—for instance, unequal widths.²⁷ Moreover, a stick equal to another stick is also unequal to a host of other sticks.²⁸ And if in the future one of the equal sticks becomes broken, then the sticks will have become unequal.²⁹ Perceptual, spatiotemporal objects show themselves to be both equal and unequal. In the secondary literature, the way in which spatiotemporal particulars appear to have opposite characteristics has been called the compresence of opposites.³⁰

Equality itself, in contrast to the equality observed in and predicated of spatiotemporal particulars, never needs to be qualified with regard to respect, time, or relationship. Equality wholly excludes inequality without any sort of qualification.³¹ I interpret this claim to mean that the Equal itself—that is to say, what it is to be equal—is the opposite of the Unequal, what it is to be unequal. What it is to be equal and what it is to be unequal will never in any sense be the same thing. In comparison with the clarity and completeness of Equality itself, perceptually equal objects suddenly seem to be contradictory in a way that they usually do not—the same stick is both equal (to some things) and unequal (to others).³² To be sure, this contradiction is not objectionable

²⁷ The approximation interpretation—that the sticks are only approximately equal, but in fact are not equal—was held by a great many commentators, see for instance Burnet (1928: 41-3), Shorey (1933: 172-3), Taylor (1966: 87), Gallop (1975: 95-6). It is now nearly universally rejected. See the decisive arguments in Nehamas (1975a), White (1992), and Gerson (2003).

²⁸ See also Gerson (2003: 71).

²⁹ The *Phaedo* only indirectly considers the temporal qualification of equality in this passage. Nevertheless, the *Republic*, especially at IV.436b, indicates that spatiotemporal objects need to be qualified in all three different aspects in order to avoid falling into contradictions. See also White (1992: 288).

³⁰ See also Silverman (2014) for a broad overview of the issues and literature involved in the compresence of opposites.

³¹ For a very broad overview of this point, as well as possible objections to it, see White (1992: 280-285).

³² I agree with Fine (1984: 282) that *phainesthai* should be taken as having a veridical sense in this argument.

because equality and inequality are never present at the same time, in the same respect, and in relation to the same things. Nevertheless, Socrates argues that the blending of equality with inequality makes the perceptual object more obscure than the Equal itself. The compresence of equality with inequality in perceptual objects indicates, Socrates says, that the equality perceived in spatiotemporal objects is inferior to Equality itself. The perceptual object can only be predicated as ‘equal’ in a qualified fashion because it can also be correctly predicated as ‘unequal,’ again in a qualified fashion. In contrast, predicating Inequality of Equality itself—saying that what it is to be equal is what it is to be unequal—will always and in every respect be false.

On the basis of this inferiority, Socrates argues that a person must possess some sense of knowledge of the Equal itself before he or she perceives the equality in spatiotemporal objects.³³ It is impossible to recognize that one thing is inferior to another without being aware of both. Thus, before the judgment that the equality perceived in spatiotemporal particulars is inferior to Equality itself, the soul must have some awareness of Equality itself. Yet the recognition of Equality itself can come from nowhere other than the perceptual experience of objects. “It is from perception that we must form the notion that all things in perceptions strive after Equality, but are inferior to it” (*Phaedo* 75a10-b2). Perception is the occasion for recognizing that the equality of perceptual objects falls short of Equality itself. Presumably, Socrates has something in mind here like perceiving the stick as equal at one moment, the stick as unequal at

³³ Based on his usage, “knowledge” in this sense seems to mean that a trace or memory of the Equal itself is present in the soul. “Knowledge” in the more rigorous sense is treated in the *Meno* as a matter of cultivating a habit of actively remembering the real explanatory principles of things, and is distinguished from true opinion, which occurs when someone without habit remembers the real explanatory principles of things. See *Meno* 85c and 86a. Here in the *Phaedo*, the more rigorous sense of knowledge of the Equal itself is associated with the ability to give an account of it (76b). See also Gerson (2003: 72-3).

another moment, and from the contrast recognizing that the stick as an equal falls short of the equality of the Equal itself.³⁴

The implication of this argument is that the Equal itself is not learned from perception and, even more surprisingly, that perception is only fully explicable because it is organized by this pre-perceptual grasp of the Equal and its ilk. The appearance of the perceptual object is not itself responsible for the object appearing as equal any more than unequal. While normally objects are thought to be causally responsible for the way they appear to us, the compresence of opposites reveals that objects cannot be the cause of the appearance of equality and other similar predicates. The same object, perceived in some different context, will look unequal rather than equal. The perceptual object itself is not sufficient to determine the stick as equal perceptually. Therefore, something else must allow objects to appear as equal or unequal, as tall and short, or as one and many within some given context of observation. Since the perception of equality within objects always already is the occasion for recognizing Equality itself, somehow Equality itself is already structuring perceptual experience and serves as the rubric by which the equality in the object is differentiated from the inequality in the object. Perception depends upon the Forms, entities like Equality itself.

There are numerous issues associated with Plato's theory of the Forms, a great many of which pertain to how what it is to be equal, or the nature of equality, should be understood as an entity of some sort.³⁵ None of these debates are relevant to my particular

³⁴ This sort of "thought summoning" perception will be discussed in some detail in Section 3.

³⁵ To list just a few such issues, as well as my general take on them: (1) Plato says that Equality itself is equal—should this be understood as requiring the Forms to self-predicate? My general sense is that it does not—Equality is what it is to be equal, or is the nature of equal—but Equality is not (essentially, at least, as I take it is argued in the *Parmenides* and the *Sophist*) a thing that has equality as a predicate. For an

interests here, which is simply to indicate in a preliminary way why Plato endorses an educative practice predicated upon overturning a straightforward trust in the self-evidence of the apparent world. Perceptual experience, as Plato understands it, does not merely appear and present itself to us, but rather points beyond itself toward certain purely intelligible Forms. Perception, taken just on its own terms, discloses to the soul a contradictory and ambiguously intelligible world, one characterized by the compresence of opposites. As a result, the intellectual inquirer is compelled to move beyond perceptual immediacy to discover that which is unambiguously intelligible, the Forms. In what follows, I will turn to Plato's discussion of intelligibility in the *Phaedo*, *Republic*, and *Parmenides* and show how he understands it in relation to both the Forms and non-contradiction.

iii. Intelligibility and Non-Contradiction

To reiterate, the epistemological argument of the *Theaetetus* does not depend upon or in any other way assume Forms, and so should be evaluated, as I do in Chapters 2-4, independently of that theory. My purpose here is to understand dialectical education,

overview of this debate, see Nehamas (1979) and White (1992: 293, 300-1). (2) Plato characterizes the Forms as causes of the sensible world—in what way should this causation be understood? I take Bolton (1998) to be correct when he argues this sense of causality should not be interpreted as Aristotelian efficient causality or as what he understands as the modern sense of productive causality. Rather, the issue here is the way in which the Forms make possible the spatiotemporal occurrence of intelligible properties: for instance, what it is to be tall allows for things to be tall, and if there was nothing that it was to be tall, then nothing could ever be tall. (3) In speaking about Forms, Plato often only speaks of forms of relational and ethical properties. Should the Forms be restricted to these sorts of objects, or are there Forms of other qualities, like Human Being and Fire? The *Parmenides*, in the course of evaluating the theory of the Forms dialectically, raises precisely this question—the young Socrates is unsure whether or not to include the different kinds of species and the elements, and does not want to include things without honor like hair, filth, and mud. Parmenides criticizes Socrates for failing to rigorously investigate the question and instead relying on opinion and cultural values to determine which Forms he discusses (130b-e). This passage will be discussed further in Section 3. (4) It is commonly thought that Plato thinks that Forms are separate from sensible things, though it is not easy to say precisely what this would mean or where he says anything of the sort. Should the Forms be understood as separate from sensible things, or (and?) are they immanent with those things? For an overview of this debate, see Fine (1984, 1986) and Devereux (1994). These issues are highly contentious, however, and not relevant to anything that I will consider in this work.

which requires some preliminary sense of the problem with the apparent world that Plato takes the Forms to solve. In contrast with the theory of the Forms, however, the basic Platonic insistence that the world is intelligible continues to assert itself in the *Theaetetus* just as much as in the rest of his dialogues. The *Theaetetus* should be read as exploring whether other theories besides Forms are capable of accounting for this intelligibility.

I am taking the word “intelligible” from the divided line image in *Republic* VI. In this image, Socrates argues for a division between the intelligible (*noēton*, that which is subject to *nous*) and the visible (*horaton*) (509d4), a hallmark of the theory of the Forms. Dialectic, along with mathematical reasoning, is placed in the intelligible portion of the line and is fundamentally concerned with and oriented toward understanding both intelligibles—the intelligible things like Forms and ideal mathematical particulars—and what it is for something to be intelligible as such. In contrast, *pistis*, trust in the apparent world that assumes intelligibility without being motivated to understand it as such, is placed in the visible portion of the line. Overcoming trust in the self-explanatory character of appearances therefore fundamentally involves a shift away from appearance toward intelligibility.

While the divided line image is often thought of in terms of the theory of the Forms, it is Plato’s concern with intelligibility that leads him to posit Forms in the first place. The theory of the Forms emerged because the perceptual world of spatiotemporal particulars demonstrated the compresence of opposites, the pseudo-contradictory nature of objects to be truly predicated and perceived in contradictory ways in various contexts. Since a stick is just as equal as it is unequal, depending upon the context in which it is considered, the stick *is* equal only in an ambiguous and partial manner. “For these things

are ambiguous [ἐπαμφοτερίζειν], and it is not possible to firmly conceive [παγίως νοῆσαι] any of them to be, or not to be, or both together, or neither” (*Republic* V.479c3-6). In contrast, opposing Forms, such as Equality and Inequality, are individually unambiguous, and “each itself is one [αὐτὸ μὲν ἐν ἑκάστων εἶναι]” (*Republic* V.476a5). In order for something to be intelligible, it must, at the very least, be some definite thing and not the opposite or contradictory of that thing. The sticks are only ambiguously intelligible because, while they are equal, they are also unequal. However, the sticks are not outright unintelligible, because it is still possible to separate the different respects, times, and relations of the sticks in such a way that at one given respect, time, and relation, the sticks will be either equal or unequal.

As this discussion of oppositions and contradictions indicates, intelligibility is fundamentally interconnected with the principle of non-contradiction in Plato. Non-contradiction is best considered as an effort to grasp and formalize the intelligible character of the world. Plato describes non-contradiction in at least two ways—one in the *Republic* that requires qualifications, another in the *Phaedo* that does not. First, I will look at the appearance of that principle in *Republic* IV, which is often considered to be one of the first instances of the principle of non-contradiction. Socrates says at 436b: “It is clear that the same thing will refuse to do or to undergo opposites with respect to the same, in relation to the same, at the same time [δῆλον ὅτι ταὐτὸν τάναντία ποιεῖν ἢ πάσχειν κατὰ ταὐτόν γε καὶ πρὸς ταὐτόν οὐκ ἐθελήσει ἅμα].”³⁶ This account of the

³⁶ I note, without any special attention here, that this formulation actually makes no mention at all of contradiction, and instead pertains to the compresence of *opposite* characteristics. See also Recco (2009). The difference between opposition and contradiction becomes thematic for Plato in the *Sophist*, but is not particularly relevant as far as I can tell for making sense of the *Theaetetus*. The central difficulty involved with contradiction for Plato seems to be the status it attributes to non-being—in what sense can the not-

principle of non-contradiction depends upon the qualifications (time, respect, and relation) that are affixed to it—without these qualifications, Socrates shows, it will be difficult to say why the same person both standing still and waving does not violate the principle by moving and not moving, or how the spinning top (at rest but still rotating) does not commit the same violation. *Republic IV* presents non-contradiction insofar as it pertains to spatiotemporal objects and as such depends upon the variously qualified times, respects, and relations in which such objects can be divided.

In contrast, the account of non-contradiction given in the *Phaedo* does not posit the need for qualifications to preserve the non-contradictory character of things. This account pertains fundamentally to Forms. However, Plato also applies it to spatiotemporal particulars—but unlike in *Republic IV*, these objects are not considered as realities or substances themselves but rather as secondary, as sites for the gathering of Forms.

It seems to me not only that the Large itself always refuses at the same time to be large and small, but also that the largeness within us always refuses to admit the small or to be outdone by it. It either flees and withdraws whenever its opposite, the small, approaches, or it has utterly been destroyed by smallness' approach. (*Phaedo* 102d6-e2)

Certainly, it is the case that the Forms are non-contradictory without appeal to the qualifications to which spatiotemporal objects are subject. Surprisingly, however, the spatiotemporal object *conceived of as a gathering of Forms* (and so not as some sort of pre-existing substance independent of its predicates) also is non-contradictory without the need for qualification. Even in apparently contradictory instances, like the spinning top,

Tall, as opposed to the Short, be said to have a determinate character at all? This issue is considered in the very difficult “parts of difference” section of the *Sophist* at 257a-258c.

there is no contradiction present because motion is never rest, and rest is never motion. The compresence and seeming contradictions of spatiotemporal particulars is not explained with reference to the various times, respects, and relations of the object, but rather with reference to the participant's relation to the Forms that compose it. The smallness present in some stick via the stick's participation in the Small is observable in some particular context because the stick (in that context at least) does not participate in the Large itself.³⁷ The largeness in the stick does not show itself in that context precisely because it will never appear alongside the smallness in the stick, and since in that context the stick appears small, it cannot also appear large.

The account of non-contradiction in the *Phaedo* is particularly helpful for seeing why spatiotemporal particulars are best described as ambiguously intelligible and not as unintelligible simpliciter for Plato. The ability to divide up the spatiotemporal particular into respects, times, and relations presupposes that at each time, respect, and relation, the object will either be large or small, but not both. But this condition can only ever be satisfied if smallness (whether it is conceived of as some feature of the object or as a Form) is utterly separate and unmixed with largeness. Smallness must be something, and largeness must be something, and the two must never be one another—they must really be two. Because the unmixed smallness and largeness are present within the spatiotemporal object, calling the object outright unintelligible is misleading, because

³⁷ See also White (1992: 288), who writes “Plato is not denying that whether or not something appears hard, or the like, depends on that context. The meaning or content of the judgment that a thing is hard, on the other hand, seems to him to make no reference to that context. The implication is that the notions in question are notions of a thing's being, for example, hard, quite independently of the context.”

what it is to be large and what it is to be small within the object remains perfectly intelligible.³⁸

The *Parmenides* shows Plato's fundamental belief in the intelligibility of reality and simultaneously his belief in the connection between intelligibility and the theory of Forms. The connection between the two is made more vivid, not less, by the fact that the *Parmenides* is Plato's most rigorous self-critique of the theory of the Forms. In a demonstration that begins the dialogue, Zeno purports to show that if things are many and not one as Parmenides has argued, then the many must be both like and unlike, an unacceptable conclusion. Socrates responds that there is nothing amazing about this conclusion because spatiotemporal objects show such a characteristic all the time. After summarizing his theory of the Forms, he says that what would truly be amazing is not if things are both like and unlike, but rather if Likeness itself is Unlikeness (127e-130a). In response, Parmenides, via the various third man regresses, presents arguments that suggests that the Forms are subject to this very same mixing, which would potentially undermine the theory of the Forms. Immediately after this demonstration, however, he abruptly shifts gears and strongly advocates that the theory of Forms must, at root, be correct, and that Socrates and not the theory is at fault for being incapable of properly defending it.

“However,” said Parmenides, “if someone, Socrates, will not allow that there are Forms of the things which are, looking at all the things said now

³⁸ See also Nehamas (1975a). Does the ambiguous intelligibility of the perceptual world entail that knowledge, in a rigorous sense, is possible concerning it? In this work, I am not taking any stance on this question one way or the other, insofar as adequately addressing it would require an extended reading of the *Republic* V, VI, and VII. For some examples of the debate on this point, see Fine (1990), who argues that Plato does allow for such knowledge, and Bolton (1998) and Gerson (2003), who argue that he does not. Regardless, the *Theaetetus* should be read independently of whatever more general answer to this question gets applied to Plato insofar as it is considering the nature of knowledge without presupposing any broader account of the Forms.

and others of that sort, and will not divide one Form of each, he will not be able to turn his thought anywhere, not having an idea of each of the things which *are* to always be the same. And in this way he will entirely destroy the power of discourse.” (135b6-c3)

If the theory of the Forms is incorrect, then for each of the various kinds of things that exist, there will not be *one* concept that the mind can turn itself toward, but rather a plurality. Everything will be ambiguous, doubled in character, both itself and the opposite of itself, unintelligible. And if such an outcome were to obtain, the end result would be the destruction of language and any sort of linguistic communication.³⁹ I will show that this same result is argued for in the *Theaetetus* as part of the crucial final refutation of the Flux Thesis and the demonstration that qualities, unlike the appearance of qualities, must not be subject to alteration.

Parmenides does not say why any account that denies the theory of Forms will be incapable of preserving the intelligible character of the world. The *Theaetetus*, on my reading, is part of the effort to highlight why the theory of the Forms and intelligibility are so fundamentally interconnected. The Flux Thesis examined in the *Theaetetus* fails insofar as it undermines the intelligibility of both perceptual appearances and qualities. As a result, its refutation reveals a series of conditions that any adequate account of knowledge must satisfy if it is to preserve intelligibility. The dialectical reader who is persuaded of this result would then be in a far more rigorous position to see if the Forms are capable of satisfying these conditions in subsequent dialogues like the *Sophist*. The

³⁹ This conclusion resonates strongly with Aristotle’s defense of non-contradiction in *Metaphysics* Γ. That book of the *Metaphysics* has particularly strong connections with the *Theaetetus*, and it seems plausible to me that Aristotle was heavily influenced by many of Plato’s arguments within that dialogue in composing Γ. I will not be able to explore this issue in any depth, however.

Theaetetus therefore takes up the challenge given within the *Parmenides* to understand the theory of the Forms more rigorously.

However, the *Parmenides* only raises the challenge to more rigorously analyze the theory of the Forms within the context of the broader dialectical educative project that Plato sets forth in the *Republic*. Dialectical education requires no longer taking the apparent self-evident truth of the theory of the Forms for granted. Surprisingly, the trust in appearances continues to preserve itself in a modified form even within the intelligible portion of the divided line, and the rigorous sequence of dialectical education is offered by Plato as a technique for overcoming it. Therefore, before the relationship between the projects of the *Parmenides* and the *Theaetetus* can be fully analyzed, it will first be necessary to better understand dialectic. In Section 3, I will lay out this dialectical project and discuss the complicated relationship between the two intelligible segments of the divided line, dialectic and the sort of reasoning found paradigmatically in mathematics.

Section 3: Dialectical Education in the Republic and the Parmenides

My proposal is that the *Theaetetus* should be read as an instance of dialectical education. The purpose of this sort of education should be clear, at least in outline. Plato has argued in dialogues like the *Meno*, *Phaedo*, and *Republic* that the intelligibility of the perceptual appearance of things rests on principles that are not reducible to those things. The trust in the self-evidence of appearances that characterizes the lower segment of the divided line leaves human beings prone to take the intelligibility of things for granted, and to not inquire into the actual source of the intelligibility found within appearances. Dialectical education is the procedure whereby a person can be reoriented away from this

trust such that he or she can begin inquiring into the eidetic structures that are responsible for appearances being intelligible.

However, at the end of the last section I suggested that a version of the trust in appearances continues to assert itself within the intelligible segment of the divided line. The intelligible segment is divided into two—a lower part called *dianoia*, thought, that Socrates argues is exemplified by mathematics, and a higher part, *epistēmē*, knowledge, exemplified by dialectic. The kind of thinking characteristic of mathematics preserves the trust in appearances insofar as it relies upon the apparent self-evidence of certain hypotheses about which the thinker does not inquire. Dialectic, in contrast, inquires into the being or nature of the things that appear self-evidently true. The project of rigorously reevaluating the theory of the Forms announced in the *Parmenides* is a procedure of transitioning from a sort of philosophy that only hypothesizes the Forms to one that dialectically interrogates the nature of these hypothesized entities as such. In this section, I will distinguish dialectical thinking from mathematical thinking and demonstrate why Plato presents mathematical thinking as leading philosophical students to the point where they can first begin the project of dialectic.

Given Theaetetus' historical and dramatic status as a highly trained mathematical thinker, understanding the ways in which the study of mathematics leads the exceptional student to dialectical inquiry will help clarify the dialectical structure of *Theaetetus* as a whole. Early on in the *Theaetetus*, the young man presents a mathematical proof concerning incommensurate line segments that Socrates finds incredibly impressive not just for its mathematical acumen, but also because of the dialectical potential it shows. Theaetetus' central achievement in this proof is to transition from speaking about

incommensurate squares, a kind of ideal mathematical particular, to the Form or nature of incommensurability itself. In order to understand Theaetetus' accomplishment, this section on the *Republic* and the *Parmenides* will first demonstrate the importance of the transition between speaking of mathematical and speaking of Forms.

i. The Longer and Shorter Paths of Inquiry

In the *Republic*, Socrates suggests that the majority, if not all, of the arguments found in that dialogue are instances of what he characterizes as a shorter way of inquiry. He then contrasts this shorter way with a longer way reserved for those capable of engaging in dialectic.⁴⁰ In this section, I will describe the philosophical limitations of the shorter way, which is exemplified by mathematics. Immediately before the argument for the tripartite soul, Socrates says: “And know well, Glaucon, that as it seems to me, we won’t grasp this matter precisely with the sorts of methods we have been using in our arguments, for there is another longer and harder way leading to it” (IV.435c9-d2). Given how much derives from the tripartite soul, the entire subsequent discussion, including the nature of the various virtues, will also lack precision.⁴¹ Socrates directly states as much to Adeimantus in Book VI, before beginning his sketch of the dialectical science. “You remember, of course, that after separating three forms of the soul we inferred what each of justice, moderation, courage, and wisdom is... We were saying that

⁴⁰ There are two basic senses of dialectic operative in the *Republic*. The dialectical science is the “greatest study [μέγιστον μάθημα],” knowledge of “the idea of the Good [ἡ τοῦ ἀγαθοῦ ἰδέα]” (VI.505a2). In this sense, the dialectical science includes an account of the true *archē* (beginning, first principle, starting point and cause) of all things, the Good itself. Second, dialectic is also a practice of philosophical education intended to train thinkers who will be capable of attaining knowledge of the Good itself. The dialectical student in this sense is taught to separate out the various Forms from one another in thought and argument and to recognize the priority of these Forms over spatiotemporal things. The student of dialectic is thus the one being trained into this dialectical mode of thought, which Plato names *noēsis* (intellect). When I speak of dialectic in this work, it will almost always be in reference to dialectical education, rather than the dialectical science.

⁴¹ See also Shorey (1969: 435d n1).

to discern these things most beautifully another longer way was required, which, for those who took it, would make these things apparent” (VI.504a4-b3). The major arguments in the *Republic* are thus described by Socrates as instances of the shorter, non-dialectical way of inquiry.⁴²

The basic character of the shorter way of inquiry can be discovered in the contrast that Socrates draws between the two halves of the intelligible segment of the divided line: *dianoia* (thought),⁴³ associated with the shorter path, and *noēsis* (intellection), associated with the longer. To clarify the nature of *noēsis*, Socrates distinguishes it from the sort of reasoning associated with mathematics.

I suppose you know that the men who concern themselves with geometry and calculation and things of this sort hypothesize [ὑποθέμενοι] the odd and the even and the figures and the three forms of angles... they treat these as known and make them hypotheses and do not think it worthwhile to give any *logos* either to themselves or to others, as if they were manifest to all. Beginning from these hypotheses and hereafter going through them, they end consistently upon that which they set out to investigate. (VI.510c2-d3)

First, mathematical reasoning has the basic character of being very successful at discovering what it sets out to investigate: it is productive and successfully arrives at conclusions. As the quote indicates, mathematical thinking is successful because it begins with certain assumptions or hypotheses from which it proceeds. The hypotheses in

⁴² It is for this reason that White (1979: 174) writes: “When Plato says in 504b that the rulers must travel the longer route which was mentioned in 435d, he does not mean that he himself is traveling this way in the *Republic*, or even that he knows exactly what its course is.”

⁴³ Translating *dianoia* as “thought” sounds a bit strange in English, at least in this context, as our tendency in English would be to say that *noēsis*, understanding or intellection, is also a ‘kind’ of thinking. The difficulty is caused by our tendency to treat all mental activities as kinds of thought. We want to say, for instance, that dialectical education engenders a dialectical manner of thinking, and mathematical education engenders a mathematical manner of thinking. I reflect this tendency in my translation. Reeve (1988) translates *dianoia* as scientific thought, which is potentially misleading. The only “science” (*epistēmē*) that Plato ultimately allows for is dialectic. Our modern natural and social sciences would, at best, attain the level of *dianoia*.

question here are the basic constituents of the particular region of inquiry that a given mathematical art considers. Plato's usage of "hypothesis" is broader than a modern understanding of mathematical hypotheses, insofar as he would include elements beyond axioms. For instance, what it is for something to be "odd and even," presumably along with number, addition, subtraction, and so on, are the basic hypotheses that allow for arithmetic calculations. Similarly, "figures, the three kinds of angles," and perhaps other such constituents like points, lines, and surfaces, are the hypotheses considered by the geometer.⁴⁴ The assumption of these geometrical hypotheses allows geometers to discover numerous relations between the various constituents they consider—thus, a geometer could easily prove that if a triangle has a right angle, the other angles of the triangle must both be acute.

Despite its productivity, Socrates in the *Republic* does not think that mathematics is fundamentally scientific. That is to say, it is not properly characterized as *epistēmē*, knowledge, in the most rigorous sense. Rather, mathematics gets characterized as a *technē*, an art.⁴⁵ The unscientific character of mathematics is the result of the mathematician's reliance on hypotheses that are not themselves known but are only

⁴⁴ Karasmanis (1990) suggests that there are two sorts of basic objects in Greek mathematics: elementary mathematical objects like points, lines, and numbers, and higher-order (but still quite basic) mathematical objects like angles, figures, and odd and even. The latter class of mathematical objects, he suggests, correspond to the mathematical hypotheses directly discussed in the *Republic*, insofar as only these objects, and not the first sort, are used in Greek mathematical proofs. One of the failures that Plato is attributing to mathematics, on his reading, is that it does not go backwards and consider proper definitions of the useless but more fundamental elemental mathematical objects like points, lines, and surfaces—indeed, Karasmanis argues that that Euclid's later proposal of definitions for these basic elements in Book 1 of the *Elements* is the result of a Platonic influence upon mathematics. While it is plausible to me that a Platonically influenced mathematics would be concerned with going backwards to the basic elements that underlie the definitions used in proofs, as Karasmanis suggests, I take it that simply coming up with mathematical definitions of the elementary mathematical objects still falls short of the proper goal of dialectic, which is to think of reality as Forms and not as mathematical ideal particulars. See also n 50 of this work.

⁴⁵ See for instance *Republic* VI.511c, where Glaucon, with Socrates' blessing, characterizes the dialectical *epistēmē* by contrasting it with the various mathematical *technai*.

assumed. Mathematicians correctly treat these hypotheses as manifestly self-evident, as *phaneros*. However, they assume that manifest self-evidence is a sufficient criterion for the hypotheses to be known, which Socrates disputes. As a result of this assumption, mathematicians do not give a *logos* or account of the hypotheses that would clarify the nature of the hypothesized objects. A mathematician might, for example, say a great many things about the incommensurate sides of certain squares relative to certain other squares, and might even discover the necessary and sufficient conditions for a square to have incommensurate, rather than commensurate, sides. But what squares, sides, incommensurability, and commensurability themselves actually *are* must be presupposed by any such proof, and what such things are cannot itself be proven via any mathematical proof.

Because mathematics assumes the nature of the elementary mathematical objects it considers, the objects of mathematics can be characterized as something *intermediate* between spatiotemporal things, the objects considered in perception and *doxa*, and Forms or natures, the objects considered in dialectic.⁴⁶ The shapes, angles, and units considered by the mathematician are *ideal*, unlike perceptual objects, because mathematical shapes and angles do not display any of the imperfections, the temporal mutability, or any other

⁴⁶ That *noēsis* is concerned with Forms, and that mathematics is concerned with objects intermediate between Forms and things, is standard in the scholarship, I take it. See especially Burnyeat (1987: 219-232) and Miller (2007: 319). Fine's (1990) and Gerson (2003:180-5) do not posit mathematical particulars as such to make sense of these passage. However, both agree that mathematicians fail to think of the objects that they consider as Forms. I will show how this stance—that mathematicians talk about Forms without recognizing that they talk about Forms—is compatible with my reading as this section proceeds. For alternative readings of the difference between mathematics and dialectic, see Cornford (1932: 62, 73-4), Robinson (1953: 152-3, 197) and Annas (1981: 251). I take Denyer (2007: 304-5) and Franklin (2012: 493-4) to successfully argue against Annas' and Robinson's readings. Another alternate reading is found in Reeve (1988: 72-5), who posits that mathematics is set over one sort of property, what he calls figures, or quantitatively mathematized visible qualities, and dialectical thought is set over another, Forms. According to Reeve, figures are freed from the troubling compresence of opposites to which visible properties are subject. However, these mathematized properties are still subject to *aporia* when interrogated via the elenchus.

such irrelevant details that are found in sensible shapes and angles. If such imperfections were found in shapes and angles as such, mathematicians would lose the ability to construct necessary proofs about them. However, the intermediates are *particulars*, unlike Forms, insofar as there are many ideal mathematical objects of a particular type.⁴⁷ As an example, Theaetetus' proof concerning the incommensurate sides of squares considers the relationships between many different instances of ideal squares, and an arithmetician can consider what happens when one "two" is added to another "two." *What it is for something to be a square*, or to be "two," in contrast, is not and cannot be many. The same squareness is found in each square that Theaetetus considers, and the same twoness is found in both twos. Thus, none of the ideal squares that Theaetetus considers can be *what it is to be a square*, or the Form of a Square, insofar as some one nature is commonly found in all such ideal squares.⁴⁸ The squares considered by mathematicians perfectly instantiate in geometric space the nature or Form of Squareness insofar as they show all and only the necessary attributes of what it is to be a square and the necessary relationships that hold between squareness and other mathematical natures.⁴⁹ These ideal particulars are objects of thought, but not of perception, and are used by mathematicians as the subject-matter of their proofs.

⁴⁷ The precise status of ideal mathematical objects in Plato is controversial. Franklin (2012) argues they are non-real mental constructs. Denyer (2007: 288-9), in contrast, argues for their existence. Whether or not mathematical ideal objects in Plato should be considered as having existence separate from their mental construction is not relevant to my argument here.

⁴⁸ It is increasingly the case in Plato scholarship that the Forms are no longer being conceptualized as ideal instances of a relevant property. On this reading, the Form of Squareness is not a square, even a perfect square, but rather the nature of squareness itself. See Miller (2007 324n13) and Franklin (2012: 495), who writes: "In apprehending that what holds of this triangle could be inferred about any other triangle, the mathematician senses that the inference is based on what it is to be a triangle" (495). This "what it is to be a triangle" does not itself ever become an issue for the geometer, however, insofar as the whole orientation of that art is toward what follows from triangularity. Plato indicates the particularity of the ideal objects of mathematics at VII.526a.

⁴⁹ The definitive characteristic of perceptual things is the compresence of opposites, or the way that spatiotemporal objects frequently manifest opposite qualities at different times, such as the stick that

The *logos* appropriate to mathematics—proof—works by hypothesizing the natures displayed by the ideal mathematical particulars, whereas the sense of *logos* appropriate to dialectic is concerned with these natures themselves.⁵⁰ While the productivity of mathematics is a result of mathematicians hypothesizing the natures found in ideal mathematical particulars, this productivity does not entail that ideal mathematical particulars explain themselves, no matter how “obviously manifest” such natures appear to the mathematicians. The solid foundation from which all mathematical demonstration proceeds is ultimately the Forms. Mathematical thinking, however, does

appears equal and unequal in the *Phaedo* and the finger that appears both large and small in the *Republic*. However, things like “being a square” and “being human,” what in Aristotle would be called substantial forms, are never directly described by Plato as suffering from the compresence of opposites insofar as they do not have opposites. As I shall argue below, it is for this very reason that Plato describes the largeness of a finger, but not the finger-ness of the finger, as summoning the mind to contemplation of the Forms. Nevertheless, all perceptual substances are not identical, on Plato’s view, with their substantial Forms. Perceptual squares, because of their temporal character, will stop being a square at some point. Moreover, such perceptual squares will manifest a whole host of characteristics irrelevant to what it is to be a square, such as color, three dimensionality, etc. The ideal squares of the geometer, however, do not have any such features.

⁵⁰ A natural, though mistaken, assumption would be to read Plato as calling for an argument that proves or demonstrates the truth of the hypotheses in the same fashion that the hypotheses prove their subsequent results. As Aristotle argues in the *Posterior Analytics* and the *Metaphysics*, however, such a requirement would generate a vicious regress, and there is no reason to attribute such a problematic view to Plato. See also the argument found in Bailey (2005: 112-113) as to the agreement of Plato and Aristotle on this point. Nor can Plato mean that the dialectician will simply ensure that the various definitions and axioms underlying a discipline are consistent and well formed. Cornford (1932) and Taylor (1966: especially 292-3) seem to understand the demand for a *logos* in this way. Taylor writes: “Physics, chemistry, biology, economics [along with the mathematical arts Plato lists] are all full of undefined ‘primitive notions’ and undemonstrated assumptions, and it is part of the work of the students of these sciences themselves to make a steady effort to ascertain just what their untested presuppositions are, and to consider how far they are really required, and how far they form a consistent system... Thus, for example, the process by which the Infinitesimal Calculus has been purged of bad logic and false assumptions, or the development of ‘non-Euclidean geometry,’ is an excellent illustration of the self-criticism and self-correction of thought which Socrates and Plato call dialectic.” While Taylor presents a compelling portrait of responsible scientific practice, dialectical education as such is not advanced by a given discipline tidying up its basic presuppositions. Dialectic is not simply a better version of mathematics, and is not in any way intended to replace or make unnecessary mathematical study. It is a separate discipline that is interested in the metaphysical foundations underlying a given discipline’s assumptions—a question which should have no urgency for mathematics as such.

not realize the dependence of ideal mathematical particulars upon the Forms and so fails to search for the metaphysical explanations of the ideal mathematical particulars.⁵¹

And the remaining things, which we said touch upon something of being, geometry and the things following from it, we see they [mathematicians] dream concerning being. But it is impossible for them to see it in waking reality so long as they leave alone unmoved the hypotheses they use and are unable to give a *logos* of them. For when it is a beginning which is not known, and the end and the things in between are interwoven out of what is not known, what contrivance is there to make such an agreement ever become knowledge? (VII.533b6-c5)

Ideal mathematical particulars are a sort of dreaming grasp of the natures or Forms that they instantiate.⁵² The dialectical science, in contrast, attempts to directly grasp the various Forms (Squareness itself and so on) that make the ideal mathematical particulars possible. By no longer discussing ideal objects as such but rather the natures of those ideal objects, dialectic is therefore capable of moving past hypotheses and discovering the proper metaphysical grounding of reality. “So the dialectical method alone advances in this way, by doing away with the hypotheses, and going toward the first principle itself in order to secure it” (VII.533c7-d1).

ii. Mathematical Education as Preparation for Dialectic

Despite the fact that mathematical thinking fails to directly consider the Forms, the *Republic* argues that the study of mathematics will prepare certain exceptional

⁵¹ See also Miller (2007: 325) and Franklin (2012: 484), the latter of which helpfully writes: “But to restrict the candidates for mathematical truth-makers in this way is to assume that the type of entity overtly spoken about in mathematical reasoning directly reveals the type of entity that grounds mathematical theorems. It is to assume that mathematical discourse is transparent with respect to its own foundations.... Plato distinguishes the truth-makers of mathematical theorems—Forms—from the mathematical particulars of which such theorems are, or would be, true. And since mathematicians speak and reason overtly only about the latter, mathematical discourse is opaque.”

⁵² See also Franklin (2012: 494-5), who puts the point well when he says: “... we may redescribe the mathematicians’ orientation toward particulars as a blinkered stance toward truth. Unaware of Forms and their distinctive manner of being, the mathematician believes that the only way to *be F* is to be an instance of it. Accordingly, he will also believe that the truest F’s are those that exemplify the property in the most perfect, unqualified sense. Thus, in speaking of units that lack material composition or ideal geometric figures, the arithmetician and the geometer take themselves to be speaking of preeminently true objects.”

students to begin the study of dialectic proper. The *Republic* presents mathematical education as providing the philosophical student with two skills that are necessary prerequisites for dialectic education. First, the mathematician is able to move beyond the perceptual features of sensible things to consider their intelligible constitution. Second, the process of proof employed by mathematical thinkers trains students to gather together a plurality—for instance, the many ideal mathematical squares—into one account. Theaetetus demonstrates both skills in his effort to define incommensurability.

The central feature of dialectical education is the conversion of the soul from *becoming* to *being*. Following the allegory of the cave, Socrates says:

But now the argument indicates that this power which is in the soul of each person and the instrument by which each soul learns... must turn together with the whole soul from becoming to being, until it becomes able to withstand looking at being and the brightest part of being.
(VII.518c4-10)

Dialectical education involves shifting the noetic “gaze” of the soul away from becoming toward being. The still asleep un-turned soul only considers the objects that it is engaged with *as objects*, and so fails to explore the *being* or natures that those objects exemplify. In contrast, the awakened and turned soul recognizes that the particular things it encounters only are intelligible insofar as they are instances of some nature—which is to say, insofar as they participate in Forms.⁵³ If mathematical education has the power to prepare exceptional students for dialectic, it will be because it has the ability to reorient such students away from things to the constitutive characteristics that explain the intelligibility of those things.

⁵³ See also Miller (2007: 322-3).

Socrates suggests that there are certain objects that facilitate the turning of the soul away from objects *qua* objects to their intelligible constitution. For example, Socrates suggests that three fingers—the pinkie finger (smallest), the ring finger (intermediate), and middle finger (largest)—are a “soul summoner” at VII.523c. Any one of these fingers by itself is not a soul summoner, because that finger on its own will simply look like a finger. As a result, it does not invite any further thought into the nature of finger-ness. Though he does not say so directly, presumably any two fingers also will not be a soul summoner because one finger will simply look small and the other will simply look large. As such, nothing in the appearance will call the soul to consider the nature of largeness or smallness as such. The prejudice that things are simply how they seem to be remains unchallenged. In contrast, considering all three fingers together can lead the soul to consider an apparent contradiction: the ring finger looks to be not only small, but also large. This contradiction is not merely formal, but rather perceptual—the finger seemingly “looks” to be in two mutually exclusive ways. The very close juxtaposition of two different contexts (the ring finger compared with the smaller pinkie and the ring finger compared with the larger middle finger) summons the soul to calculation and contemplation about the nature of the smallness and largeness it perceives in the different contexts.⁵⁴

Thus it is likely... that in things of this sort first a soul attempts calculation and contemplation [λογισμὸν τε καὶ νόησιν] and is summoned to consider

⁵⁴ This example is frequently objected to on the grounds that it treats qualities like large and small as contraries rather than as relations. However, Plato’s point is that the experienced qualities are not *experienced* as essentially relational. White (1992: 286), for instance, writes “if we attend to what we consciously have in mind when we say that something is hard... it seems rather plain that we do not intend to ascribe a relation to it, but rather a property that seems on reflection to be monadic.” While people may be relying upon idiosyncratic or implied past relationships when they label a given experience as large or hard, the quality that they are applying to the experience is not itself relational insofar as the same hard-quality is applied to all such relationally-caused hard experience.

whether each of the things being announced are one or two... But sight saw big and small, we say, not as something separate but as something mixed together... And for the sake of clarity in this matter the intellect is compelled to know big and small not as having been mixed together but as separate, in an opposite way than perception looked at it. (524b3-c4)

The intellectual part of the soul refuses to accept the unintelligible and contradictory reports of perception and thus attempts to resolve the apparent contradiction. Resolving the contradiction will force the soul to turn the inquiry away from the perceptual ring finger because that finger looks both small and large. Instead, the soul will have to consider what it actually is for something to be large or small independently of the objects that are small in some contexts and large in others.

Socrates indicates that the process of learning about mathematical objects and the process of mathematical proof are both in principle capable of summoning the soul in ways analogous to the three fingers example. The same perceptual object is and seems to be both one and an unlimited multitude (VII.525a). Each perceptual object is a whole—and so is a one—that is composed of parts—and so is a many—and those parts are composed of parts, which are themselves composed of parts, and so on—and so is unlimited in multitude. Mathematics, in contrast, insists that the “ones” it studies are not perceptual objects. Students may begin learning to count by studying perceptual objects—for instance, they might learn to count to five by counting five apples—but the purpose of studying such perceptions is to have an insight that the “perceived” quality of Fiveness is distinct from any of the perceptual spatiotemporal objects that can add up to five when counted in a particular way. While in one sense spatiotemporal objects can be counted, making the art of calculation useful for the arrangement of those objects, in another sense the ideal “ones” that get counted are nothing like the particular bodies that

can be counted as ones. The ones that the arithmetician considers are “each one equal to all and not differing at all, and none of them have any parts” (VII.526a3-4).⁵⁵ Therefore, arithmetic invites and trains the student to separate Oneness in the guise of ideal ones from the concrete objects that are numbered in a derivative sense.

Geometry, both of planar shapes and of solids,⁵⁶ continues this training by further separating out shapes, angles, and so on, from the spatiotemporal objects that have shapes and angles. Again, geometers might construct visible shapes in the course of their proofs,⁵⁷ as young arithmeticians might count on their fingers, but these constructed diagrams are for the sake of the a non-perceptual ideal shape that the construction represents.⁵⁸ Socrates argues that analogous benefits accrue from the study of the other two mathematical arts discussed in Book VII, rotational geometry (i.e. astronomy) and harmonics. The specific rotation of the visible heavenly bodies and the particular sounds

⁵⁵ In Greek arithmetic, ones are basic units of counting. As units, they must be perfectly interchangeable with one another, meaning that each one must be identical to every other one. Moreover, they also cannot possess parts, because if they did each individual part would need some smaller unit capable of counting out how many parts the “ones” would possess. The ones would therefore not be one (insofar as they will be made up of many parts) and would not be capable of serving as the most basic unit for counting. What in modern mathematics would be considered as numbers between zero and one (fractions and irrationals) would be considered by the Greeks as ratios or as relative magnitudes, not as numbers, and would not be considered to be potential parts of the ones.

⁵⁶The benefits of the latter are so pronounced that Socrates recommends the study of solid geometry despite the fact that it has not yet been discovered at the dramatic time in which the dialogue is set and despite the fact that even most mathematicians have neglected to pursue its invention because of its seeming uselessness (VII.528a-c). By the time that Plato writes the *Republic*, however, the basic foundations of three dimensional geometry have been discovered, in part by the same Theaetetus who is dramatically portrayed in his eponymous dialogue. For more on solid geometry, see Section 4.

⁵⁷ Indeed, as Karasmanis (1990: 126) argues, it would be impossible for geometry to ever move completely beyond the drawing of visual figures or engaging pseudo-visual imaginations about such figures, even though neither the drawn or imagined figures are the ideal figure as such.

⁵⁸ Mueller (1992: 185) argues instead that Plato holds that: “mathematics [is] an attempt to understand the intelligible world by reasoning about sensible things rather than (as we might suppose) as an attempt to reason about the intelligible world using sensible things.” On this model, geometers actually treats their diagrams as being the true objects about which they think, and not merely as a sensible representation of the ideal triangle. However, this reading is directly contradicted by the discussion at *Republic* VII.525d-526a, which plainly states that the unit considered by the arithmetician is not any sensible thing but rather the ideal unit of one. Mueller himself notes this passage (191), but dismisses it as an inconsistency.

made by various instruments are in each case put aside so that the structural features of rotational motion and harmonics can be studied as such. In all of these cases, the learner moves from perceptual instances—spatiotemporally shaped things, the heavenly bodies, and sounds—to thinking of these things not as perceptual but rather as ideal shapes, as rotational motions, and as harmonic ratios.

To be sure, in each case the mathematical arts remain oriented toward the ideal objects that they consider and not the Forms actually responsible for the constitution of those ideal objects. Nevertheless, this process represents a significant advance over the ordinary perceptual standpoint and its orientation toward the perceptual shapes and numbers it encounters. With each step of mathematical education, from number to harmonics, the ideal object under consideration becomes increasingly abstract and thus harder and harder to confuse with any the perceptually apparent spatiotemporal objects that can be characterized as a one or as a shape. An observer can see a square table and call it a one or a square. Such an observer could perhaps continue to think that squares or ones just are the perceptual spatiotemporal objects that are ones or shaped. In contrast, a pure ratio never appears as a spatiotemporal object as such. A person can hear a harmony, to be sure, but he or she does not hear it as an object amongst other objects. The ideal objects considered by harmonics, pure ratios, thus have no exact sensible counterpart.⁵⁹ At these heights, mathematical thought has left behind the sensible world to the greatest extent possible without making the turn to dialectic.

⁵⁹ See Miller (2007: 321): “And next, in the turn by way of astronomy to harmonics, we make a second, precisely analogous purgation: now we drop these figures in order to let the ratios that they express emerge in their own right and come to stand as our proper objects. But ratios, in and for themselves, are neither visible nor spatial.”

The process of mathematical proof, and not just the process of attaining a familiarity with mathematical objects, also serves to summon thought in the philosophical student. While the mathematician is fundamentally concerned with correct answers and usefulness, and thus a kind of productivity more associated with the lower regions of the divided line, he or she arrives at these ends by constructing demonstrations that group together a plurality of ideal objects in one account. As an example: the number of ideal particular triangles is (at least in principle) unlimited. But the geometer can easily prove that the multiplicity of triangles can be grouped together into three kinds—acute, right, and obtuse—and can provide certain necessary and sufficient conditions by which a triangle can be assigned to one group rather than another. All and only triangles with all three angles less than a right angle are acute triangles. This procedure of grouping the many into determinate kinds still rests on the hypothesized natures of the various terms by which the grouping is carried out, and so is not dialectical. What triangularity, angularity, rightness, and even acuteness all are is presupposed in this account of triangles, insofar as all of the relevant terms in the account are ideal mathematical particulars, not Forms. However, mathematics is nevertheless concerned with attempting to unify a plurality of particular instances under one account, and in that respect is quite similar to the procedures of dialectical philosophy. The only difference is that the mathematician understands the groupings in terms of the plurality of particulars that are grouped together, whereas dialectic is concerned with the natures that explain the very possibility of the mathematician's groupings in the first place.

While mathematical education prepares the exceptional student for dialectical education proper, certain features of mathematical reasoning can actively resist the

transition to dialectic philosophy. After hearing about the mathematical education prescribed by Socrates, Glaucon remarks:

Glaucou: You speak of an enormous task, Socrates.

Socrates: Do you speak of the prelude, or what? Or do we not know that all these things are preludes of the law which it is necessary to learn? For surely it does not seem to you that those great at these things [the mathematical arts] are dialectical?

Gla: By god, no. (VII.531d5-e2)

Mathematics is not dialectic, and certain aspects of mathematical thinking must be overcome as the first stage of dialectical education proper. Mathematicians' interest in forward-pointing demonstrations runs the risk of remaining for the sake of productivity and usefulness. In so doing, mathematicians would fail to properly wonder at the hypothesized starting points that are tacitly seen through the ideal mathematical particulars. Mathematics is fundamentally oriented toward the end, toward the conclusion to be proven, and only returns to the beginning insofar as the beginning is necessary for proving the truth of the conclusion.⁶⁰ As such, it is potentially resistant to stopping the productive forward momentum generated by the assumption of their hypotheses.

Such a suspension is necessary, however, if the hypotheses are to be directly interrogated. The mathematical arts that Plato considers, from arithmetic to astronomy and harmonics, are frequently driven by the usefulness of mathematics rather than by theoretical concerns. Glaucon, in justifying why a particular mathematical art ought to be studied, frequently takes recourse in the potential use of such studies. This tendency leads Socrates to rebuke him: "you are like someone who fears the many, lest you seem to command useless [ἄχρηστα] studies" (VII.527d6-7). Indeed, Socrates suggests that it is

⁶⁰ Karasmanis (1990: 126-7) comes to same conclusion.

concerns over what is useful that have caused solid geometry to be neglected (528b) and astronomy and harmonics to be practiced with too much emphasis on observation of perceptual objects like the heavenly bodies (529c-d) and the sounds made by instruments (531a-c). Certainly, Socrates does not think that there is anything necessarily wrong with “applied mathematics” in themselves—after all, the philosopher-king will ultimately be better able to govern even the practical affairs of the city—but such studies are not educatively conducive for dialectic because they preserve an orientation toward the obvious apparentness of perceptual objects.

Even explicitly “theoretical” mathematics, studies unconcerned with any common-sense understanding of utility, still maintain an orientation toward arriving at true conclusions and ends. Coming to actually know the explanatory first principles does not necessarily help arrive at true mathematical conclusions any better than merely hypothesizing the first principles. One can prove the Pythagorean Theorem perfectly well without truly understanding the nature of Triangularity, just as one can use non-contradiction in any number of formal arguments without understanding (or even attributing to it) its proper priority as the ground of intelligibility.⁶¹ The hypotheses of the mathematicians are so useful, and their obviousness seems so immediately and intuitively certain, that further inquiry into them seems quite literally useless. The dialectical pursuit that Socrates is advocating could be reproached by those in the sway of mathematical thinking as not generating any more true propositions concerning the world than are generated as a result of continuing to treat the starting points of mathematics

⁶¹ The discussion of non-contradiction in *Republic* IV is presented by Socrates as hypothetical and as indicative of the shorter method of inquiry precisely because it does not attain an adequate understanding of the link between the principle and the intelligibility of reality.

hypothetically. Indeed, by calling into questions and thus undermining the immediate obviousness of the hypotheses, such thinkers could argue that dialectic is in fact *less* productive, *less* capable of generating true conclusions. The trust in the self-evidence of appearances that takes the intelligibility of the world for granted is preserved within the tendencies of mathematics to hypothesize and to be oriented toward conclusion-driven projects.⁶² The philosophical, dialectical attitude, in contrast, wishes to understand *why* what appears to be obvious does in fact so appear.

While cultivating mathematics lays the foundation for dialectical education, it is not identical with it. Indeed, nothing in the *Republic* is presented by Socrates as dialectical. Glaucon, Socrates suggests, would not be able to follow an actual demonstration of dialectic (VII.533a). The imagistic language used in the *Republic*, along with similar dialogues like the *Phaedo* and *Symposium*, merely hypothesizes the Forms via metaphoric and imagistic language that risks transforming the Forms into another sort of ideal particular object. The *Parmenides* highlights the risks of transforming the Forms into ideal particulars, and also recommends a procedure whereby such an error can be overcome.⁶³ Some commentators argue that the *Sophist*, *Statesman*, *Timaeus*, and

⁶² Benardete (1984: 89) portrays Theaetetus and Theodorus as being in the sway of this sort of skepticism concerning philosophy at the beginning of the *Theaetetus*: “Socratic philosophy is, to say the least, not indispensable for making great discoveries in mathematics, and mathematicians themselves seem to be wholly immune to philosophy if neither Theodorus nor Theaetetus sees any difficulty in accepting the view that knowledge is perception. In the face of both Socratic and Protagorean doubts, they are serenely confident in their own competence. Science and scientists [those in the sway of *dianoia*, on my reading] look on as neutrals in the conflicts within philosophy.” While I agree with Benardete’s characterization of Theodorus, I will argue that Theaetetus is far more dialectically inclined than Benardete recognizes.

⁶³ The task of interrogating the hypothesis of Form is already mentioned in “middle” dialogues like the *Phaedo*. “And if someone attacked your hypothesis [of Form] itself [εἰ δέ τις αὐτῆς τῆς ὑποθέσεως ἔχοιτο], you would leave him alone and not answer until you examined the things following from that hypothesis and if they agree with one another or contradict one another. And when you must give a *logos* of that hypothesis, you would give it in like manner, hypothesizing again another hypothesis from higher that seemed best, until you came to something sufficient” (101d3-e2).

Philebus also advance the philosophical program established in the *Parmenides*.⁶⁴ In the next section, I will indicate the way in which the dialectical project of interrogating the theory of Forms entails suppressing that theory for educative reasons at a particular stage. My contention will be that the absence of the Forms from the *Theaetetus* occurs as part of the same educative project of dialectical education.

iii. The Dialectical Education of Young Socrates in the Parmenides

In this section, I will discuss the dialectical method that is presented in the *Parmenides* and argue for the connection between that method and the education of Theaetetus that is portrayed in the *Theaetetus*. My proposal is that both educative techniques are positioned as dialectical in the sense indicated in the *Republic*. That is to say, both begin the project of turning the soul from a straightforward acceptance of the world toward the eidetic structures that are responsible for the intelligibility of the world. It is as part of this educative project, I will argue, that Plato deliberately leaves out any discussion of the theory of Forms from the *Theaetetus*.

The initial connection between the education that Parmenides proposes for Socrates and the dialectical procedures endorsed in the *Republic* is found in the way that Parmenides advocates avoiding any consideration of the productivity or usefulness of his proposed exercises. In the *Parmenides*, Socrates presents the theory of the Forms as a way of avoiding the troubling compresence in perceptual objects. However, after a lengthy series of arguments Parmenides is easily able to show that the young Socrates has not fully thought through the implications of the theory of the Forms on account of,

⁶⁴ See especially Miller (2003: 23-5) and (2007: 339-342). Miller (1992) argues that the discussion of the third definition of *logos* in the *Theaetetus* also fits into the project of dialectical education, but he never looks at the dialogue as a whole.

amongst other errors, still thinking of them as a certain kind of ideal object. Parmenides says that the purpose of this demonstration is not to disprove the theory, but rather to show Socrates that he has not yet undergone the proper education that will allow him to speak rigorously about the Forms. Socrates is attempting to posit the Forms too quickly, before he is properly trained in what undialectical individuals consider to be useless procedures and unproductive talk (135c-d). Even before further specifying this training, Parmenides already indicates that it will differ from other modes of taking up the world, even the mathematical mode. Whereas mathematics is productive and useful, both in the sense of having practical value and in the sense of moving from hypotheses to conclusions, the training that Parmenides has in mind for young Socrates will seem pointless in both respects. It will consider questions that seem too ridiculous for the many to take seriously, like whether mud and filth possess natures, muddiness and filthiness, distinct from their appearances. And it will engage such questions by looking backward and interrogating the hypotheses that were implicit in Socrates' original postulate of the theory of Forms.

Another feature of the sort of training that young Socrates needs is that it will not treat of perceptual things at all, and will only deal with those intelligible realities "that could be thought to be Forms" (135e4). Despite his youth, Parmenides thinks that Socrates is already prepared for this most difficult constraint of dialectical training. When Socrates first presented the theory of the Forms to Parmenides, he demonstrated that he possesses an intuitive sense that sensible things are only ambiguously intelligible, and that they point beyond themselves to a purely intelligible order of the description. Only

by considering that reality as such will it be possible for Socrates, or anyone else, to truly come to a satisfactory understanding of these matters.

The method of training that Parmenides has in mind is that of hypothesis investigation, which he demonstrates in the second half of the dialogue.

“And you speak nobly [in restricting inquiry to the intelligible order],” he said, “but it is necessary also to do this still further thing. It is necessary, if you want to be better educated, to examine what follows from the hypothesis, not only if each hypothesized thing is, but also if the same hypothesized thing is not.” (135e10-136a3)

The method here is plainly dialectical. Unlike *dianoia*, which goes forward from hypotheses to conclusion, the method of hypothesis investigation interrogates the hypothesized entity directly. The method by which Parmenides advocates this interrogation hinges, he says, on considering the theses that the thing hypothesized is and also that it is not, particularly with respect to the consequences that the being or non-being of the hypothesis entails. When Socrates expresses confusion as to what such a procedure actually means, Parmenides then demonstrates it for him in the second half of the dialogue.

Insofar as the topic of this dissertation is not the *Parmenides*, I will only briefly touch on one portion the exercises found in the second half of the dialogue. Of the different senses in which considering the being and non-being of the hypotheses can be taken, only one of them is directly relevant to my reading of the *Theaetetus*. At two junctures during the exercises—in exercise Three and Seven—Parmenides considers what consequence follow from things participating in Forms. Correspondingly, the Fourth and Eighth exercises consider what would have to follow from Forms being entirely separate from things, and denying the participatory relationship—things would

be incapable of having any determinate qualities at all and would not even appear to be.⁶⁵ Thus, at least one stage of dialectical education involves considering the consequences that will follow from denying, either explicitly or implicitly, the role that Forms play with respect to knowledge and metaphysics.

I will argue that the *Theaetetus* continues this dimension of the project started in the *Parmenides*. It explores the consequences that follow for knowledge and perception if neither are taken to be grounded in the Forms, and if (as a result) things are taken to be nothing more than they appear to be. If the Forms are not in that sense, then perceptual appearances must be the source of knowledge. Given, the *Theaetetus* shows, that such appearances are incapable of sufficiently accounting for knowledge of an intelligible world, knowledge seems to be impossible. Thus, something beyond the appearance—the qualities that appear within sensory perception—must be the proper foundation of knowledge, and the activity of soul capable of grasping these qualities as such—judgment—is a better candidate to explain knowledge than perception.

Dramatically speaking, Theaetetus is not at the same level as young Socrates was philosophically, and this insight does not yet suggest to him anything like Plato's theory of Forms.⁶⁶ To a more dialectically advanced reader, one perhaps already familiar with

⁶⁵ This sketch, and it is intended as no more than a sketch, of the *Parmenides* is indebted to the readings laid out in Miller (1986) and Sanday (2014).

⁶⁶ Though young Socrates begins in a more advanced place than Theaetetus, nevertheless both are still in the sway of the trust in the self-evidence of appearances in important respects. Both students are beholden to everyday ways of thinking and speaking about the world. After the young Socrates displays an unwillingness to consider whether or not worthless things like mud and filth are anything more than they seem to be (130d), Parmenides indicates that his unwillingness is a result of him caring too much about what others think and being unwilling to think through the troubling and counterintuitive implications of his theory. Similarly, after Theaetetus allows himself to be bewildered by arguments that purport to disprove his proposed definition of knowledge by indicating counterintuitive consequence of that theory, the older Socrates indicates that his failure is the result of being too persuaded by conventional standards of acceptability that fall short of appropriate rigor (162e-163a).

some of Plato's other dialogues, the discovery of the priority of the being of the quality over the appearance of the quality provocatively suggests a new, more rigorous account of the connections between Platonic metaphysics and epistemology and also an importantly novel way of understanding of how the Forms play a crucial role in structuring the intelligibility of perceptual appearances.

Section 4: Dialectical Education in the Theaetetus

If the preceding sections have been successful, I have demonstrated what I take it to mean when I say that the *Theaetetus* should be read as an instance of dialectical education. I have not yet argued for why I read the *Theaetetus* in this manner. I will therefore conclude the chapter by showing why Socrates' midwife art described in introductory sections of the *Theaetetus* should be read as dialectical and so as continuing the project of education announced in the *Republic* and given basic shape in the *Parmenides*.

In the early pages of their conversation, Theaetetus presents a brief sketch of a geometrical proof that gathers together all of the squares that have incommensurate sides under one account. Socrates is so impressed by Theaetetus' comments that he launches into his famous midwife speech in which he promises to help Theaetetus give birth to his philosophical potential. Precisely why Socrates is so impressed by Theaetetus' geometrical demonstration, however, is not obvious. While the geometrical proof is impressive enough, the reader is left to wonder what about it demonstrates that Theaetetus has philosophical, and not merely mathematical, potential.

I will argue that comments that Theaetetus makes at the end of his proof demonstrate a transition beyond mathematical thinking toward dialectical thinking. At a

crucial juncture, he transitions from speaking about incommensurate sides of squares, ideal geometric particulars, to talking about incommensurability itself. Theaetetus argues that incommensurability should be understood as a kind of *dunamis*, or power. What the incommensurability found within the ideal incommensurate line segment actually *is* is the power of the line segment to produce squares with commensurate areas. Socrates does not praise Theaetetus for his mathematical acumen, but rather for the proto-dialectical impulse that he demonstrates in transitioning from thinking about the line segments to thinking about the incommensurability demonstrated by those segments on its own terms. Theaetetus has taken a first tentative step toward reorienting his soul toward being as such, instead of only considering being mediated through the intermediate mathematical particulars.

The opening stages of the *Theaetetus* suggest an immediate connection with the dialectical education of the *Republic*. After an initial frame story set in the future in which two friends mourn the impending death of an older and more distinguished Theaetetus (142a-143c), the dialogue begins with Socrates asking Theodorus the mathematician whether any of his Athenian students have proven remarkable.⁶⁷

⁶⁷ I have encountered relatively few interpretations of the dialogue that argue for much philosophical weight to this frame story, and it doesn't play any substantial role in my interpretation either. The standard interpretation is that Plato is dedicating the dialogue to his recently deceased friend Theaetetus, who was a member of the academy at that time—see, for instance, Cornford (1935: 15). Readers who attach more philosophical weight to the prologue include Benardete (1984: 85-8), Roochnik (2002), and Sallis (2015). Roochnik argues that the frame story contains numerous references to problems of self-identity and interpersonal recognition that continually reoccur throughout the entire dialogue. Sallis connects the temporal complexity involved in the frame story with the constant focus within the dialogue on the nature of memory.

Theodorus replies that he teaches one pupil, Theaetetus, who in particular has distinguished himself.⁶⁸

For being a quick learner [εὐμαθῆ] compared with others, he is also exceptionally gentle [πρῶτον], and he is as brave a boy as any of his fellows. I would not have thought such a thing came about, nor do I see it coming about elsewhere. Most of those who are sharp [ὀξεῖς], quick witted [ἀγχίνοι] and have good memories [μνήμονες] like him also are quick to turn toward their impulses—they are quickly carried away like ships without a ballast, and are born frenzied rather than brave. Those who are more sedate of mind come to learning sluggishly and are full of forgetfulness. (144a3-b3)

Theodorus here describes Theaetetus in the same way that Socrates in the *Republic* described the student for whom dialectical study is appropriate. There, Socrates argues that only a rare nature will be capable of taking up this study, because:

Quick learning, memory, quick wit, sharpness [εὐμαθεῖς καὶ μνήμονες καὶ ἀγχίνοι καὶ ὀξεῖς] and other things that go with these, along with youthful vigor and magnificence, are not willing to grow together with the intellectual capacity [τὰς διανοίας] of the sort that choose well-ordered along with quiet and steadfast lives. Rather those of the first sort by their sharpness [ὑπὸ ὀξύτητος] grow however they happen [i.e. by chance], and the firmness [βέβαιον] is entirely gone out of them... But again the firm, not easily changing, whom some proclaim more trustworthy, being hard to move toward fear in war, act like this toward learning: they are hard to move and slow at learning as if becoming stupefied. (503c2-d4)

The close parallels between these two passages announce that Theaetetus is one of the rare natures which are described in the *Republic* as candidates for dialectical education.

⁶⁸ A potential objection to my proposal that the *Theaetetus* be read dialectically is Theaetetus' relative youth at the time of the dialogue. In the *kallipolis* described in the *Republic*, dialectic can only be embarked upon at the end of an exhaustive program of education by old men. Theaetetus, in contrast, is defined by his youth, just as Socrates is in the *Parmenides*, making both dialogues superficially appear to be poor places in which to find dialectic. If dialectical education is to be possible at all outside of the utopian city found in the *Republic*, however, more dangerous methods (such as beginning it with younger individuals) are unavoidable. Plato never says anything in the *Republic* to suggest that philosophy ought not to be practiced at all outside of the *kallipolis*, only that there will be great difficulties in attaining it. See also Mueller (1992: 170-1).

Despite Theodorus' glowing description of Theaetetus, however, he initially does not distinguish himself particularly in the face of Socratic questioning. Socrates begins by asking Theaetetus what knowledge is.⁶⁹ Theaetetus responds by listing out various things he takes to be kinds of knowledge—mathematics and different mechanical *technē* like cobbling (146c-d). The response misses the point of Socrates' definitional question insofar as it merely lists various examples of knowledge and in this way fails to disclose the nature of knowledge. This initial answer falls short even of mathematics, insofar as it does not even seem to recognize that there is a possibility of grouping all the knowledges together under one account. In contrast, a crucial feature of mathematical proofs is grouping together particular instances of ideal mathematical particulars by determining certain characteristics that all and only members of a particular class will possess. His response indicates that Theaetetus still tends to take the being and appearance of the various "knowledges," mathematics and technical skill, for granted.⁷⁰

Socrates indicates the inadequacy of Theaetetus' initial approach by pointing out the circularity of his account of knowledge. Any list of kinds of knowledge will fail to explain the nature of knowledge "because you suppose that the questioner understands

⁶⁹ At this initial point in the dialogue, it is important that Socrates' initial question into *epistēmē* not be understood in terms of the rigorous account of what the word means as set forth in the *Republic*. Doing so obscures the dialectical work accomplished by the dialogue. By the end of the dialogue, Theaetetus will have to come to a better understanding of under what conditions something can really be counted as knowledge, and to what extent those conditions match the normal ways in which the term is used. A similar reading is also found in Heidegger (2002: 124-5), who argues that Socrates' "what is knowledge" question should not be interpreted as fundamentally concerned with rigorous science initially. Adopting such a reading will allow the reader to see how knowledge comes to be transformed into rigorous science by the time of Aristotle. In adopting this reading of the dialogue, I differ with, for instance, Gerson (2003), who reads the entire dialogue assuming that Socrates and Theaetetus are working from the basic criteria for knowledge set forth in the *Republic*. He does this in order to argue against, for instance, Bostock (1988) in arguing that Plato has not ultimately changed his doctrine between the two dialogues.

⁷⁰ He also seems to be beholden to certain concerns about practicality, insofar as Theaetetus does not mention philosophy as a kind of knowledge.

[συνιέναι] from our answer” (147a9) what “knowledge” means when it is used within the list of the kinds of knowledge. The name “cobbling” indicates nothing other than “knowledge of shoe-making,” “carpentry” nothing other than “knowledge of furniture-making,” and so on for all the various mechanical *technai*. The mathematical arts are also different sorts of knowledge. “Geometry” fundamentally means ‘knowledge of planar and solid shapes,’ ‘arithmetic’ means ‘knowledge of combining numbers,’ and so on. Therefore, the list that Theaetetus gives of different sorts of knowledge will not be a significant or meaningful utterance to the person in *aporia* concerning what actually makes some given *technai* an instance of knowledge. “Or do you think someone understands [συνήσιν] a name of something who does not know [μὴ οἶδεν] what it is?” (147b2-3). Being in ignorance concerning what ‘knowledge’ itself means, as Socrates claims to be, it will be impossible for him or anyone else in a similar condition to understand what it is about an art like cobbling that makes that art an instance of knowledge.⁷¹

⁷¹ Precisely how this argument implies that the person ignorant of the nature of knowledge will be ignorant of the nature of carpentry because of the first ignorance is debated. Geach (1966: 371-3) argues that this is an instance of what he calls the Socratic fallacy—Socrates is suggesting that it is impossible to have any awareness of what an instance is unless he can give a rigorous account of the nature of the instance, a straightforward fallacy. McDowell (1973: 114) raises similar objections. Nehamas (1975b) argues against this fallacious reading of the argument. Nehamas (1984: 227) then correctly argues that Socrates is interested in understanding what it is for something to be knowledge, the essence of knowledge, and that of course it is possible for a speaker to use the word “knowledge” correctly and to recognize instances of knowledge without having discovered this essence. However, the essences of the instances, since they are instances of the essence of knowledge, cannot be grasped without knowing the essence of knowledge. Similarly, Sedley (2004: 25) argues that the *dialectical understanding* of the species, carpentry, is impossible without possessing a dialectical understanding of the genus, knowledge, and suggests that this more modest principle is adequate for the argument. I agree with both Nehamas’ and Sedley’s readings of this passage. When Socrates concludes that “whoever is ignorant [ἀγνοῖ] of *epistēmē* does not understand [οὐ συνήσιον] cobbling, or any other art” (147b6-7), he is not saying that artisans must somehow be able to rigorously define knowledge before they can be said to possess their art, as if a cobbler would not know shoe-making without knowing knowledge first. However, he is saying that even cobblers, if they are ignorant of the meaning of knowledge, do not in any way understand what cobbling itself is.

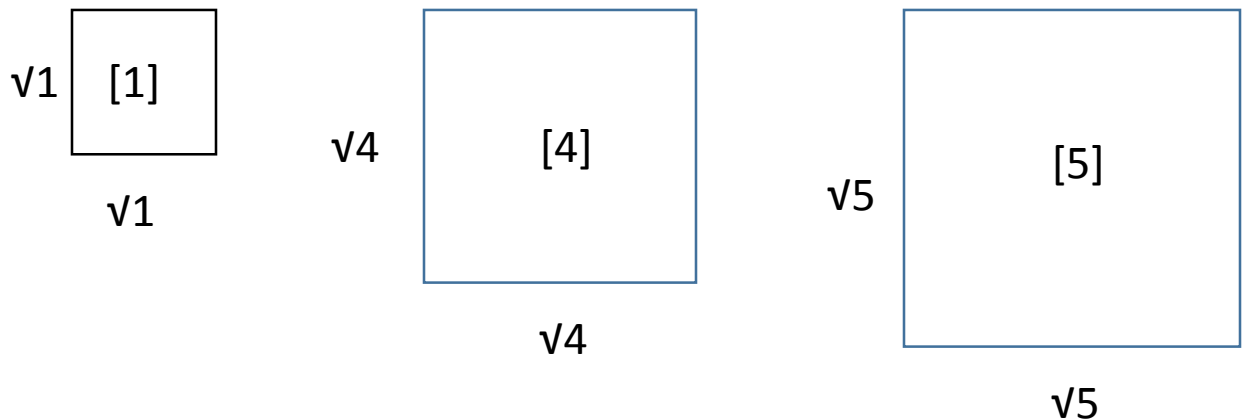
After this gentle rebuke, however, Theaetetus realizes his mistake and, in order to show that he now understands Socrates question, he offers to share his solution to a mathematical problem that resolved the same sort of difficulty that Socrates is currently raising concerning knowledge.⁷² Theodorus, his mathematical instructor, had been teaching Theaetetus about the incommensurate lengths of the sides of squares. Theodorus did this by showing that the sides of a whole host of squares are incommensurate with the sides of the square with an area of one—in more modern mathematical terms, he demonstrated that $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$, and so on up to $\sqrt{17}$ are irrational numbers, though in Greek mathematics this problem would be conceived geometrically. Theodorus' demonstration had proceeded via the construction of representative ideal geometric squares that demonstrated the incommensurability of the lengths of the larger with the lengths of the smaller. Theodorus' procedure, however, did not satisfy Theaetetus. His method had to prove the commensurability or incommensurability of the sides of each square individually—in modern terms, he had to demonstrate the irrationality each irrational square root one at a time—and Theodorus' demonstration had stopped before it had picked out all of the incommensurate powers, stopping with the $\sqrt{17}$. At best, Theodorus' demonstration had only picked out many instances of incommensurability, and it had failed to group all of the incommensurates together under one account, just as Theaetetus' first effort to define knowledge at most showed that there are several different things that can be called knowledge.⁷³ After Theodorus' demonstration,

⁷² Theaetetus' initial failure to define knowledge is not uncommon in the Socratic dialogues. Laches, for instance, first gives the same sort of response concerning courage (*Laches* 190e) and Meno continually does the same throughout his dialogue (*Meno* 71e-72a, 73d-74a, 79a-c). What is uncommon, however, is how quickly Theaetetus is corrected and how thoroughly he understands his mistake.

⁷³ McDowell (1973: 116) is right to point out that, if Theodorus is taken to be establishing what it is for a power to be incommensurate, then his procedure closely matches Theaetetus' listing of various instances of

Theaetetus resolved to discover some way of grouping all the incommensurate sides together. “So something of this sort occurred to us: since the incommensurate powers appeared to be unlimited in number, we should attempt to group them together into one account by which we will address all of them” (147d7-e1).

In order to see the philosophical, as opposed to merely mathematical, impressiveness of what Theaetetus goes on to present, incommensurability must be considered geometrically, in accordance with ancient Greek mathematical interpretations of the phenomenon. I will therefore spend a bit of time showing the way the Greeks conceived of incommensurability. Consider the following three squares:



The second square has an area four times larger than the first, and the third has an area five times larger than the first. The areas of the first and second square are commensurate—which is to say, there is an intelligible ratio between the area of the first and the area of the second, 1:4. The areas of the first and third square are also commensurate, having a ratio of 1:5.

knowledge. For a discussion as to why Theodorus might have had to stop at 17 given his proof method, see Theslaff (1990: 152-3) and D. Fowler (1999: 378-81).

While the areas of both the second and third squares are commensurate with the area of the first square, the same thing is not true concerning their sides. The sides of the second square are commensurate with the sides of the first square, as the sides have a ratio of $\sqrt{1}:\sqrt{4}$ or of 1:2. In contrast, there is no intelligible ratio between the sides of the first and third squares. $\sqrt{5}$ is what we would today call an irrational number—literally, a number that doesn't have a ratio—but to the Greeks the very idea of an irrational number would have been an oxymoron.⁷⁴ Instead, they were concerned with the relative magnitude of the sides of the third square, which they called incommensurate insofar as it does not have a ratio with the sides of the first square. Therefore, incommensurability is a relative notion, and a square has an incommensurate side relative to another square insofar as the relative lengths of the sides cannot be expressed by a rational ratio.

Theaetetus' mathematical project is to group together all of the squares that will have relatively incommensurate sides under one account. In other words, he must determine what characteristics are possessed by all and only squares with relatively incommensurate sides. Theaetetus does this by dividing numbers into two classes: the equilateral—any number of the form $x = m \times m$: 1, 4, 9, ...—and the oblong—any number of form $x = m \times n$ where $m \neq n$. He calls the later oblong insofar as such numbers only come about by multiplying a greater and a lesser. In his proof, which he does not present here, he says that he used this distinction to divide the incommensurate sides from the commensurate sides. He proved that the incommensurate lengths will come from squares with an oblong area relative to the base comparison square, and the

⁷⁴ For more on the specifics of the Greek way of demonstrating this proof, see Sayre (1969: 58-61), whose discussion of it was highly influential for my interpretation of these passages, and n3 in the Levett/Burnyeat translation of this passage.

commensurate lengths will come from squares with an equilateral area relative to the base comparison square. This grouping of the incommensurates is itself mathematically impressive, and demonstrates a mastery of mathematical thinking. Theaetetus' accomplishment has gone far beyond Theodorus' proofs insofar as it shows which ideal squares will have incommensurate sides, and does not merely list instances of incommensurables. His proof has collected together all of the squares with incommensurate sides under one account, and similarly collected together the squares with commensurate sides.

Theaetetus then compounds the mathematical impressiveness of his result when he generalizes the grouping of the incommensurates to solid geometry. In modern mathematics, the extrapolation of this result from planar geometry to solid geometry establishes for which values of x the $\sqrt[3]{x}$ will be irrational; however, the conversion of this result into modern mathematical notation should not overshadow the overwhelming importance of the proof that Theaetetus has presented for the development of solid geometry. Socrates had said in the *Republic* that most mathematicians neglect the study of solid geometry because they couldn't discover a use for it. Theaetetus, without having discovered any use for the results, intuitively recognized the applicability of his result in planar geometry to the solid and pursued it solely out of his desire to know and understand incommensurability. Indeed, it is not only Plato's Theaetetus that showed this initiative: the Greek tradition largely credits the discovery of some of the basic principles of solid geometry to the historical Theaetetus.⁷⁵

⁷⁵ See Burnyeat (1987: 218), Nails (2002: 275-276), and Miller (2007: 329n17) for a discussion of the historical record of Theaetetus' mathematical accomplishments, which include references to this incident mentioned in the *Theaetetus* and his general role in helping develop solid geometry. He is also credited

Despite its impressiveness, up to this point Theaetetus' proof remains an exercise in mathematical thinking. Though Theaetetus has grouped the squares with incommensurate sides together, he is still fundamentally thinking about various squares and sides. He can say which of these sides will have the “property” of incommensurability and which will not, but in doing so he does not characterize incommensurability itself. Incommensurability is not “oblong-ness”, and Theaetetus does not mean to suggest anything of the sort. Rather, the oblong-ness of the relative area of the square is simply a mark or indicator that a given square will have incommensurate sides. The proof takes for granted what incommensurability itself actually is for the sake of grouping together all of the squares (or cubes) with incommensurate sides.

However, Theaetetus offers an interpretation of the significance of his proof that goes beyond mathematical thinking. He suggests that an incommensurable side should be given the name *dunamis*, or power—“whatsoever lines make an oblong square, we labeled powers [δυνάμεις]” (148a10). With this name, Theaetetus is playing with normal Greek mathematical language. Normally, “powers” would refer to any lines used in making a square, as is reflected even in our modern mathematical language of taking “two to the second power,” or two *squared*. Theaetetus is modifying this language and proposing that the term “power” be reserved for the relatively incommensurate sides.⁷⁶ However, Theaetetus justifies this terminological restriction on philosophical, and not mathematical grounds. He gives the incommensurates the name “powers” because

with making substantial contributions to the field of harmonics as well. For a more skeptical reading of the accuracy of the accomplishments the Greek tradition attributes to Theaetetus' contributions, see Thesleff (1990).

⁷⁶ As Sayre (1969: 60) points out, this account of incommensurability as *dunamis* that Plato attributes to Theaetetus here is not in any way standard in mathematical literature, and it is intended by Plato to be a philosophical significant account, rather than merely a mathematical one.

particular, incommensurate (and so irrational) sides have the *power* to produce squares with commensurate (and so rational) areas—“although [the powers] are not commensurate in length with their companions, the plane figures [the squares] which they have the power [δύναται] to produce are commensurate” (148a10-b2). While Theaetetus is almost certainly unaware of the metaphysical import of what he has done, he has offered an account of the Form or nature of incommensurability itself. In modern terms, Theaetetus has defined the nature of the $\sqrt{5}$ to be the power to become commensurate when squared: though the $\sqrt{1}$ and the $\sqrt{5}$ are incommensurate and irrational, the $\sqrt{1}^2$ is commensurate with the $\sqrt{5}^2$, and all that is picked out by $\sqrt{5}$ is the magnitude that has the power to become a rational number. In Greek terms, incommensurability just is the capacity of a line segment to give rise to a square with a commensurate area. Irrational incommensurability turns out, on Theaetetus’ account, to have a rationally intelligible nature. The incommensurate sides, considered in isolation from the figures that require them to be drawn, are irrational. However, insofar as squares with commensurable areas call for sides of incommensurable lengths, irrational incommensurability has a rationally determinate nature. Theaetetus then gives the commensurates the name “lengths” insofar as the commensurate sides can be directly put into a measurable ratio with sides of the smaller square, without having to be squared. The commensurates are actually commensurable, and do not merely have the power to give rise to commensurability at a higher level of description.⁷⁷

⁷⁷ See also the excellent discussion of this proof and its philosophical implications in Sayre (1969: 58-61). Sayre’s discussion of Theaetetus’ discovery is well worth studying, especially his claim that Theaetetus has discovered that the incommensurate powers—which seemingly have no intelligible nature or being on their own on account of being incommensurate with the lengths of the square one—can actually be understood intelligibly by considering them in the second power.

Theaetetus' commentary here is proto-dialectical. As a result of considering his mathematical proof, he has attained the insight that incommensurability itself can be characterized as such. His characterization of it does not rest upon the individual incommensurate sides but attempts to directly pick out the nature of the incommensurability found in all such sides—all such sides possess the power to make squares with commensurate areas. The same, one *dunamis* is found in all the many ideal incommensurate sides, and his proposal marks a first effort to pick out the Form that explains the being of the incommensurability with which the geometer is concerned. Indeed, Theaetetus' proposal adds nothing whatsoever mathematically—he gives it after he has already grouped together the squares with incommensurate sides. The addition of this commentary indicates that Theaetetus' desire to explain mathematical phenomena goes beyond the mathematical accounts of those phenomena toward the sort of explanation that is offered by the dialectical pursuit of the Forms.

Socrates' famous midwife speech is the direct result of his satisfaction with the philosophical impetus that motivated Theaetetus' account of incommensurability itself. Impressed by Theaetetus' ability to separate out a Form, i.e., *dunamis*, common to all incommensurate powers, Socrates asks him to repeat this same sort of separation for knowledge. "Go, then—for you just led us beautifully—attempt to address the many things called knowledge with one account by imitating the way you separated the powers, where you grouped the many incommensurate powers with one form" (148d4-7). Unlike almost all other interlocutors to whom Socrates speaks, Theaetetus understands Socrates' question and demonstrates an ability to give that sort of account concerning mathematical things. Theaetetus, however, expresses doubts that he will be able to answer this question

concerning knowledge in the same way that he was able to in dealing with the incommensurate. Despite wondering about such things intensely—and this wonder is only possible because he has understood what Socrates is searching for to some extent—he has never himself given nor heard anyone else give an adequate answer that picks out the nature of all the things we call knowledges (148e). To Socrates, Theaetetus' wonder at these things indicates that he is pregnant. Via his midwife's art, Socrates claims to be able to help students make remarkable progress at giving birth to what they have inside of themselves. He thus encourages Theaetetus to answer his queries boldly.

There are two senses in which Theaetetus can be said to be pregnant. First, and most obviously, Socrates thinks that Theaetetus is pregnant with potential answers to the question of what knowledge is. Taken in this sense, he will deliver Theaetetus' progeny (certain answers) and then put those answers to the test. In speaking of Theaetetus as barren of any more theories concerning knowledge at the end of the dialogue (210c), Socrates seems to be speaking of Theaetetus' pregnancy in this sense—Theaetetus has given all of the answers that he is capable of giving at this moment in time. However, there is another, more primary sense in which the pregnancy of Theaetetus should be understood: Theaetetus is ready to begin turning his soul from becoming to being.⁷⁸ Socrates does not claim to put anything into the souls of those who associate with him, but rather to facilitate the recognition of what was already there (150d). This language

⁷⁸ This second sense of pregnancy strongly invokes Diotima's speech in the *Symposium* (209b-211d). 'Pregnant' there means, in its strongest possible sense, being pregnant with a virtuous soul, and precisely what one gives birth to is virtue and beauty within the soul. The culmination of this process for the true initiate, in Diotima's account at least, is the encounter with the eidetic order and the Good/Beautiful itself, which is the same height that dialectical education reaches according to the *Republic*. See Sheffield (2001) for an account that links Diotima's speech with the dialectical educative schema suggested by Allegory of the Cave.

strongly invokes the passage at *Republic* VII.518b, where Socrates also claims that education does not involve putting things into the soul but rather reorienting the soul toward the Forms that give perceptual objects their intelligible character. Theaetetus must be reoriented away from the kind of mathematical thinking that overlooks the Forms that make possible the ideal objects it considers. Instead, he must seek out the Forms that explain mathematical demonstrations in the first place. Since Theaetetus is pregnant in not only the first sense above but also in the second sense, Socrates can still speak of him at the end of the dialogue as having made substantial progress (210b), and not merely because he has become gentler and for that reason no longer takes himself to know what he does not know.

As a result of the encouragement contained within the midwife speech, Theaetetus attempts to mimic his account of the powers in offering a first definition of knowledge. He suggests that, because knowers perceive what they know, perception seems to “produce” knowledge, just as the incommensurates have the *dunamis* to produce commensurability. Thus, he proposes that the nature of knowledge is to be found in the “perceptive” activity or power of the knower. The adequacy of Theaetetus’ proposal concerning knowledge will be explored in detail in Chapter 2.

Chapter 2: What is Perception?

“Before tackling specific problems with Theaetetus’ proposal, this is perhaps the place to register what for the reader must be an overriding question: Why on earth will Plato (or at least the Platonic Socrates) become so caught up on what is obviously an unpromising proposal? It turns out that more than half the dialogue is devoted to discussions of this first definition. Why, in a search for knowledge, do we find such a disproportionate preoccupation with perception—especially since, as any student of Plato could surely have anticipated—it will in the long run be shown to be inadequate?” –Rosemary Desjardins (*The Rational Enterprise* 16)

Theaetetus’ first definition of knowledge is that “knowledge is nothing other than perception [οὐκ ἄλλο τί ἐστὶν ἐπιστήμη ἢ αἴσθησις]” (151e3-4). Theaetetus proposes that knowledge is the same as perception because knowers must perceive what they know (151e1-3), as he himself “perceives” the solution to mathematical problems. In the *Republic*, the definitive characteristic of mathematical thinking is thinking that the self-evident (*phaneros*) way in which the hypotheses appear (*phainesthai*) to the mathematician is enough to ensure that those hypotheses are known.⁷⁹ What a figure or what the odd and even *are* is disclosed or manifested—the literal meaning of *phainesthai*—to the mathematician, and the disclosure is so self-evident and obvious that the mathematician assumes no further explication is needed. What self-evidently and infallibly appears to the mathematician needs no further support or justification in order for it to be known. Taken literally, Theaetetus’ first proposal amounts to promoting this basic tendency of mathematical thought to the level of epistemological first principle. Anything that appears, whether the object in question is a mathematical hypothesis or a sensible quality, is immediately known. From the standpoint of Platonic dialectic,

⁷⁹ Though the language sounds a bit strange in English, there is nothing odd in speaking about a mathematical insight “appearing” to the mathematician in Greek. Theaetetus himself described mathematical results as appearing to him in the course of describing his reaction to Theodorus’ discussion of the incommensurates: “since [on the basis of Theodorus’ demonstrations] the incommensurate powers appeared [ἐφαίνοντο] to be unlimited in multitude...” (147d9).

however, this trust in the self-evidence of what appears is philosophically inadequate and will have to be overcome. The refutation of this first definition of knowledge will have to show that knowledge does not reduce to an awareness of something's appearance.

While it is true that what is known does appear or is "perceived" by the knower, as Theaetetus has recognized, what makes the knower know is not the fact of this appearance. Theaetetus had earlier suggested that the incommensurability found in certain line segments should be thought of as the power to produce squares with commensurate areas. The line segments "do" something, and it is in terms of this activity, producing squares with commensurate areas, that he characterized the nature of the incommensurability found in segments. Similarly, knowers "do" something—they "perceive," in a loose sense, the things that they know. Thus, via analogy to the incommensurates, Theaetetus characterizes the nature of the knower/known relationship as consisting in this activity of perception—knowing *is* (consists in) perceiving. By calling this activity "perception," however, Theaetetus has not yet specified precisely enough the activity that is unique to knowers, as opposed to non-knowers. While knowers do "perceive" what they know, non-knowers also "perceive" what they do not know, at least in some sense.⁸⁰ The slave boy in the *Meno*, for example, confidently (and wrongly) asserted that one doubles the area of the square by doubling its sides. This answer *appeared* to the slave boy to be correct—indeed, the answer seemed so obviously correct that Socrates describes him as becoming utterly perplexed upon being refuted (*Meno* 84a-

⁸⁰ Upon the discovery that some human beings are non-knowers following the refutation of Theaetetus' first definition of knowledge, Socrates immediately switches to attempting to understand how it can possibly be the case that the not-knower "perceives" the thing that is not known and still fails to know it. This digression into the possibility of false judgment goes unsolved in the *Theaetetus*, and recurs in the *Sophist* as the problem of the possibility of falsehood and non-being. I will not be concerned with the solution to the problem of falsehood and non-being in this work.

b).⁸¹ The activity of “perception” that all knowers engage in whenever they know is the same activity that the ignorant also engage in whenever they are ignorant, unless the activity is further specified in some way.

If Socrates is to help Theaetetus give birth to his insight, he must explore precisely what sort of activity it is that the knower engages in whenever the knower knows. Insofar as Theaetetus has, perhaps erroneously, given this activity the name “perception,” it will also be necessary for him to discover precisely what perception is—the broad range of different phenomena that are picked out by the colloquial uses of the word *aisthēsis* might not all be best identified by that word—and to discover whether the activity of knowing is best described as perceiving, or as some other sort of activity like judging (*doxazein*).

That the activity of knowing does not consist in perceiving, but rather in a higher-level activity like judging or intellection, is not a controversial conclusion. The *Theaetetus*, however, invites the reader to attain a deeper insight into why this conclusion must be true by discovering the absurdities that emerge from trying to defend the view that knowing just is (consists in) all kinds of “perceiving” or appearing.⁸² As I indicated above, the sort of “perceiving” that knowers do also seems closely related to the sort of “perceiving” that the ignorant do. If the two activities cannot be separated from one another, then no one will ever be ignorant. This unintended implication of Theaetetus’ first definition leads Socrates to propose an epistemology and ontology that

⁸¹ The discussion of arithmetic errors also appears in the *Theaetetus* in the context of the Waxen Block and Aviary images later in the dialogue (195e-200c).

⁸² As I indicated in the Section 3, this dialectical philosophical method is found throughout the exercises of the *Parmenides*, especially in Exercises 4, 6, and 8.

that will explain how it could ever come to be the case that there is no such thing as ignorance. According to this theory, however things seem to be to a person is how things actually are, at least for that person. Thus, ignorance is impossible, since whatever a person “perceives” to be the case is the case. Because of the metaphysical account of radical flux and becoming that Socrates suggests will be required to explain the impossibility of ignorance, I will call this theory the Flux Thesis. In subsequent chapters, I will show how Socrates establishes the impossibility of preserving such a metaphysical system while still maintaining the intelligible character of reality. The more general Platonic thesis that being is stable, enduring, and distinct from appearances is therefore revealed as entailed by the intelligibility of a reality itself.

To prepare for Socrates’ critique of the metaphysics of the Flux Thesis, in this chapter I will focus on what the initial presentation of the Flux Thesis positively discloses about the general structure of all appearing and the relationship between appearance and sensory perception. In Section 5, I will show that Theaetetus first identifies knowledge with perception (*aisthēsis*) because of his focus on the “to me” (*emoi*) or subjective character of all appearances—everything that appears necessarily *appears to or for me*, or to some other subject. However, there are many different forms of subjective appearances, which range from sensory perception to judgments to noetic insight into the eidetic structure of reality, and Theaetetus’ proposal is indifferent to these differences. The Flux Thesis will reflect Theaetetus’ initial insensitivity to the different ways in which things appear to human beings insofar as it characterizes all appearances as basically analogous to sensory perception.

In Section 6, I will show how this mischaracterization positively discloses the actual characteristics of sensory perception. I will also argue that the absurdities produced by the account negatively suggest better characterizations of more complex forms of appearances like judgment (*doxa*).

Section 5: An Initial Connection Between Knowledge and Perception

Following as it does from Theaetetus' impressive mathematical demonstration of the incommensurates, it should initially be quite puzzling why Theaetetus would begin defining knowledge by declaring it to be identical with perception. It is true that, etymologically, "knowledge" words in Greek are closely related with "perception" words.⁸³ Nevertheless, as an advanced student of mathematics, Theaetetus has numerous examples of sorts of knowledge, such as geometry and arithmetic, that do not consider perceptual objects at all.⁸⁴ Moreover, the initial list he presented of different non-mathematical kinds of knowledge—cobbling and the other mechanical arts—do not in any obvious way appear to be understandable as perception.⁸⁵ Cobblers are thought to possess knowledge of cobbling if they are able to cobble—which is to say, if they are capable of producing something useful. The passive or receptive ability to see or touch the unshaped leather appears only incidentally connected to this productive capability. The cobbler is precisely not one who sits back and perceives, but rather one who actively

⁸³ Throughout the dialogue numerous other words are used, if not as synonyms, then as near synonyms with *epistēmē*. These words include *suniēmi*, 'I understand' (usually in the context of language), *gignōskō*, 'I come to know,' and 'oida,' 'I know.' While *epistēmē* itself does not have a strong perceptual connotation, many of these near synonyms do—something true of many English words related to knowledge as well. *Suniēmi* also has the sense of 'I perceive,' or 'I am aware of.' *Gignōskō* can mean 'I perceive' and 'I judge or determine.' *Oida* is a perfect tense of the aorist *eidon*, 'I saw,' making *oida* literally mean 'I have seen.' Even *manthanō*, 'I learn,' can mean 'I perceive.' Linguistically, at least, Theaetetus' initial inclination of correlating knowledge with perception makes sense. See the Revised and Intermediate Liddell and Scott.

⁸⁴ As is also argued by Geach (1966: 372) and Lee (2005: 78).

⁸⁵ Williams (1992: x), for instance, raises this objection.

produces, someone who takes the leather and does something with it— as Socrates and Theaetetus’ earlier agreed (146d-e), cobbling just is knowledge of the art of making shoes, and similarly with the other mechanical arts like carpentry. The cobbler must in fact perceive the leather before he or she can get to work upon it, but non-cobblers also possess this passive perceptive capacity. Even theoretical arts like geometry appear more concerned with activity in this sense rather than receptivity. Mathematicians construct various sorts of proofs, as Theaetetus demonstrated earlier for Socrates with the incommensurate powers. On the basis of these examples, the passivity and commonness of the perceptive power appears sharply contrasted with the learned expertise found in the knower.

Yet in proposing that knowledge is perception, Theaetetus is not without a brief justification. “It seems to me the knower perceives this thing which he knows, and as it appears now, knowledge is nothing other than perception [δοκεῖ οὖν μοι ὁ ἐπιστάμενός τι αἰσθάνεσθαι τοῦτο ὃ ἐπίσταται, καὶ ὥς γε νυνὶ φαίνεται, οὐκ ἄλλο τί ἐστὶν ἐπιστήμη ἢ αἴσθησις]” (151e1-4). Theaetetus’ justification for proposing an identity between knowledge and perception has been widely overlooked in the literature.⁸⁶ Knowers, Theaetetus suggest, engage in an activity by which they know. Knowing *consists in* grasping the thing known, and so the nature of knowing can be understood in terms of this activity of grasping, which Theaetetus names *aisthēsis*, perception. Let us see what would follow in light of this reasoning. Cobblers, one of Theaetetus’ earlier examples of people who possess a kind of knowledge, would have to in some sense perceive how to

⁸⁶ Within the commentary tradition, I have found very little discussion of this brief justification given by Theaetetus. Cornford (1935: 30) mistakenly argues that the “thing known” primarily refer to external objects and indicate that that must be what Theaetetus fundamentally has in mind. No one that I have read, at least, takes it as centrally as I do.

make a shoe—they must *see* the right time to act and the correct cuts to make. Similarly, if Theaetetus knows the nature of the incommensurate power as a result of his demonstration, then he must have *perceived* this nature. Indeed, his present account of knowledge is given as a result of such a perception. It now appears (*phainetai*) and seems (*dokei*) to Theaetetus that knowledge is the same thing as perception. Theaetetus can thus be said to now “perceive” that knowledge and perception are the same thing.⁸⁷

The “perceptive power” that Theaetetus is correlating with knowledge is therefore not necessarily either as passive or as common as it at first appeared. The cobbler would not merely see the leather, something everyone with functioning eyes is capable of doing, but would also see how and when to cut it. Similarly, the mathematician would not merely see the incommensurate powers in some drawn diagram, which perhaps could be done with relatively little training, but would see the nature of the power and the proof that some squares necessarily will have this nature. “Perception” in this sense would certainly include the sort of sensory perception available to everyone as a result of possessing a particular sensory organ of the relevant type, but at least in principle it could also include specialized and developed kinds of “perceiving” not tied to any one sense organ.⁸⁸

On the basis of Theaetetus’ definition, the Platonic reader might well wonder about the connection between the passive sense of perception available to anyone with

⁸⁷ In this interpretation, I strongly disagree with Lee (2005: 78-9), who argues against a possible correlation between awareness and perception on the grounds that it would reduce Theaetetus’ definition to “little more than a bland tautology explaining one word in terms of a virtual synonym.” I see no justification for the claim that reducing knowledge to the awareness of something is any way tautological or bland. Lee’s failure to fully think through this possibility is why Lee also fails to see any necessary interconnection between the first definition and the teachings of Protagoras.

⁸⁸ See also Dancy (1987: 62-4).

functioning sensory organs and the more specialized sense of perception that would apply to cobblers and mathematicians. While everyone with eyes can see a series of squares, only trained mathematicians like Theaetetus will “see” the incommensurability of the sides of those squares, and the ability to “see” the Form of Incommensurability itself will be rarer still. That there is some connection between these two, even if the connection is only imagistic,⁸⁹ is remarked by Plato in the *Republic*, where Socrates describes intellection by metaphorically comparing it to perception. As the eye perceives that which is illuminated by the sun, the intellect grasps that which is ‘illuminated’ by the Form of the Good (VI.508b-c). In both visual perception and “perceptual” intellection, different sorts of things—objects and Forms, respectively—appear to the onlooker immediately and clearly. It is the appearance of the known object within the awareness of the knower that Theaetetus is hesitatingly pointing toward in claiming that the knower perceives the known thing. Whatever thing a knower knows must be present within the

⁸⁹ It is important to note that there was no widely accepted notion amongst the Greeks that “perception” primarily refers to the sensory perception that results from sensory organs and only incidentally and metaphorically applies to other things. One of Plato’s many contributions is to distinguish sensory perception from other powers of the soul formally, one of the central projects of the *Theaetetus*. As M. Frede (1987a: 3-4) argues: “And up to Plato’s time, and often far beyond it, there is no clear recognition that there are two radically different ways in which we become aware of something, one by way of sense-perception and the other in some other way, e.g., by a grasp of the mind. Thus, there is no reason to suppose that the verb ‘*aisthanesthai*,’ strictly speaking, refers only to sense-perception, but is also used metaphorically in other cases. It, rather, seems that all cases of becoming aware of something are understood and construed along the lines of the paradigm of seeing, exactly because one does not see a radical difference between the way the mind grasps something and the way the eyes see something.” My contention is that Plato, through the Flux Thesis, exploits this overlooking of the differences between sensory perception and intellection in order to show why a distinction between these two modes of awareness is necessary in the first place. Frede’s reading of the *Theaetetus* is closely related to my own, with a few exceptions that I will indicate as I proceed.

awareness of the knower.⁹⁰ As Aristotle does in the *Nicomachean Ethics*, Theaetetus gives this self-awareness the name “perception.”⁹¹

The modern reader of the dialogue will have to avoid thinking of the “self-awareness” that Theaetetus is pointing toward in Cartesian or any other such anachronistic terms. There is no reason to assume that Theaetetus intends any of the theoretical assumptions about “consciousness” or “subjectivity” found in modern philosophy. Indeed, the opposite is true. Theaetetus does not seem to recognize that, for instance, the expert perceptions that belongs to the cobbler and mathematician should be distinguished in kind from the sort of sensory perception that all human beings possess solely as a function of possessing sensory organs.⁹² The Flux Thesis that Socrates will go on to present directly asserts that there is no distinction between sensory perception—awareness mediated through a sensory organ—and beliefs or judgments. The refutation

⁹⁰ Within the scholarship, the position that I am attributing to Theaetetus is more commonly associated with the one that Socrates will go on to attribute to Protagoras. It has frequently been argued, by Fine (1994, 1996) for instance, that there is both a narrow and broad reading of this position. Narrow Protagoreanism restricts Protagoras’ “man is the measure” doctrine to a more modern sense of perception that is restricted to sensory perception, whereas broad Protagoreanism would include all judgments and belief states within its scope. Theaetetus’ initial formulation of the identity between knowledge and perception does not seem to distinguish sensory perception from a broader “awareness” sense of perception—as I shall argue shortly, this is one of its chief limitations. I therefore disagree with those like Sedley (2004: 52) who argue that Theaetetus’ initial definition was from the beginning intended to be restricted to sensory perception strictly understood.

⁹¹ Concerning the virtuous person’s self-awareness of their own virtue, Aristotle writes: “... and if he who sees perceives that he sees, he who hears that he hears, he who walks that he walks (and similarly in the other cases), then there is something that perceives that we are active. The result is that if we are perceiving something, we also perceive that we are perceiving; and if we are thinking, that we are thinking. And to perceive that we are perceiving or thinking is to perceive that we exist—for to exist is to perceive or to think [ὁ δ’ ὁρῶν ὅτι ὁρᾷ αἰσθάνεται καὶ ὁ ἀκούων ὅτι ἀκούει καὶ ὁ βαδίζων ὅτι βαδίζει, καὶ ἐπὶ τῶν ἄλλων ὁμοίως ἔστι τι τὸ αἰσθανόμενον ὅτι ἐνεργοῦμεν, ὥστε ἂν αἰσθανώμεθ’, ὅτι αἰσθανόμεθα, κἂν νοῶμεν, ὅτι νοοῦμεν, τὸ δ’ ὅτι αἰσθανόμεθα ἢ νοοῦμεν, ὅτι ἐσμέν (τὸ γὰρ εἶναι ἦν αἰσθάνεσθαι ἢ νοεῖν)]” (NE 9.1170a27-1170b1).

⁹² Theaetetus would hardly be alone in failing to differentiate these different uses of the *aisthēsis* in the ancient context. As Lee (2005: 5) writes: “This is a period in Greek philosophy when philosophers were just beginning to articulate and puzzle through some of the problems concerning knowledge and perception which are still of interest today. There were no labels such as ‘relativism’, ‘empiricism’, ‘skepticism’, ‘dogmatism’, almost no technical vocabulary, and no very clear idea of how exactly to differentiate the power of the senses from the powers of the mind.”

of that view will therefore demonstrate that there is a distinction between these two ways in which human beings attain awareness of the world around them: either through a sense organ, or via the soul's own activity.⁹³

In terms of Theaetetus' dialectical education, this refutation will have to overcome the mathematically-rooted form of the trust in appearances that underlies Theaetetus' definition. By arguing that knowledge reduces to an awareness of how things appear, Theaetetus has revealed himself to be the consummate mathematician. The self-evident clarity that accompanied his proof concerning the incommensurate powers has been generalized—knowledge just is the self-presentation of what appears. But unless Theaetetus is very careful—something his responses in the early portion of the dialogue plainly reveals that he is not—the distinctiveness of mathematically self-evident insights will be confused with the unerring appearance of sensory qualities within the soul. Indeed, all appearances present themselves as correct to the one to whom they appear. The appearances of a mathematical insight and a cold feeling experienced when encountering some wind both make an ontological claims—things, either mathematical matters or the temperature of the wind, are how they appear to be. Whatever appears, appears as true—as both manifestly given and correct—to the one to whom it appears.⁹⁴

⁹³ McDowell (1973: 118) also thinks that Plato's ultimate goal is to show that perception, interpreted strictly, needs to be separated from judgments about the content of perception, and that Plato accomplishes this goal by showing the unacceptable consequences that follow from failing to distinguish these two through what I am calling the Flux Thesis. However, McDowell does not extend the idea of perception in Theaetetus' initial proposal as far as I do to include all experience. See also M Frede (1987a: 5), who writes "It is in this context that I want to see the argument of the *Theaetetus*... Plato thinks that our beliefs and our knowledge of the physical world involve a passive affection of the mind, but he also thinks that they go beyond this passive affection. And he wants to reserve the term '*aisthanesthai*,' or 'to perceive,' for this passive element in our beliefs, which he was willing to grant the opponents."

⁹⁴ Barnes (1982: 542) argues that, for Plato, Protagoras' use of *phainesthai* should not be interpreted as having any epistemic significance but only loosely phenomenological significance. The wind appears cold to someone, but that person need not believe that it is true that it is cold. Cobb-Stevens (1989: 249) also seems to agree with this characterization. As Fine (1996: 161) and Lee (2005: 15) argue, however, this

Thus, Theaetetus has accidentally given an ultimate statement of trust in appearances. If all appearances have equal claim to being knowledge, then it will literally be true that things are nothing other than they appear to be.⁹⁵

Section 6: The Flux Thesis

Socrates develops the theory that I am calling the Flux Thesis by synthesizing Theaetetus' first definition, Protagorean ontological relativism, and Heraclitean flux. The purpose of the theory is to describe what the world will have to be like in order for Theaetetus' first definition of knowledge to be correct.⁹⁶ The most immediately obvious difficulty with Theaetetus' proposal that perception is knowledge is that different perceivers often perceive the world in mutually exclusive and contradictory ways. Since knowledge entails being, Theaetetus' proposal entails that mutually exclusive states of affairs are both the case. However, there is one commonsense scenario in which it is not thought to be a problem that contradictory perceptions about the same thing are equally

interpretation does not match up with the way that Socrates either uses *phainesthai* in the text or the way in which he treats it as equivalent with *dokein*, which surely must have epistemic significance. Barnes interprets these uses as inconsistencies, but insofar as I can see no real justification for reading *phainesthai* as lacking veridicality, such a reading is rather uncharitable.

⁹⁵ See also Benardete (1984: 103), who argues that one interpretation of Theaetetus' proposal amounts to the purest form of what I am calling the trust in appearances—"If philosophy begins in wonder, it must draw the distinction between opinion and knowledge, for wonder is the recognition of the disparity between our clarity about the "that" of things and the obscurity of the "why" of things. To assert that knowledge is perception is to renounce the starting point of philosophy."

⁹⁶ I will argue that there is one more-or-less consistent theory under consideration throughout the text from Theaetetus' first definition to Protagorean relativism to the neo-Heraclitean flux ontology. This interpretation is standard in the scholarship. See Fine (1994: 137, 144 n 28) for a particularly vigorous defense of this reading, where she argues that a charitable reading of the text will have to satisfy what she calls the univocity and connection criteria, or the need that at each phase of Socrates' refutation the same connected account is under critique. However, this reading is not universal; for instance, Lee (2005) argues that Theaetetus' first definition, Protagoras' "man is the measure" doctrine, and Heraclitean flux are three distinct theses that have relatively little to do with one another and which are considered and rejected independently. One piece of evidence critics of the unified interpretation of the Flux Thesis might present in their favor is that the language used to describe the view under consideration undergoes frequent change throughout the dialogue. I will argue that these changes are the result of the theory under consideration becoming more precise and more sophisticated as Socrates' consideration of it progresses. If I am correct, it will therefore frequently be helpful to return to older problems in light of later formulations of the theory in order to make sense of certain difficult passages.

true: if two perceivers disagree about whether or not some wind is cold or mild, everyone agrees that there is not some one fact of the matter. Rather, the wind really is cold to the one to whom it seems cold, and warm to the one to whom it seems warm. Protagoras' account of relativism offers a way of characterizing what is going on in the case of the sensory perception of hot and cold, and the Heraclitean ontology of becoming is used in turn to explain metaphysically how Protagorean relativism comes about.

The Flux Thesis progresses in three stages. First, it introduces the teachings of Protagoras, who Socrates interprets as advancing a position that I will call ontological relativism. As Socrates interprets him, Protagoras directly means to suggest that everyone is correct about everything, and that ignorance does not exist. This unintended and unconscious consequence of Theaetetus' proposed first definition is the desired conclusion of Socrates' Protagoras.⁹⁷ Protagoras accounts for the impossibility of ignorance by arguing that the *being* of things is equivalent with the *appearance* of things to each individual human being. Thus, the "being" of the coldness of the wind is nothing other than the appearance of the coldness of the wind to some particular perceiver. Second, the Flux Thesis attempts to explain ontological relativism in terms of a Heraclitean ontology of flux. The quality perceived and the perception of the quality come into being and go out of being simultaneously on this Heraclitean model such that

⁹⁷ I am not interested in this work with whether or not the broad relativism that Socrates will go on to attribute to Protagoras is historically accurate. In Section 7, I will argue that Socrates has good pedagogic reasons to present this teaching as belonging to some historical figure with whom Theaetetus is familiar. These reasons will hold regardless of whether the historical Protagoras did or did not hold the view. Moreover, as I have argued in Section 5, the ambiguity between a broad and narrow reading of Protagoras is already present in Theaetetus' initial definition of knowledge. None of this implies that Plato might not have also been interested in critiquing or evaluating the viewpoints of his historical predecessors, only that I will not be focusing on those questions in my reading. For a discussion of the historical Protagoras, see Sedley (2004: 49-53) and Lee (2005).

the being and the appearance perfectly coincide. Finally, The Flux Thesis includes what Socrates calls a “secret teaching” that generalizes the account of ontological relativity beyond obviously sensory qualities like heat or color such that *all things* are nothing other than they appear to be. If the sensory perceptions of each individual are always infallibly correct in every respect, then sensory perception should serve as a basic model for understanding all appearances. Thus, according to the Flux Thesis, there is no structural difference between the sensory perception of the cold wind, anticipations about what the wind will feel like in the future, and judgments about what is beautiful and just for entire cities. All three are equally ways in which things appear to human beings, and so all three appearances must be understood through the same basic account.

By carefully considering the Flux Thesis as Socrates presents it, this section will provide the critical reader with certain resources needed to draw two crucial distinctions. First, the Flux Thesis provides a basically accurate account of the role of the sense organs in sense perception. To the reader already sensitive to the differences between sensory perception and non-sensory kinds of appearances, this account will also negatively suggest how things other than sensory perception appear in a different way than sensory perceptions.⁹⁸ Second, the Flux Thesis will make a tentative, if extremely problematic, effort to distinguish a *quality* from the appearing of a quality at a specific time and place. To put the point in more modern, though potentially misleading, philosophical language, the theory will make a first effort at distinguishing *types* from *tokens*. These two sets of distinctions—between sensory perception/non-sensory forms of appearances, and

⁹⁸ A similar readings of the educative purpose of this portion of the dialogue is offered by Roochnik (2002: 39).

between qualities/the appearance of a quality at a specific time and place—will be what enable Socrates to ultimately refute the Flux Thesis when he begins to subject the theory to criticism.

i. Initial Stage of the Flux Thesis: Protagoras and Ontological Relativity

Socrates' initial response to Theaetetus' first definition is to say that his definition means the same thing as the teachings of Protagoras. Protagoras' doctrine is that "man is the measure" of what is: "man is the measure of all things: of beings, that they are, and non-beings, that they are not [πάντων χρημάτων μέτρον ἄνθρωπον εἶναι, τῶν μὲν ὄντων ὡς ἔστι, τῶν δὲ μὴ ὄντων ὡς οὐκ ἔστιν]" (152a3-5). Socrates interprets Protagoras' dictum as meaning that how things appear (*phainetai*) to a person is how things are (*esti*) for that person (152a7-9). Humans are the measure of being insofar as nothing can be said *to be* outside of what *appears* to an individual, and nothing is that does not also appear to someone. I call Protagoras' position *ontological* relativity, in contrast with modern philosophical positions like truth-relativism, insofar as it entails that what *is* is entirely relative to, or measured by, each individual. Being, and not truth, is what Protagoras takes to be relative to individual observers.⁹⁹

⁹⁹ There are at least two other interpretations of Protagorean relativism found within the scholarship: (1) truth relativism, as endorsed by, for instance, Vlastos (1956), Burnyeat (1976a, 1976b), Bostock (1988: 89-92) and Emilsson (1994), and (2) infallibilism, which is found in most ancient readers of Protagoras and of the *Theaetetus*—for instance, in Aristotle's *Metaphysics* and Sextus Empiricus' *Against the Mathematicians*, as discussed in Burnyeat (1976a)—and in Sayre (1969: 62-4) and Fine (1994, 1996, 1998a). If Protagoras is read as a truth-relativist, then he is requiring all truth-claims to require a relativizing qualifications. On such a view, nothing is ever true simpliciter, and truths are rather always true for someone. I agree with the critiques of the truth-relativism interpretation found in Fine (1994, 1996), who persuasively argues that on the basis of a truth-relativism reading there is no need to introduce a Heraclitean ontology to explain how two perceivers can both know contradictory truths about the same wind. According to the infallibilist reading, Protagoras' view is rather that all appearances are true in an unqualified sense. On such a reading, there is need of a further ontology capable of accounting for how there can be two contradictory truths. I take the infallibilist reading to be correct, and that Protagoras is committed to infallibilism. However, this commitment stems from a more fundamental ontological commitment, what I am calling ontological relativism, which entails (but does not reduce to) infallibilism.

An obvious difficulty with Protagoras' view and Theaetetus' first definition is that human beings disagree with one another, and perceive different things, all of time. If what each person perceives to be is, will mutually exclusive states of affairs have to simultaneously and contradictorily be the case? Socrates highlights one instance of such a disagreement. The same wind, he says, appears mild to one person and rather cold to another. However, in this case Socrates thinks there is obviously no contradiction between the two perceptions. The wind is not both mild and cold, a contradiction. Rather, everyone agrees that the wind is cold to one person, and mild to another (152b2-9). Insofar as Socrates does not feel any need to argue for this result, and Theaetetus does not object to it, presumably Socrates intends for it to be conventionally intuitively obvious—everyone basically believes that there is no objective fact of the matter about how the wind feels.¹⁰⁰

Protagorean ontological relativism offers a way of interpreting this commonsense belief about the wind. According to Protagoras, what I will anticipatorily call the *qualities* of coldness and mildness that appears to the two perceivers of the wind have no being independently of their appearing to the perceivers.¹⁰¹ The wind as such, independently of what it appears to be, is neither cold nor mild. Both the coldness and mildness only exist in the perceptual act—the mildness exists “in” the perceptual event

¹⁰⁰ Some commentators, like McDowell (1973: 119), attempt to construct an argument for things being as they appear in the case of the wind that hinges on the impossibility of the wind actually being in two opposite or contradictory ways. I am suspicious of the applicability of such arguments at this juncture of the text, however, as I take it that the Heraclitean ontology that Socrates will go on to present in supposed to explain our everyday intuition about felt temperatures. If Plato is implicitly presupposing an independent—and far easier—argument to establish the same result, the point of the Heraclitean view would be suspect. Fine (1996) raises a similar objection to such arguments.

¹⁰¹ See also Waterlow (1977), who characterizes the position I am endorsing as a relativism of fact and Lee (2005, esp. Chapter 3), who presents a good overview of the debate and whose reading on this point is basically in agreement with my own. Silverman's (2000) position also seems closely related to my own, though it is not identical.

between one perceiver and the wind, and the coldness exists “in” the perceptual event between the other perceiver and the wind. As a result, two different perceptions about the felt temperature of the wind literally cannot contradict one another, as they are different perceptual events in which different perceptual qualities can appear. Ontological relativism ensures that both qualities are infallibly what they appear to be because the qualities are nothing but appearances. Ontologically relative qualities like coldness and mildness are exhaustively measured by the perceptions of human beings because they only exist within those perceptions. Socrates thus concludes that: “consequently, appearance and perception are one and the same in cases of heat and everything else of this sort” (152c1-2).

The qualities that Socrates has identified as intuitively being subject to ontological relativity are qualities dependent upon sensory perception. Felt temperature, color, sound, smells, textures, and so forth are all qualities that a human being can only experience if the person possesses functioning sense organs of the relevant sort. Such qualities do in fact appear to human beings, and so exist to that extent—as appearances, at the very least. Without the relevant sensory organs, however, such qualities will not appear to anyone at all. Dependent as they are upon a particular sense organ, it is thus intuitively plausible that such qualities do not exist independently outside of the object and organ interacting in a perceptual event. If this everyday intuition were correct, then the quality would be what it appears to be because the quality wouldn’t be anything at all outside of the specific perceptual appearance in which it occurs.

If the everyday intuition that there is no independent fact of matter about sensible qualities is correct, then sensory perception and sensory qualities are perfect paradigms

by which to understand appearing and being as a whole.¹⁰² In the case of such qualities, the commonsense view is that the coldness just is an appearance, and nothing else. Concerning sensory qualities, every perceptual event therefore discloses precisely what is, and does so infallibly. “Perception [of sensible qualities], then, is always of what is,¹⁰³ and without error, as is knowledge [αἴσθησις ἄρα τοῦ ὄντος ἀεί ἐστιν καὶ ἀψευδὲς ὡς ἐπιστήμη οὐσα]” (152c5-6).¹⁰⁴ If Protagoras and Theaetetus are correct, and perception/appearance is the measure of *everything* that is, then all qualities will have to be ontologically relative to the perceiver in the same way that sensory qualities are commonsensically thought to be ontologically relative. Such an account will be a way—perhaps even the only way—of accounting for the identity between knowledge/being and

¹⁰² My reading on this point disagrees with Fine (1994, 1996, 1998a), who as far as I can tell wants to separate the “all judgments are infallible” component of the theory from the account of perception/sensory qualities found in the theory. She seems to assume that perception is always only used to describe sensory perception, though I do not find any compelling argument to this effect in her writings on the *Theaetetus*. The reading of the dialogue favored by Silverman (2000: 116) is similar to my own, but he sees the relation in reverse—since: “for the Protagorean, there is no difference between perception, *phantasia*, belief, and knowledge; there is just appearance,” then Theaetetus’ understanding of perception must be retroactively understood as implying something similar.

¹⁰³ Barnes (1986: 544) is correct when he argues that the “being” being discussed throughout this portion of the text should not be interpreted as having an exclusively existential sense. *What* the coldness or mildness is, and not only *that* they are, is disclosed through perception in an infallible way.

¹⁰⁴ Cornford (1935: 28-36) and Gerson (2003: Chapter 5) understands this line as providing a strong pair of criteria for what knowledge has to mean. On their readings, the entire discussion of the first definition will hinge on whether or not perception is of what is, or whether or not it is unerring. Gerson in particular is motivated to read the argument this way as part of his general thesis that the *Theaetetus* is consistent with the account of the knowledge found in the *Republic*, where the infallibility of knowledge is emphasized. This orientation, however, causes him to overstate the role of this passage in the dialogue. The most important overstatement, for my purposes, is Gerson’s belief that “being” should be read from the beginning in the sense that the word is used in the *Republic*. I will instead argue that the middle portion of the *Theaetetus* proves that some of the basic assumptions about being present in the *Republic* are necessarily the case, rather than merely *assuming* these assumptions. This argument will be the focus of Section 9. I have no objection to seeing this passage as pointing back to the account of knowledge in the *Republic*, or in arguing that the conclusions of the *Theaetetus* are consistent with those found in the *Republic* concerning knowledge. However, that result will only be demonstrated after a series of lengthy arguments. Sayre’s (1969: 62 n 10) and McDowell’s (1973: 120-1) reading of this passage are closer to my own.

perception/appearance in the face of the fact that people can and do disagree about every conceivable subject matter.¹⁰⁵

Before turning to this next phase of the argument, I will show how Socrates' brief initial introduction of Protagorean ontological relativism contributes to the goals of (1) beginning to distinguish sense-perception from non-sensory appearances, and (2) distinguishing qualities from the appearance of a quality here and now.

Socrates has yet to say anything precise about how sensory perception operates. His mention of "heat and everything else of this sort" (151c2) has identified sense perception as a specific kind, and he has suggested that ontological relativism helps explain the commonsense intuition that qualities that appear in this way are relative to the one who perceives them. Precisely what ontological relativism entails cannot be fully evaluated until the metaphysical foundations of ontological relativity are revealed in the argumentation that follows. One concrete takeaway from this section, however, is the unerring character of sense perception. If Socrates' characterization is correct, and sense perception truly is unerring, it is sharply contrasted with other kinds of appearance. Opinion, for instance, seems to err all the time. The unlearned also err in the course of engaging in technical projects, be it cobbling or mathematical demonstrations. Theaetetus, for instance, presents his first definition as being knowledge because of a non-sensory kind of appearing: "as it now appears, knowledge is nothing other than perception [ὥς γε νυνὶ φαίνεται, οὐκ ἄλλο τί ἐστὶν ἐπιστήμη ἢ αἴσθησις]" (151e1-4). As I argued earlier,¹⁰⁶ this passage should be interpreted as an instance of an

¹⁰⁵ See also Silverman (2000: 118).

¹⁰⁶ See Section 5.

appearance/perception *being* knowledge. Yet Theaetetus himself emphasizes that knowledge appears to him to be perception *now*, but that knowledge presumably did not appear that way to him before. Thus, Theaetetus is claiming that the past ways in which knowledge appeared to him were in error, and that the current appearance, in contrast, is correct and should be trusted. Sensory perception, if it is truly unerring, does not have this same structure. At the very first step in the presentation of the Flux Thesis, then, Plato is already inviting the reader to recognize the differences between sensory perception and the appearance of the sort of insight motivating the first definition.

This initial presentation of the Flux Thesis also marks a beginning distinction between qualities and the appearance of the qualities at a given moment of time. In this passage, Socrates is not concerned with the wind itself, but rather the coldness or mildness that the wind seems to possess. At this point in the argument, only this coldness or mildness has been proven to be ontologically relative.¹⁰⁷ As a result, the coldness is distinguished from the wind in which it seems to appear. This distinction between the wind and the qualities that the wind possesses will be crucially important to understanding the Heraclitean ontology that Socrates will go on to present.

ii. Second Stage of the Flux Thesis: Heraclitus and Quality Generation

Socrates' introduction of Protagorean ontological relativity has suggested that the coldness perceived in some cold wind *is* only relative to the perceiver. The coldness is not a characteristic that the wind possesses in itself—rather, the coldness only is within

¹⁰⁷ Burnyeat (1990: 11) is correct when he points out that the examples here all have the basic form “x appears/is perceived as F to a” rather than “x appears/is perceived by a.” The object x, like the wind, is only brought up insofar as it has some quality, F, like coldness. It is only the quality coldness, and not the wind-object, which the argument thus far establishes as relative. See also McDowell (1973: 121). However, as the Flux Thesis is developed, ontological relativity will be extended to include the objects that have qualities—or rather, as the argument will suggest, the objects that reduce to their qualities.

the perception or appearance of the coldness to some observer. What does it mean, however, for the coldness to be located “within” a perception? It can’t mean that the coldness is located within the perceiver as such. While it is true that the perceiver does come to feel cold as a result of perceiving the wind, the cold-feeling is instilled within the perceiver *by* the wind, and it was not already present as a “feeling” of the perceiver prior to perceiving the wind. It seems as if ontological relativity requires that coldness and all other such qualities be *generated* as a result of the perceiver interacting with the perceived object. A metaphysical explanation of ontological relativity will therefore have to be fundamentally concerned with generation and with coming to be. Coldness, being found in neither the wind nor the perceiver prior to the moment of perception, will have to be born as a result of the wind and the perceiver interacting with one another.

It should not be at all surprising, then, that Socrates turns to a nominally Heraclitean¹⁰⁸ metaphysics to make sense of Protagorean ontological relativity.¹⁰⁹ The

¹⁰⁸ I will not be concerned with whether or not Plato is correct to attribute this view to Heraclitus—the general scholarly consensus is that he is not, but as I suggested with reference to Protagoras in footnote 97 of this work, there are good educative reasons for Socrates to attribute the view he is developing to historical thinkers. Aristotle argues that Plato holds that this Heraclitean position is an accurate account of sensible things as a result of his association with Cratylus, and that he continued to hold the view in his later years (*Metaphysics A* 987a32). Many interpreters, then, argue that Plato is here introducing a Heraclitean account of perception with which he basically agrees, assuming it is properly qualified—see for instance, Cornford (1935: 38-9) and McDowell (1973: 130). As I will argue in Section 9, I do not think that this interpretation can be drawn out of the *Theaetetus*. Nor do I think that the opposite thesis, that Plato does not have a basically Heraclitean account of perception, as is argued by Day (1997), can be adequately discovered from the *Theaetetus*. The dialectical nature of the dialogue ensures that Plato’s mature understanding of the relationship between the perceptual world and the Forms is not to be found in this dialogue.

¹⁰⁹ I take my reading of why Socrates connects the Heraclitean metaphysics with the Protagorean “man is the measure” doctrine and with Theaetetus’ first definition to be in basic agreement with the majority of the interpretative tradition, as laid out by Sedley (2004: 44). On this topic, Sedley writes that, by positing the Flux Thesis, Socrates “has asked the question ‘What would the world have to be like order to make it true that knowledge is perception?’, and has arrived at the answer that it would have to be a world of total fluidity. Only in such a world would our knowledge be confined to instantaneously perceptual relations, whose information we could not overturn by appeal to any counter-evidence, whether by pausing to take a closer look at something, or by appealing to permanent truths with which they were in conflict. That is why, throughout part I of the dialogue, universal flux and universal relativity are treated by Socrates as intimately interdependent, if indeed not as identical.” For other examples of this view, see McDowell

Heraclitean tradition, as Socrates interprets it, is fundamentally concerned with explaining how all of reality is generated out of motion and flux. The central claim of the Heraclitean metaphysics that Socrates goes on to present is that all qualities and the bearers of those qualities are constantly in chaos and changing. Nothing has any enduring *being*, and instead each thing can only be said to temporarily *become* some particular way as a result of *kinēsis*, spatial motion and change (152d2-e1).¹¹⁰

As a result of their insistence upon generation, the Heracliteans give an account of the generation of sensory qualities out of the interaction of sensory organs and percipients. This account offers a metaphysical explanation of what it means to say that the quality generated comes to be in the perception itself, and not in either the perceiver or the perceived object as such.

Soc: First, as concerns eyes: the color which you call white has no being as something either outside of your eyes nor in them, and you should not assign to it some place. For then it would clearly be at its station and resting and would not be in the process of becoming [οὐκ ἂν ἐν γενέσει γίγνοιτο]” (153d8-e2).

Thea: But how do you mean?

Soc: Let us follow what was said before, and hold that nothing is one thing itself by itself. And thus it will appear to us that black and white and all other colors come to be out of the impact of the eyes against the appropriate motion, and that which we call each color will be neither the thing that impacts nor the thing that is impacted, but rather something that

(1973: 121-2), Burnyeat (1990), and Fine (1994). Against this standard reading, see Sayre (1969: 61) and Lee (2005: 88-92).

¹¹⁰ The initial discussion of the Heraclitean ontology of becoming is so vague as to be not terribly helpful. The initial formulation of the view at 152d is obscure, and the first series of examples used to illustrate the theory do little to clarify its obscurity. The cases that Socrates indicates are all commonsensical examples where motion is beneficial for things—i.e., where it causes (or preserves) being—and where rest is harmful—i.e. where it causes (or contributes to) non-being. These instances include fire (153a4-10); the birth and death of animal life (153b2-3); and the health and sickness of the body (153b4-5), the soul (153b6-c1), ocean habitats (153c6-8), and the entire cosmos (153c8-d5). All of these arguments seem designed to give the Heraclitean ontology some preliminary intuitive force rather than explaining what the view entails or providing any strong reasons for holding it. See also Desjardins (1990: 22-23).

has come to be between each individual [ἀλλὰ μεταξύ τι ἐκάστῳ ἴδιον γεγονός]. Or would you hold that the way each color appears to you is the way that it also appears to a dog or any other animal?

Thea: I would not, by god.

Soc: And what of this? Does anything whatsoever appear to you also like [ὅμοιον] it appears another person? Do you hold this strongly, or is it more likely that it doesn't appear to you yourself the same [ταὐτὸν]¹¹¹ since you never remain like yourself [τὸ μηδέποτε ὁμοίως αὐτὸν σεαυτῷ ἔχειν]?

Thea: It more seems to me the later way than the former.” (153d8-154a3).

According to the Heracliteans, colors are neither in the object perceived, nor in the perceiver of the quality.¹¹² If the color were in either, it would not be moving but rather resting, something entirely excluded from the Heraclitean account. As such, the Heracliteans seem well suited to explain metaphysically what it could mean to assert that a color quality is generated out of the interaction of eye and object in the way characterized by Protagorean ontological relativity.

The initial account of the generation of color qualities found in this passage marks the first introduction of the teaching that I am calling the Flux Thesis. The central tenets of this teaching are all contained in this passage in a nascent form.¹¹³ The Flux Thesis

¹¹¹ Socrates in this passage equates sameness and likeness, and he equivocates between *tauton* and *homoion* as if they were equivalent. Indeed, most translators translate *tauton* and *homoion* in this passage both as “same.” I will argue that this equivocation is not as innocent or unimportant as it first appears in the following; rather, it is indicative of a basic tendency of the theory to treat anything that is different (not the exact same) as also being entirely unlike.

¹¹² Some commentators have expressed confusion as to why Socrates is concerned to establish that the perceived “white” isn’t found in the eye any more than it is found in the object. See McDowell (1973: 131), for instance, who writes “But it is not clear what the point of this might be, since it is obscure why anyone might be thought to want to say (except for obviously irrelevant reasons) that an eye is white.” Burnyeat (1976b: 60) tries to account for this argument by pointing out that a Protagorean claim that everything is as it seems to be rules out the possibility of individuals questioning themselves about their own experience in any meaningful sense. If the whiteness was somehow in the eye that sees, it might be the case that such self-questioning would be possible, which could lead to errors in judgment.

¹¹³ McDowell (1973: 130-1) correctly points out certain inconsistencies between the account of quality-generation that is found at this stage of the dialogue and the account of quality-generation found within the “secret teaching” that Socrates presents later. In particular: (1) in the early account, the eye/perceived object pair are not characterized as motions, as they will be in the esoteric teaching, but rather as objects

will insist: (1) That there is a distinction in kind between perceivers/perceived objects on the one hand and the qualities that are perceived or had by the perceived object on the other, (2) That qualities come to be and pass away as a result of concrete instances of perception, (3) That each instance of perception gives birth to a new quality, and (4) That each perceptual organ is suited for one, and only one, kind of quality. All four of these claims are introduced in the above passage.

First, the distinction between the color itself and the things that perceive or are colored is secured by distinguishing the location of the eye and the object from the location of the perceived quality itself: “that which we call each color will be neither the thing that impacts [in this passage, the eye] nor the thing that is impacted [the object], but rather something that has come to be between [μεταξύ] each individual.” The color is not located in either the eye or the perceived object. Rather, it exists “between” the two of them. This “between” is spoken of as if it is a spatial location, as if the color quality and perception floats somewhere in space in between the eye and object. This way of speaking will be preserved as the Flux Thesis gets further developed. The interaction of the eye and the percipient creates a space in which a perception occurs and in which the

that move (i.e. change); and (2) the eye is talked about here as active, but in the esoteric teaching the motion corresponding with the eye will be characterized as receptive. His interpretation of these inconsistencies, that “Plato’s intention in the present passage is to introduce, in a preliminary way, the fundamental idea that perceptual qualities are to be thought of as joint products of sense organs and objects; without, at this stage, much concern for the details of the theory,” seems correct. However, the necessity for the later account is already contained within the Heraclitean theory. By understanding the perceiver and the “object” perceived as motions, Socrates will effectively undermine the claim that either eye or object has any sort of objective material existence prior to or independent of instances of perception. The “parents” of perceptions—the eye/perceived object pair, for instance—are themselves always becoming their perceptual qualities and are nothing other than an aggregate of all such qualities. I thus reject the view advocated in Lee (2005: 111), that “Throughout the exposition of the Secret Doctrine, perceptions and objects of perception are generated by ‘parents’, which constitute an independent, uncharacterizable reality.” I see no textual justification for the claim that the parents have any sort of independent reality or that they are uncharacterizable, as if they were a Kantian “thing in itself.” All the parents have, or are, independently of the perceptual act is the power, *dunamis*, to perceive or be perceived, as I shall argue in the following. See also Silverman (2000: 122).

quality that is perceived emerges. Since that space is different than the space occupied by either the eye or the object, the color quality must be something different than either. Why the Heracliteans insist upon this language of a spatial “between” will not become apparent until later—for now I only note that they do in fact use this language.

Second, qualities are generated out of an impact and collision that occurs between the eye and the visible object: “black and white and all other colors come to be out of the impact of the eyes against the appropriate motion.” The white *comes to be* out of the specific and transitory interaction between a particular eye and a particular object, and *ceases to be* at the same time that the interaction comes to an end. In keeping with the basic Heraclitean tendency, the only accurate way to speak of the color is in terms of its *becoming*, and not in terms of the color *being* something stable and enduring.¹¹⁴ Since the interaction between eye and object is the same as the moment of the eye perceiving the object, the perception and quality perceived come into and go out of being together. The quality therefore is precisely what it appears to be, and everything that it is coincides with what it is perceived to be.

Note also that the color quality is only generated when the eye comes into contact with an object that is appropriate to the eye. When the eye impacts the wind, it does not produce a color quality at all, though if the skin were to impact the wind, presumably that interaction would produce not a color quality but rather a thermal quality, like coldness. The eye, particular kinds of visible objects, and color qualities are all fundamentally intertwined with one another. Each “kind” of sensible quality will be generated only

¹¹⁴ See also the discussion of the distinction between Being and Becoming in Sections 2 and 3.

when a particular kind of sensory organ encounters a particular sort of sensible object that is fitted to that organ.

Finally, each generated color is unique to the concrete perceptual event—the concrete eye/visible object interaction—that generates it. The uniqueness of the quality entails a radical form of nominalism that challenges the very idea of an identity that persists over time: “Or would you hold that the way each color appears to you is the way that it also appears to a dog or any other animal?... Does anything whatsoever [even] appear to you also like it appears another person? Do you hold this strongly, or is it more likely that it doesn’t appear to you yourself the same since you never remain like yourself?” Each color quality that emerges as a result of a given eye/object interaction is both different from and entirely unlike every other color quality that emerges as a result of any other eye/object interactions. Indeed, even the “same” eye and object will never give rise to the same color qualities in subsequent perceptions because the eye and the object are themselves constantly changing, and so are never substantially the same.

The significance of the uniqueness of each color quality—and of all other such perceptible qualities—is of crucial importance to understanding both what the Flux Thesis argues, and also what the refutation of the Flux Thesis is intended to accomplish. The “white” generated as a result of a given eye/object interaction will not be the same “white” that is generated as a result of some different eye/object interaction. The issue here is only incidentally whether the two whites will subjectively look identical to the perceiver. They will not, but the reason why they will not is far more important. Socrates’ deeper point is that it is not the *same* white quality in these two cases, however those whites may or may not look relative to one another. The white that is generated when the

eye looks at a piece of chalk is entirely annihilated when that eye looks at something else. It is not preserved in the eye, in the chalk, or in the “between”—i.e., in the perception. Thus, the next time the eye sees something white, the white that is seen will have to be entirely generated anew. As a result, each quality-instance that is generated will be unique—will never occur again—and instantaneous—will not endure for any length of time.

Interpreting the Flux Thesis properly will require constantly preserving the special status of the generated quality-instances as unique and instantaneous things. Most readings of the *Theaetetus* assume that the colors under discussion in the Flux Thesis are universals that are possessed by many different objects.¹¹⁵ On this reading, both a piece of chalk and a piece of wax are “white” insofar as they both possess the same white quality. On the basis of such a reading, the Flux Thesis’ insistence that the same white can never occur twice is either an absurdity or an accidental use of language that should be ignored despite how often Socrates repeats it. The difficulty can be avoided if the reader resists the tendency to think of the “white” qualities along modern lines—as universals that characterize multiple instance perceptions. Indeed, even using the word “quality” (*poiotēs*) to characterize the argument at this stage is potentially misleading. Plato has not yet invented that word, something that he will do later in the dialogue, 182a,

¹¹⁵ While universality is not as such a Platonic term, in the *Theaetetus* Socrates will come to characterize qualities of this sort as being common, *koinon*. There is a difference between a quality being *koinon* and it being one of those special classes of common qualities that Theaetetus will call *ta koina tōn pantōn*, the common features of everything, at 185d. See also Section 10.

as part of his effort to show why the Flux Thesis must be *wrong* in characterizing the white-instances as unique and instantaneous.¹¹⁶

My interpretation, which is shared by a few other commentators, argues instead that the colors being discussed in the Flux Thesis are radically particular things that are uniquely and instantaneously generated and destroyed in each moment of perception.¹¹⁷ “Particular” is not an especially Platonic term, but what I mean for it to indicate is that a quality is something that is unique, not common to multiple instances, and instantaneous, not common to multiple times.¹¹⁸ Each quality-instance is its own unique thing, entirely unrelated to every other instance, and it is not an instance of some broader type. *What it is to be white* is not something that endures throughout time and which could be found in multiple perceptions. Instead, what it is to be white is simply what it is to be this white *here and now*—which is to say, what it is to be white is simply to be this color right here and now. As a result, there is not any objective ground in the Flux Thesis for saying that

¹¹⁶ See Section 9, and also n 37 in the Levett/Burnyeat translation, for a discussion of the Greek word and its relation to the English word “quality.”

¹¹⁷ Other commentators have noted the radical discontinuity between how Plato discusses color in the Flux Thesis and modern understandings of color as a stable universal quality, though few preserve the importance of this distinction throughout their reading of the dialogue. See for instance Cornford (1935: 40), McDowell (1973: 138), and Sedley (2004: 42-3), who does the best job of preserving the radical particularity of qualities in his reading. Some commentators utilize the modern type/token or trope/instance distinctions to express the same basic point, as far as I can tell. Fine (1994, 1996) uses the term color and perception tokens, and Silverman (2000: 112, 143-4) uses the language of property instances and property tropes and pays special attention to how odd this interpretation of color sounds to the modern ear. I am fine with using the type/token language, particularly since *tupos*, which can be translated as type, is actually used in basically this way later in the dialogue. However, I want to be careful to avoid imposing modern understandings of the type/token distinction upon Plato. For a broad overview of the modern use of the distinction, see Wetzel (2014). In this modern language, the Flux Thesis posits a world in which there are perceptual tokens, but no perceptual types.

¹¹⁸ I thus favor a reading of this passage that is more consistent with McDowell’s (1973: 128-9) “b” reading: “the history of the world would divide up into a *discontinuous* series of instants.” However, I think Socrates eventually proves that the Flux Thesis cannot rely upon this interpretation consistently, as I will argue in Section 9.

the two quality-instances are *like* one another.¹¹⁹ The ability to declare one thing objectively similar to another requires that there is something common between them, and each quality-instance is entirely unrelated to every other. It is for this reason that the above passage switches between likeness and sameness as if they were equivalent concepts—without a stable “what it is to be white”, the two concepts are functionally identical. In order to help preserve the radical particularity of qualities that is demanded by the Flux Thesis, I will thus refer to quality-instances. Correspondingly, I will refer to a perception-instance as the unique and instantaneous perception of a specific quality-instance. The Flux Thesis asserts that, insofar as the quality does not endure over time, the perception of that quality cannot not endure over time either.

Though the radical particularity of sensory qualities that is posited by the Flux Thesis seems intuitively wrong to the modern reader, it nevertheless secures ontological relativity in a way that otherwise would be impossible. According to ontological relativity, each quality is nothing other than what it appears to be. Everything there is to know about the quality is exhausted by the appearance of the quality. If the quality were

¹¹⁹ The Flux Thesis will attempt to account for the experience of similarity by making it non-objective and the result of perceivers grouping of certain qualities that they experience together on the basis of conventions and idiosyncratic preferences. According to the Flux Thesis, the name “white” is only a conventional, arbitrary grouping of particular experiences that fit within the spectrum of possible color experiences. By calling all conventional-universal labels arbitrary according to the Flux Thesis, I do not mean to imply that the qualities that get assigned to each label are assigned at random. The Flux Thesis allows us to conventionally group together our perceptions in language, while simultaneously denying that a given perception-instance ever actually repeats. I can call some taste perceptions “sweet,” and others “bitter,” using habitual and conventional language. What allows me to group property-instances into a “sweet” group and a “bitter” group is that both perceptions are of the same kind (*genos*). Each kind of perception occur along what can be described as a continuum. Color occurs from light to dark, sound from loud to soft, texture from rough to smooth, taste from bitter to sweet, heat from hot to cold, and so on. The perceiver is able to recognize these continuums and group together various kinds of experiences on its basis. I judge that the experiences I call “sweet” are more on one end of the continuum than the experiences I call “bitter.” This judgment is the result of my own private experiences of the various sweet-things and bitter-things that I have experienced. My groupings are therefore arbitrary and idiosyncratic, but they are not random.

the sort of thing that could endure through multiple appearances, however, that aspect of the quality would not be revealed through any one appearance of the quality. The quality would have some being outside of the specific moment of its appearance—if nothing else, it would have to be the sort of thing that occurs in multiple appearances, something no one perception of the quality will ever be adequate to establish.¹²⁰ A given act of perception would not exhaustively disclose the quality, and so could not be identical with knowledge of the quality. The Heraclitean proposal therefore directly supports Protagoras’ “man is the measure” doctrine by making the white-instance nothing more than it is measured (perceived) to be in an individual human perception.

While the Heraclitean metaphysics has offered an explanation of what it means for sensory qualities to be ontological relative, it has not yet offered an explanation of the complete Protagorean thesis. Protagoras posited that human beings are the measure of all things, and not merely of sensory qualities. Similarly, Theaetetus’ proposal is that knowledge is completely identical with perception, and not that a special class of knowledge, knowledge of sensory qualities, reduces to perception. By explaining quality generation in terms of the interaction between a sensory organ and an object, however, the Heraclitean proposal is only applicable to qualities that are dependent upon such interactions. If some qualities appear to human beings without the involvement of a sensory organ, such qualities will not be explained by this current form of the Flux Thesis. Moreover, the Heraclitean view thus far does not make either the sensory organs themselves or the objects that are perceived subject to ontological relativity. What the

¹²⁰ The relativity of a quality and the privacy of the experience of that quality are therefore two ways of describing the same thing within the Flux Thesis. Each quality is private because all qualities turn out to be relational, relative, and so unique and instantaneous. See also Sedley (2004: 44-45).

eyes and visible objects are in themselves does not seem to be measured by human beings or relative to a perceiver—only those perhaps secondary or incidental qualities of the objects that are dependent upon the sensory organ are so relative. In the final phase of the introduction of the Flux Thesis, Socrates expands the theory to respond to both concerns. As a result of this expansion, all qualities are dependent upon “organs” of particular sorts, and so all possible determinations of the being of an object are ontologically relative.

iii. The Final Phase in the Flux Thesis: The Secret Teaching

Shortly after he introduces the Heraclitean teaching concerning the generation of sensory qualities, Socrates presents the final phase of the introduction of the Flux Thesis by introducing the “secret teaching” that he says underlies the Heraclitean teaching.¹²¹

The secret teaching supposedly is necessary in order to solve several paradoxes that Socrates introduces immediately after the discussion of the “location” of the color that was described above, though I will not discuss these paradoxes in any great detail here.¹²²

¹²¹ Socrates declares that he cannot proceed until he has made sure that: “none of the uninitiated [μή τις τῶν ἀμωήτων] listens. These are the men who think that nothing else exists besides what is able to be grasped firmly by their hands, and they do not accept that actions, generation, and all the invisible [ἀόρατον] have a part in being” (155e3-7). The uninitiated experience the world as being composed of *things*, spatiotemporal objects. The secret teaching of the Flux Thesis, in contrast, will posit that perception is generated out of the interaction between various activities and motions. The stable, enduring, spatiotemporal bodies that the uninitiated take to be held with their hands and observed with their eyes strictly speaking are conventional fictions. It is in this way that I read the reference to the invisible—the visible *bodies* that are usually taken to be the objects of vision are not what they are taken to be by the uninitiated. See also Fine (1994: 143-4).

¹²² Within the text, the immediate reason why the secret teaching is introduced is because the public teaching of the Heracliteans has not argued that everything is ontologically relative in the manner posited by Protagoras. To show the necessity of expanding the account to apply to all qualities, Socrates presents a series of paradoxes that reveal that the same reasoning that suggests that color and felt temperature are ontologically relative also applies to relative qualities that do not obviously correspond with a sensory organ (154b-155d). These qualities include being greater and lesser in number and being taller or shorter. A “greater in number” quality appears on some occasions when a perceiver looks at a pile of dice, but this quality only appears with respect to the dice pile because of facts pertaining to the perceiver—in particular, that the perceiver is also looking at a smaller pile. If the perceiver were not looking at a smaller pile, or instead were looking at a larger pile, then the “greater in number” quality would not appear with reference to the original pile of dice. The appearance of the “greater in number” quality therefore seems to depend upon the perceiver in a way similar to the qualities of color and felt temperature. For the purposes of this chapter, I will treat these paradoxes as if they are intended to offer additional motivation for the already required task of showing how the Heraclitean account of quality generation can be applied to all qualities.

The secret teaching amplifies the four basic tenets of the Flux Thesis that I identified earlier in two ways. First, it will characterize objects—sensory organs and the objects perceived—as slow motions, and it will contrast these with swift motions—the qualities generated when particular fitted slow motions come into contact with one another. By characterizing sensory organs as slow motions and qualities as swift ones, the Flux Thesis will attempt to demonstrate that ontological relativity applies to all things, and not only a special class of qualities. As a result, however, the secret teaching entirely destroys the unified human subject that experiences the world not as disconnected aggregate of sights, sounds, and tastes, but rather as one whole.

Second, the secret teaching adds an account of the sensory organ's receptivity relative to the moment of perception, and infers from the receptivity of the sense organ that the experiencer is fundamentally receptive in all instances of experiencing. The visual object imposes itself upon the eye, whose basic role in perception is to be impacted upon by the object that is to be perceived. The eye is only acted upon, and its contribution to the moment of perception is only to be struck in a particular way. This impact serves as the occasion for a particular sort of visible quality to emerge. While this is a basically correct account of what happens to the eye in sense perception, the Flux Thesis also thinks that it is the eye itself that sees. In positing this thesis, it simply reflects the ordinary language—we, as did the Greeks, say that “the eyes see.” Since the eye is purely receptive, the “seeing” event that the eye undergoes must also be purely receptive. And since everything is “seen” by a kind of perception, all of human experience would therefore be entirely receptive. Many of the stranger consequences of the Flux Thesis follow as a result of the error involved in making the eye itself perceive, and all of human

experience purely receptive in the way that the eye is purely receptive in the event of visual perception.

To establish these two conclusions, the secret teaching establishes three basic premises. (1) Everything is a motion, and each motion is either active or receptive. (2) Each motion is additionally either swift or slow, and the swift motions (quality-instances) are generated out of interactions of active and receptive slow motions. (3) There are an unlimited number of kinds of qualities (active swift motions), each of which uniquely corresponds with a particular kind of perception (receptive swift motions) and a particular kind of sensory organ (receptive slow motion). I will establish each premise, and then show how the three premises together are supposed to entail that all things are only what they appear to be, and that all human experience is purely receptive.

a. The Three Basic Premises of the Secret Teaching

The first premise of the secret teaching is that everything is motion, and that all motions can be characterized as either active or receptive. “The mystery begins out of that which the things we were now saying also depended: that all things are motion and there is nothing else but motion. And of motion there are two forms [εἴδη], each unlimited in multitude: one which has the power to act, the other to receive¹²³ [δύναμιν δὲ τὸ μὲν ποιεῖν ἔχον, τὸ δὲ πάσχειν]” (156a4-8). Each motion either has the potential to act (*dunamin poiein*) or the potential to experience or, more generally, to receive or undergo

¹²³ Usually, the second form of motion is translated as the “passive” form as opposed to the “active” form. See both the Levett/Burnyeat translation and Fowler. This translation loses the experiencing sense of *paschein*, preserving only the undergoing or suffering sense. The experiential sense is important, however, both because the receptive motion will be the one taken to be most responsible for the perceptual experience, and because the revised Protagorean position that is presented later in the dialogue makes great use of the connection between the ‘undergoing’ and the ‘experiential’ senses of *paschein*.

(*dunamin paschein*).¹²⁴ Each motion has the power to either impose itself upon another, to act, or to receive a motion imposed upon it by some other. The motion corresponding with the eye, for instance, is receptive insofar as it perceives a motion corresponding with a piece of chalk. Conversely, the chalk-motion is active insofar as it determines what the perception is a perception *of*. When the eye perceives the chalk to be white, the white-instance that is perceived by the eye is the white-instance *of* the chalk. The eye perceives the qualities that are had by whatever it perceives, and so is the receptive partner in the interaction.

However, no motion is intrinsically active or receptive. Rather, these characterizations of the motions are entirely relative to one another. Each motion, considered in isolation from all others, has the power (*dunamis*) to be either active or receptive depending on the motion with which it interacts. “And it is impossible to conceive of them, the active and the receptive treated individually, to be anything stable. For there is not something active until it comes together with the receptive, nor something receptive until it comes together with the active, and the thing that appears [ἀνεφάνη] active in coming together with one thing appears receptive when it falls upon something else” (157a3-8). The eye-motion might be a receptive motion relative to a

¹²⁴ Sayre (1969: 78-9) proposes that the use of *dunamis* in this passage can be productively understood in terms of Theaetetus’ earlier understanding of the incommensurates as powers that, though unmeasured in themselves, give rise to something measured, squares.

perceived piece of chalk, but it is an active motion with respect to some other eye that perceives it as having some specific color.¹²⁵ The eye both can see and can be seen.¹²⁶

The second premise of the secret teaching is that the impact of a (relatively) active motion upon a (relatively) receptive motion capable of receiving it generates two children, a quality-instance and a perception of that quality-instance. “And out of this intercourse and friction, offspring come into being, unlimited in multitude but always double, both the thing perceived [the quality-instance], and the perception [the perception-instance] which always comes out and is begotten together with the perceptible” (156a7-b1). As before, each perception and quality-instance pair is radically particular in the sense of being unique and instantaneous, since each perception/perceived

¹²⁵ Cornford (1935: 50) and others read the physical account of the sense organs and how they generate perception from the *Timaeus* into the Flux Thesis. There are issues with whether or not the two accounts are completely compatible—see for instance Fine (1996: 174) and Day (1997: 60)—however, and I don’t see there as being any necessity of interpreting the account physically to make sense of it. Indeed, the way the account discusses sight without any mention of light—or more generally, the way it discusses perception without any account of the medium of perception—suggest that what is presented here is a metaphysics of quality generation and perception, and not a physics of sight and the other perceptual organ. The metaphysical readings is argued for by McDowell (1973: 139) and seems to be favored by Burnyeat (1990: 16-7). For a further discussions of the connection between Platonic physics and the epistemological/metaphysical account in the *Theaetetus*, see Sedley (2004, especially 103-105).

¹²⁶ That a given motion is only potentially active or receptive secures ontological relativity with respect to the *objects* (perceivers and percipients) involved in perception. Let us consider the eye that can both see and be seen. Insofar as the eye is active in some concrete perceptual act—for instance, if the eye is being observed as an object by some perceiver—that eye appears to be (and so is) white. Insofar as that eye is receptive, it is perceiving the color of some other object—say, a piece of chalk. If the eye was *actually*—as opposed to only potentially and relatively—both active and receptive, then the eye is more than it seems to be in either of the two perception. The eye (as perceiver) does not perceive its own whiteness, while the perceiver of the eye (treated as an object) does not see the chalk that that eye is also perceiving. The same eye would be something (either white or perceiving chalk) in addition to what it appears to be in either of the two individual perceptions. The secret teaching avoids this conclusion, insofar as the eye is only active or receptive in relation to some other motion. When the eye perceives a piece of chalk, it is only accurate to say that the eye is a perceiver of chalk within the specific relationship that holds between the eye and the chalk. When the eye is perceived to be white by someone else, it is only accurate to say that the eye is white with respect to that specific relationship between the eye and the perceiver. There is a very real sense in which the eye insofar as it relates to the chalk and the eye insofar as it relates to another perceiver are not the same thing. The same motion is involved in both instances, but what the motion *becomes* as a result of the interaction, either active or receptive, is not the same. Ontological relativism is therefore preserved—within the eye/chalk interaction, the eye really is a perceiver of the chalk, and it is not white. And within the perceiver/eye interaction, the eye really is a white thing, and it is not a perceiver. Both perceptions thus pick out exactly what are and are therefore infallible.

pair “would never come about by either of the two motions coming into contact with any other motion” (156d5-6), and each comes and ceases to be at the same instant it is generated.¹²⁷

The perception and quality-instance are themselves a kind of motion, but this kind of motion is fundamentally different from the sort of motion that corresponds with the sensory organ and object. Like the organ/object pair, perception-instances and quality-instances can be distinguished from one another in terms of their activity or receptivity. The perception-instance is receptive, insofar as it is the perception of something else, and the quality-instance is active, insofar as it determines what the perception is the perception *of*. Despite this similarity, perception and quality-instances are radically different from the parent motions. While the eye comes to perceive a white in a given perceptual instance, the eye is not the same thing as the perception of that white, since the eye can potentially come to perceive some other color in the future. The eye, insofar as it is receptive, is a *potential* to perceive many, perhaps even infinite, different color-instances. Similarly, an object, insofar as it is active and a visible thing, is a *potential* to be an infinite number of color-instances. The quality and perception-instances, in contrast, are actualities—what the eye and object *actually* become at a given moment of time through a perceptual encounter. While all motions are either receptive or active, that

¹²⁷ Thus, I do not see how Silverman (2000: 130), who’s reading otherwise seems quite similar to my own, can argue that “it even seems likely, if not an explicit commitment of the Doctrine of Twins [the Flux Thesis], that the interaction between different agents and different objects could produce the same offspring; i.e. whiteness and seeing. If this is possible, then the same object or properties could figure into different appearances and, hence, into different worlds.” Though he qualifies this statement by saying that it would be impossible for anyone to ever know that this is so one way or the other, this qualification itself reveals why this interpretation cannot be correct. The quality or object at issue here will have to be something more than it appears to be if it is even in principle capable of repeating across multiple instances. This error is the result of Silverman failing to maintain the importance of thinking of the quality-instance as a particular rather than as a universal.

distinction is not enough to capture the difference between the object/organ and the perception/quality-instances.

In order to capture the distinction between the object/organ pair and perception/quality pair, Socrates adds a second distinction. The motions that correspond to the object/organ pair are to be characterized as slow motions, while the perception/quality-instances are to be characterized as swift motions.

The slow is that which moves in the same [area] and toward things nearby [ὄσον μὲν οὖν βραδύ, ἐν τῷ αὐτῷ καὶ πρὸς τὰ πλησιάζοντα τὴν κίνησιν ἴσχει]. In this way, they [the slow] give birth, and the offspring are swifter: they flow from place to place and the motion is naturally of this sort [φέρεται γὰρ καὶ ἐν φορᾷ αὐτῶν ἡ κίνησις πέφυκεν]. (156c9-d2)

The word *kinēsis*, motion, it is important to remember, means both spatial motion and change. The slow motions move in both senses: they incidentally move in the same (ἐν τῷ αὐτῷ) general spatial area, and they undergo qualitative change toward—that is, relative to—their nearby partner (πρὸς τὰ πλησιάζοντα). The eye does not need to spatially move toward the chalk to see it, and the chalk need not spatially move toward the eye to be perceived by it, though both are undergoing incidental spatial motions at all times. Nevertheless, the eye and chalk undergo qualitative change relative to one another insofar as they take on the quality and perception-instances generated out of their pairing with one another.¹²⁸

¹²⁸ There is considerable scholarly debate about how to interpret the slow motions. Lee (2005: 105-6, 108) interprets the slow changes as non-essential internal changes that allow the object to take different perceptual qualities without changing. As I will argue, however, the basic premise of the Flux Thesis is that there are no objects with essential properties that persist throughout qualitative changes. Most commentators interpret the slow motions as fundamentally corresponding to *kinēsis* in the sense of change that gets introduced in the dialogue at 181c-d. See for instance Cornford (1935: 49-51), Cooper (1967: 39), and McDowell (1973: 138). I agree with this reading in part, insofar as I think the parent motions are surely undergoing qualitative change as a result of producing their offspring. Day (1997: 64) argues instead that the slow motions should be understood as rotational spatial motion, which moves spatially without changing location, on account of linguistic similarities between how rotational motion is described later and

The swift motions, the quality and perception-instances, are swift in comparison to the slow motions insofar as the quality and perception-instance moves to fill both parents and to alter both of them. The quality and perception-instances only are in the space *between* the two and swiftly fill—indeed, simultaneously fill—the entire distance between the active/receptive pair that birth them. The color literally moves from the object, to the eye, and back again all once.

So when an eye and another [visible] thing that fits with it and has come near give birth to the whiteness and its twin perception—which would never have come about if either [motion] came toward anything else—then, the seeing is moved toward the eye and the whiteness is moved toward the thing that fathered it [the active slow motion]. The eye becomes full of sight and sees and becomes not sight itself but a seeing eye, and the father is filled with whiteness and become, again not whiteness, but a white, either a white stick or stone or whatever thing happens to be colored in this way” (156d3-e7).

The swift motions, at least at this point, are only being considered with respect to their spatial movement, and are not being described as undergoing any alteration.¹²⁹ The swift active and swift receptive motions cause the alteration undergone by their parent slow motions, while themselves being caused by the interaction of their parents.

the language used here to describe the slow motions. It is hard to make sense of this interpretation in context, however—the eyes do not seem to be rotating about themselves in any obvious sense, and there is no reason for Socrates to posit such a thing in any event. Silverman (2000: 120) thinks that the slow motions should be understood as very tiny localized motions that the eye and object engage in compared to the large motions of the quality/perception-instances that bounce between them. I also agree with Silverman, in part. The account seems to me to indicate that the slow parent motions are moving in both senses, qualitatively and with tiny, incidental spatial motions. The full justification for this reading, besides my efforts to stay true the text, will emerge in the context of the introduction of the distinction between spatial and qualitative motions later in the dialogue. Everything has to undergo motion in both senses according to the Heracliteans, Socrates there argues, and this requirement is not at all difficult for the slow parent motions to fulfill. The difficulty will instead rest on whether or not it is possible for the swift motions, the qualities themselves, to also undergo qualitative change in addition to spatial motion.

¹²⁹ Whether the Flux Thesis can consistently restrict the swift motions to spatial change and deny them qualitative change will become the crucial question to ask in finally refuting that theory, as I will discuss in Section 9.

There are, then, four forms of motion:

	ACTIVE	RECEPTIVE
SLOW	Object of perception	Perceiver of the object
SWIFT	Quality-instance	Perception-instance of the quality-instance

The slow motions, the parents, have the power to be either active—to determine what is perceived—or receptive—to undergo the motions of the active—relative to one another.

The swift motions are similarly either active, the quality that gets perceived, or receptive, the concrete perception of the quality. The distinction between swift and slow motion, however, is non-relative—the quality and perception-instances move in a way different in kind from the movement that characterizes the slow motions. Slow motions are fundamentally *sites or locations* in which qualities appear, insofar as each slow motion has the power to become a potentially unlimited number of qualities. In contrast, the swift motions are actualities—they are what the slow motions become at a given time and place—and are therefore distinct from the indefinite potency of the slow motions in which they appear.

The third premise of the secret teaching is that there are different kinds of perceptions/qualities, and that each kind is associated with one and only one sensory organ.

Now the perceptible class [i.e., the quality-instances] comes to be with each of these [kinds of perceptions]: with all of the sights, all of the colors; with all of the hearings, all of the sounds; and with the other perceptions, the other things perceived of the same family [τὸ δ' αὖ αἰσθητὸν γένος τούτων ἐκάσταις ὁμόγονον, ὄψεσι μὲν χρώματα παντοδαπαῖς παντοδαπά, ἀκοαῖς δὲ ὡσαύτως φωναί, καὶ ταῖς ἄλλαις αἰσθήσεσι τὰ ἄλλα αἰσθητὰ συγγενῆ γιγνόμενα.]. (156b7-c2)

Each (relatively) receptive slow motion is capable of receiving a particular kind (*genos*) of quality that it always perceives whenever it perceives anything at all—seeing motions always see colors, hearing motions always hear sounds, and so on. On its own, there is nothing unusual in suggesting that each sensory organ corresponds with a particular kind of sensible quality, and that each kind of sensible quality corresponds with exactly one organ.¹³⁰ What makes this premise of the secret teaching yield surprising consequences, however is that secret teaching also allows for an infinite number of kinds of sensible qualities. In addition to colors, sounds, temperatures, textures, and the like, the theory also posits the quality kinds of pleasure/pain, desire/fear, and a potentially *unlimited number* of other kinds of qualities (most without names), each of which corresponds with a different kinds of perceptions (156b5-7). If a kind of perception corresponds with each kind of quality, and each organ is only suited for one kind of perception, then the unlimited number of quality kinds entails the existence of an unlimited number of sensory organs.

b. The Three Premises of the Secret Teaching Entail that All Things are Nothing More Than They Appear to Be

These three premises taken together entail that *all* things are nothing more than they appear to be. Everything—sense organs, objects, qualities, and perceptions—will be subject to ontological relativity, which is required by Theaetetus' first definition and Protagoras' dictum. I will start with how the view covers all kinds of qualities and perceptions.

¹³⁰ Whether or not the Heraclitean ontology of total flux can even allow for this level of stability—that each organ is associated with one stable kind of perception—becomes a crucial question in motivating the eventual rejection of the Heraclitean metaphysics, as I will discuss in Section 9. For now, however, Socrates does not raise this potential contradiction.

When the third premise allows for perceptions of the painful, fearful, and countless other qualities, it opens up the possibility of the secret teaching accounting for the generation of all qualities, and not just things like colors and temperature. Both pleasurable and fearful are qualities that commonsensically are thought to require the presence of perceiver. Cake isn't pleasurable in itself, but only appears pleasurable to someone who likes cake. Correspondingly, a lion isn't fearful to its mate, but it is fearful to its prey. Just as in the case of the wind that appears cold to one person and mild to another, there is nothing controversial in claiming that pleasure and fear are ontologically relative.¹³¹ The secret teaching simply posits that there are some sensory organs—or to speak more precisely, slow motions—that are responsible for the experience of these ontologically relative qualities.¹³² That fact that we have not named these slow motions, as we have the eyes or ears, is not surprising, since most of the kinds of perception are without names. Indeed, the conventional name “eye” is itself misleading—the “one” eye is capable of undergoing many different kinds of sensory perceptions. The name “eye” labels that which sees color, but also that which can feel heat, detects textures, etc. Thus, according to the secret teaching, the “one” eye is in fact a many: a collection of different receptive slow motions, each of which is capable of receiving some different kind of quality.

¹³¹ The choice of the relative qualities of “greater and lesser” in the puzzle of the dice, discussed in footnote 122 is similarly ingenious. Commonsensically, it does seem right to say that such qualities are relative.

¹³² McDowell (1973: 137-8) also notes that Plato's inclusion of pleasure/pain and fear/desire expands perception beyond the ranks of usual sensory-qualities. His most plausible explanation for this fact is that Plato “may think of them [these qualities] as modes of perception of outer objects. Thus, just as to see an object is, strictly speaking, to see, e.g., its whiteness... so to fear an object is somehow to perceive its fearfulness.” I agree with this interpretation, though McDowell does not consider just how broad such an understanding of perception would actually become.

Since there are an unlimited number of kinds of qualities and perceptions, there are correspondingly an unlimited number of slow motions that correspond with those qualities and perceptions. Every kind of quality that appears to a human being therefore corresponds with some slow motion found somewhere within the human body. According to the secret teaching, there are no non-sensory qualities: every kind of quality is equally sensory and corresponds with some “sensory organ”—some particular kind of receptive motion—that is uniquely suited to receive it.¹³³ Thus, Socrates ends this section of the text by generalizing the results of the theory to even *moral* and *aesthetic* qualities: “Then say again if it is pleasing to you that ‘good’ and ‘beauty’ and *all the other qualities which we were just speaking about* [my italics] to not be something but rather to always become” (157d6-8).¹³⁴ While this conclusion—that all qualities are sense qualities and that the “perception” of such qualities must occur through a sensory organ—is strange, the oddity of the result should foreshadow for the critical reader of the dialogue the extent to which Theaetetus’ initial definition of knowledge was insensitive to the different facets of human experience when he made all knowing a kind of perceiving.¹³⁵

¹³³ Remember that Socrates is purposefully ignoring any potential differences between the different modes of appearances when he proposes the Flux Thesis—for the purposes of the theory there are no in principle distinctions between appearances that result from the sensory organs (perception) and appearances that require higher-order cognitive activity (judgment). As Socrates’ refutation of the Flux Thesis will show, this equation is in error, and there are fundamental differences between the various ways in which things appear to human beings for which the theory is completely incapable of accounting. Perceiving the color white, judging a predator fearful and judging that a future action will be successful are structurally distinct, despite all being ways in which things appear to human beings.

¹³⁴ The language of “perceiving” beauty, justice, and goodness is commonly found in Greek writings, and would not sound anywhere near as odd to the Greek ear as it does to ours. See for instance Aristotle in the *Politics*, who writes: “For it is a peculiarity of humans, in contrast to the other animals, to have perceptions of good and bad, just and unjust, and the like” (1253a17, Simpson translation).

¹³⁵ Most modern commentaries either ignore or do not take seriously the claim that non-sensible and moral qualities are to be explained by the Flux Thesis. As Burnyeat (1990: 21) points out, it is obvious that Plato does extend the account to such predicates, but precisely how he does so is usually either overlooked or treated as inexplicable. Burnyeat (1976a: 45), for instance, says that the extension seems to have “little but bluff to support it.” One commentator from the early modern period who does take seriously that the Flux

The characterization of the slow motions and their relationship to the swift motions that they generate then entails that all objects are also subject to ontological relativity—which is to say, that all objects are only what they appear to be. The objects with which the uninitiated are concerned are best thought of as conventionally grouped aggregates of slow active or receptive motions.

And it is necessary to say this sort of thing [the secret teaching] about the parts and the many aggregated together—amongst which are assigned ‘human’ and ‘stone’ and each animal and form [δεῖ δὲ καὶ κατὰ μέρος οὕτω λέγειν καὶ περὶ πολλῶν ἀθροισθέντων, ὧ δὴ ἀθροίσματι ἄνθρωπὸν τε τίθενται καὶ λίθον καὶ ἕκαστον ζῷόν τε καὶ εἶδος]. (157b8-c2)¹³⁶

A stone actually seems to be many different colors when observed by an eye, each of which must be produced by the unique interaction of an active slow motion with the color receptive slow motion of the eye. The “rock” is simply an aggregate, a conventional grouping of all these active motions interacting with the receptive motions of the eye in a given instance. Insofar as each (relatively) active motion only has actual qualities as a result of a given perceptual event that generates those qualities, the “stone” aggregate is nothing *actual* independently of the perceptual events that generates all of its concrete, determinate qualities. Considered outside of being perceived, the stone, and all of its active slow motions, has nothing but a power to become something. Thus, the stone

Thesis applies to non-sensory and moral qualities is Price (1787: 79-86), who takes Protagoras in the *Theaetetus* to be arguing that moral knowledge comes from the senses as all knowledge does.

¹³⁶ Fowler translates this sentence as “And we must use such expressions in relation both to particular objects and collective designations, among which are ‘mankind’ and ‘stone’ and the name of every animal and class.” This translation suggests that the aggregates in question here are universal classes with particular members. This translation seems unwarranted, however, as the *meros* (part) being discussed throughout the discussion of the Flux Thesis are the individual motions associated with the perceptual organs. The translations of Benardete and Levett/Burnyeat are far closer to my rendering, and Cornford (see 48 n 1) ultimately decides on this interpretation of the Greek as well.

should never be characterized as *being* anything, but rather only as coming to be and passing away in equal measure along with the various qualities it is perceived as having.

The “subject” experiencing the stone is correspondingly nothing other than the aggregate of the various receptive slow motions that become actual perception-instances of something in a given perceptual instance.¹³⁷ There is no talk of anything that would group together the reports of various different sensory organs into some experiential whole.¹³⁸ The “whole,” to the extent that such unified perceivers can be discussed at all, is nothing other than an aggregate of various motions that are in the midst of perceiving. A human perceiver is thus just a grouping of hearing motions, touching motions, seeing motions, and so on for all of the unlimited and mostly nameless ways in which different kinds of quality appear. Although the Flux Thesis is rooted in the first person experience, it paradoxically should not be interpreted as positing anything like consciousness or subjectivity. There is precisely no subject in any real sense of the term, if “subject” is taken to refer to an enduring first person perceiver that witnesses a flow of different perceptual properties.¹³⁹

Since the slow motions, the aggregates of the slow motions, and the swift motions are all nothing but what they become in a given moment of perception, they are all

¹³⁷ See also Burnyeat (1990), Day (1997: 60-1), Silverman (2000: 121-2), and Sedley (2004: 39-48, esp. 47 n11). Silverman helpfully notes that this account makes the slow active/receptive motion pairs the causes of quality/perception instances, but also ontologically secondary to them. Despite coming second, the quality/perception instances determine what the active/receptive motion pairs actually are or become. Also helpful is Sedley (2004: 46n10), who refutes an alternative readings of this and related passages from this section of the text found in McDowell (1973: 152-4) and Brown (1993: 207-8). I also take his refutation to apply to the criticisms of the sort of view I am advancing found in Lee (2005).

¹³⁸ The reader might think of the discussion of the life of a mollusk in the *Philebus* (21b-d), who undergoes various sensations, but has no subjective awareness in a unified sense of those sensations. The Flux Thesis is positing that human experience is effectively analogous such a life.

¹³⁹ See also Waterlow (1977: 26-7).

nothing but what they appear to be in the given moment that they appear. Thus, according to the Flux Thesis everything is exactly what it appears to be, and perception captures everything that *is* unerringly, which befits its identity with knowledge.

c. The Three Premises Entail that All Of Human Experience is Purely Receptive

All of human experience, according to the Flux Thesis, is a kind of perception. Everything of which we are aware, either a quality or the objects that seem to possess qualities, only appears to human beings when one of our slow receptive motions is struck by a slow active motion with which it is fitted. As was discussed above, it is the slow motion itself that perceives, according to the secret teaching, and not some unified subject. This odd conclusion, however, reflects perfectly normal ways in which human beings speak, both in Greek and English. We say in English that our eyes see something, or that our ears hear something. In Greek, Socrates will later say (184b), it is perfectly normal to say that it is by the eyes and ears [*ommasi kai ōsin*, the dative] that a human being sees colors or hears sounds. Indeed, it is the opposite thesis, that the eyes *do not* see colors and that the ears *do not* hear sounds, that sounds obviously false in ordinary language. The Flux Thesis' denial of subjectivity thus matches up with the way that human beings tend to describe sense perception in their ordinary language. What the development of this obviously mistaken theory demonstrates is the disastrous consequences that follow from taking this everyday mode of discourse concerning sense perception seriously.

In ordinary language, slow receptive motions would be called sense organs. Thus, what the Flux Thesis is fundamentally offering is an account of how the sense organs are related to human perception. Sense organs are fundamentally characterized as *paschein*—

as things that undergo and experience. The secret teaching posits that these two meanings of the verb *paschein* directly imply one another. In a very real sense, it is only because the sense organs *undergo* the motion of the percipient that *experience*—perception-instances—come into being. In this sense, the secret teaching posits an unavoidable truth. Sense perception would not be possible without the receptivity of the sense organs. A color cannot be perceived without the presence of a functioning eye and that eye being impacted in some way by a visual object. The eye itself is purely receptive in this process—if a person does have a functioning eye, then any impact upon that eye by a visual object will cause the perception of some color quality. With respect to color experiences, the eye itself does not act but is rather acted upon.¹⁴⁰

However, the secret teaching infers from the receptivity of the sensory organ that perception, and so all of human experience, is entirely receptive. It does so because it thinks of the eye itself as that which perceives, rather than simply as a necessary but not sufficient condition for perception to occur within a soul or mind. Since the only “experiencers” are purely receptive slow motions, then all of experience is purely receptive. All kinds of appearances—from the kinds of sensory qualities perceived alike by human beings and animals, to the highest and most sophisticated judgments about beauty and justice found only within human life—are equivalent according to the Flux Thesis. The theory levels down human perception and the human experience of the world such that it loses any special character it otherwise might have been thought to possess.

¹⁴⁰ For simplicity, I am only speaking here about the perception of color qualities themselves. There is a sort of activity involved in the perception of objects on the part of the eye, insofar as the eye must focus in various ways to ensure that the object can be clearly seen against its backdrop. Concerning colors themselves, however, this activity of focusing is not relevant, and that is what the theory is most concerned with.

The intricacies and wondrousness of human subjectivity—the very thing that Theaetetus was trying to capture when he said that the knower perceives the thing known—has become functionally equivalent to the reverberation produced when one thing slams into another.¹⁴¹

iv. The Accomplishments and Deficits of the Flux Thesis

Following his presentation of the secret teaching, Socrates for the first time asks Theaetetus whether or not he finds the view agreeable, to which the young man responds that he does (157d). The secret teaching, then, marks the end of an important first step in refuting Theaetetus' proposed first definition of knowledge. Theaetetus' proposal, that knowledge is nothing other than perception, had the unintended consequence of making everyone correct about anything that appears to them. By introducing the teachings of Protagoras, Socrates elevates this unintended consequence to the level of an explicitly desirable result. How things appear to human beings is the measure of how things are, which makes appearance/perception always correspond with being and be infallible, which is befitting its status as knowledge. In introducing the Heraclitean teaching, Socrates is able to metaphysically explain the ontological relativity posited by Protagoras by generating qualities out of the interaction of sensory organs and percipient objects. And with the secret teaching, Socrates is able to show what the world will have to be like in order for the Heraclitean account of quality generation to apply to all things, as is required by both Protagoras and Theaetetus' initial proposal. Thus, with the presentation

¹⁴¹ If a reader wanted an early modern correlate of such a view, one would only need to turn to the empiricism found in Hobbes' *Leviathan*, which reduces consciousness to the vibration formed as a result of impacts upon the sense organs.

of the secret teaching, Theaetetus' definition of knowledge has attained a first determinate shape.

Precisely how the Flux Thesis should and should not be subject to critical scrutiny is the topic of the next chapter. Prior to such questioning, however, it will be helpful to gather together precisely what the Flux Thesis has help positively reveal about the relationship between perception and knowledge.

First, the Flux Thesis has revealed much about the way in which sensory perception appears to human beings. In particular, the secret teaching focused on the role of the sensory organ in sense perception. The sensory qualities that appear to human beings in sense perception only appear insofar as a particular kind of sense organ is present and functioning. Without eyes, color qualities will simply not appear to humans, and without ears, sounds will fail to appear. Sense organs are, at a minimum, a necessary condition of human sense perception and the appearance of such qualities. Moreover, each sense organ is uniquely matched with the appearance of a particular sense quality. The eye, or at least some part of the eye, is the only sense organ that will allow for the possibility of color to appear to human beings. Finally, each sense organ is completely receptive with respect to the appearance of sensory qualities. While the structure of the organ invariably shapes what quality appears—animals have different eyes, and so, as the text argues, presumably experience color qualities differently—the organ does not itself engage in any kind of activity. Rather, sense organs are impacted by perceptible objects, and the way that the organ suffers or undergoes this impact determines what quality appears.

The critical reader of the dialogue, however, will also recognize the ways in which the Flux Thesis misinterprets its own insight about the sensory organs. While the Flux Thesis argues that all of human experience is purely receptive because of the receptivity of the sense organs, the critical reader will rightly suspect that some ways in which things appear to human beings are not purely receptive and instead require an activity on the part of the person that goes beyond whatever is passively received. Whether or not sense perception should rightly be thought about as if it were purely receptive, at the very least the appearance of judgments and opinions require the person that forms the judgment to take concrete stances about the world through a kind of activity. To the critical reader, the Flux Thesis will suggest that the intrinsically receptive sensory organs are incapable of accounting for this activity, or even of making any contribution to that activity as such. Even concerning matters that pertain to sense perception, then, it seems highly unlikely that the sense organs themselves will be capable of producing knowledge.

Second, the Flux Thesis has made a crucially important effort to distinguish qualities from the appearance of a quality at a particular time and place. In the secret teaching, qualities are thought of as swift motions, which are different in kind from the objects that come to have qualities at a given moment of time. These slow motions are argued to be sites or locations that have the potential to *become* some quality, but they never *are* the quality in a stable and enduring way. Instead, qualities activate the latent potency of the spatiotemporal things to be some concrete way, and in a very real sense qualities cause the determinacy of spatiotemporal things while remaining something distinct from them.

Once again, however, the Flux Thesis misinterprets the import of its own insight. Because of their obsession with generation and becoming, the Heracliteans and the secret doctrine both posit that qualities are generated things that come to be and pass away along with their appearances within spatiotemporal things.¹⁴² As a result, the theory makes qualities unique and instantaneous appearances that, while being different from the site in which they appear, nevertheless remain inextricably linked with that site.¹⁴³ Each event in the world is unique, novel, and utterly unrelated to any other event that will ever occur. The critical reader of the dialogue will already suspect the inadequacy of this radical form of nominalism, and so will anticipate Socrates' forthcoming demonstration that qualities, perhaps unlike the objects that appear to have a quality at a given place and time, must really *be* something in an enduring and stable fashion. This crucial demonstration, which will be discussed in great detail in the next chapter, supplies certain decisive premises that Socrates will make use of in finally refuting Theaetetus' first definition of knowledge.

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¹⁴² In a passage that I will return to in some depth in Section 9, the secret teaching concludes by giving an absurdly self-contradictory account of just how far this dedication to becoming goes: "As a result of all these things, just as we said at the beginning, nothing is one, itself by itself, but rather things are always becoming, and being must be removed in every way, though we many times before were compelled by habit and lack of learning to use it. But according to this wise account, it is necessary not to allow someone to say "something," "someone's," "mine," "this," "that" [οὔτε τι συγχωρεῖν οὔτε του οὔτ' ἐμοῦ οὔτε τόδε οὔτ' ἐκεῖνο οὔτε], or anything else that would make a name stand still. Rather, according to nature we must say "becoming," "making," "being destroyed" and "becoming other." (157a8-b7). Though the full implications of this radical nominalism and denial of being are not explored until much later in the dialogue, they will ultimately provide the decisive grounds for the final rejection of the Flux Thesis, as will be discussed in Section 9. Though he does not connect the point with the later refutation of the Flux Thesis, McDowell (1973: 142-3) points out that the Flux Thesis seems to make use of the very notions it disallows in the course of positing when he notes that the account: "requires us to talk, at least in a general way, about individual things of each of the four kinds [active/receptive motions, quality/perception-instances]... Further, one might suppose that if the theory of perception were correct, then it ought to be possible to describe particular perceptual transactions... But such statements are ruled out by the present passage."

¹⁴³ To put the point in more modern metaphysical language, according to the theory, there are only perceptual tokens and there are no perceptual types.

Chapter 3: Separating Being and Appearance

In the previous chapter, I introduced the theory which I am calling the Flux Thesis. Socrates develops this Flux Thesis to make sense of Theaetetus' proposal that knowledge is nothing other than perception. Theaetetus has argued that, because the knower "perceives" the thing known, the activity of knowing consists in the activity of perceiving. But Theaetetus' account leaves it ambiguous how this "perceiving" should be understood. While knowers "perceive" the things that they know, non-knowers also "perceive" the things about which they display ignorance. Precisely how the "perceiving" of the knower should be distinguished from the "perceiving" of the non-knower is not clarified by Theaetetus' account. Indeed, as it currently stands, Theaetetus' definition seems to eliminate the very possibility of not-knowing, since his definition has made all "perceptions"—all subjective grasps of something—equally instances of knowledge. The complicated metaphysics and epistemology found in the Flux Thesis is merely an effort to explain how it can be the case that human beings always know everything that they perceive, consider, or say. The bizarre entailments of the theory—the elimination of the unified human subject,¹⁴⁴ radical nominalism,¹⁴⁵ and the pure receptivity of all human experience¹⁴⁶—are simply necessary conditions that the world must satisfy in order for not-knowing something to be impossible.

To refute the Flux Thesis—or, to put it differently, to prove that not-knowing is possible—Plato directly refutes the three major entailments of the theory. In Section 7, I will discuss how Socrates distinguishes "just" (philosophical) from "unjust"

¹⁴⁴ See Section 6.3, especially pages 105-107.

¹⁴⁵ See Section 6, especially pages 87-91.

¹⁴⁶ See Section 6.3, especially pages 104-105.

(disputatious) ways of arguing against the Flux Thesis, and suggest that a just refutation will positively disclose what is correct in the theory while also suggesting avenues for correcting what within it is mistaken.

In Section 8, I will show that, while it is true that the sensory organs play a purely receptive role in sense perception, this result does not entail that everything appears to human beings through the pure reception of a sensory given. At the very least, judgments about the future require human beings to go beyond the received immediacy of a given perception. It is therefore possible for future anticipations to be mistaken—which is to say, it is possible for a person to anticipate a future that will never actually become present in an immediate perception. Humans can fail to know at least some things, like what the future will hold. This demonstration reveals that the sort of infallibility that the Flux Thesis affixes to sensory appearances is radically distinct from the truth and falsehood that accompanies future anticipations. While errors in the ontology of the Flux Thesis prevent a clear statement of the difference at this juncture, the distinction between the “lack of error” found in perceptions and the truth found in judgments will play an important role later in the dialogue once the connection between truth and *being* is established.

In Section 9, I will then demonstrate that error is possible even concerning immediate sense perceptions. The Flux Thesis has argued that, if something appears to be white to me, then there is no possibility of me failing to recognize that it appears to be white to me. To ensure the infallibility of this appearance, the theory posits a radical nominalism that equates being and appearance. Contrary to this radical nominalism, however, I will argue that the immediate present *is* something more than it *appears* to be.

When a person sees a white thing, the whiteness of the white thing is distinct from the appearance of the white in the thing. If nothing else, whiteness itself does not change, while things can and do cease to appear white over time. Indeed, it is the stability of what it is *to be* white that makes the change to and from *becoming* a white thing intelligible. It is not the case that the simple fact that something appears to be white to me ensures that I have attained an “infallible” grasp of what whiteness itself actually is as. While anticipating how things *will be* entails going beyond how things immediately appear to be right now in anticipation of a future that will eventually become present, grasping the *being* of what immediately appears requires going beyond temporal appearing as such. Human beings can therefore fail to attain knowledge concerning the being of their immediate sensory perceptions.

Finally, in Section 10 (presented in the next chapter), I will argue that, however we may speak in ordinary colloquial language, it is not the case that sense organs actually see or hear anything themselves. Sense organs do not perceive but are rather that through which a unified human perceiver perceives the spatiotemporal world. While the sense organs themselves are varied and make possible mutually exclusive kinds of perceptions, the different kinds of perceptions are all unified in the perceptive act of a unified human subject.

With these three demonstrations, the Plato definitively shows that ignorance is possible, and that knowledge cannot be simply identical with any subjective grasp of something had by any human being. Only some of these subjective grasps—the ones had by knowers, as opposed to the ones had by non-knowers—are possible candidates to cause or produce knowledge in human beings. Once this conclusion is established, it will

then be relatively straightforward task to determine whether the name “perception” is a plausible candidate to pick out the unique activity that knowers engage in and that non-knowers do not.

Section Seven: Productive Criticism of the Flux Thesis

From the standpoint of everyday thinking, the Flux Thesis represents an extremely counterintuitive way of taking the world. As I discussed in the last chapter, the account of the generation of all qualities and objects out of flux produces certain highly problematic characterizations of human experience, including making all human experience purely receptive and making qualities be radically unique and instantaneous things. But even setting aside these metaphysical points, Protagoras’ basic proposal should strike most readers as rather unpromising. Protagoras’ stated purpose is to ensure that human beings are the measure of all of reality, which Socrates takes to mean that everyone is correct about everything and that no one fails to be a knower. To Protagoras, the things that appear to the dreamer *are* just as much as the things that appear to the person who is awake. The rantings of the madman have just as much “truth” to them as the most well thought out statements of philosophical reasoning. The metaphysical complexities of the Flux Thesis simply mitigate the seeming contradictions that emerge as a result of mutually exclusive things appearing to different human beings and the “same” human being at different times. These metaphysical complexities do nothing to make the overall project of making everyone always correct more plausible.

As a result, the entire Protagorean position is deliberately provocative. It posits a state of affairs that, to the ordinary way of taking the world at least, cannot possibly be correct. The enormous gap between the views of the uninitiated and those who have been

initiated into the school of Protagoras and Heraclitus should compel both Theaetetus and the reader to attempt to account for the divergence between the everyday interpretation of the world and the interpretation of the world offered by the Flux Thesis. Working through the ordinary attitude and Protagoras' radical counterproposal should lead the dialectically astute student to gain a deeper insight into what is genuinely compelling about Protagoras' position and into why the position is nevertheless necessarily false.

However, the Flux Thesis will only serve as the occasion for deeper reflection into the actual nature of human experience if the oddities that result from the theory are taken up in the correct way. The theory is certainly founded on real mistakes, and it will have to be rejected eventually. However, it would be very easy to dismiss the Flux Thesis too quickly because of the counterintuitiveness of its conclusions, or to stubbornly defend the theory while ignoring its obvious flaws. Theaetetus' initial responses to the Flux Thesis (158e-165e) will show both tendencies—when faced with difficult consequences of the view, he will either reject the theory out of hand or offer a simplistic defense that fails to adequately address the real issues underlying the view. How can the dialectically serious reader productively consider such a flawed account and avoid too abruptly dismissing it?

Following the presentation of the secret teaching, Plato presents four vivid examples of what Socrates eventually calls “unjust” ways of critiquing the Flux Thesis.

These four unjust arguments are:

- (1) On the basis of the Flux Thesis, humans, animals, and gods are all revealed to be equal in knowledge (and thus also in wisdom), which would be a surprising consequence (161c1-163a1).
- (2) On its basis, it should be impossible for someone to hear a foreign language and not know it. But people do perceive foreign languages without knowing them (163a5-c2).

(3) On its basis, a person who remembers something perceived in the past but not actively perceiving it now can't be said to know it. However, a person who remembers something known in the past seems to still know that thing (163d1-164b5).

(4) On its basis, a person who sees an object with one eye but not with the other both knows and does not know that object. But this is a contradiction (165b2-d2).

Each time following Socrates presentation of one of these arguments, Theaetetus either abandons the theory or offers a trivially simplistically defense of it. However, Socrates does not accept Theaetetus' responses. All four arguments are unjust—and not merely fallacious, though they may be that too—insofar as they are unserious critiques that fail to truly engage in the thinking underlying the Flux Thesis. Theaetetus was incapable of recognizing these injustices owing to the superficiality of his thinking. Socrates diagnoses Theaetetus' failure as a result of his treating their conversation merely as a linguistic game, where the goal is simply to get words to agree with one another. As a result, Theaetetus has not allowed himself to actually enter into the thinking underlying the Flux Thesis, and he has not allowed himself to be provoked by that thinking. A serious refutation of the Flux Thesis, one that is productive educationally, will instead attempt to dwell within the thinking of that theory for as long as possible. In this way, the reader will discover (1) what is correct within the Flux Thesis and so should be preserved, and (2) *why* the things that are incorrect in the Flux Thesis are necessarily incorrect.¹⁴⁷

Even before the four unjust arguments are raised against the Flux Thesis, Theaetetus demonstrates a troubling inability to fully think through the proposed theory in light of the conventional way of taking the world endorsed by the uninitiated.

¹⁴⁷ Cobb-Stevens (1989) argues for something similar with respect to the entire Flux Thesis. She thinks the refutation of the Flux Thesis does not require the full development of the theory that Socrates actually presents in laying it out, which indicates that the purpose of thinking through the theory is philosophical education rather than the presentation of some doctrine.

Immediately after hearing the secret teaching of the Flux Thesis, Theaetetus declares that the Flux Thesis must be accepted, at least as Socrates has presented it (157d8-10).

Socrates response is, appropriately enough, to make sure that Theaetetus is ready to then endorse the superficially troubling and counterintuitive implications of the theory. He asks about perceivers who are mad, sick, or dreaming, all of whom are usually thought to have “false” perceptions about the world. A mad person deems him or herself to be a god, a sick person thinks the wine tastes bitter rather than sweet, and the dreamer takes him or herself to fly. If all of these appearances are false, as the uninitiated would claim, then these examples would seemingly contradict the claim that perceptions are infallible and always disclose what *is*.

To anyone who takes the Flux Thesis seriously, it is fairly obvious how an advocate of the theory should respond to this objection. The qualities perceived by each “compromised” perceiver are between that perceiver and the world to the same extent as those between the “non-compromised” perceivers and the world. Such people’s perceptions are of what is, and are true, but the qualities that are perceived by such people only are for them. While all perceivers are perceiving the same slow motions, what those slow motions actually become varies from person to person on account of a different quality/perception instance being generated in each case. Such a result is certainly counterintuitive, and it remains to be seen whether or not it can consistently be held in light of other commitments of the theory. The simple fact *that* however a person takes the world to be is how the world actually is for that person, however, is hardly a hidden implication of the Flux Thesis. Since the theory argues that everyone is correct about

everything, Theaetetus should certainly have expected the mad person and the sick to be correct too.

Theaetetus, however, is flabbergasted, and is so stunned by the counterintuitiveness and obvious “wrongness” of this conclusion that he is entirely ready to reject the theory that he found so unavoidably compelling just a few short moments prior (158a8-b4). Indeed, he cannot even imagine how an advocate of the theory would *argue* that the perceptions of the mad or of dreamers are correct. Since the secret teaching of the Flux Thesis directly entails this result, his response reveals that Theaetetus has not critically thought through the Flux Thesis, and that instead he has agreed to it for superficial reasons. Theaetetus remains committed to everyday standards of common sense, and he has allowed his thinking to be artificially constrained by those standards. He never conceived of the possibility that something that seemed right, the Flux Thesis, could conflict with other thing that seem right to him.¹⁴⁸ His shock indicates that Theaetetus is not yet ready to seriously analyze the Flux Thesis on its own terms, and to follow out the implications of the theory wherever they might lead.

Socrates’ various efforts throughout the subsequent discussion to shift the conversation away from Theaetetus to other figures is a result of Theaetetus’ current inability to follow out an argument seriously on its own terms. Socrates several time attempts to shift the conversation away from Theaetetus to Theodorus—something that

¹⁴⁸ Benardete (1984: 113) argues that Theaetetus has shown himself to a follower who folds at the first sign of disagreement and thus needs to be toughened up. While I agree that Theaetetus has this tendency, Benardete does not seem to me to detect the cause of this tendency: his inability to fully think through a philosophical position dialectically. Without really understanding the Flux Thesis, Theaetetus will be incapable of wondering at it, and so will not even see the need of defending it in anything other than a conventional way.

only partially succeeds owing to Theodorus' reluctance—and he emphasizes how Protagoras, or others of his ilk, would respond to or advocate on behalf of the position that Theaetetus has endorsed.¹⁴⁹ “Then listen to me and hear what sort of things would be said by the men who declare that whatever things a person deems [δοκοῦντα] are always true to the one deeming them” (158e5-6). The shift of interlocutors in this case is educative—it should show Theaetetus how he should be thinking through the Flux Thesis.

To deal with the case of the mad, the sick, and the dreaming, Socrates has an imagined defender of Protagoras restate the basic points of the Flux Thesis using somewhat more colloquial language (158e-160e). While I do not see anything substantially new in this restatement that was not already implicitly present in the Heraclitean account of quality generation, the colloquial language used in this portion of the text highlights the extent to which the Flux Thesis rejects the enduring identity of anything, especially human subjects. The central premise of the restatement is that things

¹⁴⁹ Socrates has several reasons for presenting the Flux Thesis as belonging to Protagoras in particular. Philosophically, Protagorean ontological relativism, at least as Socrates interprets it, does follow from one way of taking Theaetetus' first definition. More important dramatically, however, is that Theaetetus has been heavily influenced by Protagorean teachings. Theodorus, Theaetetus' teacher, was close friends with Protagoras while he was still alive (162a4), as Socrates knows. Moreover, Theaetetus admits to having read the works of Protagoras “often [πολλάκις]” (152a6) and in the resultant conversation shows at least superficial familiarity with Protagorean teachings. Indeed, when Socrates presents him with Protagorean puzzles, Theaetetus says, “I am overwhelmed by wonder whenever I think of these things and sometimes when I truly look at them I begin to feel giddy” (155c9). Socrates describes this wonder as the beginning of philosophy. Socrates then offers to help Theaetetus discover an explanation (the Flux Thesis) that resolves the puzzle by examining “with you the hidden truth in the thought of a famous man, or rather, of famous men [i.e. Protagoras, Heraclitus, etc.]” (155d9-e1). Socrates thus chooses Protagoras to help Theaetetus unpack his own philosophical heritage. “I act as a midwife for you, and I sing each of these as charms and provide you with each of these wise accounts until I can assist in bringing your view to light” (157c9-d2). Part of the ambiguity present in Theaetetus' first definition stems from his uncritical acceptance of certain Protagorean formulas—thus, an important step of dialectical education will be to draw these formulas out of self-evident obviousness such that they can be properly examined. As a result of this procedure, the errors of a certain way of taking Protagoras, at least, can be refuted, and what is true in his teachings and in Theaetetus own thinking can come to the fore.

that are unlike in any way are entirely different from one another. Since Socrates sick, or sleeping, or mad, is unlike Socrates healthy, or awake, or sane, the Socrates in the earlier conditions is therefore entirely different from Socrates in the later conditions.¹⁵⁰ If Socrates sick is different from Socrates healthy, then given the secret teaching of course he perceives radically different things—different perceiver/perceived object pairs will always generate completely different and unlike quality and perception-instances. The same thing applies to the radically different perceptions of Socrates awake/asleep, and Socrates sane/insane. The repeated equation of something being unlike with it being entirely different—first seen in the initial Heraclitean account of the generation of unique and instantaneous qualities—again highlights the troubling nominalism of the Flux Thesis. Nothing, neither the quality, the perception, the perceived object, nor the perceiver, endures such that a meaningful comparison can be drawn between what happens from moment to moment.

While this restatement seems to help Theaetetus better think through the implications of the Flux Thesis, it does not resolve the more fundamental problem that Theaetetus' thinking remains artificially constrained by convention. Theaetetus' difficulty in this regard is directly revealed by how he responds to the first of the four unjust arguments that Socrates presents against the Flux Thesis.

I was astonished that he [Protagoras] did not state at the beginning of the *Truth* that 'Pig is the measure of all things,' or 'Baboon'... It would have made it clear to us at once that, while we were standing astounded at his wisdom as though he were a God, he was in reality no better authority than a tadpole—let alone any other man. Or what are we to say, Theodorus? If whatever the individual judges by means of perception is

¹⁵⁰ See also Cornford (1935: 56) and Burnyeat (1990: 18-9).

true for him [ἐκάστῳ ἀληθὲς ἔσται ὃ ἂν δι' αἰσθήσεως δοξάζῃ]¹⁵¹; if no man can assess another's experience better than he, or can claim authority to examine another man's judgment and see if it be right or wrong; if, as we have repeatedly said, only the individual himself can judge of his own world, and what he judges is always true and correct: how could it ever be, my friend, that Protagoras was a wise man... while we, in comparison with him the ignorant ones, needed to go and sit at his feet—we who are ourselves each the measure of his own wisdom?¹⁵² (161c3-e4)

Socrates correctly points out that Protagoras' position entails that every man is as wise as any other on account of no one ever being ignorant of anything, that every animal is as wise as every person, and indeed that humans and animals are both equal in wisdom with the gods.¹⁵³ This position seems to eliminate the very possibility of expertise, whether of the sort proclaimed by the historical Protagoras, by Socrates' midwife art, or by anyone else (161e-162a). Once again, this conclusion, though counterintuitive, should not be surprising—Protagoras' whole point, as Socrates reads him, is to say that however something appears to anything is how things are to that thing. Whether this claim is consistent with the historical Protagoras' claim to be a teacher is still undecided, to be sure, and developing this line of inquiry further will provide important premises for the eventual refutation of the theory in subsequent sections of the dialogue. However,

¹⁵¹ This locution by Socrates does not actually agree with the secret teaching, and reflects instead a more everyday (and superior) way of talking about the relationship between perception and judgment. According to the secret teaching, judgments are subsets of perceptions—the qualities that appear to human beings in judgments—beauty or justice, for example—are generated as a result of a receptive and active slow motion colliding with one another, just as colors result from the eyes by struck by visible things. According to Socrates' language here, judgments are formed about that which appears to the soul through being perceived. They would thus be something different from perception. Following the final refutation of Theaetetus' first definition, Socrates and Theaetetus will agree to talk about judgments in precisely this way. However, attributing that view to the Flux Thesis now is entirely inappropriate. But since Socrates himself will argue that this argument is an example of demagoguery that fails to actually engage with the thinking of the Flux Thesis in any meaningful way, such a misreading of the secret teaching is not surprising at this juncture. Socrates' comments also highlight that, outside of the bizarre way that the Flux Thesis allows individuals to speak, the claims that Protagoras makes cannot possibly be defended.

¹⁵² This translation is taken in unmodified form from the Levett/Burnyeat.

¹⁵³ One might also think of the comments made by the Stranger in the *Statesman* that cranes, if they turned out to think, might well seem to themselves to be wiser or more important than all other animals, just as humans take themselves to be (263d2-e1).

Theaetetus does not pick up on the tension between education and the “man is the measure” doctrine. Instead, Theaetetus remains baffled by the sheer counterintuitiveness of all things being equal in wisdom, and it is the mere fact that the theory leads to the unacceptable conclusion that leads him to again abandon the theory. Theaetetus’ willingness to entirely abandon the theory is precisely not a *philosophically responsible* reaction to this odd conclusion. While plainly something has gone wrong somewhere in the argument, either in the Flux Thesis or in the ordinary understanding of the world, the philosophically mature person will respond to this provocation by attempting to discover precisely where the Flux Thesis has erred—if it has erred at all—and by seeing if the error is necessary or correctable. Only if it is taken up in this way will the Flux Thesis aid Theaetetus or anyone else in developing the technical distinctions necessary to talk rigorously about human experience. Socrates diagnoses Theaetetus’ failure as a sort of immaturity.¹⁵⁴ “That is because you are young, dear boy, and thus hearken to demagoguery and are persuaded swiftly by it” (162d4-6). Protagoras, Socrates says, would have never allowed this sort of argument to destroy the theory, because the standard to which philosophical discussion must hold itself to is rigorous proof, and not

¹⁵⁴ Socrates frequently makes the claim that immaturity is capable of distorting philosophical argumentation away from rigor and into some sort of game. In the *Parmenides*, young Socrates is chided because he has allowed the opinions of the many to restrict the topics into which he will inquire because of his youth (130e). In *Republic VII*, one of the great dangers of dialectical education for the young is that it can be taken up as a contradiction game rather than as a rigorous pursuit of truth: “Whenever they [children] first taste arguments [*λόγων*], they abuse them like children’s games, always using them for contradiction, and imitating their refuters they refute others. And just like a puppy tears and rips at things, they always do this with *logos* to whatever is nearby... When they refute many, and are refuted by many, exceedingly quickly they fall into holding none of the things they previously did” (539b3-c2). Theaetetus himself does not display this “puppy-like” love of senseless controversy or the desire for victory over truth in argumentation. In responding to a Protagorean puzzle that Socrates presents at 154c1-10, for instance, Theaetetus says that he has two answers in mind: one intended to avoid falling into contradiction, and one that reflects what he actually thinks (154d1-4), and he ultimately presents the latter even though it will lead to self-contradiction. Despite having this noble orientation, however, it is not at all clear that Theaetetus has any idea how to distinguish a careful examination from contradiction-mongering and controversy.

what is expected or conventionally palatable. The mere appearance or obviousness of certain results is not an adequate standard by which to evaluate those results.¹⁵⁵

Theaetetus makes a better effort to defend the Flux Thesis against conventional criticism in his response to the second “demagogic” unjust argument (163b). However, this time he defends the Flux Thesis by simply rejecting the everyday interpretation of the world out of hand, and in this way still fails to actually think through the tensions between the ordinary attitude and the theory. Socrates asks whether a person knows a foreign language simply by hearing it or seeing it written. The answer seems to obviously be no: simply hearing a foreign language is not sufficient to know it. However, this obvious answer contradicts the claim that what is perceived is known.¹⁵⁶ Theaetetus shows some improvement, and this time actually attempts to defend the Flux Thesis from the critique. He insists that everything knowable about some language is known just by hearing it, and that anything else, whatever a teacher or interpreter claims to know about a language besides the immediate perception of that language, is not knowable at all (163b-c).¹⁵⁷ While the formal contradiction is dissolved as a result of this answer, Theaetetus’ defense is nevertheless rather superficial—it represents both an uncharitable reading of the Flux Thesis and indeed of his own first definition of knowledge. Socrates’

¹⁵⁵ Part of Socrates’ efforts to persuade Theaetetus to move past this sort of conventional limitation on thought is to argue that even mathematics requires a higher standard of proof than persuasiveness or conventional approbation (162e-163a). The sort of philosophical discussion that Socrates is trying to get Theaetetus to accept will have to be held to even higher standards for rigor and seriousness still, if for no other reason than that it will be easier to treat of philosophical matters trivially than is to treat mathematical matters trivially.

¹⁵⁶ Runciman (1962: 15) argues that Socrates’ point here connects with the eventual refutation of the identification of knowledge and perception insofar as the being of what is perceived is not itself perceived, as I will discuss in Section 10. Similarly, Runciman argues, what the language means is not itself perceived.

¹⁵⁷ Precisely what it means to “know” a language becomes an explicit theme of the dialogue in the discussion of Theaetetus’ third definition of knowledge, as I will discuss in the Conclusion.

objection is based on a linguistic ambiguity. A person can be said to “hear” (*akouein*) someone speaking in two different senses. I can hear *that* someone is speaking—which is to say, I can make out that certain noises are being uttered. But I can also hear *what* someone says when he or she speaks, or hear the noises as meaningful utterances. A defender of Protagoras should argue here that something like a language could be known or heard in two different senses. Any hearer can be said to ‘know’ what a foreign language sounds like simply by hearing the noises made by a speaker of the language, but hearing the meaning of the words would take a specialized sort of perception that is only acquired via practice and learning.¹⁵⁸ Indeed, this active sense of perception was already implicit in Theaetetus’ reasoning behind his proposed first definition—the way that the cobbler “perceives” how to cut the leather is different from the way that a non-cobbler perceives the leather—and it will be introduced explicitly when Socrates presents a Protagorean account of expertise later in the dialogue. This more sophisticated response invites the sort of serious philosophical questioning to which the Flux Thesis must be subjected—can the theory, which understands all experience on the model of purely receptive immediate sensory perception, account for the sort of active “perception” implicit in Theaetetus’ initial account? Theaetetus’ simplistic response, in contrast, has no such educative potential.

The third and fourth arguments are guilty of linguistic fallacies similar to the one found above. From 163d-164b, Socrates presents the objection that the Flux Thesis entails that people can be actively remembering something they knew (i.e. perceived) in

¹⁵⁸ McDowell (1973: 159-60) and Benardete (1984: 118) imagine a Protagorean response to this paradox that is closely related to my own, though Benardete does not emphasize the difference between active and passive senses of perception.

the past without knowing (perceiving) that thing now, an absurdity. Theaetetus is utterly befuddled, and again abandons the theory. However, on the terms of the Flux Thesis, which understands “perception” in the broadest possible sense as standing in for any possible experience, this argument is plainly fallacious. This objection should fail, Socrates later will say (166b), because remembering something is itself a sort of “perceiving”— he calls it an experience (*pathos*)—despite not being named *aisthēsis* and being of a slightly different sort than the sensory experiences considered in previous examples. Indeed, considering the differences between immediate sensory perception and the more complex temporal character of the appearance of memories is precisely the sort of challenge Theaetetus should be undertaking with respect to the Flux Thesis.

Socrates follows this spurious objection up with a fourth at 165b-c. On the basis of the Flux Thesis, it is possible for a person to know and not know the same thing because a person can see something with one eye but not see that thing with the other eye if that eye is covered. The person therefore sees and does not see, and therefore knows but does not know. However, the Flux Thesis has already made it plain that, strictly speaking, only the particular receptive motions associated with the eye can be said to “see,” and that the “one” person is nothing other than an aggregated gathering of various different motions. The contradiction is therefore entirely mitigated—one eye sees (and so knows), the other eye does not (and so does not know). A difficulty for further thought still remains, to be sure. Why does it seem in ordinary experience as if there is some unity (consciousness or the soul) to the manifold of sensory experience if in fact there is none? However, this further question can only be considered after the superficial contradiction is dissolved. Because Theaetetus is incapable of resolving the superficial contradiction,

and therefore incapable of being provoked by the challenge posed by the Flux Thesis, Socrates says that “We have been like contradiction-mongers by agreeing with one another on the basis of the agreement of words” (164c7-8) and that “now we trample an orphan [the Flux Thesis] in the mud” (164e3-4).

Theaetetus’ difficulty is that he cannot discover a method of responding to the provocation of the Flux Thesis that does not fall short of serious rigor. He first attempted to analyze the theory was to gauge its success by conventional standards of persuasiveness and palatability, which are unrigorous standard of proof. He then tried a different tact: defending the theory against the everyday attitude by simply denying any legitimacy to the normal way of interpreting the world. As a result, he lost sight of what is actually true in that ordinary attitude—language really does mean something and is not just random sounds—and abstracted the Flux Thesis so far from the world that it is attempting to describe that he no longer is engaged with the reasons why anyone would posit the Flux Thesis in the first place. Both approaches leave the discussion of the Flux Thesis uprooted from its actual importance and potential value. The unity of the human subject, the proper understanding of expertise, and the uniqueness of human, as opposed to animal, activity are questions of enormous importance that underlie the entire discussion of Flux Thesis. Because Theaetetus is unable to hold fast to his wonder at these questions in light of the counterintuitiveness of the Flux Thesis, it was therefore a simple matter for Socrates to easily tongue-tie Theaetetus by reducing the entire discussion to contradiction-mongering and linguistic trickery.

To show Theaetetus another way of approaching the Flux Thesis, Socrates imagines the historical Protagoras rising up from the grave to rebuke Socrates for the

spurious objections that he has raised against the Flux Thesis. Socrates' Protagoras exhorts Theaetetus and the reader to seriously think through the implications of the Flux Thesis and to be provoked by the difficulties it raises.

For it is very irrational of the one speaking of virtue to be careless or to continue being unjust in *logos*. Injustice in this sort of thing is whenever someone does not keep separate wasting time trying to win points from dialoguing. In the first he can play and trip up his foe however much he is able, but in dialoguing he must be serious and help up his conversational partner, only pointing out those false steps that are due to the interlocutor himself and to the earlier associations that have misled him. (167e2-168a2)

By behaving in this unjust manner, Socrates has shown Theaetetus and the critical reader how *not* to proceed. Both the four arguments, and Theaetetus' responses to these arguments, are not unjust simply because they are bad arguments or responses, even though they are fallacious arguments and Theaetetus has responded to them poorly. Rather, they are unjust insofar as they display an utter lack of care concerning the subject matter that is under discussion. Even if the Flux Thesis is fairly obviously unpromising, the goal of the conversation is not simply to reject it, but rather to discover what within it is true, and what within it must ultimately be rejected. The critical reader will have to proceed "not as you did before, relying on the customary usage [*συνηθείας*] of names and words, which the many, by dragging them about, use to make all sorts of *aporias* for one another" (168b10-c3). It is not enough to merely attend to the letter of the spoken doctrine. Rather, the reader must become fully immersed in the thinking underlying the Flux Thesis and come to understand why it says what it says. They must investigate "whatever it is we mean" (168b4) by the Flux Thesis, the truth about the world that the theory is intended to capture, rather than any collection of words or phrases. Only in this

way will the necessity of the failure of the Flux Thesis be discovered, and only in this way will the latent truths contained within the theory be preserved and corrected.

Socrates sidelines Theaetetus from the subsequent conversation in order to show him more precisely how such an analysis will be carried out, and he is replaced by Theodorus. While Theodorus brings his own limitations to the conversation—he is not presented by Plato as ready to move beyond mathematics toward dialectic—he and Socrates do succeed in demonstrating to Theaetetus how to avoid certain argumentative pitfalls that trivialize the philosophical pursuit.¹⁵⁹ For instance, they avoid equivocating between what people call ‘useful’ and what is in fact useful (177d9), and they separate the Heraclitean metaphysics from the idiosyncratic obscurity of the language used by its advocates, who avoid serious conversation by hiding behind mysterious utterances (180c4-6). Dramatically, Plato presents the example of Socrates and Theodorus as successful: When Theaetetus resumes his role as the primary interlocutors following the refutation of the Flux Thesis, he displays the correct dialectical seriousness in analyzing the various positions that he and his interlocutors—either Socrates or the Stranger in the *Sophist*—consider, and Socrates never feels the need to consider the thoughts of any other interlocutor, either present like Theodorus or absent like Protagoras, in the remainder of the dialogue.

¹⁵⁹ I do not find Cornford’s (1935: 75) argument that the conversation only shifts to Theodorus because he is Protagoras’ friend compelling, since he and Socrates will also investigate the Heracliteans, whom Theodorus seems to disdain on account of their lack of rigor, in keeping with his status as a mathematician.

In the remainder of the chapter, I will discuss the philosophical substance of Protagoras' speech, and the two successful refutations of this revised Flux Thesis that follow from it.

Section Eight: Expertise, the Appearance of Truth, and Judgment

As Socrates originally presented his position, Protagoras holds that ignorance is impossible because: (1) There is no error in how something appears to a person—however something appears to a person really is how it appears to that person, and (2) How things appear is how things are. Protagoras' confidence in both assertions stems from the seeming infallibility of immediate sensory perception. If the wind feels cold to some perceiver, then it is unavoidably the case that wind in fact does seem to be cold to the perceiver. But the wind has the "feels cold" quality if and only if the wind appears to have the cold quality to some person. Thus, the sense perception of the cold wind is infallible, Protagoras argues. Protagoras' confidence that ignorance is impossible thus stems from his confidence in the infallibility of sense perception.

The infallibility of present sense perceptions is therefore the edifice upon which the whole Flux Thesis rests. Since, the theory argues, all appearances can be understood as basically analogous to the appearance of sense qualities to a perceiver, all appearances are as infallible as the appearance of sensory qualities. The first step in refuting the Flux Thesis will therefore be to show that all appearances cannot be understood as basically analogous to sense perceptions, and that therefore at least some kinds of appearances are not infallible. In this section, I will argue that Socrates successfully establishes that anticipations about the future are structurally distinct from sense perception insofar as such anticipations force the individual to go beyond immediate sense perception.

Anticipations about the future involve judging what will be the case, and as a result the infallibility that affixes to what seems to be the case now does not ensure that such anticipations are themselves infallible. The sort of infallibility that the Flux Thesis argues accompanies sense perception is thus radically distinct from the sort of truth (and, by implication, falsehood) that can accompany anticipations about what the future will hold.

i. The Protagorean Account of Expertise

There is an obvious problem with Protagoras' postulate that it is impossible for anyone to be mistaken about anything that they take to be case, and so with the whole Flux Thesis that has been built to metaphysically explain that impossibility. If everything that appears to a person also *is*, then it is presumably impossible for anyone to be wrong. As a result, if there is anyone in the world that thinks that error or "wrongness" exists, it is impossible, according to Protagoras, for that person to be wrong. Moreover, if there is anyone who thinks that expertise exists, then it is impossible for that person to be wrong. Therefore, given that people do think that error and expertise exist, Protagoras and the Flux Thesis cannot deny that expertise and error exist. In what way, then, will it be possible for Protagoras to grant that expertise and error do exist, while still maintaining that however something seems to a person is how things are?

From 166d-167d, Socrates' imagined Protagoras attempts to avoid this objection by arguing that error does exist, but that it should not be thought of as the appearance of a thing that is false as if it were true. Similarly, expertise does exist, but it does not consist in believing true rather than in false things. While all appearances are true—i.e., infallible in the same way that sense perception is infallible—this does not entail that all appearances are equally *good*. Things appear to a sick person, for instance, as being bad,

like when wine that is normally sweet tastes bitter. The expertise of the doctor does not consist in convincing the sick person that wine truly tastes sweet and that his or her present perception is false, but rather in the ability to change the sickly bad perceptions of the sick person into healthy good perceptions. Similarly, the errors committed by a quack doctor should be understood as failures to change the sickly bad perceptions into healthy good perceptions. Protagoras thus argues that the Flux Thesis can allow for the existence of expertise and error without giving up the infallibility of appearances.

In this section, I will lay out precisely how Protagoras' intended solution is supposed to work. Afterwards, I will show how Protagoras' solution, despite its cleverness, nevertheless introduces irresolvable inconsistencies into the Flux Thesis on account of (1) its introduction of the soul, (2) its distinction between judgments and perceptions, (3) the relationship that it imagines between expertise and judgments within the soul about what the future will hold.

Protagoras begins his discussion of wisdom and expertise—he treats the two as equivalent—by separating them from knowledge. Early in their conversation (145d-e), Socrates and Theaetetus had agreed that learning (*manthanein*) is the same as becoming wiser (*sophōteron gignesthai*) in whatever is being learned. A person becomes wiser by acquiring wisdom, where the wisdom acquired by the wise is knowledge (*epistēmē*). Consequently, Socrates and Theaetetus have assumed that wisdom and knowledge are the same. Protagoras now proposes that this equation be overturned: someone can know something without necessarily being wise. “I am far from saying that wisdom and wise men do not exist. Rather, I say the wise person is whoever can cause a change and make good things appear and be for some one of us to whom things appear and are bad”

(166d6-10). The wise person, Protagoras argues, does not merely possess knowledge—according to the Flux Thesis, every appearance is an instance of knowledge, which makes knowledge a rather unimpressive thing. Instead, the wise person is defined by possessing an *ability*—the wise person has the power to replace “bad” perceptions with “good” perceptions.¹⁶⁰ As a result of this move, it will still turn out that “in this way, some are wiser than others” but also that “no one judges false things” (167d1-3).

While it might be tempting to think of the goodness and badness of certain perceptions as an objective fact, I see no textual reason to read Protagoras as advocating any sort of observer independent non-relative understanding of good and bad.¹⁶¹ Positing such a good would destroy the secret teaching that is supposedly being defended, because it would mean that there is at least one kind of quality concerning which each individual person is not the measure. Protagoras’ examples make it clear that the goodness of some

¹⁶⁰ By speaking of the expert as someone who possesses a capacity to enact a change rather than as someone who knows something, Protagoras is neatly able to avoid having to explain how it is that the expert actually comes to possess this capacity. The privacy of each individual experience posited by the secret teaching seems to imply that the doctor can have literally no idea of what the patient is actually experiencing, which makes diagnosis nearly impossible. But since wisdom or expertise just is the capacity to make the change from better to worse, it does not really matter how some doctors come to reliably possess that capacity. For an alternative reading, see Fine (1998a: 200-2), who argues that Protagoras has abandoned the privacy of each experience. She argues that this shift is not a problem for Protagoras insofar as the privacy of each experience was only ever supposed to apply to sensory qualities, and not to the sorts of judgments involved in something like medicine. I have extensively argued against this sort of reading of the Flux Thesis in Section 6.

¹⁶¹ This subjectivity of the goodness or badness of a given perception is central to my overall reading of this section of the text. For a similar reading, at least of the example of doctor, see also Sedley (2004: 56). One of the central arguments given by those who favor the alternate interpretation is the discussion of the educator later on in the passage, who Protagoras states replaces unwholesome states with wholesome ones. Burnyeat (1990: 25-7) argues that the most natural way to take this claim is that the wholesome state is objectively better, which is why the educator tries to change it. On my reading, however, the educator acts just like the doctor who identifies an unwholesome medical condition for a body. All that it means to say that a motion is unwholesome is that it leads to the experience of subjectively undergone worse qualities. The sick person, or uneducated person, might not even realize that their currently undergone condition is worse until after it is cured. But the gamble of the doctor or educator is that after the change has been enacted, the patient or student will concur that whatever change that occurred was for the best insofar as it led to better states. See also footnote 167 for a further discussion of this point, particularly as to why the Protagorean expert is always at the mercy of his patients’ evaluations of his or her work.

perception and the badness of another are both experientially self-evident, and therefore infallibly true. Protagoras' primary example of a wise person is the doctor, someone capable of turning sickness into health.

Remember what was said before, that to the sick whatever is eaten appears and is bitter, but to the healthy these things appear and are the opposite. It is not necessary to make either of them wiser—for that is not possible [οὐδὲ γὰρ δυνατόν]¹⁶²—or to make the accusation that the sick man is unlearned because he judges these sorts of things, or that the healthy man is wise because he judges other things. Rather, a change is necessary from the one to the other, for the other state is better. (166e2-167a4)

Sickness and health are well chosen examples for this argument, as they allow the Flux Thesis to maintain the relativity of all qualities while still proclaiming the existence of expertise. The sickly perceptions of a sick person—for instance, the bitterness—instances experienced by interacting with food—are directly experienced as bad states. The sick person therefore deems him or herself to be sick and desires experientially better perceptions, i.e. healthy ones.¹⁶³ In this context, it is absurd to speak of such things as knowledge, ignorance, truth, learning, etc. What the sick person is concerned with is feeling better, and what the good doctor should be concerned with is bringing about this transformation, not with trying to educate the sick man—unless, of course, such education incidentally contributes to health.

¹⁶² Protagoras is being somewhat loose with his language: he cannot literally mean that it is impossible to make one man wiser than another, as both before and after he insists that wisdom and wise men do exist, as McDowell (1973: 167) also argues. I take his meaning to be that it is impossible to make the sick man healthier by increasing his wisdom. What matters when someone is sick is actually changing that person's sickly perceptions, not educating the person with either theoretical or even practical learning.

¹⁶³ Schiller (1908) argues that Protagoras is proposing a very-nearly modern form of Pragmatism in this portion of the text, and that Plato is only able to refute it by completely distorting the view. For a compelling argument as to why Protagoras cannot ultimately be read as advancing a position comparable to modern Pragmatism, see Burnyeat (1990: 23-24).

On Protagoras' model, "sick" designates a particular aggregate of bad perceptions, and "health" an aggregate of good perceptions. The sickness fundamentally *is* its symptoms and the subjective experience of being sick. That is not to say that the sickness is uncaused, any more than it would be to say that the "white" perceived in the chalk is uncaused. Presumably, the wisdom of the expert would amount to an ability to remove either the active or receptive slow motion in the active/receptive pair that generates "bad" perceptions. Further, if possible, the expert should replace or otherwise alter the offending motion with a corresponding motion that will be generative of "good" perceptions. If the bitter-instance produced by eating of a piece of food was a bad perception for a customer, then the wise cook would remove the offending piece of food (the offending slow active motion) and replace it with some other active motion that produces a better taste-instance to the customer. An opposite "cure" would be necessary medically. A doctor does not deprive a sick person of wine, but changes the bodily condition of the person such that the wine is perceived as being sweeter. The doctor is able to remove or modify the offending receptive slow motion and replace it with one capable of generating better perceptions.¹⁶⁴

The substantial upshot of Protagoras' account of expertise is that it makes the "measure" of expertise the person who is benefitted, rather than the expert that benefits. Patients are only benefitted by a doctor if they take themselves to have been benefitted. If the wine still tastes bitter to the patient, on Protagoras' account, the purported doctor has failed to cure the patient and so has failed to actually be a medical expert, at least in this

¹⁶⁴ McDowell (1973: 166-7) also identifies these two different types of changes brought about by the expert, and he points out the first that I have identified is practiced by the Protagorean statesman.

case. The Protagorean doctor has no objective standpoint from which he or she could tell a patient that the patient is really experiencing the world in a better way if the patient does not agree. The private perceptions of the patient remain infallible and unassailable.

While I do not take Plato's primary interest in discussing Protagoras to be relaying the views of the historical man, this account of expertise that Socrates crafts on Protagoras' behalf fits remarkably well with certain historical facts about Protagoras reported in Plato's writings. The historical Protagoras claimed to be a sophist (literally, a wise person) and a teacher—according to Plato's dialogue *Protagoras*, he was so confident in his skills in this regard that he left it to each student to declare how much the teaching was worth, and would only receive a fee in keeping with the student's own discretion.

I consider myself to be such a person [someone advanced in virtue], uniquely qualified to assist others in becoming noble and good, and worth the fee that I charge and even more, so much so that even my students agree. This is why I charge according to the following system: a student pays the full price only if he wishes to; otherwise, he goes into a temple, states under oath how much he thinks my lessons are worth, and pays that amount (*Pro* 328b1-c2).¹⁶⁵

If we take this statement as a basically correct summary of the historical Protagoras' practice—and Plato references it again in the *Theaetetus* at 165e¹⁶⁶—then the historical Protagoras was so committed to the “man is the measure” doctrine that he allowed his own fee to be measured by his students. According to this procedure, the benefits of Protagorean expertise can only definitively be measured by the individual that is benefitted, and not by the expert himself. The account of expertise that Socrates

¹⁶⁵ This translation from the *Protagoras* is from the Lombardo/Bell.

¹⁶⁶ See also n 18 in the Burnyeat/Levetv translation of the *Theaetetus*.

develops on Protagoras' account directly explains why the historical teacher would need to adopt such a fee structure given the content of his teaching.

Socrates' Protagoras, at any rate, directly correlates the expertise of doctor with the expertise of the teacher and the expertise of rhetorician. In both cases, he again describes the expert as changing the 'bad' perceptions of some perceiver into 'good' perceptions. Protagoras describes the educator as curing a sick soul in the same fashion that the doctor cures a sick body. Having been cured, the soul will have better judgments, just as the healthy body will have better perceptions. The education of the sophist simply replaces subjectively-experienced "worse" soul-judgments with subjectively-experienced "better" soul-judgments. Even if the student does not recognize it prior to being educated, the perceptions of the wise are subjectively undergone as superior to the perceptions of the ignorant. The student, and not Protagoras, would be the measure of this improvement.¹⁶⁷ Similarly, the politician makes better things appear to be just to the city via rhetoric.¹⁶⁸ Yet in both cases, Protagoras insists, the 'sick' soul nevertheless judges what is, and the sick citizens what is just.¹⁶⁹ Whatever is called just is just, and whatever

¹⁶⁷ On this point, I am indebted to a paper presented by Evans (2013) at the 2013 meeting of Ancient Philosophy Workshop. This account of expertise also makes sense of another claim that Protagoras makes concerning his pedagogy in the *Protagoras*: he says that he does not act like other educators and force his students to study things like mathematics or poetry: "if [a student] comes to me, he will learn about nothing other than which he came to learn" (319e6-8, Lombardo/Bell translation). The educator is not necessarily in any position in advance to know which perceptions are "bad" and thus in need of improvement, and Protagoras' education promises to improve only those self-reportedly bad perceptions.

¹⁶⁸ The idea of a city as perceiver might appear quite strange—shouldn't individual relativism and collective relativism be kept distinct? Burnyeat (1990: 23 n 31) raises this issue. However, the extension is not particularly problematic in this case owing to the way that the Flux Thesis understands things like individual persons. Such individual persons are just aggregates of different perceptions/quality pairs. A city is just a larger aggregate, made of up of more numerous and variably grouped perceivers, and neither aggregate is any more "real" or substantive than the other.

¹⁶⁹ Benardete offers an interesting analysis of this pseudo-Protagorean speech in which he argues that it shows the basic character of sophistry. Wisdom is quite literally power, the power to impose oneself upon those in one's care. Sophistic teachers produce copies of themselves by filling their qualities into the student, just as the interaction of the active motion and the receptive motion causes the receptive to become a perception of the qualities of the active. I ultimately must disagree with Benardete's reading, however,

is thought to be is. “For it is neither possible to judge the things which are not, nor things other than what one experiences: and these things always are true” (167a7-9).¹⁷⁰

While Protagoras’ account of expertise cleverly allows for error and expertise to exist alongside the impossibility of ignorance or falsehood, the elements that he introduces into the Flux Thesis through this account are ultimately inconsistent with other components of the theory. Protagoras’ account of expertise introduces three new elements that were previously unmentioned in the Flux Thesis: *doxa* (opinion or judgment), *psuchē* (the soul), and wisdom or expertise. I will first discuss the way that Protagoras uses judgments and the soul in the account, and then show how this usage suggests that the non-expert judgments of the soul are unlike the sense perceptions had by a sensory organ insofar as the former admit of falsehood and error, whereas the latter are held by the Flux Thesis to be infallible.

As Protagoras uses the word, *doxa* seems to refer to appearances that are subject to learning and discernment. Unlike the kind of appearances that are generated when an eye or ear give birth to color or sound, judgments are the sorts of things that can be better or worse as a result either of the education or ignorance of the judge. The specialized sort of “perception” that doctors and other experts possess is superior to the “perceptions” of the non-experts about the same matters insofar as not everyone is an equally reliable

insofar as his reading requires the Protagorean expert to be *intrinsically* active. In fact, however, the Protagorean expert is fundamentally dependent upon the person being shaped. The goodness and badness of a given perception cannot be determined or decided upon externally by the expert. Rather, the measure of goodness and badness is found within the evaluation of the student that is transformed by the learning. Protagorean experts are therefore quite literally at the mercy of those whom they transform, as discussed in footnote 161 and 167.

¹⁷⁰ The possibility of false judgment becomes the central question of the dialogue immediately following the rejection of the first definition. See also the Conclusion.

judge of what will change worse states to better states for some patient.¹⁷¹ Protagoras' implies (incorrectly, I will argue) that these judgments should be treated as a special category of perceptions, and he seems to believe that they should be understood in the same way that the purely receptive appearances are understood by the Flux Thesis.

At the same time that judgments are introduced as a special category of appearances, Socrates also has Protagoras introduce the idea of the soul. Education occurs by improving the perceptions of the soul, whereas medicine improves the perceptions of the body. Protagoras says nothing at all about what this soul actually is, or how it should be understood in light of the secret teaching. However, he still seems committed to the idea that human beings are fundamentally aggregates of perceptions, and that there is no sense in which an individual human maintains any real identity over time.

Socrates' Protagoras: Will he [a defender of Protagoras' view] grant somehow that a person in the process of becoming unlike is the same as he was before he became unlike? Will he grant that there is a man rather than many men—indeed, an unlimited number of these men coming to be, assuming the process of becoming other? [δώσειν ποτὲ τὸν αὐτὸν εἶναι τὸν ἀνομοιοῦμενον τῷ πρὶν ἀνομοιοῦσθαι ὄντι; μᾶλλον δὲ τὸν εἶναι τινα ἄλλ' οὐχὶ τοὺς, καὶ τούτους γιγνομένους ἀπείρους, ἔάνπερ ἀνομοίωσις γίγνηται].” (166b7-10)

There is no textual reason, then, to interpret Protagoras as intending his discussion of the soul to contradict the secret teaching. The most charitable reading of what he means by it

¹⁷¹ In understanding judgment here as a special case of perception, my reading differs from Gerson (2003: 205), who argues that judgment can be distinguished from perception proper because there are judgments about negative states, like not being warm right now, but no not-warm perception as such. However, as Gerson himself recognizes, there is a difficulty on his view in understanding how judgment is supposed to remain infallible if separated from perception, and I am not satisfied with his solution to this problem insofar as it fails to take the sort of interpersonal expertise that Protagoras is proposing in this passage seriously enough. Moreover, as Silverman (2000: 117 n 15) points out, Socrates from the beginning has spoken as if it is possible for not-cold to appear, and thus for it to not-be (and thus, be true that it is not) for a person.

is that he intends for the soul to be basically analogous to the body: just as the various bodily motions are potentially receptive and generative of certain kinds of perceptions, there are soul motions that are potentially receptive and which presumably generate other kinds of perceptions—in particular, the potentially expert judgments discussed above. If this reading is correct, then the education of the different kinds of experts amounts to the cultivation and improvement of different receptive motions in the soul. By studying to be a doctor, the student causes the motions capable of perceiving the future healthiness or sickness of some individual to improve from their pre-educated state. The improvement of this perceptive power leads the doctor to have the capacity to more reliably identify what will lead a person to healthiness or sickness in the future.

Determining the viability of the Flux Thesis will hinge on whether the Protagorean account of expertise can be consistently maintained with the rest of the Flux Thesis. Protagoras' account of expertise has introduced a distinction between the untrained judgments of the soul of a non-expert concerning future health states, and the expert judgments of the soul of a doctor concerning those same future states. The doctor's judgment "this drug will cure the patient" and the non-expert's judgment "this drug will not cure the patient" are both appearances—how it appears to the doctor and the non-doctor that things will be in the future. Protagoras' account of expertise implies that how things appear that they will be in the future to the non-expert is wrong, because the very definition of a non-expert is someone who fails to bring about a particular intended state of affairs in the future. Protagoras was so concerned with protecting the infallibility of the immediate perceptions of the *patient* that he has neglected to protect the infallibility of the future judgments of the *non-doctor* about what will cure the patient. If

the soul's judgments concerning the future admit of error, then the soul is structurally distinct from sense organs (receptive slow motions) and judgments are structurally distinct from perceptions (receptive swift motions). The qualities that appear as a result of the sense perception are infallibly what they appear to be, whereas the soul's activity of judging concerns qualities that will not infallibly be what they now seem as if they will be. Future judgments, unlike sense perceptions, are not infallible, but rather admit of truth and falsehood.

Before Socrates directly turns to this argument in refutation of the Flux Thesis, however, he first presents a seeming digression into what the scholarship has termed the "self-refutation" argument. I say that this argument seems to be a digression insofar as it ignores Protagoras' account of expertise, which then gets explicitly reintroduced into the account following the end of the digressive argument. I will argue that this argument marks an important first effort in distinguishing what it means to say that sense perceptions are "always true"—more precisely, that they are without error or infallible (*apseudes*)—but that judgments can be *either* true or false. Drawing this distinction will help clarify the full extent to which judgments are radically distinct from sense perceptions.

ii. Digression: The Distinguishing Infallibility and Truth

Immediately following Protagoras' account of expertise, Socrates presents what has been called the self-refutation argument (169d-171d).¹⁷² The argument has been

¹⁷² It is not an exaggeration to say that this stretch of text has generated at least as much disagreement and controversy as any other found in the *Theaetetus*. There is controversy over whether there is one argument found in this portion of the text or three distinct arguments, how the premises should be read and what actual conclusion they are supposed to demonstrate, and whether the argument is valid. This argument is almost always called the self-refutation argument in scholarship. It gets this name, not from anything that Plato says in the *Theaetetus*, but rather from the way it is characterized in Sextus Empiricus' *Against the*

given this name because, many commentators have argued, it purports to show that Protagoras refutes himself when he argues that it is impossible for anyone to be wrong, including his own critics. Against this standard reading, I will argue that the argument has an entirely different purpose. It marks the first time in the dialogue that Socrates distinguishes the sort of infallibility that the Flux Thesis thinks accompanies sense perception from the sort of truth that judgments can possess. Insofar as a latter version of this distinction plays a crucial role in refuting Theaetetus' first definition of knowledge, this feature of the argument should receive careful attention from the reader.¹⁷³ As I read it, this argument shows that Protagoras is forced to concede that infallibility and truth are different from one another. Sense perception is infallible (according to the Flux Thesis) insofar as no sense perception is of a quality that is not—if the wind appears cold, the wind must be cold, at least to the one to whom it so appears. According to the Flux Thesis, all appearances are equally infallible, which is why Protagoras insists that all appearances are correct. However, it also appears to human beings that some judgments are true, and that other judgments are false. In this sense, truth and falsehood are particular ways that some things, namely judgments, appear to human beings. Protagoras must concede that judgments do seem to be true and false to most people, and that

Mathematicians 7.60-1 as a “*peritropē*.” Burnyeat’s (1976a, 1976b) reading of this argument in Sextus and in the *Theaetetus* has proven very influential in shaping the debate about this passage in terms of a self-refutation. Fine (1998a: 184 n2) also justifies this characterization by pointing out that, in the *Euthydemus*, Socrates says that those who deny false judgments, like the followers of Protagoras, overturn [*anatrepein*] their own argument as well as their opponents (286c). While I find the argument in the *Euthydemus* to be substantially different in structure, purpose, and tone than the one in the *Theaetetus*, I will not argue that point here. What I will argue is that the argument in the *Theaetetus* should not be interpreted as proving that Protagoras refutes himself, is not presented as having done so by Plato, and that this whole portion of the text is far less significant in context than the level of controversy it has attracted would imply. While this argument, or one similar to it, could perhaps be run as a self-refutation, that is not the use that Plato assigns to it in the *Theaetetus*.

¹⁷³ A distinction between what can be arrived at via perception and the truth that can be arrived at via judgments is introduced again at 186c-d. This passage will be extensively analyzed in Section 10.

judgments do not seem to most people to be infallible, contrary to what the Flux Thesis argues. This concession does not, as Socrates presents it, force Protagoras into a formal contradiction. Rather, it forces Protagoras to introduce the kind of account of expertise that Socrates had earlier presented on his behalf. Assured that Socrates' proposal of Protagorean expertise is really called for by Protagoras' commitments, Socrates can then proceed to its direct refutation.¹⁷⁴

Socrates forces Protagoras to concede the distinction between infallibility and truth by confronting him with the views of most, maybe even all, other people. The first point to confirm is that the many really do posit the existence of expertise and falsehood.

Then, Protagoras, we say the opinions of a human, rather, of all humans, and we say that there is no one who does not hold himself to be wiser than others concerning some things, and that others are wiser than himself in others. They demonstrate this in the greatest of dangers: whenever they are exposed in war or sickness or at sea, they cling as though to gods to the authority in each case, expecting them to be saviors, though they differ in nothing other than knowing [οὐκ ἄλλω τῷ διαφέροντας ἢ τῷ εἰδέναι].
(170a6-b2)

The many think that experts differ from non-experts insofar as they possess *oída*—a word that would usually be translated as knowledge, though it is not the same word as *epistēmē*. Nevertheless, it would certainly be natural to interpret the opinion of the many as saying that wisdom amounts to possessing *epistēmē*, just as Socrates and Theaetetus had agreed at the beginning of the dialogue. However, Socrates correctly does not jump to this conclusion. Given that it is not clear what *epistēmē* actually means, it will first be

¹⁷⁴ I thus strongly disagree with Benardete (1984: 124), who claims that Socrates and Theodorus have agreed to examine these matters by putting aside the preceding discussion of Protagorean expertise. I find no textual justification in support of this reading of text—indeed, Socrates presents the discussion as an attempt to discover if he was correct in attributing that view to Protagoras (169d-e), and the pair ultimately conclude that they were correct to do so (171d).

necessary to say in what the many take *oida* and wisdom to consist. “Soc: Do they then hold that wisdom is true thinking [ἀληθῆ διάνοιαν] and ignorance [ἀμαθίαν] is false judgment? Theo: What else?” (170b9-c1). Everyone not only believes that wisdom exists, but also that the wise person ‘thinks truly’ while the non-wise person ‘judges falsely.’ Given that the Flux Thesis denies the existence of true and false judgments, either the opinions of the many or the Flux Thesis itself must be seemingly be incorrect.¹⁷⁵ Either way, however, the Flux Thesis is undermined: “For either way it turns out that judgment is not always true, but both true and false” (170c4-6).

To avoid this contradiction, it must be the case that the Flux Thesis means something different when it postulates “all judgments are true” than the many mean when they say “some judgments are true, and some judgments are false.” My proposal is that the Flux Thesis means what I had earlier called ontological relativity, or that all judgments infallibly capture what *is* for the individual that judges. On the Flux Thesis, each appearance/perception/judgment is infallible insofar as the quality that appears/is perceived/ is judged is uniquely generated along with the appearance/perception/judgment.

In contrast, when most people speak of truth and falsehood, they are speaking of these things as *qualities* that judgments seem to them to possess. It seems to one person that his or her neighbor is *wrong* when the neighbor says that the city should go to war, whereas it seems to that person that Theodorus is *right* when he says that the sum of five and seven is twelve. What this rightness and wrongness actually consists in is, at this

¹⁷⁵ Protagoras’ revised account of expertise does allow for errors in *action*, and indeed confidently asserts that there are many ways of behaving that will fail to attain their end. This point will reenter the account once Socrates establishes that he was correct to have made it on Protagoras’ behalf.

juncture in the dialogue, entirely unclear, and Socrates rightly does not pursue that question until after the Flux Thesis has been refuted. This hesitance is necessary because *according to the Flux Thesis* these “seems true” and “seems false” qualities would be just as subject to ontological relativity as any other qualities. To the Flux Thesis, “My neighbor’s political judgments seem false to me” is functionally identical with “the wind seems cold to me.” To the Flux Thesis, both the judgment of the neighbor and the judgment that the neighbor believes something false are both infallible. Truth and falsehood should therefore be understood, according to the Flux Thesis, in terms of *truth relativism*—true or false always means true or false *to the judger*.¹⁷⁶ In contrast, the infallibility of all appearances that is posited by the Flux Thesis, including all judgments, is not per se relative. All judgments are infallible *simpliciter*, because the quality that is judged about, whatever it is, only is for the one to whom it is judged.¹⁷⁷

This relativized sense of truth and falsehood avoids a contradiction between those who say that some things are false, and the Flux Thesis’ claim that there are no false judgments. The judgment of the many is that: “Some judgments are true, and some are false.” Restated in terms of truth-relativism, this statement translates to “Some things that people judge seem false to me, and other things seem true to me.” The Flux Thesis, in

¹⁷⁶ Burnyeat’s (1976b) position that Plato has interpreted Protagoras as a truth-relativist from his first introduction seems unwarranted to me. The relevant form of relativism in the earlier stages of the argument is ontological relativism, and ontological relativism ensures the infallibility of appearances and ensures that all judgments are “true” in that sense. See also footnote 99. However, I agree with Lee (2005) against Fine (1994: 145-6, 1998a) that Protagoras is forced to relativize truth at this particular point in the argument, though my precise argument is not the same as hers. Now that “being true” is one of the qualities that appear to individuals, that quality too must be ontologically relative to whom it or its opposite, “being false,” appears. Dancy (1987: 74, 96) also argues something similar.

¹⁷⁷ One thing that neither Protagoras nor the Flux Thesis ever clarify is whether the “man is the measure” doctrine should be interpreted as objectively true, or whether the theory itself is subject to the same ontological relativity that it posits for all [other] ways in which things appear to people. Socrates never pushes the point, and there is general scholarly agreement that no decision on this matter is ever reached in the dialogue.

contrast, only says that “Each individual’s judgment is infallible, because it corresponds with what is for that individual person.”

Soc: So what, do you want us to say that you judge what is true for yourself [i.e. that what you judge seems and is true for yourself], but false for the many [i.e. the many judge that what you judge seems and is false to them]?

Theo: It seems to be necessary, according to the account. (170e4-6).

There is no contradiction between these two statements. It is infallibly the case that each individual determines what things seems to be and so *are* errors for that person, and it is infallibly the case that each individual determines what things seem to be and so *are* correct for that person.

The introduction of truth-relativism, however, forces Protagoras into the exceedingly odd position of conceding that the number of people for whom his theory appears, and so is, in error greatly exceed the number of people for whom the theory appears, and so is, correct.

Soc: And what of Protagoras himself? Must he not say this: that supposing he himself did not believe that man is the measure, any more than the majority (who indeed do not believe it), then this Truth which he wrote is true for no one? On the other hand, suppose he believed it himself, but the majority of men do not agree with him; then you see—to begin with—the more those to whom it does not seem to be the truth outnumber those to whom it does, so much the more it isn’t than it is?

Theo: That must be so, if it is going to be or not be according to the individual judgment. (170e7-171a5)¹⁷⁸

Given that very nearly everyone does not accept the Flux Thesis because of how sharply it diverges from the world of ordinary experience, truth-relativism entails that the Flux Theory is truly (infallibly) judged to be false by everyone but Protagoras, assuming it

¹⁷⁸ This translation is from the Levett/Burnyeat.

does not appear false to him. The Flux Thesis appears and is false for most people, and Protagoras must recognize that the Flux Thesis infallibly is and appears to be false in far more privately experienced ‘worlds’ than it is and appears to be true. While this result does not contradict ontological relativity, it does make the Flux Thesis seem somewhat incoherent—what does it even mean to say that the Flux Thesis is false within one person’s private experience, let alone that it is false within the private experience of most people?¹⁷⁹

Even worse, the introduction of truth relativism leaves the Flux Thesis entirely without the power to persuade anyone that the theory should be accepted, unless it is supplemented with the account of better/worse appearances and expertise that Socrates introduced on Protagoras’ behalf earlier.

Soc: He [Protagoras] admits, I presume, that the contrary judgment about his own stance—that it is false—must be true, seeing he agrees that all men judge what is.

Theo: Entirely so.

Soc: Thus he accepts that his opinion is false, if he agrees that the opinion of those who argue his opinion to be false is true.

Theo: Necessarily.

Soc: But the others do not concede that they are in error?

Theo: No, they don’t.

¹⁷⁹ While I disagree with the overall interpretation of the “self-refutation” argument that Burnyeat (1976b) advances, his reading is valuable insofar as it raises interesting questions about what sense ontological relativism actually makes if “true” itself becomes ontologically relativized. Does Socrates’ private experience of the world in which the Flux Thesis appears false actually make the theory false in that world? It is unclear what else it could possibly mean. Can this result be reconciled with the Flux Thesis being true as a global account of how things are in the world? Does it mean that within Socrates’ world qualities are not generated out of the interaction of motions? If so, how would they be generated? If, then, Socrates became persuaded that Protagoras was correct, would the generation of qualities out of motion somehow begin? The basic intelligibility of the theory is very quickly beginning to break down, even if none of these difficulties amount to a formal contradiction.

Soc: And he agrees again that this judgment is true, according to his writings?

Theo: Apparently.

Soc: Then it [the theory] will be disputed by everyone, beginning with Protagoras—*or rather, it will be granted by him* [my italics], whenever he agrees that the person who says the opposite judges a true thing—even Protagoras himself will be granting neither dog nor any person one happens upon is the measure concerning something which he has not learned. Is that so?

Theo: That is so.

Soc: Thus, since it is disputed by everyone, the *Truth* of Protagoras would be true for no one, neither to anyone else or him. (171a6-c7)

To begin, note that this argument entirely drops the truth qualifiers—true or false *to me*—that were used in the previous argument. Because most commentators think the purpose of this argument is to show that Protagoras contradicts or refutes himself, much of the scholarship is dedicated to determining whether the argument is valid without those quantifiers.¹⁸⁰ In contrast, I take the argument to establish that Protagoras is completely incapable of persuading someone who does not already accept his position. Such a person will not accept whatever truth qualifiers Protagoras might want to add to his statement, which makes the qualifiers irrelevant to this argument. If Protagoras agrees that the

¹⁸⁰ Commentators who think that the argument illicitly drops the truth qualifiers and so is invalid include Vlastos (1956: xiv n27), Runciman (1962: 16), Sayre (1969: 87-90), McDowell (1973: 170-1), and Waterfield (1987: 172-6). Commentators who think that the argument works as a self-refutation despite the exclusion of the qualifiers include Burnyeat (1976b), who reads the argument as working despite the lack of relative qualifiers because if the Flux Thesis is false for Socrates, then it is no longer an accurate ontological account for Socrates, and so no longer a correct ontological account at all. I agree with Fine (1998a, 1998b) that Burnyeat's reading, despite its other virtues, is simply not supported by the text, and I also think that he is not as consistent in laying out the ontological account of the Flux Thesis as clearly as he ought to be. Sedley (2004: 58) argues more successfully for the argument's validity. He contends that, according to the Flux Thesis, "... there are no truths of the form: 'For X, such and such is the case for Y.'" He argues that this assumption must be present in the thesis, as the privacy of individual experiences necessitates that X can never directly experience anything about Y's experience and so can never perceive/judge anything about it, but that Socrates' argument shows that that assumption cannot be consistently held. Sedley's position is basically correct, but the conclusion that should be drawn from it is that Socrates was correct to introduce an account of expertise on Protagoras' behalf that allows for judgments about the internal states of others, not that Protagoras' position is self-refuting.

judgment “the Flux Thesis is false” is infallible, however Protagoras might qualify that infallibility, what possible reason would the critic of the view have to ever be persuaded to adopt the view? The only avenue open to Protagoras will be to argue that it is better, rather than truer, to believe the Flux Thesis, and to rely upon the account of expertise and better/worse appearances that Socrates introduced on Protagoras’ behalf.

I will first say a bit more about why the qualifiers are irrelevant, given the scholarly importance that has affixed to this issue. The qualifiers that Protagoras would wish to add to the truth of his critics’ statements are irrelevant in this context because all the critics will be concerned with is the infallibility that Protagoras gives to their own judgments. Protagoras admits that those who say he is wrong believe something that is infallibly true. Presumably, by saying this he still means to say that the judgment by the critic is only true for that critic. However, the infallibility of the critic’s judgment is not itself relative.¹⁸¹ Protagoras concedes that it is infallibly the case that Protagoras’ belief is false within the private experiences of some people, even if not within the private experiences of all.

Protagoras’ critics, however, do not accept truth relativism or that each individual’s experience is private. They therefore deny that there is anyone for whom it is infallibly true that their belief—that Protagoras’ belief is false—is false, because they take their beliefs to be true *simpliciter*. Protagoras must agree that this belief of his

¹⁸¹ Though I disagree with much of the background interpretation of the argument that motivates Fine (1998a), particularly the way that she only applies the Flux Thesis to perceptual qualities and so completely overlooks the relativity of truth that was introduced earlier in this argument, my reading is indebted to her insofar as she very forcefully argues this specific point.

critics—“there is no one for whom it is infallibly true that ‘Protagoras’ belief is false’ is false”—is itself infallibly true.¹⁸²

As a result, Protagoras will never be able to say anything against the person who holds that he is wrong. He will always have to say that his opponents’ judgment that he is wrong is infallibly true, and any truth-relative qualifications that he proposes to show that this statement does not violate his own position will prove utterly unpersuasive to the person who does not accept the legitimacy of those qualifications in the first place. To such critics, anything that Protagoras says will simply indicate that he thinks that they are correct, and that there is such a thing as expertise and learning, and that those who do not possess expertise and learning are not measures.¹⁸³ While this failure might not amount to a formal contradiction, it does ensure that the Protagorean position can never be persuasive as it currently stands.¹⁸⁴

¹⁸² Though McDowell (1973: 171) thinks the argument does not formally work because it fails to include the relevant qualifications, he does think that Socrates’ argument successfully indicates that Protagoras “is committed to conceding that it is true for his opponents that [the Flux Thesis] is false (not true) *simpliciter*. Hence he is not exempted from making sense of the concept of truth *simpliciter*, as opposed to his favored concept of truth for the person.”

¹⁸³ My position concerning the so-called self-refutation argument closely corresponds with Waterlow (1977: 35) who concludes: “What then is Plato seeking to show in this argument? Not that Protagoras’ position ought for reasons of logic to be rejected by those who accept it; but that those who reject it have no reason even to consider accepting it.” It also agrees with Emilsson (1994: 144), who writes: “The aim of the argument is not to show conclusively that Protagoras does not believe in the Measure doctrine or that he is formally inconsistent, but to show that Protagoras cannot answer his opponents... Protagoras cannot answer... even if Protagoras seems to be able to set forth objections of the form ‘your view is false for me,’ nevertheless, when his interlocutor is a person who does not share Protagoras’ notion of relative truth, this answer will not help, simply because the opponent will not accept this sort of answer. On Protagoras’ own premise such an answer is not true for such an opponent.” Cornford (1935: 80) also seems to interpret the argument in the same general light

¹⁸⁴ Could an argument of this sort be run as self-refutation, as most of the commentary tradition seems to want? I am not convinced that it could. As far as I can tell, the argument that Plato presents is only able to drop the qualifiers because they are irrelevant to the point that he is making, not because Protagoras would not want to include them. At the very least, dealing with these additional qualifiers, as Burnyeat (1976b) attempts to, requires adding quite a few premises that are simply not found in the argument. Additionally, even if the argument were valid, running the argument in this way would not contribute toward the dialectical project of distinguish the activity involved in judgment from the pure receptivity that the Flux Thesis argues is involved sense-perception and so all of experience.

However, if Protagoras were to adopt the strategy that Socrates proposed earlier, he would have a way of speaking to and persuading others to adopt his own position.¹⁸⁵ Since Protagoras is forced to concede that those who argue that expertise exists are judging what is infallibly true, he should simply accept that result and offer an account of expertise. Despite the fact that there is nothing false in his critics' views, Protagoras could then argue that his critics will be better off if they accept the Flux Thesis and that they are worse off as a result of denying it.¹⁸⁶ Thus, Socrates concludes this argument by saying:

Soc: At the moment, then, mustn't we maintain that any man would admit at least this, that some men are wiser than their fellows and others more ignorant?

Theo: So it seems to me, at any rate.

Soc: We may also suggest that the theory would stand firm most successfully in the position which we sketched out for it in our attempt to bring help to Protagoras. (171d6-e1)

¹⁸⁵ Nearly all of the commentaries on this passage fail to consider how the account of wisdom that Socrates presented on Protagoras' behalf is relevant to the so-called self-refutation argument. The strongest argument that Protagoras has on his own behalf is not that his theory is true—which is trivial, every belief is true on his view—but that people will be better off if they also believe that it is true. As one example of the failure, see Lee (2005: 55): "Rather the point is that Protagoras has to concede as false his original claim that the measure doctrine is objectively true for everyone." According to Socrates' strongest defense of Protagoras, he never claimed anything of the sort—based on the theory of wisdom presented there, Protagoras must only claim that it will be better for people to believe the Flux Thesis than to believe that it is false. Waterlow (1977: 24) is one of the few exceptions, and she rightly points out that the "self-refutation" argument cannot be taken to show that the Flux Thesis is a pragmatically "bad" belief, which is one of the ways that it could show that the revised version of Protagoras' position is self-refuting. Bradshaw (1998) seems to me to be correct when he points out that the digression into the lives of sophists and philosophers in the following paints the philosophical life as genuinely and subjectively experienced as better than the sophistical life that one imagines is lived by followers of Protagoras' teaching. It is in the digression, if anywhere, that Socrates will present an argument of this sort of argument.

¹⁸⁶ Despite my broad agreement with their positions, I disagree with Waterlow (1977) and Emilsson (1994) in one respect: there still does remain a strategy that Protagoras could try to use to get those who do not accept the Flux Thesis to accept it. He could attempt to persuade people that things will be better for them if they believe the Flux Thesis than if they did not believe it. And it is this belief, Socrates goes on to argue, that Protagoras cannot continue to hold without rejecting a central tenet of the Flux Thesis.

The Protagorean account of expertise therefore must be analyzed on its own terms. Can the superiority of the expert's judgments about the future be understood in terms of the purely passive receptivity of human experience that is postulated by the Flux Thesis? And can the falsehood of the judgments of the non-expert be understood in terms of truth relativity, as the Flux Thesis would want to argue?

iii. Present Appearances and the Coming to Be of the Future

In order to bring about a change from a better to a worse state, Protagoras' experts will have to form judgments in the present about what will be in the future. Such judgments, however, violate ontological relativity and are entirely inexplicable on the basis on the Flux Thesis. The subjectively-experienced "better" qualities that appear in judgments like "it will be better for this person if they believe the Flux Thesis" or "if the patient takes this drug, they will feel better" are not generated along with their appearance in the judgment about the future. The judgment will only be true—which is to say, will only correspond with what is—if at the future time the non-believer or patient in fact does feel better. Since the better-feeling quality that appears through the judgment and the judgment itself do not come into and go out of being at the same time, there is no guarantee that the judgment will be infallible. It is for precisely this reason that experts are superior in judgment to non-experts, and that the falsehood of the non-expert's judgments cannot be explained away in terms of truth relativism. Even Protagorean expertise, then, violates the Flux Thesis. Concerning all anticipations about the future—or any other judgment about a non-present moment—only the expert will be the measure of what will be.

The argument begins where it left off—Protagoras must concede some kind of expertise and error exists. As Protagoras formulated it, the judgments of the expert and the judgments of the non-expert must be equally infallible, which means that the superiority of expert must not consist in knowledge—in their judgments corresponding with what is.¹⁸⁷ Instead, it will have to hinge upon the ability of the former to transform a worse state into a better one, and the inability of the latter to bring about the same transformation.

However, this ability to bring about a change from better the worse states requires a judgment on the part of the expert—in particular, the expert will have to anticipate what the future will be like as a result of whatever regimen the expert recommends.

The account would stand most firmly in the way we sketched out in coming to the aid of Protagoras: how many things seem to someone is how each thing is—hot, dry, sweet, and everything of that sort. But if Protagoras will concede that one person exceeds another in something, he would be willing to say concerning health and sickness that not every woman and child, and animal also, is equally able to heal itself and knows [γινῶσκον] what is healthy for it. In this, if anywhere, one person exceeds another. (171d10-e8)

The expert's practical ability to generate a change from sickness to health in some patient results from that expert's various judgments about sickness and health, such as what drugs will bring about that change and what foods will preserve health in a healthy person. The doctor therefore is not just superior in ability, but is also superior in *gignōskon*—another word that would normally be translated as knowledge but is not the

¹⁸⁷ The relevant sense of truth throughout this entire section—with one important exception that I will discuss in the following—is the infallibility of the appearance insofar as it perfectly corresponds with what is. The ontologically relative sense of truth that corresponds with particular appearances of truth and falsehood within individual judgments only comes up in one instance, and is rejected as not solving the basic problem confronting the account.

same as *epistēmē*—or to put it differently, the judgments of the doctor that correspond with his or her ability are also superior to the analogous judgments found in non-experts.

Something analogous is true politically:

Soc: Some of these [political questions] are questions of admirable or shameful conduct, of just and unjust, of pious and impious; and here the theory may be prepared to maintain that whatever view a city takes on these matters establishes as its laws or convention, is truth and fact for that city. In such matters neither any individual nor any city can claim superior wisdom. But when it is a question of laying down what is to the interest of the state and what is not, the matter is different. The theory will again admit that here, if anywhere, one counsellor is better than another; here the decision of one city may be more in conformity with the truth than another. It would certainly not have the hardihood to affirm that when a city decides that a certain thing is to its own interest, that the thing will undoubtedly turn out to be its interest. (172a1-b3)¹⁸⁸

Cities too form judgments about what is advantageous (*ta sumpheronta*) to the city.

However, all such judgments are not equivalent, and the political expert will, as Protagoras himself said, ensure that the judgments of the city on such matters are subjectively experienced by the city as leading to good rather than bad outcomes in the future. What Protagoras did not explicitly say in his account of expertise, however, is that the practical ability of the expert to bring about better perceptions requires a corresponding *set of judgments* about how the change is to be enacted. And these judgments of the expert are superior to the judgments of the non-expert.

Judgments that admit of expertise differ from judgments that do not admit of expertise because the later are concerned with states of affairs that do not yet exist. As a result, the Flux Thesis is entirely incapable of accounting for such judgments: the quality that is “perceived” in the future judgment does not come into and go out of being along

¹⁸⁸ With slight modifications, this translation is from the Levett/Burnyeat.

with the judgment concerning that quality. Following a lengthy digression from 172c-177d,¹⁸⁹ Socrates says:

Soc: Come then, let's ask Protagoras or anyone else that says the same things: "Man is the measure of all things, as you people say, Protagoras, of white, of heavy, of light, and not one thing of this sort is excluded. For he has the criterion of each of these in himself whenever he thinks that things are as he experiences them, he thinks the truth and being for him." Is that so?

Theo: It is so.

Soc: Concerning the things that will be in the future, Protagoras, we shall say, does he have the criterion in himself, and whatever things he thinks will be, do these things also come to be in the way he thought they would? Take heat, for example. Whenever someone thinks he is going to take a fever—that this heat will be—and someone else who is a physician thinks the opposite, which of the two judgments should we say will turn out in the future? Or perhaps the opinions of both will turn out, and to the doctor neither the heat nor the fever will come to be, but to the other both will?

Theo: That would be ridiculous. (178b2-c9).

What color something is, what is just right now in the city,¹⁹⁰ the heaviness of some object, how some prepared food tastes to an eater—all such qualities are located in the present, and as a result there is no special difficulty for the Flux Thesis to argue that these qualities come into and go out of being along with their perception. The interaction of the

¹⁸⁹ In this work, I will not be concerned with how, or if, the digression into the two ways of life that breaks up the refutation of the Flux Thesis fits into the broader argument of the dialogue. For more substantial discussion of its role in the dialogue, see for example Cornford (1935: 81-89), Benardete (1984: 129-133), Burnyeat (1990: 31-9), Bradshaw (1998), and Sedley (2004: 62-65).

¹⁹⁰ Socrates says that many who do not adopt the full Flux Thesis nevertheless believe judgments concerning moral matters are ontologically relative in the way that the theory postulates. Cornford (1935: 82-3) argues that this commonsensical view differs importantly from Protagoras' in one important respect. Protagoras allows that the ethical qualities are as real as any other. According to the Flux Thesis, all qualities are relative to the individual or city, and this is not a mark of their unreality, only an indication of how their reality is to be understood. The more general relativist, however, argues that ethical values have no reality and are not natural, unlike other qualities that are real and natural. Protagoras' epistemic relativism perhaps surprisingly preserves the reality of ethical values, insofar as anything has reality on that schema, and in this respect sharply differs from the moral relativism or conventionalism of those like Callicles and Thrasymachus. McDowell's (1973: 173) counterargument against Cornford has not properly understood that, according to the Protagorean Flux Thesis, there is an "objectively correct", i.e. true, fact of the matter about what justice. It is just that there are many different objectively correct facts of the matter, none of which contradict one another insofar as they are all relativized to specific individuals.

slow receptive and slow active motions that gives birth to a perception always takes place at a particular time, and the quality and perception generated out of that interaction also only endures within the present scope of that interaction.

In contrast, the expertise found in doctors, statesmen, and all others of that sort concerns what will come to be in the future.¹⁹¹ The ability of the Protagorean expert to enact a change from worse to better states requires that the better states not exist at the time that the expert begins attempting to bring about the change—or if the expert is trying to prevent a worse state from coming to be, then the worst state concerning which he or she judges must have not yet come to be. The Flux Thesis does not entail that the future will infallibly come to be as it seems to someone that it will.¹⁹² To be sure, the theory does entail that how it seems as if it will come to be in the future is infallible—that is to say, each person is infallibly correct about the content of their own judgment concerning the future. It is infallibly the case that, if patients think that they will have a fever in the future, then they really do think that they will have a fever in the future. But

¹⁹¹ The winemaker will be better at determining how some wine will be perceived by himself or another (178c-d), the musician how some tune will be perceived (178d), the cook how some meal will be perceived (178d-e), and Protagoras and the other sophists will be able to predict how some piece of oratory will be perceived in the assembly or court (178e).

¹⁹² An alternative reading of this argument is found in Sedley (2004: 88), who argues that the Protagorean expert requires a “causal understanding of how they will bring about their results” that Protagoras’ account of expertise cannot supply. Against this reading, it is striking that Socrates at no point ever suggests the expert *understands* causes better than the non-expert, at least in any technical sense. The expert knows what action will, or at least is likely to, bring about a particular good effect for the patient. However, Socrates never suggests that the expert somehow knows *why* or *by what mechanism* the cure will be successful. Instead, Socrates’ focus is on the simple fact that the doctor possesses this ability—the expert will get it right far more often than the non-expert (178c-e). The question of causes seems to me to be deliberately excluded from the discussion—the experts’ better judgment might be the result of understanding how active and receptive motions interact, though how this understanding can be squared with the Flux Thesis is unclear, but it also might not require such a rigorous account. Prior to defining knowledge, it will be impossible to answer this question rigorously, leading Socrates to focus his critique solely on whether the quality in question is immediately present to the perceiver in the way required by the Flux Thesis.

they are not thereby infallible concerning what will in fact come to be for them at a future time.

Protagoras cannot call upon truth relativism or a broader ontological relativism to restore the infallibility of future judgments. It cannot be the case that, for the doctor, the patient has a fever as was predicted by the doctor, but that for the patient, the patient does not have a fever as was predicted by the patient. The doctor's prediction and the patient's prediction both concern the same non-relative thing—what infallible perception the patient will have in the future. It is important to remember that the patient in the future and the patient in the present are not the same person according to the Flux Thesis. The measure of what the patient in the future will experience is not what the patient in the present predicts, but rather what the future-patient in fact actually is perceiving at that future moment. If the patient in the future perceives him or herself to have a fever, then it is *infallible* that the fever has come to be for the patient in the future. The doctor does not claim that the patient will seem to the doctor as if the patient has a fever, but that it will seem to the patient in the future as if the patient has a fever. The measure of the predictions of both the doctor and the patient is the infallible future perceptions of the patient in the future, who will either perceive him or herself to have a fever, or will not.¹⁹³ Indeed, the infallibility of the patient's future perceptions was the crucial feature of Protagorean expertise, which attempted to preserve the “man is the measure” doctrine by

¹⁹³ Cornford (1935: 92) and Williams (1992: xii) makes this same point. Williams puts it particularly well when he says: “... Socrates points out that any claim [that Protagorean expertise exists] involves predications, and a predication about future Protagorean certainties cannot itself be a Protagorean certainty... In the case of the future... nothing can eliminate the fact that two people have conflicting beliefs, and there is nothing such as immediate experience to guarantee that one rather than the other is right. In these cases, unlike that of immediate experience, the parties are symmetrically related to the subject matter of the judgment—for neither of them is it [the future experience of a quality] peculiarly ‘his’.”

making the patient, and not the doctor, the measure of whether or not a treatment was successful.

Therefore, anticipations about the future are a kind of appearance, but they are not infallible even according to the Flux Thesis.¹⁹⁴ The qualities that appear in anticipations about the future do not come into and go out being along with the anticipation, but rather come into and go out of being as a result of some future perception of the quality. There is at least one kind of appearance/perception/judgment that is not infallible and does not directly correspond with what is. Only the true future judgments of the expert, Socrates finally concludes, are instances of knowledge, *epistēmē* (179b), and thus the full version of the Flux Thesis and Theaetetus' definition must fail on its own terms. All knowledge cannot be reduced to perception, as future judgments, at least, are a kind of "perception" that is not infallible.¹⁹⁵ Only the true future "perceptions" will count as knowledge—the false future "perceptions" will not.

¹⁹⁴ I thus disagree with the reading of McDowell (1973: 178), who thinks that this argument only refutes the unmodified version of the Flux Thesis that does not allow for expertise.

¹⁹⁵ Benardete (1984: 127-9) argues that the discussion, particularly with respect to the status of political judgments, has done more to confuse the difference between perception and judgment than it has done to separate them. On his view, the Protagorean views the opinions within the city concerning the just and unjust from an external perspective. From such a perspective, different cities hold different opinions concerning justice and so it would make sense to say that justice just is whatever a given city says. Internal to the city, however, each city holds its own understanding of justice as being internationally correct in a way that individuals do not hold their perceptions (for instance, the warmth of the wind) as being interpersonally correct, and go so far as to fight wars over different accounts of justice. I am not sure that Benardete is correct about a generally accepted interpersonal perceptual relativity—comedians often joke about couples fighting about whether it is hot or not. It seems plausible that the ridiculousness of such fights is analogous, on a Protagorean view, to the ridiculousness of wars fought on justice's behalf. Even if Benardete is correct on this point, however, he overlooks the way in which future judgments have been shown to be completely distinct from present perception in his analysis and so overlooks the structural distinctions that Plato is beginning to draw between perception and judgment.

Section Nine: The Discovery of Being and of Qualities

By establishing that non-relative true and false judgments exist, Socrates has proven that the full version of the Flux Thesis cannot be correct. The qualities that appear in judgments about the future are not generated at the same time that the judgment about the future comes into being. As a result, such judgments are not infallible and need not correspond with what will come to be in the future.

Despite this failure, however, the overall way in which the Flux Thesis takes the world has not been meaningfully overturned. Whether or not a person will have a fever in the future is still measured by a human being and by an immediate perception. The perceptions of those in the future are what measures the correctness of a future judgments—if the patient perceives himself to have a fever in the future, then those who judged that the fever would occur for the patient have judged correctly. Insofar as the perceptions of the patient in the future concern what is immediately and presently the case for that future-patient, the doctrine that qualities come into and go out of being with the perceptions of the qualities still makes sense of future events just as much as it does present events. The measure of the future is what will be once the future becomes present, and the being of all present moments is still measured by what appears to perceivers, according to the Flux Thesis.

But concerning the present experience of each thing, out of which the perceptions and the judgments about these things come about, it is rather difficult to say these present experiences are not true. But perhaps I am speaking nonsense, for these experiences may be impenetrable, and those who say they are manifest and both are and are knowledge [οἱ φάσκοντες αὐτὰς ἐναργεῖς τε εἶναι καὶ ἐπιστήμας] perhaps say what is, and Theaetetus was not far from the mark to have said that perception and knowledge are the same. So we must get nearer to the matter, as the speech by Protagoras enjoined, and examine the being that is carried away

by knocking on it to see whether it makes healthy or unsound noises.
(179c3-d4)

The Flux Thesis posits that past, present, and future are nothing other than a series or sequence of immediate experiences (quality and perception-instances) each of which is radically particular, i.e. unique and instantaneous. The fact that some judgments about not-yet present qualities are fallible does not directly undermine the Flux Thesis as an account of each present immediate appearances and what is in each present moment.¹⁹⁶

To fully refute the Flux Thesis, it will be necessary to demonstrate the falsity of the radical form of nominalism endorsed by the Heracliteans and the secret teaching. The secret teaching completely abolishes all *being*—the stable endurance of anything over time—in favor of constant *becoming*—change, motion, and flux. The theory takes this commitment so seriously that it effectively recreates all of reality at each moment of time. There is no substantive connection between the objects, qualities, and perceivers that exist at one moment and those that exist in the next. From 181c-183c, Socrates demonstrates that this account of total flux must be rejected in at least one respect. The theory posited two kinds of motions: slow motions, which correspond with what would normally be called objects and perceivers, and swift motions, which correspond with perceptions and what Socrates will formally call qualities, *poiotēs*, for the first time in the dialogue at 182a. While there is no necessary contradiction in positing that the slow motions undergo constant flux, the swift motions themselves cannot undergo alteration, because they must be what all things that do undergo alteration alter *into*. Positing

¹⁹⁶ Benardete (1984: 135) makes a similar point when he suggests that the conclusion of the refutation of Protagorean expertise only establishes that: “all opinion has to submit to the authority of what at some time will be present opinion,” and that as a result “Socrates must show that the grounds for asserting that present opinion is true are groundless.”

otherwise, as the Flux Thesis has done, destroys the intelligibility of reality and language. At a minimum, this refutation establishes that qualities themselves are stable, enduring, and should be characterized as being rather than as becoming.¹⁹⁷ Qualities are universals, or things that can appear in multiple different locations at multiple different times. The being of the quality and the appearances of the quality are thus distinct—the qualities themselves are each singular, but their appearances are many. Being and appearance are therefore not the same thing even in immediate present experiences, which undermines the entire Flux Thesis. While the discussion of future judgments has proved that all appearances are not infallible, the discussion of alteration will prove that no appearance, even immediate present appearances, is the same as the being of what appears.

i. The Distorting Effects of the Language Used to Explain the Flux Thesis

The Flux Thesis uses exceptionally odd language to describe its own position. It uses the language of active and receptive powers, rather than objects and perceivers, and swift and slow motions, rather than qualities and perceptions. Moreover, the theory attempts to avoid any use of “being,” and instead restrict language to only describe how things become. This odd language is necessary, however, owing to the difficult ontology

¹⁹⁷ My reading of the purpose of this argument disagrees with McDowell (1973: 179), who thinks that “the argument of 181b-183b in effect distinguishes the doctrine of total instability introduced in the present passage from the less radical doctrine which turns out to be that involved in the theory of perception.” His argument is that Plato actually accepts the account of perception introduced earlier, and so needs to distinguish the accounts. But as I have already argued, there is little reason to look for an account of Plato’s actual account of perception in this argument give the dialectical structure of the argument. Moreover, the earlier account of the secret teaching included the total denial of being already, which McDowell noted as dissonant at the time it was introduced (see footnote 142). Plato is now drawing out the implications of this requirement and showing how the Flux Thesis has ignored this requirement in attempting to formulate itself. My reading also disagrees with the one offered by Burnyeat (1990:44-5), who argues that central issue is one of whether judgments about perceptual sense data are certain to be true. Certainty, on his reading, is the central issue, though as he acknowledges the way that Plato takes this question for certainty differs from many modern explorations of the same question. On my reading, in contrast, the issue is fundamentally ontological—what, if anything, makes perceptual experience intelligible and so subject to claims about truth and falsehood in the first place?

of total flux that the view wishes to advocate. However, even this language necessarily imports an illegitimate level of rest and stability into the account. When Socrates critiques the ability of the theory to express its own position linguistically, his main purpose is to critique the very intelligibility of the total flux ontology posited by the Flux Theory.

To briefly review, the Flux Thesis rejects the existence of anything that stands still in any respect, including both universal qualities and enduring subjects that would bear those qualities. Each quality-instance is uniquely generated out of an active/receptive motion interaction, and this interaction simultaneously generates the perception of that quality-instance. The “white” quality-instance generated out of this interaction in principle can never occur again. It gets destroyed once the perceiving eye becomes aware of some different color—it endures in neither the eye, the object perceived, nor in any other location, and so does not exist anywhere after the end of the perception. Because of the total destruction of the quality-instance, it is not possible to objectively say that two different color qualities are even similar to one another, as two things can only be similar if they share something in common, and each color quality instance is an entirely unique event unrelated to all others.

Correspondingly, the object must “be” or become nothing other than it is perceived to be for each observer, and so must reduce to its perceptual qualities. The active slow motion, the perceived object, only has a *dunamis*, a potential to become something, independently of actually becoming something through some specific perceptual event. Since the Flux Thesis argues that all qualities are generated out the interaction between a perceiver and perceived object, every determinate quality that could

be affixed to the perceived object is perception dependent. The quality that is perceived comes into being as a result of the perception, and simultaneously causes the object to alter into an—indeed, the only—instance of that quality. As a result, everything is singular, unique and instantaneous, and nothing, neither quality nor object, endures throughout time.¹⁹⁸

Given this requirement, it should be no surprise that any effort to speak rigorously will face numerous difficulties. Language is composed of words that necessarily give the impression that qualities and objects are enduring things that occur at multiple instances of time. When language labels some perception as “white,” the implication of the utterance is that all of the previous perceptions that were identified as “white” had the same perceptual content. For this reason, Socrates went to great lengths to insist that each perception/perceived property pair is entirely unique to the active/receptive motion pair out of which it is generated. We can group these experiences together under the heading “white,” but this grouping is at best conventional. Such conventional language is always necessarily misleading, however, as it gives the impression that the ongoing flow of experience stands still, and that the “sweet” that is experienced now is the same “sweet” that was experienced before.

¹⁹⁸ It is difficult to overstate the extent to which such a metaphysical understanding contradicts the Platonic postulate of the Forms. Indeed, anyone in the sway of such a metaphysical system would be incapable of being moved by the sort of thought-summoners that Plato describes in the *Parmenides* as initiations into the study of the Forms. In the *Parmenides*, the initial recognition of the Forms depends upon recognizing the commonness of some properties—that some properties repeat throughout multiple instances. “Parm: I suppose you think each Form to be one for this reason: whenever many things appear to you large, it seems like some one idea is equally the same in all observed instances [ἐπὶ πάντα ἰδόντι], at which point you deem the Large to be one. Soc: You speak truly (132a1-4).” While to be sure the universal is not identical with Form on my reading, at least not in Aristotle’s sense, it is the initial point of access and insight into Forms. An ontology that denies the universality of properties, as the Flux Thesis does, would thus be incapable of discovering the Forms.

Even with Socrates' constant instance that each perceived quality is uniquely generated as a result of each perceptual encounter, however, this language still illegitimately imports rest and being into the account, and so is misleading. At the end of the presentation of the secret teaching of the Flux Thesis, Socrates stated:

As a result of all these things, just as we said at the beginning, nothing is one, itself by itself, but rather everything is always becoming, and being must be removed in every way, though we many times before were compelled by habit and lack of learning to use it. But according to this wise account, it is necessary not to allow someone to say "something," "someone's," "mine," "this," "that" [οὔτε τι συγχωρεῖν οὔτε του οὔτ' ἐμοῦ οὔτε τόδε οὔτ' ἐκείνο οὔτε], or anything else that would make a name stand still. Rather, according to nature we must say "becoming," "making," "being destroyed" and "becoming other." (157a8-b7).

Language still requires human beings to say that each quality and the perception of that quality *is* unique and that it *is* coming to be and passing away constantly. This illegitimate usage of being in the language used to describe the Flux Thesis gives the impression that time is composed of an infinite number of discrete points, each following the other in succession, and that at each time a stable quality and perception emerges. On such a reading, at some t_1 , an active motion *is* and *is perceived* to be a unique quality-instance. In the immediately subsequent t_2 , the active motion *is* and *is perceived* to be some other, mutually exclusive unique quality-instance.

The above passage directly excludes the possibility of such a reading. If the world really is composed of these unconnected but individually stable temporal moments in the way the language used to express the Flux Thesis implies, then no change ever actually occurs. There would simply be one stable, resting moment, and then a new stable, resting moment. Within each moment, there is no change, motion, or flux whatsoever. And while each moment is *different* from the last moment, this fact does not entail that there is

actually a *change* from moment to moment. One thing following another does not entail that the one thing has changed into another.¹⁹⁹ To truly abolish being and replace it with becoming, there must be continuity and blending between the various moments of time such that it will be impossible to ever uniquely pick out one moment in which any one thing has—or to speak more precisely, *is*—any one determinate quality. Only in this way will it be possible to abolish “one”, “being”, “this”, “that”, and all other such locutions as is demanded by the Flux Thesis. Whether or not it will ever be possible to accurately speak in a way genuinely in accordance with this requirement is an entirely different matter.

While Socrates frames the final refutation of the Flux Thesis in terms of the linguistic inability of the Flux Thesis to express its own position, the basic difficulty confronting the view is fundamentally ontological, and the linguistic problem merely reflects the ontological situation that the Flux Thesis creates.²⁰⁰ The theory demands that the world be such that it is never actually the case, even for an instant, that things *are* one way, rather than another. This result directly threatens the intelligibility of reality, and in so doing, threatens the intelligibility of the language used to express that reality.

¹⁹⁹ This point will be developed in substantially greater detail and justified in the following. See especially Sec. 9.iii.

²⁰⁰ This point is important: Sedley (2004), for instance, argues that some historical Heracliteans might well have attempted to restrict their language in ways consistent with what would have been required by the Flux Thesis. The full strength of the argument must be ontological: it is wrong to *say* that everything is flux (or, as the case may be, to refrain from speaking at all because everything is flux) because there will not *be* anything to be in flux at all on that thesis. Silverman (2000: 132-3) argues that even in this case the Heracliteans would have *operationally* self-refuted themselves insofar as a view is operationally self-refuting if it is impossible to be presented in a consistent way.

ii. *The Absurdities that Will Follow if “What It Is To be White” Alters*

The refutation of the Flux Thesis demonstrates that the sort of total flux demanded by the theory destroys the intelligibility of reality, language, and even perceptual experience itself. The secret teaching used the swift motions—qualities—to make sense of the changes that the slow motions—objects—undergo. When the theory attempts to extend the scope of total flux to the qualities themselves, however, and forces qualities themselves to change, then change itself becomes unintelligible and incoherent.

To see why, we must first discover why the Flux Thesis relies upon unique and instantaneous quality-instances to keep everything in motion. Because all qualities are structurally incapable of enduring, no object stands still either. There are two distinct kinds of *kinēsis* or motion: spatial motion, and alteration.²⁰¹

Soc: Tell me, do you call something “moving” whenever it changes from one place to another, or it turns around in the same place?

Theo: I do.

Soc: Then this is one form [εἶδος] of motion. And whenever something is in the same place, but grows old, or becomes black from white or hard from soft, or undergoes some other alteration [τινα ἄλλην ἀλλοίωσιν ἀλλοιῶται], is it not appropriate to call this another form of motion?

Theo: It seems so to me.

Soc: It is necessarily so. I say there are these two forms of motion, something altering [ἀλλοίωσιν,] and something moving spatially [φοράν].

Theo: You speak correctly. (181c6-d8).

Both of these kinds of motion, alteration and spatial motion, were present in the secret teaching of the Flux Thesis. The slow motions move spatially, and also alter when they become the quality and perception-instances generated as a result of the interaction

²⁰¹ This same point is made at *Parmenides* 138c as well.

between a relatively active and a relatively receptive slow motion.²⁰² Moreover, the swift motions, the quality and perception-instances, also move spatially. Their name, swift, precisely comes from the fact that the quality and the perception instantaneously travels the spatial distance between the perceiver and perceived object. By emphasizing the uniqueness of each quality-instance, the Flux Thesis ensures that the active slow motions are always altering—changing qualities—at all times, because the qualities that the active slow motions become themselves do not endure over time.

It is to clarify the central explanatory role of the quality in the Flux Thesis’ account of the world that Socrates finally invents the Greek word that comes to be translated as “quality,” *poiōtēs*—literally, what-sort-ness.

Soc: As we were saying, do they hold that the genesis of things such as warmth and whiteness occurs when each of these flows [φέρεσθαι], together with a perception, in the space between the active and receptive [slow motions]: and the receptive slow motion becomes a perceiver, but not a perception, while the active slow motion becomes some sort, but not a *poiōtēs* [the sort-ness itself]? But perhaps ‘*poiōtēs*’ seems a strange word to you; perhaps you don’t quite understand it as a general expression. So I will talk about the particular case. For the active slow motion becomes not warmth or whiteness, but a warm and a white; and so on. For you will remember, perhaps, that we said this at the beginning of the argument: that there is nothing which in itself is just one thing, including neither the active nor the receptive slow motions. It is by the association of the two with one another that they generate perceptions and the things perceived [qualities]; and in so doing, the active slow motions become this sort, and the receptive slow motions become perceivers. (182a3-b8)

²⁰² See Section 6.iii, especially pages 96-100. The language has changed subtly between the secret teaching and this passage here, though I don’t think the difference is substantive. In the secret teaching, at 156c, I took *en tō autō* to refer to relatively slow and small spatial motions—I translated it as “in the same general location”—and *pros ta plēsiazonta* to refer to alteration that occurred as a result of the relationship between the active slow and receptive slow motions. In this passage, *en tō autō* is used to refer to either rotational spatial motion, or alteration. However, Socrates is here introducing with more precision and care a distinction that was only present implicitly in the earlier account, and irrespective of the language used to describe it, the slow motions clearly move spatially and alter in the secret teaching. See also footnote 128.

The *poiotēs* explains what sort the perceived object actually becomes. A given active slow motion becomes warm *because* the warmth quality moves back and forth between the object and the perceiver. We couldn't say that the object is "a warm thing," and the object wouldn't be a warm thing, were it not for the way that warmth "fills" or activates the potential of the object to be a warm thing. Moreover, when the object alters, when it stops being a warm thing and becomes instead a cold thing, the qualities warmth and coldness explain this transition—the warmth that was "in" the object vanishes and is replaced the newly generated coldness quality.

However, the secret teaching of the Flux Thesis never considered the question of whether or not these qualities must themselves alter along with the objects whose alteration they explain. As a result of distinguishing spatial motion from alteration, Socrates now says that the Flux Thesis is committed to everything undergoing both kinds of motion.

Soc: Which of the two do you [advocates of the Flux Thesis] say: all things move in both ways, moving in space and altering, or some move in both ways, others in one?

Theo: By the God, I can't say. I think they would say in both ways.

Soc: But if not, my friend, it will appear to them that things moving are resting [ἔστῶτα], and it will be no more correct to say that all things move than that all things rest.

Theo: What you say is altogether true.

Soc: So since it is necessary that everything move, and that not moving is impossible for all things, all things are always moving in every kind of way. (181d11-182a1)

If all things are undergoing both kinds of motion, then the swift motions will have to alter in addition to moving spatially.

Before proceeding, it will be worthwhile to figure out precisely why the Flux Thesis is committed to the complete motion of all things. It is not the case that the Flux Thesis is committed to motion over rest and to the complete elimination of rest simply because its partisans are obstinate, or because these partisans possess an arbitrary preference for the one rather than the other.²⁰³ Though its partisans are in fact described as obstinate and so idiosyncratic that it is impossible to speak with them, Socrates and Theodorus have agreed to take the argument out of their hands and to investigate the matter responsibly (179e-180c). Rather, the theory is committed to everything—qualities included—undergoing alteration because to say otherwise would destroy the theory. If the quality-instances didn't alter but only moved back and forth in space between the perceiver and perceived object, then the qualities would necessarily have to endure throughout time, since being destroyed is itself a kind of alteration. If the quality was allowed to resist alteration in this way, then it presumably would continue to exist after the end of the perceptual event, and the being of the quality would be different from the appearances of the quality.

If the *poiotēs* explains the alteration undergone by the active slow motions, what will it mean if the *poiotēs* itself must undergo alteration?

Soc: Then if it moved only spatially, but didn't change, we could say what sort of spatial motion it flows [i.e. is].²⁰⁴ Or how should we say it?

Theo: That way is fine.

²⁰³ As is argued by, for instance, Cornford (1935: 95) and Lee (2005: 111-7). Sayre (1969: 93) and McDowell (1973: 180) also seem to understand the argument in this way. Burnyeat (1990: 49) and Sedley (2004: 90) agree with my basic contention here that the totalizing flux posited by the Heracliteans cannot merely be understood as some idiosyncratic extremism of particular Heracliteans. They both argue that this passage should be read as attempting to determine, to quote Sedley, "how radical the flux needs to be in order to preserve the definition of knowledge as perception."

²⁰⁴ See Levett/Burnyeat n 38 on this particular translation.

Soc: But since not even this remains, that the spatial motion flows white, but it changes [μεταβάλλει], so that there is flux of this very thing, the whiteness, and a change into another color, in order that this color not be caught standing still, is it possible a name to a color and properly address it?

Theo: By what contrivance, Socrates? (182c7-d7)

There are two possible subjects that could be under discussion in this passage. Either the “it” that is discussed as “flowing” refers to the objects—the active slow motions—or the qualities—the active swift motions. A great many commentators think that what is being discussed is the alteration undergone by objects on this account.²⁰⁵ The problem with this interpretation, however, is that has already been well established that objects both alter and move spatially. The passage quoted immediately above this one literally says that the active slow motion becomes a warm thing because of the way it is “filled” by warmth itself. There is no problem in that passage with saying “warmth” and “a warm thing,” or even with describing the alteration from “a warm thing” to a “a cold thing.” The only thing that would cause a problem is if the thing that explains this alteration, warmth and coldness *themselves*—were altering and so no longer able to explain concrete instances of alteration. The far more plausible subject of this argument, then, are the swift motions, which were previously described as moving spatially in the secret teaching and in the above passage, but which now have been discovered to also alter.²⁰⁶

I will first discuss in more depth what is wrong with interpreting the subject of this argument as objects, since the difficulty this interpretation encounters is helpful for

²⁰⁵ A reader who is exceptionally forceful in favor of this sort of reading is Boter (2007).

²⁰⁶ Coincidentally, the only thing that is described as “flowing” in the passage that introduces the *poiētēs* is the swift motions, and not the objects. Objects are not explicitly labeled as moving at all—they are simply referred to as the active and the receptive—calling them active and receptive motions is added by me to make the connections with the secret teaching easier to see. I do not take this point to be decisive, since it would remain entirely appropriate to attribute the language of flowing rather than being to objects too, but it does offer further credence to my reading.

making sense of my interpretation. On the usual interpretation, this argument is noting a difficulty that occurs with making sense of the alterations undergone by an object over time. At t_1 , the active motion flows white, while at t_2 , it flows not-white, where t_2 occurs immediately after t_1 .²⁰⁷ On this interpretation, the difficulty the argument would be trying to get us to notice is that it is practically impossible to pick out a determinate quality because of how briefly each quality would manifest in any object.²⁰⁸ But the argument is invalid if we assume this understanding of the change. So long as we specify precisely which time (t_1 or t_2) we meant in saying “it was white,” our language seems perfectly capable of addressing and naming the color—at least, as capable as it is of naming anything given the denial of all common qualities.²⁰⁹ If interpreted in this way, the

²⁰⁷ Silverman (2000: 144-5) calls this the Successionist interpretation.

²⁰⁸ Sayre (1969: 93), for instance, writes that “Given a literal construction of the claim that all is in motion, it follows that there is no fixity with respect either to position or to property of any object in the universe of change. This being the case, no statement predicating a property of an object will remain true from one moment to the next.” Day (1997: 64) adopts the same basic reading. As does Sedley (2004: 95), who says “Given that things’ colours and other perceptual properties are not the same for any length of time whatsoever, whereas even a single word necessarily takes time to utter, no attempt to refer to a colour can be judged any more successful than unsuccessful.” Benardete (1984: 139) ultimately concludes the same: “the irreducible time lapse between the now of utterance and the now of perception warrants the conclusion that no possible revision of language could satisfy the requirements of the doctrine.” However, as I will discuss in footnote 218, the argument that Benardete uses to arrive at this conclusion closely matches the ontological point that I will make in the following.

²⁰⁹ Cornford (1935: 99) raises this objection: “The total complex—perception + object—may be changing, but if it yields knowledge at any moment, it does so at all moments. We are merely aware of slightly different objects in a slightly different way from moment to moment.” He responds this objection by suggesting that even the meaning of words have to be changing on the Heraclitean view, which nevertheless means that nothing can ever be expressed linguistically. “But the Heraclitean says that nothing ever remains the same. Plato’s point is that, if ‘all things’ without exception are always changing, language can have no fixed meaning.” Thus, Plato invokes the Forms, which are capable of being the stable referent of language even in an unintelligible perceptual world. Chappell (2013) also raises the objection when she says: “It is obvious how, given flux, a present-tense claim like ‘Item X is present’ can quickly cease to be true, because e.g., ‘Item Y is present’ comes to replace it. But it isn’t obvious why flux should exclude the possibility of present-tense statements like ‘Item X flowed into item Y between t_1 and t_2 ,’ or of tenseless statements like ‘Item X is present at t_1 , item Y is present at t_2 .’” Chappell prefers Cornford’s interpretation of the argument. My objection to Cornford’s reading is that Plato does not ever speak of the meaning of words changing—unless, as I will argue, the meaning of words would have to change because the meaning of the *referent* of the word, the quality, is changing. Bostock (1988: 105-6) also raises this objection to the Successionist interpretation: “So long as we do have a language with stable meanings, and the ability to make temporal distinctions, there is no difficulty at all about describing an ever-changing world.” Silverman (2000: 146-7) also raises this objection, and offers an alternative reading that is closely aligned with my own.

argument is invalid precisely because the qualities themselves maintain an internal stability and intelligibility of their own. As such, they are still capable of explaining, and of being used in the course of naming, the incredibly frequent alterations of active slow motions. While language would become relatively pointless, and it would be incredibly difficult to say anything true on this model, it would by no means be impossible to speak and say anything determinate, which is the conclusion that Socrates eventually draws from this stretch of argument.

If we assume that the thing undergoing alteration is the quality itself, then the argument and the conclusions that are supposed to follow from it suddenly make perfect sense.²¹⁰ The Flux Thesis has been able to say that the object is able to be white at t_1 and not-white at t_2 because whiteness itself is something stable that “fills” the object at t_1 and that stops at t_2 . But if what it is to be a white thing, whiteness itself, were altering, then it would not even be the case that it is a white thing at t_1 . Whiteness itself must become something other than itself, if the swift motions themselves are altering.²¹¹ On this

²¹⁰ Against this reading, see Boter (2009), who argues that the change in question must refer to the perceptual object. Boter fails to read the Flux Thesis as a whole, however, and his understanding of how perception is working in the argument therefore fails to account for the Flux Thesis as was earlier described in the text. He thus overlooks the fact that the quality-instance is itself a spatial motion and so could be the subject of the change (*metaballein*) in the above-quoted passage.

²¹¹ Cherniss (1936: 9-10) comes close to this interpretation of the passage when he says “... not only are all things constantly changing their characteristics but the characteristics themselves are constantly altering, and ‘whiteness’ can no more be really ‘whiteness’ than any other color.” However, Cherniss does not seem to understand the “whiteness” in question as being the what-sort-ness of the unique and instantaneous color quality generated out of flux, but rather as some sort of universal quality, something rightly objected to by Sedley (2004: 92 n5) as not having a place in the Heraclitean ontology. Nevertheless, if the “whiteness” in question is understood as the concretely unique color-instance, I take Cherniss’ reading to be correct, insofar as even that color-instance is no more a white-instance than a not-white instance. The analysis of McDowell (1973: 181) similarly seems to be at root correct, though with the same qualifications. McDowell says that “the thing in question [some white] can no longer be identified as that colour, i.e. as whiteness... we deprive ourselves of the possibility of identifying any colour: the supposition that colours change colours renders senseless our purported identification of colours. Generalizing still further, we deprive ourselves of the possibility of identifying anything ‘of that kind,’ i.e. any quality.” My interpretation of McDowell thus disagrees with the interpretation suggested by Chappell (2013), who understands McDowell’s argument as analogous to Sedley’s (2004). For the distinction between these two

interpretation, the argument will then be valid insofar as it will never be correct at any instant of time to say anything determinate about anything, because what things become at each moment of time will itself be indeterminate. As a result, there is a very real sense in which perceptual appearances would not even appear at all according to the Flux Thesis—at least, they will never appear as some one way rather than another.

iii. The Exaiphnēs Argument of Parmenides and the Alteration Argument in the Theaetetus

In further support of my reading of the alteration argument, I will also present some connections between this argument in the *Theaetetus* and the *exaiphnēs* argument found in the exercises of the *Parmenides*.²¹² My reading of the alteration argument does not depend upon anything in the *Parmenides*, and I take it to be justified for the textual and philosophical reasons that I indicated above. However, juxtaposing the *exaiphnēs* argument with the alteration argument in the *Theaetetus* will offer even further support for my reading, and will also help understand why things being different between t_1 and t_2 does not necessarily entail that there has been a change from t_1 to t_2 .

interpretations, the quality qua universal and quality qua unique, see also Silverman (2000: 143). However, Silverman does not think this distinction matters for the argument. Our readings, which are otherwise quite similar, differ in this regard. I think that the argument thus establishes that all intelligible what-sort-nesses will necessarily have to be common qualities, as will be introduced in the next section. Silverman, in contrast, jumps immediately to the Forms insofar as he does not see the discovery of common qualities as itself an accomplishment in the text.

²¹² I have two general methodological justifications for turning to the controversial exercises of the *Parmenides* at this juncture. First, the central issue at play in both the alteration argument and the *exaiphnēs* is the same—how can *metaballein*, change, be understood with respect to the passage of time? Second, the *Theaetetus* itself refers to the teachings of Parmenides and the meeting between a young Socrates and the elder Parmenides immediately prior to and following the alteration argument, at 180d and 183e. Plato uses the narrative framing of the dialogue to flag the he intends an interconnection between the alteration argument in the *Theaetetus* and the *exaiphnēs* argument of the *Parmenides*. In particular, since the passage at 183e suggests that the argument in the *Parmenides* possess a deeper profundity than the one found here, it is entirely appropriate to turn to the more in-depth argument in order to make sense of a more superficial argument.

The purpose of the *exaiphnēs* argument in the *Parmenides*, at least in the local context of its introduction, is to make sense of the change (*metaballein*) that occurs when a subject changes from possessing one quality to possessing another. Though this specific example addresses the qualities of spatial motion and rest, the results are subsequently generalized to all qualities.

Parmenides: And whenever moving it comes to rest and whenever resting it changes to moving, it is necessary somehow that it be in no time at all.

Young Aristotle: How do you mean?

Parm: It will not be able to initially rest and later move and initially move and later rest without changing. [1]

Ar: How could it?

Parm: But there is no time in which something is able to both move and rest. [2]

Ar: No indeed.

Parm: But indeed it does not change without changing. [4]

Ar: That is not reasonable.

Parm: So when does it change? For neither when resting nor when moving does it change [3], nor when it is in time.

Ar: No it does not.

Parm: So is there this out of place thing, in which it would be when it changes?

Ar: What sort of thing?

Parm: The instant [τὸ ἐξαιφνης]. For the instant indicates something that changing occurs from one condition into the other. For it does not change from rest while still resting, nor from motion will still moving. Rather the instant, an odd natured thing, sits between the motion and rest, being in no time, and into this and out from this moving changes to resting and resting changes to moving. (156c1-e3)

While precisely how the Instant should be interpreted and its status in the rest of the *Parmenides* is debated, these debates need not concern us here.²¹³ What will be useful for interpreting the refutation of the Flux Thesis, however, are the premises of the argument that leads Parmenides to first posit the Instant. These premises are themselves relatively straightforward.

²¹³ I find the interpretations offered by Miller (1986) and Sanday (2014) particularly compelling.

- (1) If something possess one quality at one time, and an opposite or contradictory quality at a subsequent time, then the thing must necessarily undergo a change.
- (2) The relevant qualities are temporally exhaustive, insofar as the two qualities are contradictory or opposites: at all times, something either moves or rests.
- (3) The changing between the two qualities is something different from either quality.
- (4) Nothing changes without undergoing the quality of change.

Premise (3) requires a brief note. The premise posits that the quality of moving and the quality of resting each have an individually intelligible nature, and that these natures are something different from the nature of changing between those two states. The quality of spatially moving is something different than the quality of changing between motion and rest (or vice versa), and the quality of resting is something different than the quality of changing between rest and spatial motion (or vice versa). Thus, the quality of changing between the two must be some different state than either moving or resting.

As a result of these four premises, each of which is individually compelling, Parmenides claims we are left in a seemingly unsolvable dilemma. There is no time when it is possible for the object to actually undergo a change between the two qualities, since at each moment in time the object will be one quality or the other. The only way out of the dilemma, Parmenides concludes, is that there must be some Instant that is not a moment in time in which the thing undergoes change—which is to say, some atemporal Instant in which the thing is neither in motion nor in rest and so is able to be in the intermediate state of changing between the two. This conclusion is acceptable because the two states are only temporally exclusive, and something capable of moving outside of the register of time, whatever such movement would actually entail, would be free to be in neither condition. Change happens, this argument in the *Parmenides* concludes, by not occurring in or as any concrete temporal moment. This move allows for change to remain

an intelligible state while still preserving the intelligibility of the determinate qualities found within each temporal moment. Again, I will not be concerned with interpreting this argument at such, my only interest here is in the paradox that gives birth to it.

Let us now ask the same question of the Flux Thesis. At what time do the active motions actually undergo change (*metaballein*)? If it is assumed that quality instances do not alter, then at each moment of time the active motion is something determinate—for instance, a white—and the active motion is clearly not changing at that instant of time. Nor is it changing in the immediately subsequent instant when the active motion is something mutually exclusive—a not-white. At both temporal instants, the active motion is white or not white, and neither whiteness nor non-whiteness are identical with the quality of change. On the assumption that qualities do not alter, there is no moment in time in which the active motion ever actually changes.

Could the Flux Thesis then accept the conclusion of the *Parmenides* that change does not occur in any temporal moment? Indeed, it could not. The central claim of the Flux Thesis is that everything that is also appears. Since everything changes, then that change must appear, and all appearing happens at a temporally present moment of time. So if things change, then changing must both be and appear in temporal instants. Since change never appears in any specific temporal moment and can't occur atemporally, is the Flux Thesis paradoxically be forced to contend that change never actually happens?

To ensure that everything is changing at all times, Flux Thesis will have to reject one of the four premises that motivate the *exaiφhnēs* argument. The third premise of the *exaiφhnēs* argument rested on the contention that what it is for something to change between resting and moving is different from what it is for something to rest and from

what it is for something to move. An advocate of the Flux Thesis could reject this third premise. Everything, the theory already claims, is becoming, both moving and altering. So it should contend that everything, *including qualities*, could be considered as essentially changing. Becoming not-whiteness would be “part” of what it is to be white. The Flux Thesis could therefore argue that the active motion appears and is changing at each moment of time, because the quality that it becomes in each instant is just as much a change from whiteness to not-whiteness as it is whiteness itself. On this interpretation, the Flux Thesis would have to endorse the view that the quality or what-sort-ness into which the active motions become must itself also undergo constant alteration. The paradox that underlies the *exaiphnēs* argument thus provides indirect support for the reading of the alteration argument in the *Theaetetus* that I have been endorsing.

iv. The Return of the Compresence of Opposites and the Unintelligibility of the Flux Thesis

If my interpretation of the alteration argument in the *Theaetetus* is correct, Socrates has forced the Flux Thesis to concede that the “swift” quality-instant motions are undergoing alteration in addition to spatial movement. Not-whiteness and whiteness are fundamentally blended together such that whiteness will never be separate from not-whiteness. As a result, the alteration argument indicates that the active slow motions suffer from the compresence of opposites—or more precisely, the compresence of mutual exclusives.²¹⁴ It will be just as correct to say that the active slow motion becomes a white as it will be to say that the active slow motion becomes a not-white, because the white quality itself is just as much a not-white quality.

²¹⁴ Whiteness and not-whiteness are not formally opposites—the opposite of whiteness would be blackness—but rather mutually exclusive states.

As was discussed earlier, normally in Plato's writings this sort of compresence does not threaten the intelligibility of the world.²¹⁵ For instance, the seeming contradiction involved in the finger being both tall and short can be resolved by differentiating the various respects and relations in which the finger stands. In each of these respects and relations, it will be true that the finger is either tall or short, but not both. Thus, the finger can be intelligibly understood insofar as tallness and shortness—what it is for something to be tall and short, whether conceived of as Forms or in any other way—are not themselves mixed together in any respect.

As a result of the alteration argument, however, the Flux Thesis cannot resolve the appearance of mutually exclusive qualities in the active slow motions by dividing the objects into respects, times, or relations. The quality that the active slow motion becomes is unique and particular to this specific appearance. According to the theory, there is no universal or common white-quality—indeed, there is no white quality at all outside of this particular appearance of that quality in a given perception. If that quality *itself* is altering, then whiteness is blended with not-whiteness and so cannot serve as a criterion by which the various times, respects, and relations of objects can be divided from one another to resolve the unintelligibility of the compresence.

Indeed, even calling this a “compresence” at all is misleading. There aren't two qualities, a white-quality and not-white-quality, both present in the active motion. The white quality itself is both, which amounts to the same thing as saying that it is neither. There is nothing concrete, distinct, or definite about the actual quality such that it could

²¹⁵ Discussed throughout Chapter 1, especially in Section 2.

ever be pinned down as being one sort of quality rather than another. Indeed, according to Socrates the only language left to the Flux Thesis that in any way corresponds with the ontological situation is to say something like things are “not any-such way” (183b5).²¹⁶

An analogous unintelligibility swiftly overtakes the slow receptive motions. Each kind of perceiver, like the eye or ear, cannot become the perceiver of some one kind of perception, as the Flux Thesis has argued. Like the qualities, the swift receptive motions or perceptions must also be altering. What it is to be sight must itself be altering into other kinds of perception, making the receptive slow motion simultaneously receive mutually exclusive kinds of perceptions (182d-e).²¹⁷ Indeed, even the “being knowledge” quality that that the entire inquiry has been concerned with turns out to be just as much knowledge as not-knowledge (182e). Each given quality, and so each given perception of those qualities, will fail to have any determinate content of any sort. It is because of this ontological result that the linguistic impossibility of ever expressing the actual teaching of the Flux Thesis follows: “But this, as seems likely from what was said, did show itself—if everything is set in motion, concerning all answers to whatever question

²¹⁶ The manuscripts differ between (W) οὐδ’ οὕτως and (BT) οὐδ’ ὅπως, neither of which, as Cornford argues in n 2, really works in context. The intended sense, if not the specifics, is generally agreed upon—the only word that Socrates will allow is a negation of any specific intelligible content whatsoever without positing anything intelligible in turn.

²¹⁷ Boter (2009: 39) argues that sight should not be interpreted as changing into some other kind of perception, but rather as being “subject to qualitative change, without leaving the domain of sight.” What this actually means, however, is entirely unclear. There are many different possible color qualities, and so it is possible for something to remain of the color sort while becoming some different color. However, what does it mean for something to undergo qualitative change with respect to its being sight while remaining sight? I do not find Boter’s answer to this question at all compelling, and I do not think his efforts to show how this interpretation makes the argument valid—there are no names for these variable sight-qualities, so sight can just as much called not-sight—works either locally or with respect to the overall conclusion of this section, that perception is just as much knowledge as not knowledge.

someone might ask, it is equally correct to say that it holds thus and not thus, or if you want, that it becomes thus and not thus” (183a5-9).

If the Flux Thesis grants the intelligibility of the world, it has therefore been refuted, because the implication of the total flux that it posits destroys all intelligibility. Even if the Flux Thesis was willing to deny the intelligibility of the world, however, it has been forced to give up the initial motivation that led to its creation in the first place. The initial purpose of the Flux Thesis was to ensure that things are what they seem to be. But the argument has now revealed that things neither are, nor do they seem to be, any particular way whatsoever. No one would ever perceive anything according to the Flux Thesis—at least, anything definite and intelligible.²¹⁸ This result destroys ontological relativity, and so the basic Protagorean model that has been used to interpret Theaetetus’ first definition. In its effort to make immediate experience the foundation of all knowledge, the theory is forced to give up the intelligibility of immediate experience.

v. Implications of the Refutations of the Flux Thesis

The portion of the text from 170a-183b has presented two refutations of the Flux Thesis. First, Protagoras’ overall claim that all appearances are infallible was refuted by demonstrating that judgments about what will be in the future are not infallible. Such judgments are rather either true or false, though precisely how truth and falsehood should

²¹⁸ Several authors who do not interpret the argument in the same way nevertheless arrive at similar conclusions. Benardete (1984: 140) argues that the Flux Thesis destroys the intelligibility of particularized perceptual experience: “If color entirely changed, while seeing remained constant, the correct answer to the question ‘What do you see?’ would not be a color, but simply color. But since seeing does not abide either but is always changing into another sense, which includes the sensations of pleasure, pain, fear, desire, and countless others that are nameless... the correct answer to the question ‘What are you experiencing’ is not ‘I see’ or ‘I am afraid,’ but simply ‘I sense.’” Sedley (2004: 97) comes to the similar conclusion, though in his case it is based upon the word ‘perception’ failing to apply to anything. “If there are no enduring specific perceptions, the generic term ‘perception’ can never be applied to anything actual.”

be understood has not yet been clarified. While this exception to Protagoras' teaching is important, it nevertheless remained the case that these future judgments were measured by appearances—by what will appear at a future present moment. As a result, Socrates argued that a second refutation was needed to demonstrate that the Heraclitean secret teaching was incapable of accounting for even present appearances of the world. This refutation was accomplished by showing that radical nominalism of the secret teaching forces all immediate appearances to be unintelligible—and if unintelligible, then no more knowledge than ignorance.

Soc: Then we are set free from your friend [i.e., Protagoras], Theodorus. We do not yet concede to him that every man is the measure of all things, if he be not a man of wisdom [ὄν μὴ φρόνιμός τις ἤ]. And we are not going to grant that knowledge is perception, not at any rate on the line of inquiry which supposes that all things are in motion; we are not going to grant it unless Theaetetus here has some other way of stating it. (183b9-c3)²¹⁹

Once the conversation resumes, Socrates begins reexamining Theaetetus, and they reconsider his proposed first definition of knowledge again, this time in isolation from the Flux Thesis and other ontological concerns.

I fear that the thing we have begun this argument to discover, what sort of thing knowledge is, will go uninvestigated on account of the disorderly rush of arguments that will occur if someone allows them, especially since the argument we have now awoken is unmanageably multitudinous. It [the ontological analysis] would be done unworthily if investigated on the side, and if considered adequately it will hide the account of knowledge because of its length. We must do neither of these things, but rather we should attempt to deliver with my midwife's art the thoughts concerning knowledge of which Theaetetus is pregnant" (184a4-b2).

But while the Flux Thesis and its refutations are not explicitly mentioned in the final evaluation of the first definition, I will argue that both the theory and Socrates' refutation

²¹⁹ Adopted from the Levett/Burnyeat, with slight modifications.

of it play an important implicit role in interpreting the arguments that follow. As a result, I will end Chapter 3 by briefly collecting the major accomplishments of the theory, and the discoveries that followed from its eventual failure.

First, Protagoras' revised account of expertise from 166d-167d introduced several distinctions that will be crucial for the argument that follows. There are (at least) two different ways that things appear to human beings: via perception, and via judgment. Perceptions and judgments correspond with the receptivity of the bodily sense organs and the activity of the soul, respectively. Protagoras understands both body and soul as different kinds of perceivers. Bodily sense organs perceive the immediate appearance of a particular kind of quality that correspond to that organ. The sick tongue that tastes the wine as bitter can only be improved when that tongue comes to taste the wine as sweet. In contrast, the soul "perceives" by having judgments that admit of learning and expertise. Unlike the tongue, the soul has better "perceptions" by becoming educated, whereas the very idea of "educating" a tongue is, strictly speaking, nonsense.

However, the Flux Thesis misunderstood judgments by conceiving of them as a special class of perception that, despite other differences, can be understood as the result of a purely receptive soul-"organ" being acted upon by the world in various ways. It is for this reason, Protagoras maintained, that all judgments are infallible despite the fact that judgments can be improved with learning and expertise. Socrates' demonstration that future judgments are not infallible has revealed that both judgments and the soul are grossly distorted if understood on the model of sensory perception. What appears to the soul in a future judgment goes far beyond anything that the soul is encountering in the immediate present moment. As a result, the appearance of judgments in the soul involves

a kind of activity that is entirely foreign to the pure receptivity of the sensory organ. For better or worse, the soul has the power to move beyond immediate appearances, and in this way possesses a power far beyond that of the receptivity of immediate appearances found in sensory organs. Even if the Flux Thesis could prove that perception was infallible, it would not thereby follow that judgments are infallible.

Second, the Flux Thesis introduced a crucial distinction between the appearance of a quality at a particular place and time, and the quality itself. The theory also correctly argued that the quality itself is what explains the appearance of the quality. An object becomes a white thing because of whiteness. While the secret teaching characterized qualities in rather odd ways—in particular, it thought of them as a kind of swift motion through space that filled objects and caused them to become an instance of the quality—its basic orientation toward explaining the changes found in objects by pointing toward the qualities involved in the change is entirely correct.

The error of the secret teaching, however, was in its insistence that qualities be generated and destroyed along with the appearance of the quality within the object. As a result, the theory forces qualities to undergo the very same sort of alteration that objects undergo. But since stable qualities are what allow the changes in objects to be intelligibly understandable, forcing the qualities themselves to alter makes change, and everything else, fundamentally unintelligible. Socrates' refutation of the Heracliteans has established that, whatever else is the case about the phenomenal world of becoming, the qualities that things become must be stable and enduring.²²⁰ Thus, qualities are not unique and

²²⁰ By arguing that something must be at rest even within perception, I go against the tradition that argues that Plato believes that the sensory world of becoming is properly described on Heraclitean terms: for instance, Cornford (1935: 100-101), Sedley (2004: 102). However, this result should not be surprising,

instantaneous as the Flux Thesis argued. Rather, they are stable things that, in principle at least, can appear in multiple different locations at multiple different times. While this result destroys ontological relativism—it is now the case that the qualities perceived can in principle be perceived by multiple people—it preserves the intelligible character of actual perceptual experience.

As a result, the refutation of the Flux Thesis has accomplished one last thing. The Flux Thesis has argued that what is and what appears to be are exactly identical. If qualities are stable and enduring things that can appear in multiple locations at multiple times, then this equation of being and appearance is completely overturned. The appearances of whiteness are plural—the same whiteness appears in a piece of chalk now, in that piece of chalk in the future, and in countless other things at various times. The appearances, then, are in principle unlimited. The quality, however, is one thing that explains what the unlimited appearances of white things are all appearances *of*. The situation is analogous to the one found in Theaetetus’ discussion of incommensurability. While incommensurability appeared in many different squares with incommensurate sides, incommensurability itself could be characterized as some one thing that is distinct from, but nevertheless explanatory of, the many appearances of the quality. The *being* of the quality is fundamentally distinct from the *appearances* of the quality. Since this premise was the key to Protagoras’ argument that perception is infallible, the infallibility of perception is therefore called into question.

insofar as the perceptual world was always ambiguously intelligible rather than unintelligible *simpliciter* for Plato, as I argued in Section 2. Day (1997: 78-9) also argues that this conclusion in the *Theaetetus* is consistent with what Plato argues in the “middle” dialogues.

In the next section of the dialogue, when Socrates' final argument against Theaetetus' first definition of knowledge suggests that perception is not capable of grasping being, we must understand the argument as referring back to this result. While perception might be capable of grasping the appearance of the things that are, Socrates' argument will show that it is not as such capable of grasping the being of what is appearing.

Chapter 4: The Priority of Judgment over Perception

As a result of the refutation of the Flux Thesis, there is little chance of Theaetetus' first definition of knowledge being proven correct. Theaetetus gave the name "perception" to the first person awareness of the things that appear to human beings, and he argued that perception in this sense should be understood as the distinct activity that is common to all events of knowing something. While Theaetetus is certainly correct that all knowing involves first person awareness on the part of the knower, it is also the case that all not-knowing also involves a first person awareness on the part of the non-knower. For instance, Theodorus might argue that the sum of five and seven is twelve, while someone untrained in arithmetic could well say that the sum of five and seven is eleven. If Theaetetus' definition were literally accurate, both Theodorus and the untrained person are knowers since both have an awareness of the things that they are claiming are the case. Mutually exclusive and contradictory states of affairs would then seemingly be equally true, and to equally *be*. While for a time it seemed as if the complicated metaphysical doctrines of the Flux Thesis would be able to mitigate these contradictions by relativizing the qualities that appeared contradictorily to the individual that perceived them, the refutations of the Flux Thesis discussed in the last chapter have eliminated that possibility. As a result, Theaetetus' first definition seems to have been refuted as well.

The results of the refutation of the Flux Thesis were not merely negative, however. Refuting Protagoras' account of expertise revealed that there are many different ways in which things appear to human beings. In particular, things appear to human beings through sensory perception—i.e., through the mediation of a sense organ—and through judgments, which correspond with some sort of activity on the part of the soul.

These two different sorts of appearances have been shown to be structurally quite distinct. It has been proven that at least some judgments are not infallible—in particular, judgments about the future admit of possible error. The infallibility of sense perception has also been called into question. The refutation of Heraclitean flux has established that the immediate appearances that emerge in sense perception are not identical with the being of what is appearing. Insofar as the identity of being and appearance was the key premise underlying the argument in the Flux Thesis that sense perception is infallible, there is no longer as clear a connection between sense perception and truth as that theory thought.

Still, nothing that has been said so far suggests that sensation is capable of falsehood or error—the only things that has been shown to be capable of error are judgments.²²¹ If sensory perception were free of falsehood and somehow always connected to truth, could all sensory perceptions still be instances of knowledge? If all sensory perception is knowledge, Theaetetus’ definition will not have been entirely vindicated, for presumably there is knowledge about future states of affairs too and so all knowledge will not be identical with perception. However, Theaetetus’ definition will have at least accomplished this much: it will have discovered the nature of all *empirical* forms of knowledge.²²²

²²¹ The only thing that has been shown to be in principle fallible are judgments, and even then, only judgment pertaining to the future. Later in the dialogue, Socrates does express interest in the possibility of false judgments about perceptual things, particularly in the Waxen Block image (191c-196c). However, in that image he does not suggest that there is anything intrinsically “incorrect” about any particular perception, and false judgments about present perceptions are blamed on an error in the judgment, and not an error in the perception. The only other place in the dialogue where perceptual appearances are directly discussed is in the “Dream Theory” (201e-202b), where the fallibility or infallibility of the perception is neither mentioned nor relevant.

²²² I therefore disagree with those who, like McDowell (1973: 185), see the return to the Theaetetus’ first definition of knowledge as superfluous. I also disagree, however, with those like Kanayama (1987: 52-5)

Plato's task, then, will be to prove that sensory perception cannot provide knowledge. Knowing something fundamentally entails grasping the being of the thing known. Sensory perception itself, however, cannot grasp the being even of the sensory qualities that appear as a result of sense perception. Sense perception is limited to grasping the immediate appearance of a particular kind of quality that corresponds with each kind of organ. The immediate appearance of a color, however, is not the same as the being even of that color. The refutation of the Heracliteans has established that whiteness is not identical with the appearance of a white thing at a particular time and place, which is all that the sensory organs make available to the soul. Whiteness is what explains and makes intelligible the immediate appearance of the white thing, and the white thing cannot be *known* as a white thing until whiteness itself is grasped. Since sensory perception itself cannot grasp whiteness, sensory perception is not even adequate to know the various white things in the world. Being, as opposed to appearance, can only be discovered by an activity of the soul unmediated through sensory organs—judgments. If knowledge is to be found anywhere, about anything, it will have to be found in the judgments of human beings, and not in their sensory perceptions.

Section 10: Perception and Appearance, Being and Judgment

In order to establish that it is judgment, and not perception, that is capable of getting at the being of things, the argument will have to establish three things. First, it will have to correct one remaining error left over from the Flux Thesis and establish that

who think that “perception” is being taken the same way in this last refutation as it was in the earlier discussion of Protagoras and the Heracliteans. It is only in this final stretch of the argument that the meaning of “*aisthēsis*” in Theaetetus’ definition will be restricted to sensory perception, because it is only as a result of the refutation of the Flux Thesis that it will be possible to rigorously distinguish sense appearances from other kinds of appearances.

sense organs themselves are not perceivers, but rather that they are the that through which the soul or the unified human subject perceives. Second, the argument must demonstrate that it is not through any perceptual organ that the soul encounters being and the other *koina peri pantōn*, the common [qualities] of everything. Rather, the soul must discover such things on its own—i.e., without the mediation of a sensory organ. Third, the argument must show that there can be no knowledge without grasping being and the other *koina*. As a result of these three premises, sensory perception in itself produces knowledge of nothing.

i. The Unified Subject of Human Experience

When the secret teaching of the Flux Thesis argued that each individual sensory organ is a perceiver, it was only reflecting a natural tendency of ordinary language.

Soc: So if someone should ask you: “by what does a human being see white and black and by what does he hear the high and the low?” You would say, I think, “by his eyes and ears.” [εἰ οὖν τίς σε ᾧδ’ ἐρωτῶη: ‘τῷ τὰ λευκὰ καὶ μέλανα ὄρᾳ ἄνθρωπος καὶ τῷ τὰ ὀξεῖα καὶ βαρέα ἀκούει;’ εἴποις ἂν οἶμαι ‘ὄμμασί τε καὶ ὠσίν.’]

Thea: I would. (184b8-12)

It is normal for a person using ordinary language to say that it is *by* our eyes or ears—in Greek, the dative, *tois ommasi* or *tois ōsin*—that we see or here. Color is perceived by the eyes, and sound is perceived by the ears. If this ordinary way of speaking is contrasted with a more precise way of describing the same phenomenon, however, its imprecision becomes readily apparent.

Soc: Consider which is answer is more correct, that the eyes are that by which we see [ὧ ὀρῶμεν], or that through which we see [δι’ οὔ ὀρῶμεν], and the ears are that by which we hear, or through which we hear?

Thea: Through which we perceive, it seems to me Socrates, more than by which.

Soc: For it would be strange, my boy, if many perceptions sit in us, just like in the wooden horse, but are not drawn into some one idea, soul, or whatever it is necessary to call it, by which we perceive all things perceived through these organs [ἢ διὰ τούτων οἷον ὀργάνων αἰσθανόμεθα ὅσα αἰσθητά]. (184c5-d6)

If the eyes are that by which we see, then they would be perceivers—they would perceive (as an activity) the perceptions (the appearances of sense qualities) that they make possible. If the eyes are that through which—in Greek, *dia* plus a genitive—we see, then the eyes in some sense make possible perceptions. However, these perceptions would be perceived by something else that would use the eye as organ—*organon*, literally, an instrument—and while the eye would make the perception possible, it would not itself perceive the things that are perceived. Theaetetus correctly indicates that the second option is far more precise a manner of speaking and describing perceptual experience.

This second model, that the organ is that through which we perceive, is similar to the way that the Heracliteans described perception in some respects, and radically different in others. As it was in the account of the Heracliteans, a perception (noun) should be thought of as the particular way in which a thing appears in a given perceptual encounter. When the eye and a visible object interact, it becomes possible for the visible object to appear in a particular way to the perceiver. In that sense, we can say that the possibility of the perception is “generated” by the interaction of eye and object. However, while the eye does have the power to undergo the “motion” of the visible object, and so in that sense possesses a *dunamis paschein* (a power to undergo) as the secret teaching posited, it does not itself possess the power to experience or perceive the perception that it makes possible. Thus, it does not possess *dunamis paschein* in the sense of the power to experience or perceive (verb) the perception. While the eyes make it possible for colors

to appear, they are not the things *to which* the colors appear. The sense organ makes perceptions possible, but they do not perceive (or experience) these perceptions. The last substantial error of the secret teaching is thus explicitly rejected, while what was correct in the proposal of the secret teaching is preserved in a new form.

On the basis of this more precise way of speaking, what possesses the power to experience is some unified “one” that not only perceives the perceptions made possible by the eye, but also the perceptions made possible by the ears, the skin, or any other sense organ. In the secret teaching, the human subject was a mere aggregate of the various sense organs, like the Trojan horse that contained many different individual perceivers (the hidden Greek army) but no living perceptual unity of its own. Indeed, the person was so lacking in unity that Socrates sick and Socrates healthy were effectively different subjects because of the differences in the various sense organs that made up the aggregate “Socrates.” Against the secret teaching, however, the human experience of the world is fundamentally unified—the white and the hot are both perceived *by* “me” as part of the one appearance of the white hot stove, and this “I” is preserved through the changes in the individual perceptions that it perceives.

The name that Socrates gives to this unified “I” is either *idea*²²³—idea or form— or, as he will more commonly use in the remainder of the dialogue, *psuchē*—soul.²²⁴

While Protagoras had spoken of the soul in his account of expertise as if it were

²²³ For a discussion of the potential importance of describing the unity of subjectivity as an *idea*, see Roochnik (2002).

²²⁴ Whether or not the discovery of the single unified soul at this point in the *Theaetetus* represents its discovery in Plato is debated within the scholarship. Burnyeat (1990: 58) argues that “Plato’s achievement in this passage is nothing less than the first unambiguous statement in the history of philosophy of the difficult but undoubtedly important idea of the unity of consciousness,” presumably on the grounds that the soul is fundamentally treated as a decomposed entity throughout the *Republic*. In contrast, Sedley (2004: 113-114) argues that this error is already corrected by the analysis of the soul in Book X.

effectively another kind or kinds of sense organs, this more precise way of speaking eliminates that possibility. The sense organs undergo in a purely receptive way, but they do not experience or perceive. The soul, in contrast, experiences and perceives. The sense organs each individually make possible a particular kind of perception—vision corresponds with the eyes, hearing with the ears, etc. The soul, in contrast, perceives all of these different kinds of perceptions—and not as a mere aggregate of sounds and sights, but rather as a unified experience. And as Protagoras himself noted, each sensory organ is confined to making possible the immediate present appearance of a sensory quality, while the soul is capable of going beyond immediate present appearances in order to form determinations about, amongst other things, the future.

Given these distinctions between soul and the sense organs, there is no need to read anything like substance dualism or any other distinction of that sort into the text.

Soc: Tell me: do you not put that through which you perceive hot, hard, light, and sweet as being of the body? Or of something else? [θερμὰ καὶ σκληρὰ καὶ κοῦφα καὶ γλυκέα δι' ὧν αἰσθάνη, ἄρα οὐ τοῦ σώματος ἕκαστα τίθης; ἢ ἄλλου τινός;]

Thea: Of nothing else. (184e4-8)

The sense organs are all of the body—which is to say, each organ has a readily located physical/spatial location. It is entirely necessary that these organs be spatial, insofar as they generate the possibility of a perception when they are interacted with by the spatially extended world. The soul does not interact with the spatial world on its own, but instead requires the assistance of the sense organs through which the appearance of the external world becomes possible. Insofar as the soul is not a sensory organ and is only able to perceive the external world through the mediation of the sense organs, the soul can be distinguished from the body-ness of the sense organs. Nothing in this argument entails

one way or the other whether the soul is separable from the body, whether the soul is a physical or non-physical thing, or any other such questions that Plato considers in other dialogues. All the argument requires is that the sense organs are bodily insofar as they are interacted with by external bodies in a physical sense, while the soul interacts with—that is, perceives—the appearances generated by the interaction of sense organ/fitted external thing.

ii. The Discovery of Being by the Soul

As a result of distinguishing things being perceived *by* the soul and things that come to be perceived *through* the receptivity of the bodily sense organs, it is possible to reformulate Theaetetus' definition of knowledge in more precise terms. If the word '*aisthēsis*' is reserved for the kind of appearances that occur through a sense organ, Theaetetus' definition amounts to the proposal that knowledge is identical with sense perception. Insofar as judgments about the future have been revealed to admit of expertise and so of knowledge, it is implausible that knowledge will straightforwardly reduce to sense perception. However, it could still turn out to be the case that sense perception infallibly produces knowledge about sensible things, particularly sensory qualities. Socrates rejects this possibility because, (1) sense perception is incapable of arriving at being, and (2) knowledge requires that the soul arrive at being, and through being, truth. Therefore, sense perception cannot arrive at knowledge. This section will be concerned with the first premise, and the next section will be concerned with the second.

What could it possibly mean, however, for sense perception to be incapable of arriving at being—or, to put it differently, that it is not through sense organs that the soul encounters being? Is it not the case that every sense organ makes it possible for beings—

things that are—to appear to the soul? For instance, the eyes allow color qualities to appear and the ears allow sound qualities to appear. Color qualities and sound qualities *are* something. Thus, it seems obvious that the eyes and ears make possible the appearance of at least some beings, and it therefore seems obvious that it is through sense organs that the soul acquires a grasp of at least sensible beings.

This worry misunderstands Socrates' argument, however. Socrates is not disagreeing with that claim that it is through sense organs that sensible *beings* [*ta onta*, plural] appear to the soul. His argument is rather that *being itself* [*ousia* or *einai*, singular] does not appear to the soul through sense organs. The being (singular) found within the various beings (plural) that appear through sense organs is not itself discovered by the soul through any sense organ. Instead, Socrates' argument posits that the soul discovers on its own the being of the beings it encounters through perception—that the soul makes this discovery through its own activity without the mediation of any particular sensory organ.

Unlike some commentators, I do not think “being” here primarily refers to existence.²²⁵ Instead, I take there to be two relevant senses of “being” that Socrates denies get discovered through sense organs. First, it is not through the sense organs that the soul discovers that sensible qualities all share the quality of *being* something—for instance, colors and sound share in common (*koinon*) the quality of being something. The argument that will be addressed below primarily focuses on being in this first sense.

²²⁵ For instance, as Runciman (1962: 15-6) and Sayre (1969: 97) argues. For more on why *ousia* should not be read exclusively or even primarily as “exists” in this context, see also Sedley (2004: 106 n27, 109-111) and Wiitala (2014: 45-9), who writes that *einai*'s “primary semantic value is in its implication of determinacy. That something is implies that it is something determinate. In other words, that something is implies that it is the sort of thing about which one can make true statements.”

Second, it is not through the sense organs that the soul discovers the being of a quality—i.e. the quality itself as opposed to the appearance of the quality. For instance, while it is through the eyes that the soul encounters whites and colors, it is not through the eyes that the soul discovers what color itself is, or what whiteness itself is.²²⁶ The arguments that will be addressed in the next section will primarily focus on being in this second sense.²²⁷

Sense perception cannot get at being in either of the above respects because each organ is fundamentally tied to a particular kind of quality, and there is no organ through which the soul could possibly come to discover the quality of being.

Soc: And will you be willing to accept that whatever things are able to be perceived through each organ, it is impossible to perceive them through another organ; for instance, what is perceived through hearing cannot be perceived through seeing, and vice versa.

Thea: How will I not be willing?" (184e10-185a4).

Soc: Then if you think [διανοῆ] about both [colors and sounds] together, it would not be through either one or the other organ [the ears and eyes] that you perceive both together?

Thea: No.

²²⁶ For interpretations of the use of "being" in the *Theaetetus* that are similar to my own, see Nehamas (1984), Miller (1992: 97). Burnyeat's (1990: 59-61) reading is also similar, insofar as he argues that being has the sense of "think[ing] that something is thus or that it is not thus," and that "The moral is that even in the sensible world it takes the abstract capacities of a thinking soul, not merely to have knowledge, but to be aware of anything as anything at all." M Frede (1987a: 6-7) believes that the meaning of "being" is indeterminate in the *Theaetetus*. Gerson (2003: 206-10, especially 208n23) also thinks that the meaning of "being" is indeterminate, but thinks that it fundamentally pertains to objectivity, and that perception falls short of being because it fails to obtain objectivity. He rejects the sort of interpretation that I would support, which he characterizes as "being" referring to the universal qualities that things possess, because hardness and hotness have universal natures, but can also be perceived. See Section 10.iii for my response to this objection. McDowell (1973: 187) thinks that either the existential or the predicative sense could be meant, but that the predicative is perhaps implied by later uses of *einai* in this argument. However, he also thinks that predication for Plato involves considering the what-sort-ness, the *f*-ness, of the thing predicated.

²²⁷ I do not mean to imply that these two senses of "being" are radically distinct: what it means to say that both color and sound "are" something is that there is a "what it is to be color" and a "what it is to be sound." The first sense emphasizes that both color and sound are alike insofar as both possess a nature in this way. The second sense emphasizes the individual natures possessed by each instead of the commonness between color and sound.

Soc: Concerning sounds and colors: first, you have this thought concerning both of them, that both are?

Thea: I do.

Soc: And accordingly, that each of them is different from the other, and the same as itself?

Thea: How could I not?

Soc: And that together they are two, and each individual is one?

Thea: That too.

Soc: And accordingly, you are able to review whether they are like or unlike one another?

Thea: Certainly.

Soc: Through which organ do you think all these things about them? For neither through seeing nor through hearing is it possible to grasp what is common [κοινὸν] concerning both of them. (185a5-b9)

Each sense organ makes possible a particular kind of perception that corresponds with a particular kind of sensible quality. The eyes cannot hear, and as a result sound qualities do not appear through the receptivity of the eyes. Similarly, the ears do not see, and color qualities do not appear through the receptivity of the ears. But once colors and sounds appear in the soul, the soul possesses the power to think about both colors and sounds together. As a result of such thoughts, various qualities are discovered by the soul—being, sameness and difference, number, and so on. Any of the qualities that the soul discovers as a result of thinking about both color and sound cannot have appeared in the soul *through* either the eyes or the ears, because neither the ears nor eyes can possibly come into contact with both colors and sounds.

While neither the eyes nor the ears make possible the soul's discovery of what is common to both the colors and sounds, there does not seem to be any other sense organ that could make possible the discovery of these common qualities either. Socrates presents a counterfactual case to make the point clearer:

“Soc: If it were possible to investigate whether both [a sound and a color] are salty or not, you know that you will be able to say by which power you will investigate it [οἶσθ’ ὅτι ἔξεις εἰπεῖν ᾧ ἐπισκέψῃ],²²⁸ and this appears to be neither seeing nor hearing, but something else.

Thea: How could one not? The power that operates through the tongue. [ἢ γε διὰ τῆς γλώττης δύναμις] (185b6-c3)

If (counterfactually) colors and sounds were both salty, it would not be through the receptivity of either the eyes or the ears that this salty quality is able to appear to the soul. Rather, it would be through the receptivity of the tongue, insofar as the tongue is that through which all taste qualities are able to appear to the soul.

But colors and sounds obviously don’t have a taste, because there is no prospect of “licking” them, and only lickable things have a taste. Taste only emerges when the tongue encounters a spatiotemporal thing with which it is fitted—this was the significance, remember, of the argument that sense organs are bodily. The appearances of colors and sounds, however, are not lickable things. They are perceptions—appearances—and the only thing that “encounters” perceptions—the only thing to which appearances appear—is the perceiver or the soul. *There is no sensory organ that is capable in any way of “encountering” the perceptions perceived by the soul.*

Thea: It is clear that you are asking about through which of the organs of the body we perceive by the soul [the common qualities of color and sound, including] the odd and even and the other things that follow of this sort.

Soc: Excellent, Theaetetus, you understand me, and these are the very things I am asking about.

Thea: But by the god, Socrates, I couldn’t say—except that it seems to me the source for these things is no particular organ, as in other cases. Rather,

²²⁸ I translate this as “by which power” on account of Theaetetus’ answer, in which he answer Socrates’ question by speaking of the power through [*dia*] which he is able to investigate. Theaetetus’ answer seems to put the point more consistently than Socrates’ question: the ‘by which’ language that Socrates uses has been reserved for what is ‘by the soul,’ while Socrates’ question is asking about ‘through which’ organ the investigation into the saltiness of colors and sounds would proceed.

it appears to me that the soul itself through itself investigates the common features of everything [τὰ κοινά... περὶ πάντων].

Soc: That is because you are beautiful, Theaetetus, and not ugly as Theodorus said... And in addition to being beautiful you did me well and have saved me a very long argument, if it appears to you that the soul considers some things itself through itself, and other things through the powers of the body. For this is how it seemed to me, and I wanted it also to seem that way to you. (185d2-e9).

Theaetetus comes to this conclusion because he cannot find any particular sensory organ that is uniquely assigned to the generation of the appearance of being and the other common qualities within the soul, and Socrates does not feel it necessary to explain to him why there can be no such sense organ. The critical reader of the dialogue, however, recognizes that there necessarily cannot be any bodily sense organ that in any way encounters a perception.²²⁹ If the soul is able to consider its perceptions and discover qualities within those perceptions that are common to multiple kinds of perception, then the soul must carry out this activity of consideration on its own, and not through any organ.

Indeed, this argument remains valid even if the soul were asked to consider what is true of multiple visual perceptions by themselves, without involving any auditory perceptions. These different visual perceptions all are something, and are the same as themselves and different from one another, and are like and unlike, and are one individually and multiple together. Even in this case, where only visual perceptions are

²²⁹ Therefore, it is not even conceptually possible that some perceptual organ could exist that could perceive being, as Twomey (2013) suggested in a paper delivered at the Ancient Philosophy Workshop. See also Heidegger (2002: 156-158), who similarly argues that the analysis of the soul presents a positive argument for the soul discovering these non-sensory qualities through its own activity, and not merely negatively or via a process of elimination. His analysis emphasizes that the soul is the structured unity of experience, and that the common qualities are all only possible within the context of an already in advance unified experiential manifold. I thus also disagree with Roochnik (2002: 49), who thinks that the dialogue does not supply the resources necessary to discover in a rigorous fashion the necessity for positing a soul.

being considered, the eyes themselves contribute nothing besides the possibility of the original visual perceptions themselves. The eyes don't contribute to the "seeing" of the being of colors: they only make possible the seeing of color. Discovering that colors *are* requires a power in the soul entirely unlike the receptivity of the eyes.

iii. All Qualities as Such are Discovered by the Soul Alone

In their discovery that the soul discovers some qualities by itself and not through a sense organ, Socrates and Theaetetus focused on a particular group of qualities that Theaetetus, in the passage quoted above, characterized as *ta koina peri pantōn*, the things common to everything. The qualities that are common to everything include:

Thea: You speak of being and non-being [οὐσίαν... καὶ τὸ μὴ εἶναι], and likeness and unlikeness [ὁμοιότητα καὶ ἀνομοιότητα], and the same and the different [τὸ ταῦτόν τε καὶ τὸ ἕτερον], and also one and the plurality of number [ἓν τε καὶ τὸν ἄλλον ἀριθμὸν] concerning these things. (185c10-d2)

These qualities are different from other qualities insofar as the common qualities of all things are found 'in' everything.²³⁰ All objects and all qualities are something, and everything is the same as itself, different from other things, and so on.²³¹ As a result, the

²³⁰ Based on the results of other Platonic dialogues like the *Parmenides* and the *Sophist*, the *koina* are categorial features that determine the basic conditions for all concrete determinate intelligibility. In this respect, they would be fundamentally distinct from other qualities like chairness or redness that at best are only constitutive of certain very narrow and specific regions of intelligibility. However, the sort of argument that would emphasize the constitutive role of the *koina* in determining the basic conditions for all intelligibility is entirely absent from the explicit argument found in the *Theaetetus*. At this point, Socrates is content to de-emphasize the constitutive role of the *koina* in favor of an emphasis on the universal universality of these qualities. All the argument here requires is that this special class of qualities belongs to everything, especially including sensory qualities. See also Cornford (1935: 105), who correctly points out that the *koina* are unrelated to Aristotle's discussion of the common sensibles in *De Anima*, and McDowell (1973: 189-90), who correctly points out that it would be too far to connect *ta koina* with the hypothesized Forms of the *Republic*. Such a connection could be drawn, but the text does not necessitate it.

²³¹ Non-being, *mē einai*, is included amongst the *koina* and should not be read as referring to non-existence. Besides the fact that *ousia* and *einai* are not used in the sense of "existence" in this passage, it is hardly common to all things that they not exist. I interpret not-being in this context as being common to everything insofar as everything *is not* various things—for instance, white is not black. The possibility of non-being is discussed briefly in the digression into the possibility of false judgment later in the *Theaetetus*. It is far

koina can be differentiated from other qualities. While whiteness, for instance, is only present at some places and times, the *koina* are present in all places at all times.

However, the soul is capable of discovering other qualities besides the *koina* without the mediation of a sensory organ.

Soc: So first, in which group [perceived through a sense organ, or discovered by the soul by itself] do you put being? For this most of all is present in all things.

Thea: I put it in the group which the soul reaches out for by itself.

Soc: And also likeness and unlikeness and same and different?

Thea: Yes.

Soc: And what about these: beauty and ugliness, and good and bad?

Thea: It seems to me that here especially the soul considers the being of these things in relation to one another, analyzing in itself about the things that have been and the things that presently are in relation to the things that will be. (186a2-b1).

In the course of determining what things the soul discovers through its own power, and which things are perceived by the soul through a sense organ, Socrates immediately moves beyond the *koina* and asks about ethical and aesthetic qualities. Such qualities are not common to everything—Socrates does not even suggest that everything is either good or bad, let alone that everything is both good and bad in some respects. Theaetetus rightly suspects that the soul does not arrive at determinations about such things through any particular sense organ, presumably because both a sound and a color could be beautiful or bad, just like a color and sound could be individually one and collectively two.

more precisely explored in the 5th and 6th exercises of the *Parmenides* and discussion of the communion of kinds in the *Sophist*.

But it is not only aesthetic and ethical qualities that the soul discovers on its own, but also even *sensory qualities* themselves.

Soc: Not so fast, now [ἔχε δῆ]. Does the soul perceive the hardness of the hard through touch, and the softness of the soft likewise?

Thea: Yes.

Soc: But their nature and that they both are²³² and their opposition to one another and the being again of this difference [τὴν δέ γε οὐσίαν καὶ ὅτι ἐστὸν καὶ τὴν ἐναντιότητα πρὸς ἀλλήλω καὶ τὴν οὐσίαν αὐτῆς ἐναντιότητος] the soul itself attempts to decide by returning to them [the sensory perceptions] and throwing them together with one another.

Thea: Entirely so.

Soc: And so is it not true that some things can by nature be perceived by human beings and beasts straightway at birth: the experiences that stretch through the body to the soul? But concerning the analysis of these things with respect to their being and usefulness, things are arrived at, if they are at all, with difficulty and through much labor over a long time, and through education.

Thea: Entirely so. (186b2-c7)

The soul perceives hardness and softness when it perceives a hard thing or a soft thing.

That is to say, hardness and softness appear to the soul in perceptions, and this

appearance happens through a sense organ—in this case, the skin. Sensory perception

precisely refers to the process whereby such sensible qualities appear to the soul through

²³² Determining the difference between the *ousian* and *eston* in this clause is difficult. *Ousia* is the main word that Plato has used throughout this section for “being,” but he also employs *einai* as if it were synonymous. For instance, Theaetetus says “You mean being and not being [οὐσίαν λέγεις καὶ τὸ μὴ εἶναι]” (185c8). Levett/Burnyeat renders the ὅτι ἐστὸν as simply clarifying the meaning of οὐσίαν: “But in regards to their being—the fact that they are—...”, and McDowell’s rendering is analogous. He argues (1973: 191) that the *kai* need not necessarily indicate that something new is being added, and can effectively be translated as “i.e.” Fowler renders the pair as “their essential nature and the fact that they exist.” Even despite the fact that *ousia* and *einai* have been used as synonyms, however, this concept of “existence” has never been introduced as such in the text. My rendering, in contrast, interprets οὐσίαν as indicating the natures of hardness and softness—i.e. hardness and softness as qualities rather than as this particular sensible appearance of hardness and softness perceived in the perception—and the ὅτι ἐστὸν as indicating that both qualities in fact have a nature, i.e. that both are subject to the *koina* of being. The use of the dual in ἐστὸν is thus particularly important on my reading.

the sense organ. All animals from birth are capable of undergoing sensory perceptions and having such sensory qualities appear to them.

But while the quality *appears* to the soul through sense perception, the *being* of the quality is something different than this appearance.²³³ This important result was established by the refutation of the Heracliteans doctrine of total flux, and the argument implicitly reintroduces it for the dialectically astute reader of the dialogue. While hardness and softness appear to be multiple things via sense perception on account of multiple things appearing to be hard or soft, hardness and softness themselves are each individually one thing that explains the appearances of multiple hard and soft things in various perceptions.²³⁴ The discovery that hardness *is* some one thing (τὴν... οὐσίαν, a singular)—a determinate and intelligible nature—and that *both* hardness and softness are (ἔστων, a dual)—that both have determinate intelligible natures—is not present in all perceptual organisms at birth simply as a result of the organism possessing the relevant sensory organ. Similarly, the difference between soft and hard (τὴν ἐναντιότητα πρὸς ἀλλήλω) is not itself accessible to the soul in any immediate perception of either soft or hard, but requires an analysis of the perceptions that goes beyond what is readily available through the sense organ itself. And this discovery, that softness and hardness

²³³ Similar readings are found in Cornford (1935: 109), Sedley (2004: 106n29, 158-9) and Lee (2005: 156-7). Kanayama (1987: 44) makes a point similar to my own when he argues that perception should be understood as containing an awareness of F, rather than an awareness of F-ness. For different interpretations, see, for instance, Burnyeat (1990: 88 and 88n27), and Gerson (2003: esp. 208n23).

²³⁴ Some commentators, see for instance Sayre (1969: 98-9), argue that the appearance of perceptual qualities considered in isolation from the cognitive grasp of the being of those qualities are fundamentally unintelligible to the perceiver, and appeal to a discussion of the “Dream Theory” later in the *Theaetetus* in support of this reading. Other commenters, like Day (1997: 50), disagree. My reading of the “Dream Theory” and its relation to this passage will be discussed in the Conclusion.

are different, invites a further investigation still into the being or nature of difference itself (τὴν οὐσίαν... τῆς ἐναντιότητος).

As a result, there are two senses in which being is not revealed to the soul through sense perception. The discovery that the sense qualities that appear to the soul through sense organs are each some individual, determinately intelligible nature found in multiple perceptual instances is not revealed to the soul through any one sense perception. The discovery that being itself is something possessed in common by all such qualities and everything else is also not revealed to the soul through any one sense perception. If the soul must analyze and consider multiple sense perceptions to discover these things, there is no organ through which such an investigation can proceed, because only the soul is capable of perceiving perceptions, or of having appearances appear to it, and not sense organs. Thus, the soul must discover the being of the things that it perceives through its own activity, and not through sense perceptions.

If it is not through sense perception that the soul discovers the being of anything, even of sensory qualities, then sense perception will plainly never be knowledge.

Soc: So could someone happen upon truth that doesn't happen upon being?

Thea: Impossible.

Soc: Will someone ever acquire knowledge about that which they fail to attain the truth about?

Thea: How, Socrates?

Soc: Then knowledge is not in the experiencing of things, but in the calculating concerning what is experienced [ἐν μὲν ἄρα τοῖς παθήμασιν οὐκ ἐνι ἐπιστήμῃ, ἐν δὲ τῷ περὶ ἐκείνων συλλογισμῷ], for in the latter it is possible for being and truth to fasten, but in the former this is impossible.

Thea: It appears so.

Soc: So will you call the two the same, given the differences between them?

Thea: It would not be right.

Soc: So what name do you give to the one including seeing, hearing, smelling, being cold, and being hot?

Thea: Perceiving, I call them. What else?

Soc: And taken all together you call it perception?

Thea: Necessarily.

Soc: Which, we say, does not share in touching truth, since it does not touch being.

Thea: No, none.

Soc: And it does not share in touching knowledge?

Thea: No.

Soc: Then perception and knowledge could never be the same, Theaetetus.

Thea: It appears not, Socrates, and now most of all it has become altogether manifest that perception is something other than knowledge. (186c8-e13)

Within the teaching of Protagoras, sense perception was connected to truth on account of the connection between the quality perceived and the being of the quality. Since, according to ontological relativity, the appearance and the being of the quality are one and the same thing, all perceptions were true in the sense of being infallible. By showing that the being of what is perceived is never disclosed through sense perception, the connection between perception and truth has been dissolved.²³⁵ This does not mean that perception is false, or even necessarily that it is not free from error in some sense, it simply means that no relevant sense of truth and falsehood is applicable to perception. In

²³⁵ I take it as clear that nothing in the text excludes the possibility of there being knowledge of the sensory world. Some commentators, including Owen (1953: 71-3) and Burnyeat (1990), think that the *Theaetetus* has established that the sensible world is in fact knowable. However, I agree with Gerson (2003: 210) that the argument neither demonstrates directly nor indirectly entails that there is in fact knowledge of the sensory world. It only establishes that if there were to be such knowledge, then it would require grasping the being of the sensible world, and this grasp cannot happen through sensation. If the sensible world does not, as such, have a being to grasp, then it would not be knowable.

contrast, since judgments are concerned with being, judgments can be true or false, exactly as the uninitiated argued against Protagoras in Section 8. Since the truth about what is perceived is never revealed through sense perception, sense perception and knowledge are entirely different things in every instance, and no act perception will ever bring about an instance of knowledge.²³⁶

Section 11: Leaving Behind Sense Perception

From the very beginning of the conversation between Socrates and Theaetetus, discovering the one that is capable of organizing and explaining a many is a constant struggle. While there are many different knowledges, the technical arts and mathematics, for instance, what is the one knowledge-quality shared by these knowledges? While the incommensurates—squares with incommensurate sides— appeared to be unlimited in multitude, what is the one incommensurability found in this infinity of squares? Socrates sick and Socrates healthy are not identical, and so are in that sense two—but is there a unity to Socrates that persists throughout his changes?²³⁷ And while there are a great many white things, can the soul discover one whiteness that explains the appearance of white in many different places?

²³⁶ McDowell's (1973: 192-3) characterization of this argument is helpful: "The argument is easiest to understand in light of the hypothesis that Plato thinks of knowledge of a thing as being identical with knowledge of what that thing is... If perception is knowledge, then in perceiving what one perceives, one *eo ipso* knows it, i.e., according to the above identity, knows what it is. But to know what a thing is requires a thought dealing with being, and it has been argued that such a thought cannot be an exercise of perception. Consequently knowledge of what one perceives, in the sense of knowledge of what it is, cannot be constituted by the perceiving of it."

²³⁷ Roochnik (2002) sees the dialogue as continually struggling with explaining how an individual person can be known to be the person that he or she is—that is to say, how various temporally distinct Theaetetus-instances can be judged or recognized as having a unique character—as I want to put it, a Theaetetus-ness. I agree, but want to suggest that the difficulty of moving from instance to the being or nature of the instance is not restricted to the specific case of persons. Indeed, in a certain sense it is the central dialectical puzzle of the entire dialogue.

The consideration and rejection of Theaetetus' first definition of knowledge has demonstrated that sense perception is not capable of contributing to the project of discovering the one that explains a many. All that appears to the soul through the sense organs is a multitude of appearances of sensible qualities. The being of even these sensible qualities, however, is only discovered via an activity of the soul that does not occur through the receptivity of sense organs. Since dialectical philosophy is concerned most of all with discovering the beings that explain the plurality of appearances, we can now see the sense in which both Socrates in the *Republic* and Parmenides in the *Parmenides* were entirely correct to suggest that the dialectician would entirely leave aside sensible things. The power in the soul that can discover being must proceed with the mediation of sensible things, because all sensation in that sense fails to attain being. The plurality of appearances must be suspended so that that the being which explains the plurality of what appears can itself be discovered.

But what is the activity of the soul by which it discovers being? All that has been revealed thus far is negative—the soul does not grasp being through a sense organ. How can the activity whereby the soul does discover the being or nature of the things that it considers positively be characterized? What are the conditions for this activity's possibility? The conditions for its success—truth? For its failure—falsehood? The remainder of the *Theaetetus* begins to consider some of these questions. In this section, I will anticipate some of the difficulties that will confront this consideration as a result of the refutation of the first definition of knowledge, and the way that these difficulties shape the next portion of the dialogue.

Theaetetus gives the name *doxa*, judgment or opinion, to the power of the soul that is capable of discovering being.²³⁸

Soc: But we did not begin our conversation for this reason, in order that we might find what knowledge is not, but rather to find what knowledge is. However, we have progressed this far, to not look for knowledge in perception at all, but in that [power], whatever it is named, the soul has when itself by itself it is engaged concerning the things that are.

Thea: But this [power] is called, I suppose, judgment, Socrates.

Soc: You suppose correctly, my friend. (187a1-10)

The question becomes, then, how should judgment be characterized?

Theaetetus' earlier answers to Socrates have already suggested a provisional, and potentially quite problematic, characterization of judgment. I will requote the relevant passages in the following. When describing the activity of the soul whereby it discovers the goodness or beauty, Theaetetus said: "It seems to me that here especially the soul considers the being of these things in relation to one another, analyzing in itself about the things that have been and the things that presently are in relation to the things that will be" (186a11-b1). Theaetetus' characterization makes the activity of judgment fundamentally a matter of comparing various immediate perceptions, some of which happened in the past, and some of which are happening right now, and then anticipating from these what will be present in the future.

²³⁸ Benardete (1984: 147) points out that it is odd that Theaetetus gives the name of *doxazein* (to judge or opine) to the power whereby the soul discovers being, and not any of the other names that he and Socrates have mentioned, like *sylogizesthai* (figure out), *analogizesthai* (calculate), *dianoesthai* (think through). Insofar as *doxa* is a Protagorean word, he suggests that this indicates that Theaetetus is still in the sway of Protagoreanism. This conclusion primarily rests, it seems to me, on his rendering of *doxa* as opinion rather than judgment. As Socrates and Theaetetus will come to agree (189e-90a), a *doxa* should primarily be taken as the conclusion of an instance of this sort of calculation and figuring out, and not as a general disposition that the soul has toward some issue.

Socrates responded to Theaetetus' off-hand remark by indicating that Theaetetus has said something novel, and that he should slow down, “ἔχε δὴ” (186b1), such the implications of what Theaetetus has proposed can be considered. Socrates reformulates Theaetetus' proposal such that it is not only oriented toward judgments about the future, but also judgments pertaining to the past and the present.²³⁹ “The soul itself attempts to decide [about being, difference, and things of this sort] by returning [ἐπανιοῦσα] to them [the sensory perceptions] and throwing them [συμβάλλουσα] together with one another” (1868-9). On this account, judgment, is an activity in which the soul returns [ἐπανιοῦσα] to immediate perceptions, past and present, and throws them together [συμβάλλουσα] to arrive at conclusion concerning, amongst other things, the proper nature of the sensible things.

With this characterization of judgment, the trust in the self-evidence of appearances and Protagoreanism once risks potentially seeping back into the account. Being is discovered not by withdrawing from sense perception but rather as a result of the soul having many different perceptual experiences. Education consists not in the conversion of the soul from becoming to being, but rather in experiencing enough instances of becoming that the soul spontaneously discovers being.²⁴⁰ The use of *sumballein* here suggests a kind of haphazardness—just throw the perceptions together,

²³⁹ McDowell (1973: 190-1) argues that Socrates tells Theaetetus to hold because he interprets Theaetetus as missing the point of the present argument. Theaetetus' reference to looking at past and present in relation to the future harkens back to the Protagorean account of expertise, as discussed in Section 8. However, McDowell thinks this interpretation risks missing the point—even present judgments about perception are being shown to rest upon the power of the soul, not just judgments pertaining to the future. While McDowell is correct, I don't think this is all that Socrates is flagging.

²⁴⁰ See also M Frede (1987a: 8).

and truth and being will simply fall out as a result.²⁴¹ While knowledge is not the same thing as perception, it does follow from having enough perceptions, and learning is still fundamentally a matter of experiencing and engaging in the sensible world.

Given this return to a kind of Protagoreanism, it is therefore no surprise that the conversation immediately shifts to a discussion of the very possibility of false judgment. Protagoras insisted that, because all judgment was restricted to experience, it is impossible for anyone to judge falsely. Judging falsely requires judging what is not, and everything that is experienced is: “it is impossible to judge that things that are not, or anything but whatever things are experienced” (167a8-10). Paradoxes pertaining to the very possibility of false judgment thus naturally follow from the way that Theaetetus and Socrates have agreed to characterize judgment, and the ghost of Protagoras continues to haunt the conversation.²⁴²

The *Theaetetus* therefore dramatizes just how difficult it is to leave behind sensible things in the service of true dialectical philosophy. The exhaustive refutation of the first definition of knowledge, which occupies almost 2/3rds of the dialogue, has determined precisely what sense perception is, and why it is absurd to ever look to it for knowledge. Immediately thereafter, it again attempts to find knowledge by looking to sense perceptions. To be sure, this second approach looks for knowledge in perception in a radically new and improved way—now the soul learns through having many different

²⁴¹ The Stranger uses the word similarly in the *Statesman*. “But because people are not in the habit of considering things by dividing them into classes, they hastily put together [συμβάλλουσιν] these widely different relations into the same category, thinking they are alike” (285a4-7, Fowler translation).

²⁴² Gerson (2003: 200) makes the same argument about the relationship between the first and second definitions: “... the second definition—that true belief is knowledge—rests upon the ruins of the first. That is, it assumes that if knowledge is not sense-perception, then perhaps it can be derived from sense-perception.”

perceptions, rather than making perceiving the activity that produces knowledge. Progress has been, and will continue to be, made, and by the end of the dialogue Theaetetus has made so much progress that he is ready in the sequel, the *Sophist*, to finally leave behind sensation in a far more rigorous way. But the process of dialectical education requires constant vigilance and struggle—the soul must ultimately stop wanting to look to sensible things, and only once this result is accomplished will the conversion from becoming to being be realized.

Section 12: Conclusion: Looking Ahead to the Rest of the Theaetetus

In this last chapter, I argued that the refutation of Theaetetus' first definition of knowledge has positively demonstrated that it is not through sensory organs that the soul discovers the being or nature of anything, including the being of sensory qualities like hardness or whiteness. While things do occur to human beings through sensation, the being of what appears—the nature or sort manifested by what appears—is discovered by the soul through its own activity without the mediation of sense organs. Socrates and Theaetetus have agreed to call the activity whereby the soul grasps the being of things “judging.” In this conclusion, I will argue that these results from the refutation of Theaetetus' first definition of knowledge can help the reader interpret and overcome several *aporias* pertaining to the relationships between perception, judgment, and *logos* that are found later in the dialogue. I will suggest that the failure of the Waxen Block and the Aviary images in the second part of the dialogue yield a powerful argument against representationalism when their failure is rethought in terms of the refutation of the first definition. I will also argue that the failure of the “Dream theory” in the discussion of Theaetetus' third definition of knowledge can be better understood in light of way that

sensible appearances nevertheless possess a nature, and that while the appearance cannot be expressed in a *logos*, the nature can.

i. The First Definition and Possibility of False Judgment

As I discussed earlier, the refutation of the first definition has suggested an understanding of the activity whereby the soul discovers the being of what appears to it that is still fundamentally rooted in perception and the experience of perceptual things.²⁴³ Theaetetus' second proposed definition of knowledge is that knowledge is true judgment. However, he and Socrates have agreed that judgment occurs when the soul considers its memories of past perceptual appearances along with its present experience of perceptual appearances. On this account, when an infant "thinks" about the various hard appearances that it has encountered and is currently encountering, the infant discovers the being of the hardness that appears to it in sense perceptions. Learning, on this model, straightforwardly follows from having many different experiences, and everyone presumably would become more and more knowledgeable the more that they experience. As I suggested in the last section, this proposal very quickly falls prey to Protagorean concerns about the possibility of false judgments. If people only ever judge what they experience, and if everything that a person experience *is*, then all judgments will have to be of what is and so will have to be true. In lieu of any serious discussion of Theaetetus' proposed second definition of knowledge, Socrates instead dedicates the next major portion of the dialogue (187d-200d) to attempting to secure the very possibility of false judgment against this and closely related paradoxes. Despite their efforts, the pair

²⁴³ In Section 11.

ultimately fail to provide an adequate account of false judgment, and the issue is shelved until it reappears in the *Sophist*.

The central error made by all of Socrates' and Theaetetus' efforts in this portion of the dialogue is that they continually assume that the soul is able to straightforwardly infer the being about which it judges from the sensible appearances of that being. As a result, all of the various models and images used in this section assume that the human soul is "empty" prior to being filled by perceptions and the judgments that infer being from those perceptions. Sense perceptions leave behind a mental representation of the thing that appears, and the soul discovers the being of what appears to it by grasping these mental representations. In the Waxen Block image (191c-196c) that Socrates proposes to make sense of this process, the soul only acquires any access to a being once it (1) experiences the appearance or perception of that being, and (2) decides to make an imprint of that experience—an impression like when a signet ring is imprinted in a wax seal. This impression then serves a concept and the rubric against which future appearances will be tested and identified. Socrates identify that this person approaching him now is Theaetetus by testing the appearance against the "Theaetetus impression" that has been left behind in Socrates' soul by past encounters with Theaetetus. Similarly, the soul learns fiveness—which is to say, the five itself, the being or nature of fiveness—when it converts its past experience of fives into a concept of five indifferent things in general. This "five impression" is then used to count future perceptual experiences and is also used when the soul engages in arithmetic calculations like when it tries to determine the sum of the five itself and the seven itself. The basic assumption used by this and the Aviary image (proposed after the Waxen Block image is rejected, from 197d-200c) is that

the soul is empty before it perceives things, and that from these perceptions the soul then grasps the being of what is perceived by forming conceptual representations of the things that have been perceived.²⁴⁴

Both the Waxen Block image and the Aviary image fail to actually account for false judgment as a result of this assumption. The failure of the Aviary image makes the difficulty encountered by both images especially clear: the soul lacks the ability to interpret its sensibly-derived mental representations unless it is already being guided by the being that the mental representation is supposed to represent. To see why, I will briefly summarize the Aviary model. The Aviary image suggests that the soul contains within itself an aviary filled with “birds”—conceptual representations. The activity of judgment, on this model, is analogous to a person reaching in and trying to catch one bird. For instance, a math student who tries to discover the sum of five and seven reaches into the “aviary” and tries to grab the twelve bird. If the twelve is grabbed, the judgment was true, but if the eleven is grabbed, then a false judgment occurs. The central mistake of this model, Socrates suggests, is that its understanding of false judgment entails that the soul has no idea that the eleven “bird” is not the twelve “bird” when it reaches in and grabs the eleven rather than the twelve (199e-200c). A man who tries to grab a pigeon but instead grabs a ring dove would immediately recognize his error because *he already knew what he was looking for before he actually started looking for it*. In contrast, people who mistakenly “grab” the eleven must in fact think that they have found what they were originally looking for, or else they would not judge falsely. The twelve representation

²⁴⁴ At birth, Socrates describes the aviary (an analogue for the soul) as being empty (197e). Indeed, this assumption is the only real link between the Waxen Block and Aviary images that are offered in this section, besides the fact that both images fail to account for false judgment.

cannot even be definitively recognized as the twelve itself (the being of the twelve) or distinguished from the eleven itself (the being of the eleven) by the soul when the soul considers either the eleven conceptual representation or the twelve conceptual representation on this model—indeed, a person has no ability to distinguish any of the conceptual representations of the things for which it looks from the conceptual representations of the things for which it is not looking.

If the failure of the Aviary image is interpreted in terms of refutation of Theaetetus' first definition, then it becomes clear that the sort of mental representations that can be derived from sensible experience are themselves fundamentally a kind of appearance. As such, mental representations are not a direct grasp of the being that they are supposed to be representing. The “five” image that a person forms in their mind as a result of looking at many different instances of five things is still fundamentally an image, an appearance, of the five, and not the *being* of the five itself. Indeed, this basic point was already made by Protagoras in his account of expertise in the middle of the discussion of Theaetetus' first definition. Representations of past experiences, Protagoras says, are still themselves experienced and so are things that appear to the soul, even if they are not sense perceptions (166b). As such, it is absurd to look for the activity whereby the soul discovers the being of what appears in the activity whereby the soul transitions from one kind of appearance (sense perceptions) into another kind of appearance (conceptual representations). The ability to form representations from sensations certainly exists, and it might even serve a crucial role in the soul's reasoning. But insofar as the five itself, the being or nature of the five, is present within and explanatory of both the sensible appearances of five things and the conceptual

representation of fiveness that the soul forms from such perceptions, the activity of forming conceptual representation will never secure a grasp of the *five itself* that will be adequate for knowledge of the five.

If beings or natures are not discovered by the soul as a result of the soul inferring them from sensible appearances, through what activity does the soul discover such things? The *Theaetetus* remains silent on this question. Critical readers of the dialogue, however, have two closely related avenues to consider. First, the reader could look backwards to the theory of recollection found in the *Meno* and the *Phaedo*. Perhaps a grasp of beings is never put into the soul at all, but rather is always present within them. Such an approach would investigate the possibility that soul is always already oriented by the beings or natures that it investigates, and that the soul always relies upon such orientation even when investigating perceptual things. Second, the reader could look forward to the *Sophist* and the account of falsehood and false judgment contained within the complicated ontology of that dialogue. That discussion could perhaps explain how the soul could ever be mistaken about the beings that already orient it.

ii. The First Definition and the “Dream Theory”

Theaetetus’ third definition of knowledge is that knowledge is true judgment accompanied by a *logos* or account. When Theaetetus is pressed to say what he means by this definition, he says that he had heard someone give this answer in the past, but that he cannot presently remember all the details to it. Socrates then offers to fill in the details, exchanging one “dream” for another “dream” (201d-e). The resultant “Dream Theory” (from 201e-206b) is the last major account of knowledge that is offered in the

dialogue.²⁴⁵ The discussion of the Dream Theory is quite complex, and touches on complicated issues pertaining to the relationship between parts and wholes that are beyond the scope of this dissertation. I will instead focus on one particular puzzle that emerges from the theory. The Dream Theory posits that the basic element out of which *logoi* and judgments are constructed are unknowable and perceptible, whereas the complexes formed out of those elements are knowable and subject to judgments insofar as they can be expressed in a *logos* that lists out each element that composes the complex. For instance, in order to know the syllable “So,” one must be able to list out the letters ‘s’ and ‘o.’ Neither of these letters can be ‘spelled out,’ which makes them the unknowable elements out of which a knowable complex can be constructed. Socrates’ refutation of the Dream Theory, however, concludes that it is impossible for the basic elements out of which complexes are constructed to be unknowable if the complexes themselves are to be knowable. This conclusion is puzzling, and the *Theaetetus* leaves it unresolved how there can be a *logos* of basic perceptual elements. The refutation of the first definition of knowledge offers a way out of this dilemma, I will argue. What appears within a perceptual appearance has a being or nature that goes beyond the immediacy of the original appearance. While the perception as such does not have a *logos*, the being of what appears in the perception does.

Socrates initially characterize the Dream Theory so as to emphasize the perceptibility of elements and the way that each element is “unattached” to being or any

²⁴⁵ The subsequent three definitions are presented as definitions of *logos*: (1) *logos* is a vocal utterance, (2) *logos* is a listing of the parts of a whole, and (3) *logos* discloses the difference between a thing and all other things. These three are not presented as definitions of knowledge, though the relationship between knowledge and *logos* continues to play an important role in the evaluation of all three definitions.

of the other common features of everything that were discovered in the refutation of the first definition.

Soc: Listen then to a dream in return for a dream. In my dream, too, I thought I was listening to people saying that the primary elements, as it were, of which we and everything else are composed, have no *logos*. Each of them, in itself, can only be named; it is not possible to say anything else of it, either that it is or that it is not. That would mean that we were adding being or not-being to it; whereas we must not attach anything, if we are to speak of that thing itself alone. Indeed we ought not to apply to it even such words as ‘itself’ or that,’ ‘each’, ‘alone’, or ‘this,’ or any other of the many words of this kind; *for these go the round and are applied to all things alike, being other than the things to which they are added* [my italics], whereas if it were possible to express the element itself and if it had its own proprietary account, it would have to expressed without any other thing. As it is, however, it is impossible that any of the primaries should be expressed in an account; it can only be named, for a name is all it has. But with the things composed of these, it is another matter. Here, just in the same way as the elements themselves are woven together, so their names may be woven together and become an account of something—an account being essentially a complex of names. Thus *the elements are unaccountable and unknowable, but they are perceivable, whereas the complexes are both knowable and expressible, and they are the objects of true judgment* [my italics]. (201d9-202b8)²⁴⁶

This passage strongly invokes the refutation of the first definition of knowledge. First, the exclusion of words like “itself,” “alone,” and “each” from the description of the perceptual elements should bring to mind the way that the Flux Thesis excluded these sorts of words from the description of from perceptual appearances.²⁴⁷ The reason for the exclusion, however, has changed. While the Flux Thesis wants to entirely abolish being—i.e., to collapse being and appearing together—the Dream Theory wants to rigorously distinguish the perceptible from the things that are. Being would have to be added to the elements in order for there to be an account of them. On their own, the

²⁴⁶ This translation is taken, with slight modifications, from the Levett/Burnyeat.

²⁴⁷ See Section 9.i.

elements are not characterized as sharing in being or any of the other common features of everything that were identified in the course of refuting Theaetetus' first definition.²⁴⁸

The characterization of the perceptual elements as something distinct from the common features of everything is quite similar to the way that perceptual appearances are characterized in the refutation of the first definition. It is not through the sense organs (and so not through perception) that the soul discovers that the sensible qualities that appear to it through perception are something, that they are each one, that they are the same as themselves, and so on. As a result, there is a sense in which one could say that the soul does not take the sensible appearances *to be anything*, at least insofar as these appearances are merely perceived through sense organs. The elements, similarly, are taken to be nothing other than a "here/now," bare sense-data that do not have a being, at least insofar as they are considered in isolation from the other elements. Insofar as neither the elements nor the sensible appearances considered in isolation can be described as a being, then it is superficially plausible to say that both are unknowable and cannot be expressed via any *logos*, since linguistic expression requires at a minimum participation in being and the other common features.

However, the unknowability of the elements causes serious difficulties for the Dream Theory, and these difficulties lead Socrates and Theaetetus to ultimately abandon the view. The problem, in brief, is that it is unclear how a true judgment about some complex is to become knowledge simply as a result of listing out the elements that make up the complex when each element is itself unknown. The central example that Socrates

²⁴⁸ The common features of everything are discussed in Section 10.ii.

and Theaetetus consider is the relationship between syllables and letters, playing on the fact that a Greek word for ‘complex’ is *sullabē* (syllable) and that a Greek word for ‘element’ is *stoicheion* (letter) (202e-203d). It is absurd to say that a person knows the first syllable of Socrates’ name, ‘So,’ if the person does not also know the ‘s’ and the ‘o.’ The syllable “So” just is, the argument posits, all of the letters that compose it, and one cannot know all of the letters without also knowing each individual letter. But according to the Dream Theory, the ‘s’ and ‘o’ are unknowable—they merely possess a name that labels particular audible noises. When Socrates and Theaetetus are unable to devise a way in which the complex can be known without the elements also being knowable, they conclude that the elements must be knowable and so give up the Dream Theory. Moreover, Socrates suggests, the conclusion advocated by the Dream Theory contradicts the actual procedure by which human beings learn to spell; humans first begin by learning to distinguish each letter and then proceed from that foundation to learn syllables and words (206a).

I will leave aside a direct consideration of the arguments that Socrates uses to establish that elements must be knowable if the complex is knowable. These arguments are difficult and touch on issues of part/whole complexity that are entirely outside of the present inquiry.²⁴⁹ What I will address, however, is the ending *aporia* that the argument leaves the reader with—how can it be the case that basic perceptual elements like letter

²⁴⁹ The best treatments of these arguments that I have encountered are found in Miller (1992) and Harte (2002). The way that Harte in particular pays careful attention to the singularity and plurality of the various words that Plato uses in this section was highly influential in my efforts to attend to such usages in the sections that I considered in this dissertation.

sounds can be subject to some sort of an account such that knowledge of them is possible?

Interpreted in light of the refutation of the first definition, this question admits of a swift answer. While it is true that the perceptual appearance in itself cannot be known, the being that appears in that appearance can be known—though to be sure it cannot be known through any perception. Perceptual appearances have a double aspect. In themselves, they are mere appearances, entirely separate from the common features of everything. But insofar as they are also things that the soul can consider and think about, they are appearances *of a particular sort or quality* that stand in meaningful relations with other qualities. The particular sound appearance is not merely a random audible noise, but is rather a particular kind of sound—it is an appearance of the letter ‘s.’ The letter ‘s’, however, has a particular quality whereby the ‘s’ sounds can be differentiated from the non-‘s’ sounds—this was the crucially important result of the refutation of Heraclitean flux, remember.²⁵⁰ Thus, all qualities, even perceptual qualities, can be characterized in a *logos*.

Unintentionally, Theaetetus demonstrates the way in which perceptual qualities can be characterized in a *logos* in his very effort to establish that it is impossible to give a *logos* of the elements.

Soc: Come along then, and let us have the account of ‘s’ in the same way.

Thea: How *can* anyone give the elements of a letter [literally, the letters of a letter]? ‘S’ is just one of the voiceless letters, Socrates, a mere sound like a hissing of the tongue. ‘B’ again has neither voice nor sound, and that’s true of most letters. So the statement that they themselves are without an

²⁵⁰ See Section 9.

account holds perfectly well. Even the seven clearest [i.e., vowels] have only voice; no sort of account whatever can be given of them. (203b1-9)²⁵¹

While Theaetetus is correct that one cannot give the “letters” out of which letters are composed, he performatively contradicts himself when he argues that it is impossible to give an account of letters. This entire speech is one giant account of the different kinds of letters and how they are related to one another. ‘S’ is a voiced consonant (the ‘s’ sound can be made without attaching a vowel to it), unlike the voiceless consonant ‘b’ (the ‘b’ sound cannot be made without attaching a vowel to it) and the vowels. A linguist could presumably give an even more careful and nuanced *logos* by which the ‘s’ could be distinguished even from the other voiced consonants. Similarly, someone well trained in music theory could presumably give an account of the different notes that can be played—an example that Socrates uses at 206a-b—by giving an account of the mathematical ratios underlying the relationship between each note and every other. Because he is not thinking back to the refutation of the first definition and the relationship between perceptual qualities and beings, however, Theaetetus overlooks the significance of his own account, and so fails to see how perceptible qualities *are* and thus have a *logos*.

iii. Final Thoughts

There is something about human perceptual experience that makes us highly reluctant to think and speak rigorously about it. Even those otherwise committed to philosophical rigor are often willing to rely upon obviously problematic and metaphoric language when describing the relationship between perception, judgment, and the soul or mind. On the one hand, it is obviously the case that the eyes don’t perceive anything—

²⁵¹ This translation is taken, with modification, from the Levett/Burnyeat.

remove an eye from the larger human organism, and it becomes merely another thing amongst things. On the other hand, when one tries to argue that it is the soul or mind, and not the eyes, that sees, his or her language immediately begins to sound strange. And the postulate that the soul or mind discovers the truth about the sensible world without using perceptions—that is to say, the postulate that the soul discovers being without relying upon the intervention of the sense organs—inevitably produces controversy. Yet Socrates takes these conclusions to be obviously true, if only perception and the soul were spoken about in a rigorous manner. This dissertation has been dedicated to following Socrates' lead, and to use the resources that Plato offers in the *Theaetetus* to rethink what perception is, how it relates to sense organs, and how it relates to other activities of the soul like judgment. Coming to understand what perception is involves touching on fundamental issues of metaphysics, such as the nature of the self, the distinction between being and appearances, the distinction between being and becoming, and the relationship between body and the soul/mind. Misunderstanding the nature of perception, on the other hand, potentially distorts and misleads human beings about these issues, often in surprising ways. Plato's care and sensitivity concerning the nature of perception is therefore quite worthy of emulating.

Bibliography

Greek Texts of Plato

- Euthydemus* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- Meno* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- Parmenides* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- (2010). Ed. Arnold Hermann. Las Vegas: Parmenides Publishing.
- Phaedo* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- Protagoras* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- Republic* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- Theaetetus* (1903). In *Platonis Opera*, Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- (1921). In *Plato VII*. Ed. Jeffrey Henderson. Cambridge: Harvard University Press.
- Sophist* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.
- (1921). In *Plato VII*. Ed. Jeffrey Henderson. Cambridge: Harvard University Press.
- Statesman* (1903). In *Platonis Opera*. Ed. John Burnet. Oxford University Press. Perseus Digital Library.

Translations of Plato

- Euthydemus* (1997). Tr. Rosamond Kent Sprague. In *Plato: Complete Works*. Ed. John Cooper. Indianapolis: Hackett Publishing Company.
- Meno* (1984). Tr. R.E. Allen. In *The Dialogues of Plato Vol. 1*. New Haven: Yale University Press.
- (1997). Tr. G.M.A. Grube. In *Plato: Complete Works*. Ed. John Cooper. Indianapolis: Hackett Publishing Company.
- Parmenides* (1996). Tr. Mary Louise Gill and Paul Ryan. Indianapolis: Hackett Publishing Company.
- (2010). Tr. Arnold Hermann and Sylvana Chrysakopoulou. Las Vegas: Parmenides Publishing.
- Phaedo* (1966). Tr. Harold North Fowler. In *Plato in Twelve Volumes*. Vol. 1. Cambridge: Harvard University Press. Perseus Digital Library.
- (1993). Tr. David Gallop. Oxford: Oxford University Press.
- (1997). Tr. G.M.A. Grube, In *Plato: Complete Works*, Ed. John Cooper. Indianapolis: Hackett Publishing Company.
- Protagoras* (1997). Tr. Stanley Lombardo and Karen Bell. In *Plato: Complete Works*, Ed. John Cooper. Indianapolis: Hackett Publishing Company.

- Republic* (1968). Tr. Allan Bloom. 2nd ed. Basic Books.
- (1969). Tr. Paul Shorey. In *Plato in Twelve Volumes*. Vols. 5 & 6. Cambridge: Harvard University Press. Perseus Digital Library.
- Sophist* (1921). Tr. Harold North Fowler. In *Plato VII*. Ed. Jeffrey Henderson. Cambridge: Harvard University Press.
- (1996). Tr. Eva Brann, Peter Kalkavage, Eric Salem. Newburyport: Focus Publishing.
- Statesman* (1997). Tr. C. J. Rowe. In *Plato: Complete Works*, Ed. John Cooper. Indianapolis: Hackett Publishing Company.
- Theaetetus* (1921). Tr. Harold North Fowler. In *Plato VII*. Ed. Jeffrey Henderson. Cambridge: Harvard University Press.
- (1935). Tr. Francis Macdonald Cornford. In *Plato's Theory of Knowledge: The Theaetetus and the Sophist of Plato translated with a running commentary*. London: Lund Humphries.
- (1973). Tr. John McDowell. Oxford: Clarendon Press.
- (1984). Tr. Seth Benardete. In *The Being of the Beautiful*, Part I. Chicago: University of Chicago Press.
- (1992). Tr. M.J. Levett and Myles Burnyeat. Indianapolis: Hackett Publishing.

Works Cited

- Annas, Julia (1981). *An Introduction to Plato's Republic*. Oxford: Clarendon Press.
- Aristotle (1984a). *Posterior Analytics*. Tr. Jonathan Barnes. In *The Complete Works of Aristotle*. Ed. Jonathan Barnes. Vol 1. Princeton: Princeton University Press.
- (1984b). *Metaphysics*. Tr. W.D. Ross. In *The Complete Works of Aristotle*. Ed. Jonathan Barnes. Vol 2. Princeton: Princeton University Press.
- (1997). *Politics*. Tr. Peter L. Phillips Simpson. Chapel Hill: University of North Carolina Press.
- (2011). *Nicomachean Ethics*. Tr. Robert C. Bartlett and Susan D. Collins. Chicago: University of Chicago Press.
- Bailey, D.T (2005). "Plato and Aristotle on the Unhypothetical." *Oxford Studies in Ancient Philosophy* 29.2: 101-126. Google Books.
- Barnes, Jonathan (1986). *The Presocratic Philosophers*. London: Routledge and Kegan Paul.
- Berkeley, George (1744). *Siris: A Chain of Philosophical Reflections and Inquiries Concerning the Virtues of Tar Water*. London: Reprinted for W. Innys. Google Books.
- Benardete, Seth (1984). *The Being of the Beautiful*. Part 1. Chicago: University of Chicago Press.
- Bostock, D. (1988). *Plato's Theaetetus*. Oxford: Oxford University Press.
- Boter, Gerald J. (2009). "Plato *Theaetetus* 182e1-2: The Meaning of μένειν." *Mnemosyne* 62: 30-50.
- Bolton, Robert (1998). "Plato's Discovery of Metaphysics: The New *Methodos* of the *Phaedo*." In *Method in Ancient Philosophy*. Ed. Jyl Gertzler. Oxford: Clarendon Press.

- Bradshaw, David (1998). "The Argument of the Digression in the *Theaetetus*." *Ancient Philosophy* 18: 61-8.
- Brandwood, Leonard (1992). "Stylometry and chronology." In *Cambridge Companion to Plato*. Ed. Richard Kraut. Cambridge: Cambridge University Press.
- Brown, Lesley (1993). "Understanding the *Theaetetus*: A Discussion of David Bostock, Plato's *Theaetetus*, and Myles Burnyeat, *The Theaetetus of Plato*." *Oxford Studies in Ancient Philosophy* 11: 199-224.
- Burnet, John (1928). *Platonism*. Berkeley: University of California Press.
- Burnyeat, Myles (1976a). "Protagoras and Self-Refutation in Later Greek Philosophy." *Philosophical Review* 85.1: 44-69. JSTOR.
- (1976b). "Protagoras and Self-Refutation in Plato's *Theaetetus*." In *Companions to ancient thought I: Epistemology*. Cambridge: Cambridge University Press, 1990. Originally in *Philosophical Review* 85: 172-175.
- (1987). "Platonism and Mathematics: A Prelude to a Discussion." In *Mathematics and Metaphysics in Aristotle*. Ed. Andreas Graeser. Bern: Haupt.
- (ed.) (1990). *The Theaetetus of Plato*. Indianapolis: Hackett Publishing Company, 1990.
- Chappell, Sophie Grace (2013). "Plato on Knowledge in the *Theaetetus*." In *Stanford Encyclopedia of Philosophy (Winter 2013 Edition)*. Ed. Edward N. Zalta. URL = <<http://plato.stanford.edu/archives/win2013/entries/plato-theaetetus/>>.
- Cherniss, H. F. (1936). "The Philosophical Economy of the Theory of Ideas." Reprinted in *Studies in Platonic Metaphysics*. Ed. R. E. Allen. London: Routledge and Kegan Paul, 1965.
- Cobb-Stevens, Veda (1989). "Perception, Appearance, and Kinēsis: The Secret Doctrine in Plato's *Theaetetus*." In *Essays in Ancient Greek Philosophy III: Plato*. Ed. John Anton and Anthony Preus. State University of New York Press.
- Cooper, John M. (1967). *Plato's Theaetetus*. Dissertation. New York: Garland Publishing, 1990.
- (ed) (1997). *Plato: Complete Works*. Indianapolis: Hackett Publishing Company, 1997.
- Cornford, Francis Macdonald (1932). "Mathematics and Dialectic in the *Republic* VI-VII." Reprinted in *Studies in Platonic Metaphysics*. Ed. R. E. Allen. London: Routledge and Kegan Paul, 1965.
- (1935). *Plato's Theory of Knowledge: The Theaetetus and the Sophist of Plato translated with a running commentary*. London: Lund Humphries, 1935.
- Dancy, R. M. (1987). "Theaetetus' First Baby: *Theaetetus* 151e-160e." *Philosophy Topics* XV.2: 61-108.
- Day, Jane M. (1997). "The Theory of Perception in Plato's *Theaetetus* 152-183." *Oxford Studies in Ancient Philosophy* 15: 51-80.
- Denyer, Nicholas (2007). "Sun and Line: The Role of the Good." In *Cambridge Companion to Plato's Republic*. Ed. G.R.F Ferrari. New York: Cambridge University Press.
- Descartes, Rene (2006). *Meditations on First Philosophy*. In *Meditations, Objections, and Replies*. Tr. Roger Ariew and Donald Cress. Indianapolis: Hackett Publishing Company.

- Desjardins, Rosemary (1990). *The Rational Enterprise: Logos in Plato's Theaetetus*. Albany: State University of New York Press.
- Devereux, Daniel T. (1994). "Separation and Immanence in Plato's Theory of Forms." *Oxford Studies in Ancient Philosophy* 12: 63-90.
- Emilsson, Eyjolfur Kjalar (1994). "Plato's Self-Refutation Argument in *Theaetetus* 171a-c Revisited." *Phronesis* 39.2: 136-149.
- Evans, Matthew (2013). "Making the Best of Plato's Protagoras." 36th Annual Workshop in Ancient Philosophy. Austin: March 21-3.
- Fine, Gail (1979a). "False Belief in the *Theaetetus*." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Phronesis* 24: 70-80.
- (1979b). "Knowledge and *Logos* in the *Theaetetus*." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Philosophical Review* 88: 366-97.
- (1984). "Separation." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Oxford Studies in Ancient Philosophy* 2: 31-87.
- (1986). "Immanence." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Oxford Studies in Ancient Philosophy* 4: 71-97.
- (1990). "Knowledge and Belief in *Republic* V-VII." In *Companions to ancient thought 1: Epistemology*. Cambridge: Cambridge University Press.
- (1992). "Inquiry in the *Meno*." In *Cambridge Companion to Plato*. Ed. Richard Kraut. Cambridge: Cambridge University Press.
- (1994). "Protagorean Relativisms." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Boston Area Colloquium in Ancient Philosophy* 10. Landham: University Press of America.
- (1996). "Conflicting Appearances: *Theaetetus* 153d-154b." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Form and Argument in Late Plato*. Ed. C. Gill and M. McCabe. Oxford: Clarendon Press.
- (1998a). "Plato's Refutation of Protagoras in the *Theaetetus*." In *Plato on Knowledge and Forms: Selected Essays*. Oxford: Clarendon Press, 2003. Originally in *Apeiron* 32: 201-34.
- (1998b). "Relativism and Self-Refutation: Plato, Protagoras, and Burnyeat." In *Method in Ancient Philosophy*. Ed. Jyl Gentzler. Oxford: Clarendon Press.
- Fowler, David (1999). *The Mathematics of Plato's Academy*. 2nd Ed. Oxford: Clarendon Press.
- Franklin, Lee (2012). "Inventing Intermediates: Mathematical Discourse and its Objects in *Republic* VII." *Journal of the History of Philosophy* 50.4: 483-506. Project Muse Standard Collection.
- Frede, Michael (1986). "Philosophy and Medicine in Antiquity." In *Essays in Ancient Philosophy*. Oxford: Clarendon Press, 1987. Originally in *Human Nature and Natural Knowledge: Essays Presented to Marjorie Grene on the Occasion of Her Seventy-Fifth Birthday*. Ed. Alan Donagan, Anthony N. Perovich Jr., and Michael V. Wedin. Dordrecht: D. Reidel Publishing Company.

- (1987a). "Perception in Plato's Later Dialogues." In *Essays in Ancient Philosophy*. Oxford: Clarendon Press.
- (1987b). "The Ancient Empiricists." *Essays in Ancient Philosophy*. Oxford: Clarendon Press.
- Geach, P. T. (1966). "Plato's *Euthyphro*: An Analysis and Commentary." *Monist* 50.3: 369-382. Periodicals Archive Online.
- Gerson, Lloyd P. (2003). *Knowing Persons: A Study in Plato*. Oxford: Oxford University Press.
- Harte, Verity (2002). *Plato on Parts and Wholes: The Metaphysics of Structure*. Oxford: Oxford University Press.
- Heidegger, Martin (1996). *Being and Time*. Tr. Joan Stambaugh. New York: State University of New York Press.
- (2002). *The Essence of Truth: On Plato's Cave Allegory and the Theaetetus*. Tr. Ted Sadler. London: Bloomsbury Publishing.
- Hicken, Winifred F. (1957). "Knowledge and Forms in Plato's *Theaetetus*." Reprinted in *Studies in Platonic Metaphysics*. Ed. R. E. Allen. London: Routledge and Kegan Paul, 1965.
- Hobbes, Thomas (1981). *Leviathan*. Ed. C.B. Macpherson. London: Penguin Books.
- Kanayama, Yahei (1987). "Perceiving, Considering, and Attaining Being (*Theaetetus* 184-186)." *Oxford Studies in Ancient Philosophy* 5: 29-81.
- Karasmanis, Vassilis (1990). "The Hypotheses of Mathematics in Plato's *Republic* and his Contribution to the Axiomatization of Geometry." In *Greek Studies in the Philosophy and History of Science*. Ed. P. Nicolacopoulos. Dordrecht: Kluwer Academic Publishers.
- Lee, Mi-Kyoung (2005). *Epistemology after Protagoras: Responses to Relativism in Plato, Aristotle, and Democritus*. Oxford: Oxford University Press.
- Levett, M. J. (1990). "The *Theaetetus* of Plato: Analysis." In *The Theaetetus of Plato*. Ed. Myles Burnyeat. Indianapolis: Hackett Publishing Company.
- Liddell, Henry George and Robert Scott (1940). *A Greek-English Lexicon: revised and augmented throughout by Sr. Henry Stuart Jones with the assistance of Roderick McKenzie*. Oxford: Clarendon Press. Perseus Digital Library.
- Liddell, Henry George and Robert Scott (1889). *An Intermediate Greek-English Lexicon*. Oxford: Clarendon Press. Perseus Digital Library.
- Long, A. A. (1998). "Plato's Apologies and Socrates." In *Method in Ancient Philosophy*. Ed. Jyl Gentzler. Oxford: Clarendon Press.
- Markie, Peter (2012). "Rationalism vs. Empiricism." In *The Stanford Encyclopedia of Philosophy (Summer 2012 Edition)*. Ed. Edward N. Zalta. URL = <http://plato.stanford.edu/archives/sum2012/entries/rationalism-empiricism/>.
- McDowell, John (1973). *Theaetetus: Translated with Notes*. Oxford, Clarendon Press.
- Miller, Mitchell (1986). *Plato's Parmenides: The Conversion of the Soul*. Princeton: Princeton University Press.
- (1992). "Unity and Logos: A Reading of *Theaetetus* 201c-210a." *Ancient Philosophy* 12: 87-111.
- (2003). "The Timaeus and the 'Longer Way': Godly Method and the Constitution of Elements and Animals." In *Plato's Timaeus as Cultural Icon*. Ed. G. Reydams-Schils. Indianapolis: University of Notre Dame Press.

- (2007). "Beginning the 'Longer Way.'" In *Cambridge Companion to Plato's Republic*. Ed. G.R.F Ferrari. New York: Cambridge University Press.
- Muller, Ian (1981). *Philosophy of Mathematics and Deductive Structure in Euclid's Elements*. Cambridge: MIT Press.
- (1992). "Mathematical method, philosophical truth." In *Cambridge Companion to Plato*. Ed. Richard Kraut. Cambridge: Cambridge University Press.
- Nails, Debra (2002). *The People of Plato: A Prosopography of Plato and Other Socratics*. Indianapolis: Hackett Publishing.
- Nehamas, Alexander (1975a). "Plato on the Imperfections of the Sensible World." In *Virtue of Authenticity*. Princeton: Princeton University Press, 1999. Originally in *American Philosophical Quarterly* 12: 105-17.
- (1975b). "Confusing Universals and Particulars in Plato's Early Dialogues." In *Virtue of Authenticity*. Princeton: Princeton University Press, 1999. Originally in *Review of Metaphysics* 29: 287-306.
- (1979). "Self-Predication and Plato's Theory of Forms." In *Virtue of Authenticity*. Princeton: Princeton University Press, 1999. Originally in *American Philosophical Quarterly* 16: 93-103.
- (1984). "*Epistēmē* and *Logos* in Plato's Later Thought." In *Virtue of Authenticity*. Princeton: Princeton University Press, 1999. Originally in *Archiv für Geschichte der Philosophie* 66: 11-36.
- Nutton, Vivian (2013). *Ancient Medicine*. 2nd Edition. London: Routledge.
- Owen, G. E. L (1953). "The Place of the *Timaeus* in Plato's Dialogues." In *Logic, Science, and Dialectic*. Ithaca: Cornell University Press, 1986. Originally in *Classical Quarterly* NS 3: 79-95.
- Polansky, Ronald M. (1992). *Philosophy and Knowledge: A Commentary on Plato's Theaetetus*. London: Bucknell University Press.
- Price, Richards (1787). *A review of the principle questions in morals: Particularly those respecting the origin of our ideas of virtue, its nature, relation to the deity, obligation, subject-matter, and sanctions*. Printed for T. Cadell. Google Books.
- Proclus (1987). *Commentary on Plato's Parmenides*. Tr. Glenn R. Morrow and John M. Dillon. Princeton: Princeton University Press.
- Quine, W.V.O. (1960). *Word and Object*. Cambridge: M.I.T. Press, 1960.
- Recco, Greg (2009). *Athens Victorious: Democracy in Plato's Republic*. Lexington Books, 2009.
- Reeve, C.D.C. (1988). *Philosopher-Kings: The Argument of Plato's Republic*. Indianapolis: Hackett Publishing Company, 1988.
- Robinson, Richard (1953). *Plato's Earlier Dialectic*. Cambridge: Cambridge University Press.
- Roochnik, David (2002). "Self-Recognition in Plato's *Theaetetus*." *Ancient Philosophy* 22: 37-51.
- Runciman, W. G. (1962). *Plato's Later Epistemology*. Cambridge: Cambridge University Press.
- Sanday, Eric (2014, forthcoming). *A Study of Dialectic in Plato's Parmenides*. Chicago: Northwestern University Press.

- Sallis, John (2015). "The Span of Memory: On Plato's *Theaetetus*." 15th Annual Independent Meeting of the Ancient Philosophy Society. Lexington, KY: April 9-12.
- Sayer, Kenneth M. (1969). *Plato's Analytic Method*. Chicago: University of Chicago Press.
- Schiller, F. C. S. (1908). *Plato or Protagoras: Being a Critical Examination of the Protagoras Speech in the Theaetetus with some Remarks upon Error*. London: Simpkin, Marshall, & Co. Google Books.
- Sedley, David (1996). "Three Platonist Interpretations of the *Theaetetus*." In *Form and Argument in Late Plato*. Ed. C. Gill and M. McCabe. Oxford: Clarendon Press.
- (2004). *The Midwife of Platonism: Text and Subtext in Plato's Theaetetus*. Oxford: Oxford University Press.
- Sheffield, Frisbee C. C. (2001). "Psychic Pregnancy and Platonic Epistemology." *Oxford Studies in Ancient Philosophy* 20: 1-33.
- Shorey, Paul (1933). *What Plato Said*. Chicago: University of Chicago Press.
- (1969). *Translation of the Republic with Notes*. In *Plato in Twelve Volumes*. Vols. 5 & 6. London: William Heinemann Ltd. Perseus Digital Library.
- Silverman, Allan (2000). "Flux and Language in the *Theaetetus*." *Oxford Studies in Ancient Philosophy* 18: 109-52.
- (2014). "Plato's Middle Period Metaphysics and Epistemology." *Stanford Encyclopedia of Philosophy* (Summer 2014). Ed. Edward Zalta. URL = <<http://plato.stanford.edu/archives/sum2014/entries/plato-metaphysics/>>
- Szabó, Árpád (1978). *The Beginnings of Greek Mathematics: Synthese Historical Library Book 17*. Tr. A.M. Ungar. Dordrecht, Holland: D. Reidel Publishing Company, 1978. Google Books.
- Taylor, A. E. (1966). *Plato: The Man and His Work*. London: Methuen & Co, 1966.
- Thesleff, Holger (1969). *Studies in the Styles of Plato*. In *Platonic Patterns: A Collection of Studies by Holger Thesleff*. Las Vegas: Parmenides Publishing, 2009. Originally Helsinki: Societas Scientiarum Fennica.
- (1990). "Theaitetos and Theodoros." In *Platonic Patterns: A Collection of Studies by Holger Thesleff*. Las Vegas: Parmenides Publishing, 2009. Originally in *ARCTOS XXIV*: 147-159.
- Twomey, Rosemary (2013). "Are the Objects of Sense Proprietary: Plato and Aristotle on the Diversity of the Sense Organs." 36th Annual Workshop in Ancient Philosophy. Austin: March 21-3.
- Vlastos, Gregory (ed.) (1956). *Protagoras*. Tr. Benjamin Jowett and Martin Ostwald. Indianapolis: The Bobbs-Merrill Company.
- Waterfield, Robin A. H. (1987). *Theaetetus*. Middlesex: Penguin Books.
- Waterlow, Sarah (1977). "Protagoras and Inconsistency: Theaetetus 171a6-c7." *Archiv für Geschichte der Philosophie* 59: 19-36.
- Wetzel, Linda (2014). "Types and Tokens." In *The Stanford Encyclopedia of Philosophy*, Spring 2014 Edition. Ed. Edward N. Zalta. URL = <<http://plato.stanford.edu/archives/spr2014/entries/types-tokens/>>.
- White, Nicholas (1979). *A Companion to Plato's Republic*. Indianapolis: Hackett Publishing Company.

- (1992). "Plato's metaphysical epistemology." In *Cambridge Companion to Plato*. Ed. Richard Kraut. Cambridge: Cambridge University Press.
- Wiitala, Michael Oliver (2014). *Truth and Falsehood in Plato's Sophist*. Dissertation. University of Kentucky.
- Williams, Bernard (ed.) (1992). *Theaetetus*. Tr. M.J. Levett and Myles Burnyeat. Indianapolis: Hackett Publishing Company.

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Professional Experience

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Awards

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- Fall 2012 Graduate School Allocated Fellowship, University of Kentucky
- 2007 Soper Prize for Philosophy, Whitman College
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Publications

- "Cephalus, Myth of Er, and Moral 'Luck' in the *Republic*." *Journal of the International Plato Society*. (Forthcoming Issue)
- "Rabbit's Feet, Hatches, and Monsters: Mysteries vs. Questions in J.J. Abrams' Stories." *The Philosophy of J.J. Abrams (The Philosophy of Popular Culture)*. Ed. Patricia Brace and Robert Arp. University Press of Kentucky, 2014.
- "Karl Marx." *The Concord Review* 14.1 (2003), pp. 121-139.

Presentations

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- October 2014, "*Logos* and Eidetic Structure in the *Theaetetus*." Fall 2014 Meeting of the Society of Ancient Greek Philosophy, Fordham University, New York, New York.

October 2013, “The Normative Structures of Judgment in Plato’s *Theaetetus*.” Fall 2013 Meeting of the Society of Ancient Greek Philosophy, Fordham University, New York, New York.

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October 2011, “*Theaetetus* 166a-168c: How Plato Makes Use of his Philosophic Past.” Fall 2011 Meeting of the Society of Ancient Greek Philosophy, Fordham University, New York City, New York.

April 2011, “Can Bodily Life be Ruled by Rational Limit?—The Attuning Structure of Anger in Seneca’s *De Ira*,” 2011 Meeting of the Ancient Philosophy Society, Sundance, Utah.

March 2011, “The Ethical Foundations of Logic,” Gulf University of Science and Technology Conference for the Humanities, Kuwait City, Kuwait.

Commentaries

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April 2013, Commentary on Terence Sweeney’s paper at the 16th Annual Philosophy Graduate Student Conference, University of Kentucky, Lexington, Kentucky.

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