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PLATO'S *THEAETETUS*:

ON THE WAY TO KNOWLEDGE

by

ANDREA TSCHEMPLIK

A dissertation submitted to the Graduate Faculty in Philosophy in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

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Abstract

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ANDREA TSCHEMPLIK

Adviser: Professor Steven M. Cahn

Plato's Theaetetus investigates the nature of knowledge. Socrates converses with two mathematicians, Theaetetus and Theodorus, who cannot arrive at the necessary and sufficient conditions of knowledge. Theaetetus offers three definitions, none of which can withstand scrutiny. Most commentators on the Theaetetus examine the arguments put forward and, by constructing a definition of knowledge, attempt to complete what Plato began. But analysis of the various definitions offered is incomplete as an investigation of the dialogue.

Before Socrates elicits from Theaetetus the first definition of knowledge as perception, he characterizes himself as a midwife. And before readers are introduced to Socrates, we encounter Euclides as the alleged "author" of the dialogue. It is incumbent upon the reader to notice all the elements that Plato offers and to examine whether the

dramatic setting of the arguments sheds light on their outcome. The inner frame of the dialogue reveals that the nature of Theaetetus's soul is under investigation as much as the nature of knowledge. The nature of writing and memory, discussed in the outer frame, are incorporated in the second definition of knowledge as opinion, and in the third definition as true opinion with *logos*. *Logos* is the unifying principle of the dialogue, in that Socrates' dissection of the three meanings of *logos* recapitulates the three definitions of knowledge.

A rigorous reading, incorporating both the action and the speeches of the dialogue, shows that the Theaetetus exhibits the essential ingredients of knowledge. The lengthy examination of perception shows it as model for knowledge, in that an account is needed of both the knower and the known, before a complete definition is possible. Thus the Theaetetus is a guide on the way to knowledge. By the end we have a thorough understanding of both the need for a structure of soul and for the structure of that which is to be known, as well as the tool, *logos*, which would enable us to put the two together in a definition of knowledge.

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On a more personal side, I thank my husband Jim Stam and my two cats, Putzi and Lilly, who have watched over me throughout this process. I thank my family and my friends Allison Robichaud and Adine M. Johnson, who cheered me on from beginning to end. To my friends from Upsala College, who fought to keep the College open and who are now scattered all over the place, I say "Thanks." And to my many friends at Drew University, who have not stopped celebrating my success, a special thanks.

I dedicate this dissertation to the memory of my mother, Helena Tschemplik.

CONTENTS

INTRODUCTION

Plato's Theaetetus is a dialogue whose stated task it is to answer the question "What is knowledge?" Socrates meets together with two mathematicians, Theaetetus and Theodorus, and decides that this is a good occasion to try to resolve a perplexity: "I'm incapable of grasping adequately by myself, whatever knowledge is" (145e). Three principal answers are proposed to the question "What is knowledge?" and they are analyzed at some length. This discussion provides the main content of the dialogue and over three-quarters of the printed Stephanos pages. In addition, there is an "outer frame," purporting to explain the transcription and transmission of the dialogue; there are several digressions -- on midwifery, on the nature of

the "true" philosopher, and a defense for Protagoras; and there is an "inner frame" or setting.

The setting of the conversation makes it clear that, dramatically speaking, the discussion about knowledge took place when Theaetetus was a young lad, a teenager, and when Socrates was nearing his own death. At the very end of the Theaetetus Socrates says that he must leave to go to King Archon's Porch to find out about the indictment drawn up against him by Meletus (210d), the charges that will soon lead to his trial and death. In this way the Theaetetus is connected to the "biographical" sequence about Socrates: Euthyphro, Apology, Crito, and Phaedo. And in the very last words of the dialogue Socrates suggests that the three of them should return the next morning to continue the discussion, a remark establishing the Theaetetus as the first work in the "trilogy": Theaetetus, Sophist, Statesman. Oddly, however, a different trilogy is announced near the beginning of the Sophist (217a-b): that of Sophist, Statesman, Philosopher, even though no dialogue of the last title has come down to us or is ever referred to by any ancient author.

In addition, there is a specific reference within the text of the Theaetetus to the Parmenides -- specifically, that is to the Platonic work, not just the earlier thinker and person: "I once got together with the man [Parmenides] when I was very young and he very old and he appeared to me

to have some altogether grand and noble depth" (183e-184a).[1] The comment clearly implies that Socrates' interrogation by Parmenides, when he was young, preceded this conversation, and Socrates uses it to explain why he is reluctant to undertake the daunting task of examining being. On the basis of these combined factors we can postulate a "tetralogy" or at least an informal "foursome" consisting of the Parmenides, Theaetetus, Euthyphro and Sophist, as the works referred to directly in our dialogue.

The conversation among Socrates, Theaetetus, and Theodorus is itself framed in Plato's dialogue. The "outer frame" of the dialogue, a brief discussion between Euclides and Terpsion serves to establish Euclides as the "official," or perhaps alleged, "writer-editor" of the dialogue, a report of a conversation that Euclides attended shortly before Socrates' death (142c). Euclides took notes of that conversation and has since revised them. Euclides says that he had just seen Theaetetus, who had been wounded in a battle at Corinth -- from which we may infer that the date is either between 390 and 387 B.C. or in 369 B.C., when the Athenians and Spartans fought together against the Thebans. Consideration of Theaetetus's accomplishments as a mathematician has led commentators to consider the latter date more

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[1] Unless otherwise indicated, all translations of the Theaetetus are from Seth Benardete, The Being of the Beautiful. Part I: Plato's *Theaetetus* (Chicago-London: University of Chicago Press, 1986 [1984]).

plausible and, since it is presumed that Theaetetus probably died after his involvement in the battle, we have Theaetetus's dates as c. 414-369 B.C. From the evidence provided by Plato himself we can conclude, if we accept the later date, that Plato wrote the dialogue, or at least its frame, after 369 B.C.

As an author, Plato provides indicators that enable his readers to place any given dialogue in the context of other dialogues, creating dramatic sequences and thematic connections. In the case of the Theaetetus, we already have three rather different types of consideration for an interpretation of the Theaetetus: the main issue and the arguments about it; the setting of the dialogue and its relation to other Platonic works; and the "outer frame" of the dialogue, present here and in numerous Platonic works, but not in all of them. There are different senses of "dating" involved in these instances also: internal "dramatic dating" and connection of the dialogues with one another in "literary sequence"; dating of the dialogues with respect to external events, such as Socrates' death or various battles; and the scholarly dating of the dialogues according to the likely sequence of their authorship.

Many scholars have dated and arranged the works in the Platonic corpus to reflect the complexity and development of Plato's philosophical arguments. On the assumption that Plato wrote the shorter, "easier" dialogues earlier than the

longer and more "sophisticated" ones, the Theaetetus is virtually always placed late in that sequence, after the Republic and before the Sophist.[2] The importance of this dating of the Theaetetus is linked to the status of the theory of forms. The Theaetetus examines the question of knowledge without making any use of the forms. The question then becomes whether that implies that the theory was not developed yet, or whether the Theaetetus is a critical response to the earlier theory of forms. All commentators agree that the Theaetetus was written after the Republic, but they do not agree on the implications of that placement: Some argue that this implies Plato's final rejection of the forms, while others assert that it establishes the groundwork for Plato's ultimate defense of the forms in the later dialogues. While we agree that this an appropriate placement of the Theaetetus, preceded by the Republic and followed by the Sophist, it is clear that the philosophical problems raised in the dialogues cannot be solved by any proposed chronology of the Platonic corpus.[3] Thus I will

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[2] Cf. Leonard Brandwood, The Chronology of Plato's Dialogues (Cambridge: Cambridge University Press, 1990); cf. Leonard Brandwood, "Stylometry and Chronology," The Cambridge Companion to Plato, ed. Richard Kraut (Cambridge: Cambridge University Press, 1992), p. 115.; cf. Wincenty Lutoslawski, The Origin and Growth of Plato's Logic (New York, 1897).

[3] Cf. Paul Shorey, De Platonis idearum doctrine atgue mentis humanae notionibus commentatio; A Dissertation on Plato's Theory of Forms and on the Concepts of the Human Mind, Diss. [München, 1884], trans. R. S. W. Hawtrey, pref.

make cross-references to other dialogues and sequences mentioned will involve the dramatic connections that Plato himself stipulates and, unless otherwise specified, that will be what I am referring to when I include discussions about "dating."

GETTING TO KNOW KNOWLEDGE

All reports and indicators suggest that Plato crafted his dialogues very carefully, so that everything from the characters of the interlocutors to the frequent literary allusions and obviously including the arguments put forward -- all are deliberately contrived. To be more precise, if any author -- of a written work, musical composition, painting, or philosophical treatise -- shows evidence that there is a careful arrangement of the parts and deliberate inclusion of different kinds of materials, then it is necessary to proceed with interpretation on the hypothesis that such an author has in fact arranged the work deliberately and carefully.

Rosamond Kent Sprague Ancient Philosophy, II:1 (Spring 1982), pp. 21-22, fn. 5. Cf. Shorey, The Unity of Plato's Thought (Chicago: University of Chicago Press, 1903); cf. Jacob Howland, "Re-Reading Plato: The problem of Platonic Chronology," Phoenix: Journal of the Classical Association of Canada XLV:3 (Autumn 1991), pp. 189-214.

The assumption that will guide my reading of the Theaetetus is that careful attention to all the elements of the dialogue is required to ensure the most fruitful reading of the dialogue. It is, of course, tempting to do away with dramatic elements when dealing with an examination of such a profound topic as the nature of knowledge, and many commentators on the Theaetetus have chosen to dive into the deepest part of the dialogue without giving any consideration to the setting or the "periphery" that might allow them to measure the depth. I will show that the frame of the dialogue not only frames the conversation within the dialogue proper, but also frames the question of knowledge itself. Furthermore the persons who Plato chose as the interlocutors also play an important part in understanding the development of the arguments. The fact that Socrates engages mathematicians with the question about the nature of knowledge is most relevant. The level of irony of the dialogue sometimes can only be detected by looking at the Greek. In trying to answer the question why Socrates converses on the question of knowledge with Theaetetus, a young mathematician, one may, for example, look to a definition of the content of knowledge offered in the Republic, Book IV, where Socrates claims that "knowledge itself is knowledge of learning itself" (438c). This can be seen as an illuminating hint toward a proper reading of the Theaetetus, insofar as it might be argued that the dialogue really describes the

process of learning from perception to *logos* and has the main interlocutor Theaetetus undergo this process at a dramatic level. But, when we look at the Greek, there is an amusing clue given about who the proper interlocutors for a dialogue on knowledge should be: *epistēmē men autē mathēmatos autou epistēmē estin.* The phrase suggests an alternative translation as "knowledge itself is concerned with the knowledge of mathematics itself [and of the mathematician himself]." It is this level of craftiness on Plato's part that demands from the reader an ever keen eye.

There are other dialogues where Plato addresses the question of knowledge and we need to ask in what respects the Theaetetus follows the same approach or differs from those dialogues. In Republic, Book V, Socrates investigates knowledge (*epistēmē*) and concludes that it differs from opinion (*doxa*) in that it is a specific power (*dynamis*) oriented towards Being or, as he puts in phrasing reminiscent of Socrates' formulation of Protagoras's teaching in our dialogue: "Doesn't knowledge naturally depend on what is, to know of what is that it is and how it is?" (477b). Later on Socrates, in his construction of the "divided line," again distinguishes between knowledge and opinion and introduces mathematical objects and forms as "the known" ("objects of knowledge"), subdividing knowledge itself into reasoning (*dianioa*) and intellection (*noēisis*), in order to deal more precisely with the different respective objects.

In numerous places in the Republic Socrates discusses knowledge without saying what knowledge is; rather his focus is on what knowledge is of. In still other dialogues knowledge is examined, but the focus is on the "objects of knowledge" rather than the knowing. Thus, in the Phaedrus, the myth of the soul describes the "fantastic" journey of the soul to a vision of the *hyperouranian* beings, the forms: once again one could argue that the forms are what are identified as the object of knowledge. There is some discussion of the process of reaching the goal of the "vision of being," but the entire presentation occurs in the context of *erōs*. It is *erōs* that metaphorically fuels the journey of the soul and it would be difficult to extract a definitive account of the process of knowing from this discussion, whose primary goal is to address the question of self-knowledge.[4] Nevertheless, there are important pointers that we can notice in these dialogues about the problem of knowledge and which, on our hypothesis of interpretation, we should follow. In both cases discussion of the "objects of knowledge" is accompanied or matched up with a knower or, minimally, with a capacity to know. Thus, the "divided line" in Republic VI matches capacities of the soul with their proper objects and the charioteer and the two horses of the Phaedrus, who represent the capacities of the soul, partake of

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[4] Cf. Charles Griswold, Self-Knowledge in Plato's *Phaedrus* (New Haven: Yale University Press, 1986).

the vision of the forms. A proper examination of knowledge requires an account of the knower as well as of the known.

Another dialogue deeply involved with the question of knowledge is the Meno, where Socrates is challenged to provide an explanation for the possibility of acquiring knowledge. He responds to this challenge by putting forward the theory of recollection, which he generates out of a "story" that he has heard "from wise men and women, ... priests and priestesses" (81a) about the immortality of the soul. Here the primary concern is not so much to analyze the objects of knowledge as it is to locate the source or origin of knowledge. The process of learning or coming to know is explained in terms of recollection, which Socrates illustrates, in his conversation with the slave-boy, as a potential knower's ability to search for answers within himself when prompted by appropriate questions. It is noteworthy that Socrates makes use of a mathematical problem to demonstrate his theory of recollection, for it suggests that it is only the proper "objects of knowledge" that can be recollected. All three of these dialogues -- Republic, Phaedrus and Meno -- give some account of soul before endeavoring to say anything about knowledge. One might conclude from this observation that an analysis of soul is requisite for discussing any part of knowledge, whether it be the objects of knowledge or the origin of knowledge. Yet, the Theaetetus does not contain any myth or explicit

analysis of soul, though it does let us know that soul is at stake when we look carefully at the framing of the question of knowledge. Socrates introduces his perplexity about knowledge to provide the occasion for Theaetetus to "display his soul" (145b), which Theodorus had just been abundantly praising.

The fact that Socrates can so expound on the objects of knowledge and at the same time claim in the Theaetetus that he is perplexed about the nature of knowledge challenges us to consider what other than the objects of knowledge could answer the question "What is knowledge?" To introduce the theory of Forms as a solution to the *aporia* of the Theaetetus, as Cornford does, is a dubious move, for it is not the objects of knowledge that are problematic but what knowledge itself is.[5] I will show why it is that the forms cannot provide an answer to the question of knowledge. I will not address Plato's view of the forms in general, however, for there is no textual evidence in the dialogue that would support any particular view about the forms.

The Theaetetus omits both an account of the soul and of the theory of forms, and yet it tries to answer the question of knowledge. I will argue that this is intentional on Plato's part, not because he is undergoing a "critical

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[5] Cf. Francis MacDonald Cornford, Plato's Theory of Knowledge: The *Theaetetus* and the *Sophist* of Plato translated with a running commentary (New York: Liberal Arts Press, 1957 [1934]).

phase," in which he is either disproving the possibility of empiricism or disowning the theory of forms,[6] but because he wants to focus on the process of knowing itself. The products of this process are taken as evident, and it is only fitting that Socrates would choose to discuss this question with "knowers," who have been successful in arriving at "objects of knowledge." And, in fact, within the dialogue, one of Theaetetus's great discoveries, regarding the irrationals, is discussed. Despite or perhaps because of their successes, the mathematicians never ask how it is that they come to know what they know, and it takes the philosopher Socrates to put this question before them. I will show how the process of knowing comes to light, both in the action of the dialogue -- i.e., the experience of the interlocutors -- and in the arguments themselves. Socrates' midwifery aids Theaetetus in consciously undergoing the process of coming to know and the dialogue displays Theaetetus's development of coming to be a knower.

After the introductions, Theaetetus proposes three definitions of knowledge and each is followed by thorough critique: that knowledge is "perception" (151d-186e), that knowledge is "true opinion" (187a-201c), and that it is "true opinion accompanied by *logos*" (201c-210a). It is crucial that we understand why the examination of perception

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[6] Cf. Gilbert Ryle, Plato's Progress. (Cambridge: Cambridge University Press, 1966).

takes up more than half of the Stephanos pages of the Theaetetus. I will argue that the clarification of perception, despite the defeat of the proposed definition as it stands, provides the model for knowledge, because it is in Socrates' analysis of perception that the perceived and the perceiver play equal roles. It is unlikely that anyone would think it possible to give an account of perception without including the role of the perceiver. The same it true for knowledge. The difficulty that arises when focusing on the knower and the process of knowing is dealt with in the dialogue by the introduction of Protagoras's dictum that "man is the measure of all things." It might at first appear that this can be interpreted as a formulation of knowledge that captures both the role of the knower and the object known and which identifies the process of knowing with some kind of measuring. But Socrates develops several refutations of the relativism entailed in Protagoreanism, and it is clear that we are to work toward an analysis of the knower and of knowing that does not fall prey to the traps of relativism. It is clear that knowing involves some kind of measuring, but it does not follow from this that the knower is the measure; the challenge is to avoid relativism without eliminating the role of the knower. The passages defining knowledge as "opinion" and as "opinion accompanied by logos" further strengthen our claim that the true purpose of the dialogue is to focus on the role that the knower plays in knowledge,

for there Socrates turns explicitly toward the inner process of opining and the formulation of opinions. The images of the wax (190e-196c) and of the aviary (196c-201c), which Socrates "locates" in the soul, serve not only as failed attempts to explain false opinion, but as heuristic devices in our search for knowledge. The distinction between having and holding knowledge, introduced in the aviary, further supports my thesis about the crucial role played by the knower in coming to an understanding of the nature of knowledge. The last attempt at defining knowledge by adding *logos* to opinion, i.e., by giving or receiving an account, reflects what has been occurring in the dialogue as a whole: the difficulty of proving that the process of analysis is equivalent to coming to know something reveals why the dialogue cannot arrive at a complete and satisfactory answer to the problem. Yet, while the final arguments are incomplete, the dialogue itself demonstrates the process of coming to know with the example of Theaetetus himself, who comes to know that he does not know what knowledge is. I will show why this is a significant result and why it should not be taken as an argument for skepticism.

CHAPTER ONE:

FRAMING THE QUESTION OF KNOWLEDGE

The Theaetetus is more than simply an inquiry concerning the definition of knowledge, a conversation of Socrates with Theaetetus and Theodorus. Socrates, admitting his own perplexity, directly asks the question of knowledge only at 145d, some three Stephanos pages into the dialogue. The "direct" conversation about knowledge is doubly framed, first (142a-143c) by a device involving Euclides, Terpsion, and a slave, which provides the dramatic setting for the reading of an "edited" version of the "original conversation," long after Socrates' death. The second frame, within that "edited rendition," establishes the personal connections and "credentials" of the principals of the "original" discussion.

Are these frames and other suggested interconnections "mere literary devices," serving only to get the "real" conversation going in a smooth and convenient fashion? Or do the frames themselves show something necessarily related to the argument? We will argue for the latter.

At the very end of the Theaetetus Socrates says, "I have to go to the porch of the king and meet the indictment of Meletus which he's drawn up against me. But at dawn, Theodorus, let's come back here to meet" (210d). This closing indicates that the Theaetetus is specifically integrated into two separate dramatic series -- first with two dialogues that have characters interconnected with it, the Sophist and Statesman: Socrates says that he will return the next day to resume the conversation and the discussion is indeed resumed at the beginning of the Sophist. But the Theaetetus is also related in the same sentence to the Euthyphro: Socrates interrupts the discussion to go to the porch of "King Archon" to be served the indictment drawn up against him by his accusers, Meletus, Anytos, and Lycon.[1]

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[1] Cf. Euthyphro 2a, where this setting is specified. The term "King Archon" is a kind of archaism. Early in Athenian history there were three archons -- King (*basileus*), General (*polemarchos*), and Eponymous. The Eponymous Archon had the most power. By the time of Socrates' trial there were ten, selected by lot, and essentially powerless. Since the original King Archon had authority over religious matters and over the Areopagus, however, and over litigations involving religious disputes, charges of impiety were introduced through this "shadow institution."

The conversation with Euthyphro at King Archon's porch -- incidental to Socrates' indictment for impiety and Euthyphro's prosecution of his own father for murder -- begins the "biographical" series of the Euthyphro, Apology, Crito, and Phaedo, moving from Socrates' indictment to his trial, to his chance for an escape and refusal to do that, and on to his death. This latter tetralogy is very explicitly "political," in the sense that it deals overtly with Socrates' relation to the city of Athens and thus generally with the relation of philosophy to the political sphere. The Theaetetus, Sophist, Statesman trilogy, in fairly obvious contrast, is "non-biographical": not only does Socrates seem to become marginal to the conversation as it proceeds -- as questioner he is "replaced" by the Eleatic Stranger in the last two dialogues; in addition, "Young Socrates," first introduced as a friend of Theaetetus and apparently a different kind of "replacement" of some sort for the "older Socrates," becomes the principal person questioned throughout the final conversation in the Statesman.

The dissimilarity between the two series is stark -- one a personal story of unresolved conflict leading to Socrates' condemnation, imprisonment, execution; the other a record of detached, seemingly disinterested analysis. The contrast between the two sets of dialogues in turn suggests a different role for "the political" in the two series, a question we will look at more specifically in our interpre-

tation of the Theaetetus, and which will raise in its turn the question of the relation of knowledge to politics.

THE OUTER FRAME (142a-143c)

The two principal interlocutors of the Theaetetus are Theaetetus and Theodorus, who, as mathematicians, are appropriate participants, at least superficially, in a discussion about knowledge. The actual starting point of the Theaetetus, however, is an accidental meeting between two Megarians, Terpsion and Euclides (142a). At this point we see Theaetetus, now older and more mature, laid out upon a stretcher and suffering from battle wounds and dysentery. Plato has us meet Theaetetus the soldier prior to meeting Theaetetus the mathematician. This depiction of the wounded older Theaetetus stands in stark contrast to that of the freshly oiled young Theaetetus, who has just finished his exercises and who is accompanied by his friend "young Socrates" when he first meets Socrates. We wonder whether this older and battered Theaetetus would still be capable of experiencing the same sort of perplexity in a conversation about knowledge.

Theaetetus and Theodorus are both mathematicians.[2]

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[2] Although there were many ancients named Theodorus and although Diogenes Laertius (Lives of the Philosophers, II, 86, 97-103) relates various items, in fact all we know of Theodorus comes directly from this dialogue. Cf. Lewis Campbell, ed. The Theaetetus of Plato (Oxford, University

Like Socrates, Theaetetus is an Athenian, indeed one who eventually died fighting for his city, whereas Theodorus comes from Cyrene in distant Africa, and Euclides and Terpsion, who also appear as auditors in the Phaedo (59c), are from Megara.[3] It is a kind of "international set" involved in the defining of "knowledge," then as now, a remove from specific political identity which is an incidental token of the universal aspirations of scientific knowledge. However "eternal" the truth of mathematics may be, the dialogue is in fact "surrounded" by death -- the death of Theaetetus in the initial frame and the coming death of Socrates alluded to in the last sentence.

For the specific occasion of the dialogue, more precisely how it comes to pass that we readers are made privy to the conversation that took place, we have the Megarian Euclides to thank, who recorded the dialogue as it was narrated to him by Socrates. The Theaetetus is the only Platonic dialogue that explicitly identifies the "writer" of the dialogue within the dialogue itself and specifies that

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Press, 1861; reprinted New York, Arno Press, 1973), pp. lii-liv. In contrast, Theaetetus was more widely recognized and mentioned by Euclid for his solution to the problem of the surds and his contributions to the theory of the five solids. Cf. Sir Thomas Heath, A History of Greek Mathematics (Oxford, Clarendon Press, 1921), Vol. I, pp. 202-212).

[3] In Diogenes Laertius (Lives of the Philosophers II, 106-112) Eucleides appears as the founder of the Megarian School. According to Aristotle (Metaphysics Book IX, Chap 3, 1046b), the Megarians deny the existence of potentiality (*dynamis*).

it is not in fact Plato. Plato apparently thought it important that the reader know that he is not the "author" of this dialogue on knowledge and at the same time he provides a dramatic occasion for the apparent coincidence that the dialogue is read aloud by a "slave" (143c).

The majority of Plato's dialogues are in a simple dialogue form. We are directly presented with a conversation between Socrates (in most cases) and an interlocutor. It is as though we the readers were present at a live performance. In another group of dialogues, however, we are at one remove from the actual talk and the entire conversation is given to us through the mouth of a narrator. In three dialogues (Charmides, Lysis, and the Republic) Socrates himself is the narrator. In the Symposium and the Parmenides there is a more complex narrative structure, in which the reporters, Apollodorus and Cephalos respectively, were not in fact present at the original conversations. And finally there is a small group of dialogues (Phaedo, Euthydemus, Protagoras and Theaetetus) where the inner dialogue is framed by another dialogue. The Theaetetus stands out from this group in that both the frame and what is framed are presented as direct dialogues: In neither frame nor main dialogue are there passages with "I said" and "he said."[4] In the other

[4] In the Phaedo the frame is a dialogue between Phaedo and Echecrates, whereas the inner part is narrated by Phaedo; though the narration is interrupted by direct dialogue at 102a. In the Euthydemus the outer dialogue is between

three we have an outer dialogue that provides the occasion for one of the interlocutors to narrate the ensuing dialogue: in two cases, Euthydemus and Protagoras, the narrator is Socrates himself; whereas in the dialogue about Socrates' death, as dramatic necessity would dictate, it is Phaedo who tells the story. The question that arises with regard to the Theaetetus is this: Inasmuch as there is no narrator to provide continuity, what is it that holds the frame dialogue and the main dialogue together?

In narratives, the narrator tells all from his own perspective. It is the persistent, though often subtle, domination of this single perspective which gives the succession of events or arguments a certain kind of unity. This "making whole" is often accomplished through indirect statement, the oratio obliqua whereby x reports that y said p. Indirect statement allows the speaker to overcome the duality between himself and the other by constituting the other within his own framework. In contrast, Euclides cuts out (*exelthōn*) the bothersome in-between things (*hai metaxu*) (143c) -- the bonds of "I said" and "he said," which tie

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Socrates and Crito, the inner narrated by Socrates. Socrates' narration of the main body of the Protagoras is introduced by a direct dialogue between Socrates and a comrade (*hetairos*). In the Parmenides Cephalos narrates a dialogue which in its turn had been previously narrated by Antiphon and in the Symposium Apollodorus repeats to Glaucon his narration to a comrade of Aristodemus's narration to him of the events of the celebrated dinner party at Agathon's house.

speeches to their speakers, and which thus make speeches come alive. In Socrates' own original narration, in contrast, both the "being with" and the "talking with" were preserved, as Euclides puts it at 142c.[5] Socrates based his judgment about Theaetetus on both of these and, had he been narrator, he presumably might have given us both the speeches themselves and some inkling of what it was like to be with Theaetetus: Did he scratch his head? Did he sweat or blush? Socrates' narration of the Charmides, after all, adds to the mere speeches everything from his own sexual arousal (155d) to Critias's anger (162c), all of which play some role in that dialogue.[6]

That Plato presents a dialogue about knowledge as a censored narrative, contrasting with his own original more "lively "conversation, seems to point towards the problem of knowledge itself. The Theaetetus is a written record of a conversation between Socrates and two mathematicians about knowledge. Mathematics is central to our understanding of knowledge. For the ancients as for the moderns, mathematics served as paradigm for a certain kind of knowledge. Mathematics provides us with a prototype for that sort of knowl-

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[5] καὶ συγγενόμενος τε καὶ διαλεχθείς, both the association and conversation. For the most part I transliterate the Greek, but include the original for longer passages or where a particular point is to be gained.

[6] Consider also the comments made about the characteristics of Thrasymachus, Glaucon, and others in the Republic.

edge where the knower has no effect on the known: Who is doing the knowing is irrelevant to the issue of what in the end is known. Euclides' version of the dialogue, in contrast to a narrative, imitates this kind of structure insofar as he seduces us into thinking that what is being said is more important than who says it: in his explanation of what he has cut, in other words, Euclides makes it quite clear that it is his view that suppression of the narrator is of no consequence, so long as what is said is reported correctly. With this in mind we can perhaps understand why Theaetetus, in parallel fashion, thinks that he can answer the question "What is knowledge?" independent of the question of the knower: that is, after all, what mathematics has taught him. For Theaetetus himself, there seems to be no link between Theaetetus the mathematician and Theaetetus the non-mathematician and thus no need to connect the question of knowledge with the question of self-knowledge.

The frame suggests that Euclides, despite these pretenses of a kind of "objectivity," as it were, is not an entirely trustworthy source. Euclides claims that he "wrote" the dialogue which Socrates narrated to him and that, whenever he could not remember certain points, he would question Socrates about them when he came to Athens and that he would make the necessary corrections when he returned to Megara (143a). Considering the length of the dialogue, it is not surprising that Euclides could have

forgotten parts of it, but how did he know and remember which parts he had forgotten? How does he know what he does not know? It would seem that the only way that we could know that we have forgotten something is if we have a good idea of the whole and therefore know when certain parts or links are missing. Thus one possible way for Euclides to know that he had forgotten certain parts would be if he had understood the conversation when Socrates related it to him -- assuming that the whole made sense and thus that he knew that he had forgotten something whenever he came to a point where his dialogue did not make sense. If this is a likely scenario, we might well assume that Euclides' modus operandi in writing the colloquy must have been something like the following: In transcribing the dialogue, Euclides thought that he remembered correctly whatever made sense to him and that he must have forgotten or mis-remembered something whenever he found something confusing. Thus the dialogue in the form we have it would seem to depend entirely on Euclides' recollections and interpretations and the detachment or "objectivity" Euclides so earnestly desired is seriously put in question.

In his conversation with Terpsion, Euclides gives us further reason to distrust the reliability of his recording of the dialogue, exposing the fact that his memory is not his greatest strength. After commenting to Terpsion about his chance meeting with Theaetetus on his trip to the har-

bor, and then explaining that this reminded him of Socrates' prediction of Theaetetus's greatness, he says: "My impression is that Socrates met him shortly before his death when Theaetetus was a lad" (142c).[7] Why is he so tentative in assigning the time of the conversation? The dialogue itself provides a very specific time frame, the day Socrates went to King Archon's Court to inquire about the indictments filed against him? Furthermore, when Terpsion asks whether Euclides could relate the conversation, he answers: "No, by Zeus, not at any rate straight off from memory" (142d).[8] If Euclides wrote down the dialogue from memory, then why can't he tell it from memory? Euclides' memory seems to be less than trustworthy -- a fact which may be related to the issue of writing and the question of its reliability.

Before turning to the question of memory and writing, we should make a general observation about the role of memory in the Theaetetus. It is noteworthy that the problem of memory is not directly addressed in the discussion of knowledge in the main dialogue, whereas it plays a central role in the frame. Memory does appear on the periphery of the discussion on perception, a crucial point in Socrates' analysis of false opinion. However, Socrates never establishes a direct link between memory and knowledge. We must

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[7] δοκεῖ γάρ μοι ὀλιγον πρὸ τοῦ θανάτου ἐντευχεῖν αὐτῷ μειρακίῳ....

[8] οὐ μὰ τὸν Δία, οὔκουν οὕτω γε ἀπὸ στόματος....

at least wonder why Plato treats memory in this way. We might venture the following: Just as the frame is the necessary condition for the ensuing dialogue, but does not guarantee the veracity of the dialogue; so memory is a pre-condition for the possibility of knowledge, but does not guarantee any knowledge. It is, in fact and perhaps surprisingly, in connection with false opinion that memory comes to play a role in the main dialogue.

The role of memory diminishes with writing. I can reduce the risk of forgetting something important by writing it down at the time when I remember it; but writing also diminishes my ability to remember because it decreases the opportunities for exercise. Euclides exemplifies all the negative aspects of writing discussed in the Phaedrus -- both the deadness of the written speech and the failure of memory that follows upon writing.[9] It is as though Euclides "emptied" his memory by recording what he remembered. The writing down of the dialogue by Euclides has "objectified" the conversation in the sense that Euclides is removed from the argument and the argument is removed from Euclides. To that extent the argument is now "reified," it has an existence independent of its author.

If Plato had not included the frame dialogue, it would have been impossible for us readers to "deduce who the

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[9] Cf. Phaedrus 275a-278a

author of the dialogue actually is," or, to put the point another way, to distinguish the respective points of view of the frame dialogue, the original conversation, and the resulting edited version of the whole. We are confronted with this rather peculiar situation: In the frame of the Theaetetus Plato disavows the Theaetetus as any "child" of his own, while simultaneously pointing to himself as the author of the frame dialogue. The significance of this comes to light when we consider that the Theaetetus is the only dialogue that presents itself as written.[10] Plato, like Euclides, disassociates and removes himself from the dialogue. Euclides even goes so far as to have someone else read the dialogue to Terpsion and him. It is as though there is no bond or connection between the written work and the author. By introducing writing as a kind of "recording," Euclides takes the "making" out of this *poiēsis* and, indeed, offers a kind of dead speech. He presents us with a product that he himself did not make and his indifference toward it is evident from his silence about whether he agrees or disagrees with any of the discussion: His "neutrality" extends that far. While Socrates is often silent with regard to his opinions, it is inconceivable that Socrates would have been equally indifferent to the truth of the

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[10] Consider the odd parallel in the way Phaedrus tries to pretend that he is not holding the written speech of Lysias on the preferability of non-lovers (228e).

assertions and validity of arguments were he the narrator instead of Euclides.

It is above all mathematicians who display this ability to disassociate themselves completely from their product: mathematical truths present themselves to us as though they are entirely independent of human cognition. A mathematical truth such as the Pythagorean theorem is taken to be immutable and eternally true -- quite unlike those mortal human beings who may or may not understand it.

There is another aspect of mathematical truths and propositions we must consider: By themselves mathematical assertions are empty. The common formulation of the Pythagorean theorem as $\underline{a}^2 + \underline{b}^2 = \underline{c}^2$ is without content, unless I, as a human being, can come to see the truth of the statement and make it come alive by providing and understanding the reasoning that leads to such a conclusion. Thomas Hobbes's crisis of intellectual mid-life -- when he found Euclid's Elements open to the forty-seventh proposition, doubted its possibility, then worked his way back up to the self-evident axioms and down to the deduced proposition once again -- perfectly illustrates the necessity of this process.[11] Knowledge does not only involve the objects of knowledge but the process whereby the knower comes to know them. Contrary to Theaetetus's understanding of mathematics, it in fact

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[11] Cf. John Aubrey, "Hobbes," Brief Lives, ed. J. Clark (Oxford: Clarendon Press, 1898), vol. I, p. 331.

turns out that without the human process of understanding, the written product by itself may be nothing but more than meaningless symbols. Alfarabi put the matter most succinctly when he said that in the mathematical realm the cause of knowing is one and the same as the cause of being.[12] This problem must be addressed in any account of knowledge that takes mathematics as the paradigm for *epistēmē*.[13] Within the dialogue of the Theaetetus this problem is displayed by Socrates' deliberate conflation, as we shall see, of the question, "Who is Theaetetus?" with the question "What is knowledge?" The frame taken in isolation and the dialogue taken as a whole raise the same question in different forms: How can we put together the Theaetetus of the frame with the Theaetetus of the dialogue?

Commentators who want to get to the "meat" of the dialogue and consider the so-called setting as nothing other than the "trimmings," make the same mistake that Theodorus and Theaetetus made: they ignore "the political." Both of these mathematicians think of themselves as being nothing other than mathematicians: they forget or suppress that which makes it possible for them to be mathematicians in the

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[12] Alfarabi's Philosophy of Plato and Aristotle, trans. and intro. Mushin Mahdi. Agora Editions, ed. Allan Bloom (New York: The Free Press of Glencoe [A Division of Macmillan/Crowell-Collier], 1962), p. 19.

[13] *Epistēmē* (ἐπιστήμη), usually translated as "knowledge" or "science." This is the "official" subject matter of the Theaetetus.

first place, namely, being human generally, and being situated in a particular city more specifically. The frame reveals what the dialogue proper conceals: the mathematician is a man, a human being. Euclides explains that he had been away from the city because he had encountered Theaetetus, who was suffering both from war wounds and from dysentery. Mathematical truths may or may not be eternal, but the mathematician's body is not immortal. Is this Theaetetus like or unlike, the same as or other than, the Theaetetus of the dialogue?

This question of likeness, of course, mirrors the problem Socrates raises within the dialogue at 159b, when he asks Theaetetus to consider whether "Socrates healthy" and "Socrates sick" are similar or dissimilar. Theaetetus answers that the two are entirely dissimilar. If the same answer is given with regard to the "sick Theaetetus" of the frame and the "healthy Theaetetus" of the main dialogue, then we must inquire how the one is different from the other.

A two-fold doubling becomes evident here. On the one hand, body and soul are two, or at least seem to be so in some superficial sense; on the other hand, Theaetetus the citizen, who fought courageously for his city, stands opposed to Theaetetus the mathematician, who has no concern for his or any other city. Yet Theaetetus the courageous citizen might be said to have fought "body and soul" for the

freedom and safety of his native Athens. Can Theaetetus the mathematician in any sense strive "body and soul" for knowledge? The issue of the unity of body and soul is raised here, but that will not be properly addressed until the Phaedo.[14] It is the other split, that between political man and mathematician, that will play a major role in the understanding of the problem of knowledge.

What then of these two "Theaetetuses"? In the frame there is a display of Theaetetus's body, while within the dialogue Socrates asks him to display his soul for investigation. The condition of Theaetetus's body can only be explained by referring to political conditions, i. e., a city at war. In the dialogue proper, Theaetetus strenuously avoids bringing up any political matters, but Socrates raises the level of the discussion to include political issues in a digression with Theodorus (172a-183c). The mathematician, as the examples of Theodorus and Theaetetus make quite clear, believes that what he is investigating puts him outside the political, perhaps even beyond it. Both Theaetetus and Theodorus display something close to pride in their ignorance of the political. Socrates mentions the example of Thales, ridiculed by a Thracian maiden because he fell into a well while looking at the stars: "in his eagerness to know the things in heaven he was unaware of

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[14] Passim. Note that the Phaedo stands at the conclusion of the "companion tetralogy."

the things in front of him and at his feet" (174a). "The same jest," says Socrates, "suffices for all those who engage in philosophy. For someone of this sort has truly become unaware of his neighbor next-door . . . almost to the point of not knowing whether he is a human being or some different nursling" (174a-b). The philosopher-mathematician is in some deep sense apolitical.

This innocence of the political also points to Theaetetus's and Theodorus's belief that they are somehow emancipated from the realm of *doxa*. There is, for example, the implication that the body plays no role in the solution of mathematical puzzles and, similarly, as we shall discuss further, Theaetetus's account of the problem of surds (147c-148b) suppresses the role that Theaetetus as a human being plays in looking at the problem and offering the names which enable him to arrive at a solution. It does not strike Theaetetus as peculiar that he can see and address by name something that Theodorus apparently was unable either to see or to name. Theaetetus quite innocently talks about *dýnamis* (power, 147d) -- innocent to the extent that he seems not to "know" the political meaning of that term. So, on the one hand, *dynamis* as arithmetic power drives Theaetetus the mathematician; but on the other hand, *dynamis* as political power kills Theaetetus the man.

It is precisely the split between body and soul, between man and mathematician, that gives us a glimpse of the

difficulty involved in formulating an answer to the question of knowledge. Socrates states in the Phaedrus that before he can demythologize nature, he must first come to know himself. And that is why he is reluctant to leave the city.[15] The mathematician, on the other hand, is reluctant to enter the city, convinced that his kind of knowledge is independent of who he is and where he came from, and not noticing that the very language he is using, even to say that, is laden with political meaning. It is as though the mathematician believes in what we usually today call "objectivity" and "objects" -- the possibility, at least theoretically, of bracketing the subject or observer in the attempt to know objects independently of the observer's standpoint. And so in his own way does Euclides. Euclides does not recognize that the elimination of Socrates as narrator is not an innocent move, but rather is a killing, or at least a kind of emasculation, of the *logos*. A *logos* in its completeness includes both the speaker and the speech. But Euclides eliminates the speaker. Socrates is dead in more ways than one.

Finally, the revelations as to the recording, editing, and preservation of the dialogue, and then the reading of it by a slave, are, according to the script, all chance occurrences. By chance Euclides runs into Theaetetus, who is

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[15] Cf. Phaedrus 229c-230a.

being transported from Corinth to Athens, and it is this chance occurrence that disrupts the orderly world of Terpsion, who expected to find Euclides as usual in the market place. Terpsion's seeking (*ezētoun*) and wondering (*ethaumaton*) (142a) are not philosophical in nature, for he seeks out the expected, provided by order, and wonders at the unexpected, chance. Philosophical wonder, on the other hand, is precisely the ability to question what is clear, to darken the light. While most people are aroused to wonder when confronted with chance, the philosopher wonders at order. It is this kind of wonder that gives rise to the question "What is it? (*tí esti*) and initiates the search for the "being of what it was" (*to tí ēn einai*),[16] and from this wonder proceeds the seeking not of the expected and known, but for the unknown. What is known "pre-philosophically" becomes an object of wonder.

Chance is crucial for any investigation of knowledge: In order to hypothesize about the world, to make rational assumptions and deductions, we have to presuppose order. If everything were due to chance, then science would surely be impossible. To that most would assent. But *technē* would be equally inconceivable in a universe of pure chance. Both

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[16] While τί ἐστι, What is [it]?, is the typical beginning of Socratic questioning, τὸ τί ἦν εἶναι, "the being of what it was," is Aristotle's formulation in the Metaphysics, Book Z, Chaps 3-4, 1029b ff.

scientific knowledge and technical control would be forever undermined if all were chance occurrence. At the same time, however, chance, in its extra-ordinariness, is only possible if there is order; it is parasitical on order, as Aristotle argues in the Physics.[17] It is only after we have understood the orderliness of things that we can take and give account of what is out of order. Chaos theory can only be developed after establishment of models for orderly linear progressions and the like. Yet it is precisely this extra-ordinariness of chance that continually calls our knowledge into question and at the same time affirms the otherness of that which is to be known. The phenomenon of chance ensures the enigmatic character of paradigms and thus the puzzling nature of knowledge.

The issues of chance, memory, and writing, the problematic relation of body and soul, of man the citizen and man the knower, and so many other concerns in the Theaetetus, come to light only when we consider the dialogue in its entirety. If we take the frame to be nothing more than poetic decoration or dramatic device, vaguely pleasing to some aimless audience and incidental to serious philosophical intent, then Plato must have been a writer who paid great regard to logical argument and little to the order of a *logos*, who somehow bungled his way by chance into unex-

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[17] Cf. Aristotle, Physics, Book II, Chaps. 4-6, 195b31 -198a13.

pected necessities. But if there are serious questions about questions and frames about dialogues, then the task left to us is to wonder at both the orderly and the extraordinary in this dialogue. To proceed in order we must now turn our attention to the inner frame dialogue, which also precedes what is popularly taken to be the starting point of the "serious" discussion, the definition of knowledge as perception.

THE INNER FRAME (143d-146c)

We are fortunate indeed, even in the midst of our misfortune, for even though Euclides scissored away those bothersome narrative elements in order to present us with a straightforward dialogue, he did not take it upon himself to cut out whatever he considered to be philosophically irrelevant. While he changed the form, he appears not to have consciously tampered with the content of the conversation between Socrates, Theodorus, and Theaetetus.[18]

The Theaetetus has two frames prior to the introduction of the question "What is knowledge". We have discussed the outer frame and turn our attention now to the inner frame.

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[18] We might not be so lucky nowadays, when many readers and interpreters of Plato's dialogues pick and choose whatever they consider to merit their philosophical attention and choose to ignore the rest.

In the inner frame, which is part of Euclides' report, Socrates is in search of a suitable "successor.[19]

The Euclides report begins very abruptly with a question almost insulting to the Cyrenean of whom it is asked:

> If I were to care, Theodorus, more for those in Cyrene, I would be asking you about the state of affairs there and whether any of the young there make geometry or something else of philosophy their concern. But as it is I don't, for I'm less a friend to those there than to these here, and I'm more desirous of knowing who of our young are expected to prove good and able (143d).

We can surmise that Socrates has sought out Theodorus by the urgency of the questions he asks. Socrates is in search of a youngster who can carry on what he is about to give up. He had asked similar questions some thirty years earlier after he returned from his duty in Potidaea: In the Charmides he wanted to know who among the young had in his absence "become distinguished for wisdom or beauty or both" (153d).[20] Here in the Theaetetus he asks Theodorus "who of our young are expected to prove good and able". The question is preceded by the strange contrafactual in which Socrates explains that, if he were to care for all youngsters, specifically those in Cyrene, he would ask his ques-

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[19] Cf. Diogenes of Sinope in search of an honest man or Chearephon at Delphi in search of the wisest man in Athens (Apology 21a). Cf. also the opening of the Charmides (153d).

[20] Translations of the Charmides, unless otherwise indicated, are my own.

tion more generally, but, as it is, he only wants to know about the young of Athens. It sounds in fact as though he would not be interested in any youngsters from Cyrene.

Why is it that Socrates limits his search to Athens? Surely it has in part to do with the time-frame within which he is operating. He is, after all, on his way to the Porch of King Archon and the Euthyphro and his own trial and death. So part of his urgency is concerned with finding a replacement and examining the transmissibility of philosophy. The urgency of the search can be seen by comparing the parallel statement in the Charmides with the one here. He has significantly trimmed down his requests, requiring only the bare essentials. Wisdom and beauty are replaced by goodness and ability. If we are to take literally Theodorus's response to Socrates' request we are then presented with a youngster who is extremely able and ugly.[21] Furthermore, Socrates' interest in an Athenian youth indicates that Socrates is city-bound. But does this indicate that philosophy too is polis-bound? And if so, how is that related to the matter of friendship specifically mentioned at the outset?

Theodorus replies with a description of Theaetetus which is strange in many ways.

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[21] Compare this with Charmides, who is extremely beautiful and unable.

> ...it's certainly worth it for me to tell and for you to hear about the sort of lad of your fellow citizens I met. And if he were beautiful, I'd be afraid to speak of him with intensity, should anyone in fact get the impression that I'm desirous of him. But as it is--please don't get annoyed with me--he is not beautiful, but he resembles you in the snubness of his nose and the bulging of his eyes, but he has them less than you do. I'm speaking fearlessly (143e).

Theodorus prefaces his introduction with the assertion that Theaetetus is in fact not beautiful at all and he displays his frankness by likening the ugly Theaetetus's to his Socratic look-alike. He says that he is being courageous in so speaking. It is extremely important to Theodorus that he can openly praise Theaetetus without running the risk of appearing to be in love with him. It is as if ugliness is a precondition for impartiality, i. e., if Theaetetus is ugly, then Theodorus is not in love with him and thus his account is not based on "subjective" passion, but can present itself as dispassionate truth. In fact, however, the judgement that Theaetetus is ugly must itself be partial, so, in Theodorus's construction, it turns out, "objectivity," so to speak, is based on "subjectivity." In contrast with this presentation of Theaetetus, the introduction of Charmides emphasized his beauty and the fact that every one, including the children, were in love with him.[22]

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[22] Cf. Charmides 154c.

The clumsiness of Theodorus -- and the actual cause of that must presumably lie in the fact that he is in love with Theaetetus after all -- continues unabated as he tries to describe the youth's intelligence and nature.

> ...I'm aware of no one yet whose nature is so wonderfully good. For to be as good a learner as he is, in a way that's hard for anyone else to match, and yet to be exceptionally gentle, and on top of this to be manly beyond anyone whatsoever, I would have suspected that it doesn't occur and I don't see it occurring, for those as sharp as he is, quick witted, and with good memories are for the most part also quickly inclined to bursts of anger, and in darting about they're swept along like unballasted ships, and they grow up rather more manic than more manly, whereas those in turn who are more grave face up to their lessons somewhat sluggishly and are full of forgetfulness. But he goes so smoothly, so unfalteringly, and so effectively to his lessons and investigations, and all with so much gentleness, just as a stream of olive-oil (*elaiou*) flows without a sound, as for it to be a cause of wonder that someone of his age behaves in this way (144 a-b).

This near-comic string of associated assertions and mixed metaphors -- hardly the appropriate language of rigorous mathematical discourse -- culminates in Theodorus's likening of Theaetetus to a stream of olive oil. It is strange to think of human gentleness in terms of olive oil. What is the point of this ungainly metaphor? Is it used by chance or inadvertence? It would seem that Theodorus is entertaining an image of Theaetetus engaged in such body-oiling at just the time that Theodorus and Socrates were discussing

him. As it turns out, Theaetetus makes his appearance, along with some of his friends, and it is evident that he comes fresh from oiling (*ēleiphonto*) himself.

Socrates wonders whose son Theaetetus is and Theodorus, not unlike the archetypical "true philosopher" of the digression who does not know his neighbor's name.[23] Later in the dialogue, Socrates draws a caricature of the "true" philosopher in which he mentions that knowing the family and the ability to trace one's generations is of no concern to the philosopher (174e-175a). Once Socrates recognizes Theaetetus and identifies him as the son of Euphronius, it is clear that Socrates does in fact busy himself with such mundane matters as who is whose son. In fact, in the Charmides Socrates goes on and on listing the noble ancestors of Charmides.[24] So, while Theodorus knows Theaetetus through his association with him, Socrates knows Theaetetus by being able to link an image with a name. More precisely, he links the face of Theaetetus with the name of his father (144c). Not only does he know the name of Theaetetus's father, but he is also cognizant of the financial affairs of the family. In these early comments the political aspect of Socrates is underlined. Also, Theodorus's skills as an unprejudiced observer and as someone capable of making physical compar-

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[23] Compare the "true philosopher's" ignorance of his next door neighbor (174b).

[24] Cf. Charmides 157e-158b.

isons are called into question. For if his judgement about Theaetetus's looks had been accurate, Socrates should have been able to pick out Theaetetus among the three youths entering the scene. Presumably they weren't all of them ugly in just the way Socrates is ugly. Socrates on the other hand is able to identify Theaetetus's father on the basis of his looks, once Theodorus has pointed him out. Now either Socrates does not see himself in Theaetetus or Theaetetus's father also looks like Socrates. For us the readers it is now very difficult to determine whether Theaetetus looks like Socrates, unless we have some criteria that help establish whose perception resembles the "real" Theaetetus. Throughout the ensuing dialogue Socrates calls Theaetetus "beautiful," despite Theodorus's identification of him as ugly. Is Theaetetus either ugly or beautiful or both? The latter is only possible if beauty is in the eye of the beholder: Theaetetus <u>is</u> beautiful in Socrates' eyes, <u>is</u> ugly in the eyes of Theodorus, and thus <u>is</u> both beautiful and ugly. We would thus be in Protagorean territory, proclaiming that whatever an individual perceives <u>is</u> what it is for him who perceives it. But is it really possible for Theaetetus himself to be both beautiful and ugly?

At Socrates' request, Theodorus has Theaetetus sit near to Socrates.[25] Socrates wants Theaetetus close under the pretense of wanting to examine his face, since Theodorus had judged the two faces to be similar (144d-e). Clearly Theodorus's judgement could not have been entirely accurate, if Socrates felt the need to take a closer look: apparently Theaetetus did not look like him from afar and it is unlikely that would change on closer scrutiny. Socrates examines Theodorus's competence with respect to faces by questioning Theaetetus as to whether Theodorus would be able to judge the likeness between two similarly tuned lyres. He proposes that a draftsman or painter would be a better judge of faces than Theodorus, and Theaetetus, allowing that Theodorus is not a painter, concurs. Theodorus is then introduced as someone who is competent in geometry, astronomy, harmonics, and other relevant subjects that are parts of the education that Theaetetus is receiving from him (144e-145b).

This brief discussion is, at least on the surface, meant to show that Theodorus might not be competent to judge faces, but he surely knows his souls. It certainly is surprising that someone who knows shapes and figures is incompetent to evaluate faces. What is the difference between a geometrical presentation of snubness and exoph-

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[25] Cf. the similar, but reverse, situation in the Symposium (175c), where Agathon wants Socrates to sit on a couch next to him.

thalmicity, on the one hand, and someone's actually having a face with a snub-nose and bug-eyes?[26] How would a geometrical study of a face differ from an artistic one? The main difference seems to be that the one will try to capture the "living principle," while the other one does not. Perhaps we can say that geometry is to painting as a dead thing is to a living one. Although this is clearly an exaggeration and may be misdirected, it points to an important aspect of mathematics that is brought out again in the example of the lyres. While Theodorus is judged competent in harmonics, no one expects him to be able to make a comparative judgement about two similarly tuned lyres. What is the difference between harmonics and tunes? In both cases we have an example that combines the physical and the non-physical, on the one hand, and separates out the non-physical on the other.

The mathematician studies and becomes the knower of the non-physical, but quâ mathematician he is unable to recognize the non-physical when it is combined with the physical.[27] If this is correct then the mathematician cannot be

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[26] Compare Aristotle's examination of this point in Physics II, 2 (193b 31-194a 6): "Now the mathematician, though he too treats of these things, nevertheless does not treat of them as the limits of a physical body.... That is why he separates them.... 'Odd' and 'even,' 'straight' and 'curved,' and likewise 'number,' 'line,' and 'figure,' do not involve motion; not so 'flesh' and 'bone' and 'man'--these are defined like 'snub nose,' not like 'curved.'"

[27] Cf. Aristotle, Physics II, 2, 194 a7ff.

expected to know anything about human beings, and it is once again the mathematician who is exposed in the later caricature of the "true" philosopher. Furthermore the mathematician cannot know anything about any living thing, and thus could never be confused with a physicist. Whether or not we should take seriously anything that Theodorus says about Theaetetus depends on the possibility of separating soul from body. The Phaedo informs us that the separation of soul and body equals death,[28] which confirms our initial suspicion that the mathematician is concerned with dead things.

Socrates thus has good reasons to want to examine for himself the state of Theaetetus's soul. In reflecting on the way that Socrates proceeds with his examination of Theaetetus we should be able to discern the difference between examining a living thing and a dead thing and perhaps also the difference between knowing the two.

In his usual manner Socrates urges the young Theaetetus to display himself for examination, so that we may all be in a position to affirm Theodorus's testimony. The language of the court-room is used throughout the dialogue and is a

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[28] Phaedo 64c: "Is it anything else than the separation of the soul from the body? Do we believe that death is this, namely, that the body comes to be separated by itself apart from the soul, and the soul comes to be separated by itself apart from the body? Is death anything else than that?" (trans. Grube).

constant reminder of Socrates' future drama.[29] Here it is Theodorus who is on trial and Theaetetus who serves as evidence on the basis of which Theodorus will either be indicted or released. Theaetetus displays his own discomfort with the situation by suggesting that Theodorus might have been jesting when he was praising Theaetetus's soul. Socrates assures him that Theodorus is no jokester and that they had better get on with the show.

Socrates fashions the topic of the ensuing dialogue by inquiring into the relationship between learning (*manthanein*), wisdom (*sophia*), and knowledge (*epistēmē*). He wonders whether learning should best be described as "growing wiser about that which one learns" (145d). He leads Theaetetus into an identification of knowledge with wisdom and then expresses his bewilderment and difficulty at grasping what knowledge is: "Well, this is the very point about which I'm perplexed, and I'm incapable of grasping it adequately by myself, whatever knowledge is" (145e). At this point he invites all those assembled, not just Theaetetus, to help him investigate what knowledge is and suggests that they should proceed much as they might following the rules of a ball game in which anyone who makes a mistake sits down and is an ass and whoever prevails without a mistake is king

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[29] Similar legal and judicial language is used throughout the Apology, where Socrates has no choice about employing it.

and can enjoin the rest of us to do what he wants. But Theodorus right away suggests that Socrates should stick with Theaetetus, since he is too old to learn new things and would cut a rather comic figure if he were to be the ass (146b).[30]

This brief and seemingly incidental passage combines all the topics of the dialogue and can be interpreted as providing the advance notice of all that which is to follow. The connection and difference between knowledge and wisdom will play an important part in the examination of Protagoras. The etymological link between *manthanō* (to learn, know) and mathematics stares at us. It requires that kind of an examination of the nature of mathematical knowledge which the dialogue itself invites when Theaetetus uses his analysis of surds to demonstrate that he has understood Socrates' request for a single definition of knowledge -- even though he himself is unable to comply. Furthermore, it will be necessary to investigate whether *mathēsis* and *epistēmē* are synonymous, i.e., whether mathematics is the paradigm for scientific knowledge. The playful talk here about making mistakes will be taken up later as the serious question as to how it is that we make mistakes. The political reference to the king will be revisited in the digression

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[30] Cf. Cephalos's insistence at the beginning of Republic I that he is not too old to learn from Socrates (328d) and his early withdrawal from the conversation once a difficult question is asked (331d).

with Theodorus. In what follows it is also clear that if we are to take the suggestion of the rules of the game as the rules of the dialogue, then it will turn out that Theaetetus is an ass and Socrates the king who forces Theodorus to do what he wants.

While it is possible to construct this passage as including all the various topics of the dialogue, this in itself does not "explain" the passage itself as a part of the dialogue. If the dramatic point of the dialogue is the examination of Theaetetus, then the fact that Socrates drops Theaetetus early on in favor of all those present must indicate something. Is it possible that Socrates was able to make a judgement on Theodorus's pronouncements after exchanging just a few sentences with Theaetetus? The fact that Theaetetus so readily agreed to the identification of wisdom and knowledge might be an indication that he is too compliant and thus that he cannot play the role of a proper interlocutor without some rebuke. But then we have to wonder what the dialogue is really all about. Socrates again and again begs Theodorus to be his interlocutor as if he is not quite satisfied with Theaetetus. If Socrates were primarily interested in examining a brilliant mathematician, then Theaetetus would have been the better candidate. What is it that Theodorus has and which is lacking in Theaetetus?

TAKING RELATIVE MEASURES (146C-148E)

Theaetetus expresses his initial opinion about the question of knowledge by providing a list: "Well, then, it's my opinion that whatever one might learn from Theodorus are sciences ("knowledges") -- geometry and those you just now went through and, in turn, shoemaking and the arts of the rest of the craftsmen -- all and each of them, are nothing else than knowledge" (146c-d). While Theaetetus is willing to call all of them "knowledge," he himself makes a split between the kinds of knowledge that are mathematical and those based on *technē*. Geometry, astronomy, logistics, music, on the one hand, versus shoemaking and those "knowledges" that Socrates explicitly mentions in the ensuing discussion (carpentry, pottery, furnace making, brick making, and doll making).

On the surface we can easily arrive at the underlying principle of division by observing that the second group involves making (*poiēsis*), arts that can be considered practical, whereas the first group appears to be theoretical. Instead of making an additional cut and further subdividing the group, however, let us see whether it is possible to defend Theaetetus's claim that all of them constitute a single group. To divide knowledge into the theoretical and the practical may seem almost "natural," but

it is certainly not necessary. As the Sophist illustrates, every cut is an arbitrary cut, but the activity of dividing is necessary for human beings in order for them to understand.[31] If we divide all knowledges into those that involve measures and ratios and those that don't, it is clear that the crafts would then be grouped together with mathematics, for all the crafts mentioned in the dialogue do indeed operate with number and ratio in some way. It is not entirely clear what type of knowledge would constitute the other group; things involving poetry and politics might be found there. If there is nothing to be found in this other class of knowledge, if it is an empty class, then we would be able to give a single uniform answer to Socrates' question, What is knowledge? If Theaetetus had answered that knowledge is all that which involves a mathematical measure, instead of listing a group of knowledges, he would have been closer to satisfying Socrates, who insists that he must know what knowledge itself is.

Socrates' response to Theaetetus reveals his view that counting is not the same as knowing, implying that mathematics is not the same as knowledge. We may argue that in our grouping mathematics is the genus of which all the other knowledges are species. If the list would be complete then the answer to the question "What is Knowledge?" would point

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[31] Cf. Sophist 218b-236e.

to the answer to the question "What is mathematics?" But Socrates forestalls this development and instead uses an earthy example to illustrate what he is looking for. He suggests the following analogy: saying that knowledge is geometry is like saying that mud is brick-making (147a). The simple answer to the question "what is mud?" would be "Earth mixed with liquid" (147c). Socrates is expecting a similarly simple answer about knowledge.

Theaetetus demonstrates his understanding of Socrates' request by showing how he and his companion arrived at a simple formulation of the problem of surds, a method in sharp contrast with Theodorus' case-by-case procedure (147d-148b). Theodorus addressed the incommensurables one by one stopping at seventeen, whereas Theaetetus created new names that allowed him to address the whole of them. Theaetetus, however, is unable to carry over this success on to the current problem. If Socrates' initial point were correct regarding the necessity of understanding knowledge itself before one can understand the knowledge of shoemaking (147b), then Theaetetus's confusion would mean that he doesn't understand the knowledge of mathematics, since he doesn't understand knowledge. But is not understanding something the same as not knowing something? Socrates asks the following question: "Or does anyone, do you think,

understand the name of anything when he does not know what the thing is?" (147b).[32]

Theaetetus is quick to deny this possibility, but is he correct in doing so? In what sense do we in fact understand names? Does this simple question imply that the meaning of a name is determined by the things that it refers to? We can know the name of something without knowing what it is -- in fact that's how many of us get through college. So the force of the question comes from understanding rather than from knowing.[33] This could also be seen as an exercise in teaching Theaetetus not to drop names, especially not for the sake of pleasing Socrates. In response to Theaetetus' list, Socrates chooses the example that Theaetetus is least likely to know about, namely shoemaking, to illustrate his point about knowing, naming, and understanding. Theaetetus does have a comeback against Socrates by giving him the example of the surds, in which he shows how the three can be connected. It was precisely his understanding of this problem that enabled him to name the principles of division and thus to know and come up with a solution to the problem of the surds. The only response left open for Socrates in

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[32] ἢ οἴει τίς τι συνίησίν τινος ὄνομα ὃ μὴ οἶδεν τί ἐστιν. Author's translation. Benardete translates: "Or do you believe that someone understands some name of something if he doesn't know what it is?"

[33] Is this question related to the question Socrates asks Meno about the possibility of knowing the qualities of something without knowing the something?

this instance is to praise the boy; he does not question any of the steps or the solution or ask why Theodorus got stuck. His praise includes the phrase "That's really the best human beings can do" (*arista g' anthrōpōn*, 148b), a declaration which strictly implies that Theaetetus and his friend, achieving the human best, could only be outdone by a god. In the passage on midwifery Socrates will in effect proclaim himself a god (149c), as we shall later on elaborate. Is it then maieutics that will present the ultimate challenge to mathematics?

This short passage is filled with hints about the kinds of questions an account on knowledge would need to answer. In Theaetetus's initial listing we are invited to reflect on the differences between knowledge and art and whether there is any cross-over between the two. The obvious candidate is mathematics, which is often employed by practical artisans, but is usually counted among the sciences. How is geometry different from cobblery? The best and most comprehensible answer is provided by Aristotle, who characterizes *technē* as the skill which is concerned with things that can be otherwise, while *epistēmē* involves those things which cannot be otherwise.[34] Plato, in Republic V (477a-478b), makes a similar division, when he introduces being as the object of

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[34] Cf. Aristotle, Posterior Analytics, Book I, Chap 33, 88b30-89b9; cf. Nicomachean Ethics, Book VI, Chaps. 3-4, 1139b14-1140a23.

epistēmē and becoming, that which is intermediary between being and non-being, as the object of *doxa*.[35] It is not explicitly stated, but from this we may infer that *technē* is a subspecies of *doxa*: As *technē* comprises activity involving those things that could be otherwise, so *doxa* is related to becoming, that which both is and is not, or becomes otherwise. Now, if there is this division between the different kinds of "knowing," we must ask from which vantage point we can make this division in the first place. Socrates pointed to the difficulty of this issue when he insisted that whoever does not understand what knowledge is cannot understand the knowledge of shoemaking, or for that matter of geometry or of mathematics in general. We know that Socrates wants one definition of knowledge that would encompass all the various forms of knowledge.

This oneness that Socrates insists on points to a knowledge that would be the knowledge of "the whole." From the discussion thus far it is clear that expertise in a particular field does not enable one automatically to judge other fields, even if the other field employs part of one's own expertise. The expert in harmonics is not necessarily a good judge of whether a lyre is properly tuned. So we must search for a knowledge that comprehends the whole and which on the basis of that is able to evaluate the parts. Our

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[35] δόξα, "seeming" or "opinion."

examination of the Theaetetus has to show whether *epistēmē* is such a candidate or whether *epistēmē* is necessarily partial. What we can conclude at this point is hypothetical but nevertheless revealing: If mathematics is the paradigm for *epistēmē* then we cannot answer the question "What is knowledge?" because even *epistēmē* cannot enable us to comprehend the whole. Theaetetus sums this up succinctly when he responds to Socrates' diagnosis: "I don't know, Socrates, what I say I have experienced, however"[36] -- an astonishing formulation (148e).

With this strange wording, Theaetetus asserts his confusion about his own experience and that is startling to the extent that most of us would think that the one thing that we do know is our own experiences and thoughts, while the kind of thing that is difficult to know would be something like the solution to the problem of surds or the precise nature of the external world. Plato has carefully selected appropriate characters for this dialogue. To get to the problem of knowledge as a whole, with a mathematician as interlocutor, Socrates is forced to work through experience. Evidently a full explanation of knowledge requires an account of experience.

Theaetetus's comment appears to foreshadow the discussion of the "true" philosopher in the digression, who, like

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[36] οὐκ οἶδα, ὦ Σώκρατες· ὃ μέντοι πέπονθα λέγω.

Theaetetus, is divorced from his own experience and contemplates matters detached from the sensible world. In contrast with other dialogues, where Socrates converses with generals, politicians, and ordinary citizens, whose claims to knowledge are always based on their immediate experience, and who are led to examine whether experience is sufficient for their knowledge claims, here Socrates speak with a mathematician, someone whose knowledge claims are independent of experience. Socrates will make Theaetetus work through the sensible world and the realm of opinion in an effort to get him to understand knowledge. By the end of the dialogue, Theaetetus will have a thorough and comprehensive awareness of what would have to be involved in getting to know knowledge. Theaetetus's admission of confusion is surprising also in light of his definition of knowledge as perception. During the ensuing discussion of that definition Socrates will show how such a definition involves one's own experience more than anything else.

Socrates' "cure" for Theaetetus is probably what is most striking of all. He will resort, as he frequently does, to medical analogy, and re-introduce himself to Theaetetus as a midwife, promising that his skills will deliver Theaetetus from his labor pains.

MAIEUTIKĒ (148e-151d)

The image of midwifery that Socrates uses to help Theaetetus confront his puzzlement is seductive and difficult. If the dialogues which ensue in the dramatic sequence -- the Sophist and the Statesman -- introduce us to possible "appearances" of "the philosopher," then what are we to make of the appearance of the midwife here? While the philosopher might appear to others as a sophist or statesman, he appears to himself as a midwife. There is a fundamental difference among these three images in that two of them appear as acceptable, in some circles even reputable, pursuits for young men, while the third would be viewed as quite mad. By choosing the image of the midwife to describe himself and his *technē* Socrates seems to confirm the suspicion many people harbor that philosophy is not to be taken seriously. Many thinkers after Socrates have strived to change that picture of philosophy, hoping to achieve for it the same status and respect that most people willingly grant to mathematics and science, or even to sophistry and politics. What if the analogy to midwifery is the true image of philosophy, however? What can we glean from it about the nature of philosophy?

"I don't know, Socrates, what I say I have experienced, however." It is in response to this frank statement at 148e

that Socrates decides to tell Theaetetus his "secret" regarding the source of his *technē*. The passage from 149a through 151d is fraught with difficulties of interpretation, especially if we assume that Socrates is supposed to be a moderate and modest, rather than hybristic man. He explains that he resembles midwives in every way and that he in fact accomplishes more than they do, because, in addition to inducing or calming labor pains, aborting or assisting at a birth, it is his job to examine the new-born and, along with the interlocutor, determine whether it is a wind-egg to be abandoned or a fruitful offspring to be nurtured.

Socrates emphasizes that the most important aspect of his *technē* is his ability to distinguish whether the offspring is "an image and a lie" (*eidōlon kai pseudos*) or "something fruitful and true" (*gonimon te kai alēthes*) (150c). This contrast between an image, here identified as "false," and a productive and fruitful offspring, here called "true," is initially surprising and leads to perplexities. Why is Socrates here referring to the image (εἴδωλον) as false? The role and nature of images is discussed in other dialogues, most notably in the Republic[37] and the Sophist[38]. In the analogy of the divided line in Republic

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[37] Curiously, although English translations might suggest many passages of the Republic concerned with the question of "images," those passages use different terms in Greek.

[38] Cf. Sophist 234.

509d-511d, images occupy the bottom rung of the "ladder," but it is noteworthy that the image quâ image points beyond itself, for it is always an image of something, and thus an image compels us to look for that of which it is an image. But this, of course, only happens if we recognize the image as an image, which is itself an accomplishment -- at least Socrates boasts of it as one of his own accomplishments.

Thus Socrates says in the Republic: "And would you also be willing to say that with respect to truth or lack of it, as the opinionable is distinguished from the knowable, so the likeness is distinguished from that of which it is the likeness?" (510a).[39] The "truth" of which Socrates speaks must be related to being, not merely to propositions taken by themselves; otherwise it would be difficult to make sense of the notion that an image or likeness is false or lacking in truth. An image is like a perception to the extent that it is what it is: It is impossible to speak of the truth or falsity of an image quâ image. Falsity arises as an issue when we confuse the image with that of which it is an image, when we mistake an appearance for reality, or when we mistake one image for another -- a kind of mistaking that cannot occur at the level of reality.

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[39] Translations of the Republic, unless otherwise indicated are from Allan Bloom, The Republic of Plato, trans. with Notes and an Interpretive Essay by Allan Bloom (New York-London: Basic Books, Inc., 1968).

There are at least two ways in which we can connect falsity with image. The first is when we assert that an image is not in fact an image, but <u>is</u> rather that of which it is an image. For example, I not only react to the man with a gun in the doorway in the mirror as the man with a gun in the doorway, but I continue for some reason to insist that the man in the mirror is in fact the man in the doorway. The second way is more complicated and involves a double "mistaking," to wit, when I maintain that a <u>false</u> image is that of which it is an image. The person detecting and treating this problem must be able to distinguish between image and reality, and must in addition be able to differentiate true from false images. We are dealing here with both ontological mistaking and a technical error as well. The second level of mistake involves a technical error, because the issue of false images can only arise in the realm of human making and imitation, i. e., where we consciously try to imitate or reproduce nature: All our representations and imitations belong, in the first place, necessarily, to the level of images and here, in addition, we may be distorting that which we reproduce. It is here and nowhere else that we run into "false images." If a painter who is practicing representational painting can, like Zeuxis, represent a bunch of grapes so realistically that it can deceive even the birds, then we have an example that we might call a "true image." When that same painter

attempts to create portraits -- an activity in which he is less skilled, but which is attractive for financial reasons -- and in his portrait of Socrates replaces his snub nose with an aquiline one, and "debugs" Socrates' eyes as well, then we have what can be called a "false image" of Socrates.

Nature does not cast false images, in sharp contrast with human making. And this presumably was the reason why Socrates was not interested in nature. The varying shadows that a tree might cast during different times of the day, depending on the earth's relation to the sun, cannot be described as being true or false. Protagoras's assertion that "man is the measure" makes the same kind of claim for and about human beings, that images or things -- whichever -- are whatever they are for human beings, that there is no standard of true or false. It is clear from the discussion of maieutikē, that Socrates must come into conflict with Protagoras, for the two positions are not reconcilable. Socrates permits Theaetetus no Protagoreanism. He insists that Theaetetus must critically examine his own images with the assistance of the midwife, to determine whether they are true or false, and, if they are false, to abandon them as misbegotten.

Socrates ascribes the "parentage" of his art to his mother Phainarete and he would like us to consider him as doing for the souls of young men what the midwife does for

the bodies of pregnant women. It turns out, however, that it is not his mother whom he most resembles, but rather the goddess Artemis. His mother Phainarete, whether fictionally so named or not,[40] at least fits within the human realm to the extent that she herself experienced childbirth before becoming a midwife. In contrast, Socrates professes that he is a virgin with regard to wisdom; but he nevertheless claims that he is capable of assisting others in giving birth to wisdom. This is a startling claim indeed, given Socrates' assertion that "human nature is too weak to grasp an art of whatever it is inexperienced (149c).[41] This, he claims, is the reason that Artemis will not allow barren women to become midwives. In contrast to human beings, the gods do not depend on experience and thus it is the virgin Artemis who is the goddess of childbirth. Artemis is summoned by the cries of laboring women; however, she is associated not only with the comforting of women and the easing of their pain, but with striking some women dead during childbirth as well. And Artemis, the virgin goddess of childbirth, is even better known as the goddess of the hunt, who often demands bloody sacrifices from her worshippers.

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[40] Literally, the name means "the woman bringing virtue to birth" or "the woman bringing excellence to light."

[41] ἡ ἀνθροπίνη φύσις ἀσθενεστέρα ἡ λαβεῖν τέχνην ὧν ἄν ᾖ ἄπειρος.

The temptation to identify Socrates with Artemis rather than Phainarete is heightened by the fact that it was her twin brother who defines Socrates' mission in life. Apollo, who proclaimed through the oracle at Delphi that no one was wiser than Socrates, is in part responsible for Socrates' recognition of his sterility with respect to wisdom. In the Apology Socrates says: "What is probable, gentlemen, is that in fact the god is wise and that his oracular response meant that human wisdom is worth little or nothing, and that when he says 'this man, Socrates,' he is using my name as an example, as if he said: 'This man among you, mortals, is wisest who, like Socrates, understands that his wisdom is worthless'" (23a-b). And in the Theaetetus passages, he says, "I am sterile of wisdom... because I don't have anything wise.... The god compels me to midwife and prevented me from generating" (150c).[42] And so, pleasing one god, Apollo, and imitating his twin sister Artemis, Socrates the fruitless goes about administering to young men fruitfully. Just as Artemis is unwed (ἄλοχος), so Socrates is sterile (ἀγονός), if not in fact speechless and witless (ἄλογος) with regard to wisdom. He is indeed sterile, for nowhere does he even question the nature of *sophia*. Here in this dialogue, after allowing Theaetetus to assent to the identity of *epistēmē* and *sophia* (145e), he expresses the aporia

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[42] ἄγονός εἰμι σοφίας . . . διὰ τὸ μηδὲν ἔχειν σοφόν. . . . μαιεύεσθαί με ὁ θεὸς ἀνακάζει, γεννᾶν δε ἀπεκώλυσεν.

about the nature of knowledge, which in fact fuels the entire dialogue. In contrast, it is wisdom which is the "central character" in the *maieutikē* passage. The dialogue as a whole is thus concerned with *epistēmē*, whereas Socrates' self-revealing soliloquy focuses on wisdom, or, more precisely, on the absence of wisdom. Is this what it means to be a friend of wisdom?

To make sense of the puzzling status of wisdom here and the barrenness of Socrates, we must return to the point where Socrates describes his *technē* as enabling him to distinguish between "an image and a lie" on the one hand and "something fruitful and true" on the other. The link between the fruitful and the true may give us an inkling about the difference between Socrates' barrenness respecting wisdom and Theaetetus's fruitful endeavors in mathematics and *epistēmē*. In contrast to the image, the true is properly considered fruitful and it is precisely this fecundity that distinguishes an image from that of which it is an image: Images are asexual and cannot reproduce. But that which is fruitful is also ensnared in motion and change and that would seem to call into question our speaking of "the true." This is in fact the problem and the task of *epistēmē*, namely, to reveal what is true about change, to find that which underlies change but is itself unchanging. The section of the Theaetetus on perception (*aisthēsis*) addresses this problem most explicitly.

Epistēmē then is concerned with finding truth in the world of becoming; wisdom, on the other hand, has neither gonads nor offspring, because it is concerned with the unchanging whole, which cannot be conceived, possessed, or brought forth. For these reasons sterility and barrenness are the only human ways of relating to wisdom. From the Republic we learn that being is the object of knowledge and that the good is "beyond being," the good is the source of being and knowing.[43] *Epistēmē* then might strive toward the good, but cannot be of the good. Truth as "unhiddenness" (*alētheia*), as revealing being, is the accomplishment which *epistēmē* seeks.[44] *Sophia*, in contrast, is precisely that which embraces the good and which, according to Socrates, is only possible for the gods. And human wisdom is the recognition of barrenness and sterility. On Socrates' interpretation of the words of Apollo, it is worth little or nothing. The best a human being can do in the face of wisdom (*sophia*), which can neither be possessed nor generated, is to be a friend (*philon*) to it.

The barrenness of Socrates in his philosophical maieutics also has implications for the nature of philosophy in general. It contributes both to the sense of the worth-

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[43] Cf. Republic VI, 508a-509c.

[44] The point has become well known through Heideggerian commentary, but it has been made before and independently of Heidegger as well.

lessness of philosophy that so many experience and to the demarcation of philosophy from all other disciplines. The image of the sterile and barren Socrates underlines that philosophy calls nothing its own and that it thus permits the greatest amount of liberty to its pursuer. At 151c Socrates indicates that we are often attached to our opinions the way many parents are attached to their children, who leave no room for critical evaluation and only permit praise for their own. Insofar as Socrates never treats an idea or opinion as a possession, he is free to dispose of those notions that prove to be false or inconsistent, instead of having to defend the indefensible. An emptiness that grants liberty surely is not a worthless nothing, but it is fruitful in its own peculiar way. It is Socrates' explication of midwifery that explains why philosophy is dialectical and must be in the form of dialogue. Philosophy, insofar as it is empty, is in need of another to provide it with nourishment. Socrates is explicit about his need for the city and he rejects the notion that philosophy can be a solitary walk through nature.[45] In both the Phaedrus and the Republic, Socrates reiterates his need for other human beings. In Phaedrus 230d, responding to Phaedrus's question why it is that he has never set foot outside the walls of the city, he says, "You must forgive me, dear

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[45] Cf. Cratylus 440e.

friend; I'm a lover of learning, and trees and open country won't teach me anything, whereas men in town do." And in the Republic (519-521b), the escaped prisoner is not permitted to dwell in contemplation, but must return to the cave, even at the risk of death. The philosopher is not allowed to break free from the political, for, according to the argument of the Republic, he is the product of the political and must pay his dues.

What is it then that the philosopher has to offer? In relation to the whole of the city Socrates offers his services as a gadfly, to "bug" the sluggish city and persuade each and everyone to care for virtue.[46] It is when we look to the interaction with the individual that we can appreciate Socrates' *maieutikē*. The most telling image that Socrates uses to illustrate the Delphic inscription "Know Thyself" can also be helpful in this context. In Alcibiades I Socrates is trying to convince Alcibiades that he is the only true lover that Alcibiades had ever had, for he Socrates is concerned with Alcibiades rather than with his belongings. Thus Socrates is not interested in Alcibiades' body or wealth, but is rather concerned with his soul. In this context (132cff) Socrates tells Alcibiades that the only worthy illustration of "Know Thyself" is "See Thyself" and this he interprets to mean the following: "Would it not

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[46] Cf. Apology 29e-31c.

be, that the eye should look at something in looking at which it would see itself?" (132d). It turns out that the pupil of the eye provides such an experience, for it reflects the looker. Socrates, the midwife, is the pupil that allows others to see themselves. It is the ability to reflect that makes Socrates' emptiness such a fruitful one. To be a mirror is only possible if one does not darken the surface with one's own distortions. In contrast to the techniques of the sophists, who are full of themselves and leave no room for reflection, Socrates' *technē* provides the occasion for self-examination. The sophist assumes that the pupil is empty and inscribes his teachings on the student. If successful, the sophist can enjoy watching images of himself. Socrates, on the other hand, approaches young men that appear to be full and pregnant and relieves them by letting them examine their opinions and thus find out whether they are their own and worthy or whether they should be abandoned. Thus the philosopher is the only one who does not need to play at a contest between opinions, who is not measuring "your" opinion against his own, but is entirely committed to letting you "see for yourself." To that extent, the philosopher "let's you be the measure." This is in fact what Theaetetus is about to experience along with the pain and the wonder.

CHAPTER TWO

A MOVING ACCOUNT OF PERCEPTION

In performance of his *maieutikē*, Socrates offers an extraordinary analysis of perception . Once Theaetetus asserts that knowledge appears to him to be perception, more than half the dialogue is taken up in examining the full meaning of that claim, as well as testing its validity. Before the reader can gain a foothold on any particular point, Socrates presents an array of topics -- measure, motion, thoughts, dreams and insanity, myths and refutations -- as if, just like a wandering eye, the theme of perception displays the various and wondrous "views" that perception presents to us. But there are organizing principles and a governing arrangement of what appears initially to be a collection of minute tesserae.

Protagoras's principle that "man is the measure" is the "vanishing point" around which all other points in this long passage can be located, and from which a coherent picture emerges. Socrates will first fully explore the meaning of Theaetetus's definition, and that falls into two parts: an examination of Protagoras's maxim, and an account of perception in the context of motion. This leads next to Socrates' introduction of the conditions which would be necessary for perception to be knowledge -- the combination of Protagoras's principle that "man is the measure" and Heraclitus's doctrine of flux. The application of the Protagorean maxim implies that all my perceptions are true, and that implication is true only if it is stipulated that all things are in motion. The introduction of "man the measure" satisfies the infallibility criterion of knowledge, but in order for Protagoras's assertion to hold, Socrates specifies that all things would have to be in motion. But that in its turn will lead to the collapse of Theaetetus's first definition, because the criterion that knowledge must be of being cannot be met under that qualification.

The discussion unfolds in the following way. Once the meaning of "perception is knowledge" is fully articulated, Socrates moves on to a critical analysis of that, which can be divided into three parts: the refutation of Protagoras, the refutation of Heraclitus, and finally the refutation of Theaetetus's definition proper. The critical analysis of

Protagoras is comprised of several refutations, which are provoked by Socrates himself offering defense speeches on behalf of Protagoras. Before concluding the refutation of Protagoras and tackling Heraclitus, Socrates persuades Theodorus to become an interlocutor and the two engage in a conversation about orators and philosophers, which Socrates refers to as a "digression." Thereafter he turns to an analysis of motion and his refutation of Heraclitus. The final section introduces a new set of considerations and proves definitively why perception is not to be identified with knowledge.

After Socrates revealed his "midwifely nature" and urged Theaetetus to "be a man" and "answer the question of knowledge once again," Theaetetus proclaims that knowledge is nothing other than perception: "My opinion is then that whoever knows something perceives that which he knows, and as it now appears, knowledge is nothing other than perception"(151e). What is surprising about this response is that a mathematician, of all people, should identify perception as knowledge. If we think of mathematics as the paradigm for *epistēmē* or scientific knowledge, where does perception fit into that? Geometry might be viewed as the science of perception and Theodorus, who for some reason could not transcend the "drawing stage" in his search for the solution

to the problem of the surds,[1] would have been a better candidate for identifying knowledge and perception. Theaetetus's answer nevertheless reflects his own experience because both he and young Socrates "visualized" their solution to the surds by creatively using the images of oblong and square and in that regard one can say that they perceived what they knew. At this point it is probably fruitless to investigate whether the images indeed made the knowers know or whether the ability to create an image of the solution was the result of knowing.

Socrates begins his investigation of Theaetetus's newborn by examining the nature of appearances rather than directly investigating *aisthēsis*. It is as though Socrates focused solely on the middle, almost parenthetical, part of the answer ("and as it now appears," *kai hōs ge nuni phainetai*) rather than on the identification of *epistēmē* with *aisthēsis*. This move, made in this way, will see Theaetetus confronted with both Protagoras and Heraclitus; and, as we read through these pages of the dialogue, we confront difficult problems of physics -- especially the problem of motion in relation to perception. Socrates appears to be examining

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[1] On Theaetetus's solution to the problem of the surds, cf. Miles F. Burnyeat, "The Philosophical Sense of Theaetetus' Mathematics," Isis, vol. LXIX (1978), pp. 172-195; Rosemary Desjardins, The Rational Enterprise: Logos in Plato's Theaetetus (Albany, NY: State University of New York Press, 1990); and Sir Thomas Heath, A History of Greek Mathematics (Oxford, Clarendon Press, 1921), vol. 1, pp. 202-213.

Theaetetus's soul by making him do physics. On the dialogic level, the problem of self-knowledge is hinted at when Socrates tries to make Theaetetus understand how it is that his definition 'knowledge is perception' appeared to him.

The connection between the mind and the world, between perception and motion, is made very beautifully in the Greek by Socrates' introduction of the word *phantasía*, which can be translated as either "imagination" or "appearance." There could hardly be a better term to signal the ensuing discussion of physics and knowledge. The other term that Socrates introduces in his quotation from Protagoras is *metron*, which will also serve as a middle term, a medium between subject and object. Measure forces us to consider what and who measures and what is being measured, as well as the standard of measurement. Socrates will further complicate the issue by suggesting that the measure itself is measured by that which it measures. It is in this context that we will be able to examine the complexity of motion and how motion challenges us to put forth a measure in the first place.

PROTAGORAS: MEASURE

Let us take a close look at Protagoras's dictum and keep in the back of our minds the question as to how it is that Socrates moves from Theaetetus's definition to an

examination of Protagoras's assertion. The first part states that "man (*anthrōpos*) is the measure (*metron*) of all things (*pantōn chrēmatōn*). Then that which is being measured is characterized in the following way: "of the beings (*tōn ontōn*), that/how they are (*hōs esti*) and of the non-being (*tōn de me ontōn*), that/how they are not (*hōs ouk esti*)." If we examine the first part of the sentence by itself, we can arrive at an interpretation that would make it quite easy to concur with Protagoras, especially if things (*chrēmata*) are understood to mean human-made things. Human being is the appropriate measure of artificial things, in that she is the maker of such things and the design and *technē* involved in such making can serve as the measure of the product made. But what is it that we measure with regard to artificial things? If we translate *chrēmata* with its most primary meaning, "needs" or "useful thing," as typically used in the singular, then it is not too difficult to find a way of agreeing with Protagoras. We humans are the ones who determine -- and to that extent "measure" -- the functions and uses of things in our attempt to fulfil our needs.

The translation of *chrēmata* with its acquired meaning of "money," as used in the plural, further clarifies the determining function of measure. Money is indeed <u>the</u> thing that is completely dependent on human beings. Its existence, its value, and its meaning are entirely the result of

human creativity. Among the class of artificial things it stands out in that there is no paradigm for it to be found in nature. If we were to follow Aristotle's discussion in the Physics it would seem that those things made by *technē* are the result of our ability to imitate nature. It is very difficult to imagine a scenario where our creation of money can be explained as an imitation of anything within nature. So if Protagoras said that humans are the measure of money we would expect no exclamations of surprise or objection. The surprise and difficulty arises in the second half of his assertion where he replaces *chrēmata* with *onta*. *Onta* can designate the beings that actually exist, and it will prove to be much more difficult to understand in what sense man is the measure with regard to these beings.

It is also not entirely clear how we should translate *hōs*, which could mean either "that" or "how" in our present context. And it is even more perplexing what is meant by saying that the measure applies to "the beings that are" and the "beings that are not." In Socrates' interpretation of Protagoras's assertion he discusses the quality of the wind, which seems to suggest that he is understanding *hōs* as "how". It may be helpful if we try out an interpretation of "measure" for both translations. If I am the measure that a thing is, I must stand to it in a relation of receptor and acknowledger. Maybe nothing more than my taking notice of something is needed for me to be a "measurer of its exis-

tence." Since there are no degrees of existence, it is difficult to imagine what else might be meant by this utterance, unless the second half of the second part -- man is in addition the measure of things which are not that they are not -- is taken seriously as well.

Before we can continue to address the perplexity of measuring that which is not, we need to clarify **what** is doing the measuring, i.e., what ability or capacity a human being employs in an attempt at measurement. It is clear from Socrates' jump from *aisthēsis* as knowledge to "man the measure" that, unless perception is measure, we have no connection. While this makes sense or can make sense with regard to the existence of things, it is difficult to unravel the perplexity of how perception would function as a measure of the non-existence of things which are not.

The very notion of measuring that which is not is paradoxical, unless non-existence is a parasite that feeds on existence and unless it is through the measure of beings that are that we can determine the non-existence of beings which are not. An example from science might help to clarify this hypothesis. Michelson and Morley attempted to measure aether in order to establish that light waves travelled through a medium; and ultimately their measurement established the non-existence of the medium itself.

Another possible device for the measurement of non-existence would be desire. In the Symposium Socrates,

through his examination of Agathon, analyzes desire as a response to the awareness of absence. In this context, philosophy would be the measure of absence and lack, and the result of that measuring is expressed by a declaration of the desire for wisdom. This would also nicely fit with Socrates' self-proclaimed emptiness in his discussion of midwifery.

In any case, it should be clear that we need to specify what in a human being is doing the measuring before we can fully comprehend Protagoras's dictum. In Theaetetus 151-161 it is clear that we are to substitute perception for the measure. And that is precisely what enables us to move from Theaetetus's definition to Protagoras. But just as we are about to get comfortable, Socrates is on the move again and pushes us to think through what it is that perception measures. His talk of cold and warm winds indicates that he would restrict perception to the measure of qualities rather than things themselves. Perception cannot answer the *tí esti* of the wind, it can only judge its appearance, it can only say what it feels like.

If perception explains the measure part, we are still left with the problem of the *onta*. How do we explain the things that are perceived? How do we explain that which is being measured by perception? We need to understand what might be considered the revolutionary aspect of Protagoras's assertion that "man is the measure." What was considered

the measure prior to Protagoras and what did it measure? Socrates gives us a clue when he reveals the secret teaching of Protagoras:[2] "nothing is one alone by itself" (*hōs ara hen men auto kath' hauto ouden estin*, 152d). If there were "a one" or if there were being itself by itself, then there would be no need for man as the measure. The one or being would comprehend all things and it would assign functions and determine the fulfillment of these functions. The forms too are called into question in the Protagorean maxim, as is evident in many dialogues such as the Euthyphro: Socrates appeals to something, the form of piety, which functions as the measure of Euthyphro's answers. Insofar as the forms are often posited as standards, against which we measure our thoughts, and insofar as they are never clearly "captured," they function in the same way as the gods did in the pre-philosophical age. The challenge of Protagoras, then, is for us to give an account of knowledge without making appeal to some "higher power" -- to answer the question in terms of the knower. By making man the measure, Protagoras negates the possibility of being, forms, and gods, and he puts forward man as the standard and stabilizer. By denying being, forms, and gods, Protagoras has set everything into motion

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[2] Cf. Theaetetus 152c: "Was Protagoras really then, all-wise, and did he make this an enigma for us, the vast refuse-heap, but was he telling the truth as if it were a forbidden secret to his pupils?

and he has proclaimed man to be the constant who can measure motion.

MOTION

Socrates attempts to explain motion as a creative force and marshals impressive thinkers to support the thesis that everything comes from motion. The products of motion are identified in the following sequence (153 a-c):

1. Fire is the result of motion and it in turn provides the motion for

2. The birth of the genus of animals and preserves

3. The hexis of bodies and

4. The hexis of soul.

From these Socrates concludes that:

5. Motion is the good both with regard to soul and body.

How Socrates arrives at "the good' here is not entirely clear, unless we identify "the good" with becoming: Motion is the cause of fire which nourishes life, and motion preserves both body and soul; and furthermore it improves the latter through learning. So motion could be understood as activity and the active is judged to be better than the passive. If the good is beyond being and the source of being and knowing, as it is stated in the Republic, and here the good is defined in terms of motion with regard to body

and soul, it is tempting to say that, by substitution, motion is the source of being and knowing.

If this is a tenable hypothesis all sorts of interesting conclusions would follow. It most certainly would explain why the forms don't make an appearance in the Theaetetus. The forms are unmoving and we must wonder whether the categories of active and passive can be applied to them. In the Sophist the Stranger explains that nothing can act on the forms.[3] This makes sense to this extent: if the mind or anything else would act on the forms, that would imply a change. But if knowing is like perceiving and requires correlative motions, then the forms cannot be known -- unless there is a way of combining motion and the forms. (This is a problem which the Eleatic Stranger solves in the Sophist.)

Perhaps another model can help us unravel what now appears to be puzzling. If motion gives rise to both perceiving and the *percipiendum* (*aisthēton*), and what we name is the product of the collision of twin motions -- as will be explained below -- then motion also gives rise to *tí esti* (What is it?), because the mind's contact with motion demands a constant. Perceiving does not halt motion but can be explained in terms of motion -- we need to find something that can arrest motion if we want to make any claims to

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[3] Cf. Sophist 248a-249c.

knowledge. Socrates shows that he does not think that man can be this constant, by conspicuously employing the middle voice of *parametroumetha*[4] -- we ourselves need to measure ourselves over against something. Protagoras's measure itself is relativized and thus cannot be the constant we are looking for. Socrates explains this in the following:

> "Isn't it the case, then, if that against which we are measuring ourselves (*parametroumetha*) or which we are touching were great or white or hot, it would never, in its fall on something else, have come to be something else, if, that is, it itself does not at all alter. And if, in turn, that which is doing the measuring against or the touching were each of these things, it would not have become, if it itself were not affected in any way, different when a different thing approached it or underwent something" (154b).

Lest Theaetetus attempt to escape the puzzling and ridiculous consequences of ever-changing motion by turning to mathematics, Socrates, using the example of dice, shows him that counting and numbers are not capable of solving the dilemma. If you measure 6 over against 4 it is 1 1/2, while if you measure it over against 12 it is 1/2. This is a rather strange example, inviting several interpretations. In contrast to *aisthēsis* and the *aisthēton*, both of which are subject to change in relation to one another, the num-

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[4] The middle voice in Greek -- in contrast with the active and the passive -- is used when the subject is understood as acting upon itself and for many colloquial derivative sense of that.

bers themselves do not change in relation to one another: 6 remains 6, whether it is 1/2 of 12 or 1 1/2 times 4. On the other hand, if we were ignorant of that over against which 6 is being measured and were only cognizant of the result of measurement, namely, 6 = ½ and 6 = 1½, we would steadfastly maintain that 6 has a changeable nature. Perhaps the same process occurs with our judgement about the quality of the wind. The wind is what it is by itself, but when it is judged by one of its *relata* it might be either warm or cool. The problem is, however, that we can never move beyond speculation with these matters. Just as we do not know what the wind is without making some sort of judgement about it by relating it to something else (ourselves), so the number 6 is revealed to us through its relation to other numbers. If we want to utter more than mere tautologies and penetrate the nature of something by answering the question, *tí esti* we are forced into non-identity relations and incur the risk of relativity.

Perception is the immediate relation, opinion a mediated one and knowledge has to take notice of the relation as well as the relata. Knowledge has to give an account of the transformation of the sensible into something measurable.

MOTION INWARD

Confronted with these puzzles, Socrates proposes to turn inward and talks, as though, in examining the nature of one's thought, one could escape the difficulties one confronts when examining the outside world.

> "Then if you and I were dreadfully canny (*deinoi*) and wise (*sophoi*), having scrutinized all the things of our mind (*panta ta ton phrenon*), we would then for the future be testing one another out of a superabundant store and, engaged in sophistic fashion in a battle of this sort, we would proceed to strike and ring the speeches of one against the speeches of the other. But as it is, because we're laymen (*idiōtai*), we'll want to observe them in relation to themselves (*theasthai auta pros hauta*), as to whatever they are which we're thinking (*ti pot' estin ha dianoumetha*) whether in our view they are consonant (*xymphōnei*) with each other or not in any way whatever" (154d-e).

Socrates' speech indicates that he will now turn to something other than experience and show that, in contrast to perceiving the world and encountering the problem of relativity, it is in fact possible to isolate the things of the mind without falling into the traps of the problem of measure.

The turn inward results in the articulation of three logical principles (155a-b):

> 1. Nothing becomes greater or less, either in bulk or number, as long as it is equal to itself,

> 2. To whatever there should be neither addition nor subtraction, this never either increases or decreases but is always equal.
>
> 3. Whatever was not before, this is incapable of being later without having come to be.

We should refer to these as logical principles, because none of them are derived from experience, but rather all three of them are the work of thought. In contrast to perception, thought can consider something in isolation and thus escape the relativism to which perception appears to be inextricably tied. It is the dissonance between thought and perception that gives rise to the philosophical wonder that Theaetetus experiences (155d) -- the dichotomy between the discrete unit, i.e., a thing in itself, and that which is the result of relatedness, the *percipiendum*. Socrates speaks as if it were possible for thought to consider something as a unit and contemplate it in its concreteness. According to principles one and two this "one thing" is stable and equal unto itself until some manipulation such as addition and subtraction bring about a change. It is not clear however what it is that is being changed. If I add 1 to 2 is 2 being increased? Socrates discusses these difficulties in the Phaedo and examination of his discussion there may enable us to appreciate these three principles as well as the ensuing discussion of Socrates tall and short, healthy and sick.

In the so-called "autobiographical section" of the Phaedo (96aff), Socrates articulates his reasons for abandoning the study of "natural science" and ultimately declares defeat in the face of mathematical operations. He claims that he cannot understand how a body increases and decreases and eventually doubts his judgement of small and tall:

> "I thought before that it was obvious to anybody that men grew through eating and drinking, ...so that man grew from an earlier small bulk to a large bulk later, and so a small man became big. That is what I thought then. Do you not think it was reasonable?
>
> "I do, said Cebes."
>
> "Then further consider this: I thought my opinion satisfactory that when a large man stood by a small one he was taller by a head, and so a horse was taller than a horse. Even clearer than this, I thought that ten was more than eight because two had been added and that a two cubit length is larger than a cubit because it surpasses it by half its length."
>
> "And what do you think now about these things?"
>
> "That I am far, By Zeus, from believing that I know the cause of any of those things. I will not even allow myself to say that where one is added to one either the one to which it is added or the one that is added becomes two, or that the one added and the one to which it is added become two because of the addition of the one to the other. I wonder that, when each of them is separate from the other, each of them is one, nor are they then two, but that, when they come near to one another, this is

> the cause of their becoming two, the coming together and being placed closer to one another. Nor can I any longer be persuaded that when one thing is divided, this division is the cause of its becoming two, for just now the cause of becoming two was the opposite. At that time it was their coming closer together and one was added to the other, but now it is because one is taken and separated from the other" (Phaedo 96d-97b).

If we examine this lengthy quotation, giving due consideration to the time at which it was uttered, in terms of the dramatic dating of the dialogues, and of the Theaetetus in particular, we should find a way of approaching the examination of the discussion by Socrates and Theaetetus of similar topics. There is a parallel between the situation in the Phaedo passage and that of the Theaetetus. The difficulties outlined in the Phaedo passage quoted can be understood as a result of the impossibility of a causal analysis of mathematical operations. Socrates highlights the disparity between the physical and the mathematical by pointing to the dizziness that results when we attempt to combine the concrete with the continuous, the standard and the motion. We generate motion when we relate two units, as in comparing to things, whether it be in size or position. If we reflect on the nature of the comparative -- such as "taller," "shorter," "larger" -- we can anticipate Socrates' myth of the twin motions. The comparative is by its very nature indefinite, and it is this indefiniteness which

generates motion -- in fact, infinite motion with infinite offspring, according to Socrates.

The unveiling of Protagoras's truth in the myth of twin motions is the result of reason's inability to combine being and motion without generating becoming. The result is that nothing is by itself but everything is becoming. We can't hold to the two ones as units when we put them in the process of addition or subtraction. We can think of a thing as a unit and by itself or as the product of a relation but cannot do both at the same time. If we can imagine a line defined as a point in motion, we understand that it is not possible to address the point as point and line simultaneously.

Theaetetus exhibits the difficulty of giving an account of motion by expressing once again a sense of wonder and an experience of dizziness when contemplating becoming and change. Socrates commends Theaetetus's experience as a sign of his philosophical nature:

> ...for this experience is very much a philosopher's, that of wondering. For nothing else is the beginning of philosophy than this, and, seemingly, whoever's genealogy it was, that Iris was the offspring of Thaumas (Wonder), it's not a bad one (155d).

If we trace the genealogy as it is given in Hesiod's Theogony it turns out that Iris was the child of Thaumas, daughter of Pontus, and Electra, child of Oceanus and Tethys. This brings us back to 152e, where Socrates introduced Homer

as one of the champions of motion: "Homer with the line 'Oceanus and mother Tethys, the becoming (genesis) of gods' has said that everything is the offspring of flowing and motion." Socrates introduces this genealogy to explain in terms of traditional Greek myth the beginning of philosophy. Removed from the context of mythology, the point is that motion is the beginning of philosophy. It is thus not surprising that Socrates is now prepared to reveal Protagoras's secret teaching about motion. After ensuring that none of the repulsive materialists is about, Socrates turns his attention to giving an account of motion. Curiously, he calls his exegesis on motion and becoming a *mythos* (156c).[5]

THE MYTH OF TWIN MOTION

Socrates' wonder-ful analysis of motion is the culmination of Protagoras and Heraclitus, the putting together of a relativistic epistemology and a moving ontology. It is the ultimate articulation of 'knowledge is perception' and falls into two parts: what the myth says (156a-c) and what it wants to say -- i.e., what it means (156c-157c). The principle that underlies both parts is that everything is motion and nothing else. This in itself suggests that we must find

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[5] Cf. the interesting analysis of this point in Rosemary Desjardins, The Rational Enterprise: Logos in Plato's Theaetetus (Albany, NY: State University of New York Press, 1990).

some way to reveal motion for surely we cannot begin directly with it, because addressing motion, whether through language or number, is equivalent to "making an arrest," arresting motion. Socrates is quite correct then in calling his account a "myth." He will talk initially about things such as eyes and stones even though he knows that the hypothesis under investigation does not allow for stable objects. But he will move beyond sticks and stones to the revelation that

> there is to be nothing that is one itself by itself, but always to become for something, and 'be' must be removed from everywhere - not that we've not been often compelled even now by habituation and lack of knowledge to use it...: to be is neither a something nor of something nor of me nor this nor that nor any different name that makes for stoppage, but one must make utterances in accordance with nature -- becomings and makings and perishings and alterings -- since if one stops something in one's speech, whoever does it is easily refutable. One must also speak in this way piecemeal and about many things collected together; it's to this aggregate that they lay down for themselves the names human being and stone and each animal and species" (157b).

How does he get there? In the first part of the story (156a-c) Socrates introduces the infinite motions of activity and passivity whose interactions generate infinite twin offspring which we identify as percipiendum (*aisthēton*) and the co-generated perception (*aisthēsis*). These are the phenomena that we name colors and sounds etc., and sight and

hearing etc. respectively. Socrates points out that there are indefinitely many such in both groups which have no names. He reiterates the twinness of the motions by pointing out that the *aisthēton* is a congener (*homogonon*) of the *aisthēsis*. The puzzling notion of passive motion can best be understood if we think of it as reaction. Reaction conveys what is clear in Socrates' account, namely, that the distinction between active and passive is not to be understood as the creation of two stable classes, one of which comprises the passive motions while the other consists of active ones. Rather, passive motion can become active motion and vice versa. So it might be appropriate, though it is anachronistic to translate Socrates' first principle as "every action has a re-action." So much for what the myth says. We must now turn to what Socrates extrapolates as the meaning of the myth.

In an attempt to clarify the meaning of the story of motion Socrates introduces the concept of speed and explains that we can distinguish swift and slow motions. The measure of speed is not discussed by Socrates and it is clear that we arrive at the distinction by measuring the speed of each against the other. So in fact speed is a concept that relies on the co-relativity of motion. Slow motions generate faster ones and the distinguishing difference between the two is that the former moves in place while the latter moves "locally." In order to make sense of this we need to

discuss the example which Socrates uses to illustrate his point. He describes the motions involved of an eye seeing something white. Both the eye and that which is correlative to it, let us say a white rock, are what Socrates would describe as slow motions. The "seeing white" and the "being white" are the result of the co-generated faster motions, whiteness and the concomitant perception which can be understood as moving between the eye and the white rock. Perception and percipiendum are but momentary motions, re-actions that transform their respective sources into their motions. Thus the eye is not a "thing" but a seeing and the rock is not whiteness but being white. To put it in another way: when something visible comes under the purview of the eye it makes the eye react in accordance with its nature, namely see, and this seeing in turn makes the object exhibit its visible nature,i.e., its being of a particular color. It is the conjunction of all these motions which constitute a momentary experience and the next moment a different experience is in the making. This is precisely all there is: motions on the make. What we call "eye" is nothing more than a collection of slow motions and the same applies to the so-called seen objects. Indeed as Socrates states the conclusion of the discussion: "Nothing is itself by itself" (157a) but everything is always becoming.

After some prompting Socrates gets Theaetetus to adopt this theory, only to point out some easily refuted defects.

Acting within the context of the hypothesis, Socrates asks Theaetetus how the theory feels to him, whether he finds it "tasty." Considering the way he asks the question, it may not be surprising that Theaetetus answers: "I don't know..." On the other hand, this seems to be a favorite response for Theaetetus, for he answered similarly earlier (148e). What is different about this assertion of ignorance from the previous one is that Theaetetus links it to his not knowing whether Socrates believes any of the arguments. Socrates, in response, admonishes Theaetetus to remember the principles of *maieutikē*. We, too, should take seriously this reminder and refrain from what so many commentators do: developing arguments to prove or disprove whether the discussion of perception represents Plato's own view or whether he merely parades it to refute it.... Socrates re-asks Theaetetus the question but once again in a somewhat puzzling manner: "Well, say once more whether it satisfies you that there not be anything, but good and beautiful and everything we were just now going through (be) always becoming?" (157d). Whence the good and beautiful? Socrates has not in fact been discussing the good and the beautiful; yet he here introduces them as though they were to be explained in the same way that he had just explained a stone's being white. Socrates pushes the Protagorean principle of measure to its limits. If man is indeed the measure, then there is no distinction between the beautiful and the good and the

white. Later on, Protagoras will reply to this and insist that there has to be a distinction between the good and the white, "qualities" and "values." We see here foreshadowed Protagoras's defense speech (167a-c).

SAME AND OTHER

Socrates completes the account by developing the principles underlying sameness and difference to show that the phenomena of dreams, illness and insanity do not offer serious challenges and that false perceptions are an impossibility. The discussion itself, however, replaces "perception" with "opinion" and Theaetetus agrees that there is no criterion that we can employ to determine whether the opinions in dreams or wakefulness are the true ones. In fact Theaetetus claims that there is no way of telling whether the present discussion is taking place in reality or in someone's dream. If all this were a dream would that have any effect on the validity of the hypothesis under investigation? Later on in the dialogue Socrates defines thinking as the soul dialoguing with itself (189e). Dreaming the discussion would be parallel to thinking it. That what we are privy to might be a dream seems to be further supported by the arrival of the "spirit of Protagoras," so to speak, whom Socrates addresses explicitly several times. He prepares the entrance of Protagoras even here by speaking for

him in this context. Socrates claims that those who insist that "the opinions at any moment are true for him who is of the opinion" (158e) would argue for the atomicity of experience. He spells out the logical requirements for this position as the following:

> 1. Whatever is altogether other shares no similarities with regard to the powers it has or anything else.
>
> 2. "So if it turns out that something is becoming similar or dissimilar to something, either to itself or to something else, shall we say that in becoming similar, it's becoming the same, and in becoming dissimilar, other"(159a)

Add to this

> 3. the discussion of the interaction between infinite motions,

and you arrive at

> 4. ..."if something else mingles with something else, it will not generate the same things but others if it then mingles with something else".

The point of these utterances is illustrated by the contrast between "Socrates sick" and "Socrates healthy," tasting wine. To the one it will taste sweet and to the other bitter. The fact that the wine is both sweet and not sweet does not generate any contradictions, because in fact each of the qualities is the coming together of different motions. The sweet and bitter wine is like the warm and cold wind that they were discussing in the beginning of this section with the important additional revelation that the

difference in qualities is connected with the otherness of the perceiver. So, just like the wind is neither hot nor cold, so the wine is neither sweet nor bitter; both become either one depending on the co-generator. While Socrates uses this discussion in defense of the Protagorean thesis it appears to call into question the very notion of measure insofar as it is clear that all that can be measured is becoming, not being. From the perspective of perception, the measurer is in no way different from the measured, both are in motion and both become other from moment to moment. Yet Socrates seems to insist that this argument strongly supports Protagoras. In the concluding part of the statement of the hypothesis that perception is knowledge Socrates asserts: "Then I believe the only thing left is for us to be for one another if we are, or if we become, to become for one another, since necessity binds our being together and it binds it to nothing else of all the rest, not even to ourselves, so it's only left that it has become bound with one another" (160b). And a little bit later he delivers the rather puzzling statement: "My perception is after all true for me -- for it is of my being on every occasion -- and I am the judge according to Protagoras of the things which are for me that (how) they are, and of the things which are not that (how) they are not" (160c).

Many translators, with Bostock, insert "part" into the passage and interpret the text as an indication that percep-

tion is part of my being. The reason for this rendition becomes evident if we examine Bostock's interpretation of the passage.[6] Bostock believes that Plato here offers the forerunner of the Humean "bundle of perception" theory of the self. As evidence he cites Socrates' talk about aggregates at 157 b-c, where Socrates is concerned with the potential inadequacies of language. The aggregates which Socrates mentions are abstract, or better yet, universal terms like "human being," "stone," "animal," and other species. In order for this interpretation to stand up, Bostock et al. would somehow need to show how these terms apply to individuals -- which is, after all, what underlies Hume's discussion about his unsuccessful search for the self and the evident particular perceptions which might be bundled together into a self.[7] In contrast to Bostock's reading, the text here suggests that class names are aggregates of particular perceived qualities. It is highly unlikely that Socrates means that we are aggregates of our perceptions and thus a different interpretation is needed of what he means by perception "of my being on each occasion." McDowell interprets the sentence to say that perception in

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[6] David Bostock, Plato's Theaetetus (Oxford: Clarendon Press, 1988), especially p. 82.

[7] Cf. David Hume, A Treatise on Human Nature: Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects, ed. L. A. Selby-Bigge (Oxford: Clarendon Press, 1958 [1888]), Book I, Part I, Section 6, pp. 15-17.

each case is <u>for</u> my being.[8] McDowell reads it as a reiteration of 160 a-b, where Socrates says:

> "Yes, and it's just as much a necessity that I become of something (perceiving something) whenever I become perceiving -- for it's impossible to become perceiving and perceiving nothing -- as for that to become for someone whenever it becomes sweet or bitter or anything of the sort. For it is impossible to become sweet and sweet for no one (160a-b).

McDowell's interpretation is at least consistent with the discussion, but it is not entirely clear why Socrates would make the same point again only a few sentences later and why he would be unclear about it to boot. Undergraduates often enough complain that Socrates is repetitive, but close scrutiny of the text shows that what appears to be a repetition is frequently a new angle on the problem under discussion. The Greek *tēs gar emēs ousias aei estin* contains neither "for" nor "part," but literally says that "for it (perception) is always of my being." So what new angle is Socrates adding to the preceding discussion with this particular formulation?

To fully explore the meaning of this passage, we need to put together three points: 1) necessity binds our being together; 2) my perceptions are true for me, because they are of my being; and 3) Protagoras's maxim. With the

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[8] John McDowell, <u>Plato:</u> Theaetetus, trans. with notes (Oxford: Oxford University Press, 1973).

introduction of motion, Socrates has eliminated all possibility of stable objects: Everything is in an unhalting process. In his examination of perception, he has made it clear that both perceiver and *percipiendum* are in motion, which leaves only the relation between the two as the locus where anything can be or become something. The connection between perceiver and perceived is necessary in order for either one to be. I cannot see a white rock without my seeing and the rock's being seen. It is in this sense that necessity binds the two of us together. If this is the case, then it is impossible for my perception to be false, because that would require something other than perceiver and *percipiendum* to which we could appeal in evaluating perception. But, given the principle of motion, this is impossible. Since my perception is in part generated by me and the act of seeing establishes what I see, I am the measure of what I see and this will inevitably be true for me. The point we need to recognize here is that Socrates, in his interpretation of Protagoras, establishes that what comes from me is true for me. In perception there is no need, indeed Socrates would maintain there is no possible way, to turn to something other than the process of perception itself for verification of what I see. My perceptions are incorrigible.[9] Perception is of my being, inasmuch as

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[9] Cf. J. L. Austin, Sense and Sensibilia, ed. G. J. Warnock (Oxford: Clarendon Press, 1962), pp. 104-131.

the act of perceiving constitutes the act of being. Insofar as I perceive, I must be.

Investigation of perception requires discussion about the nature of the perceptibles, as well as the perceiver, but we should not go as far as Kenneth Sayre does in arguing that the primary purpose of the discussion is to clarify the ontological status of sensible objects.[10] If anything, the passage about perception and motion seems to suggest that one cannot investigate only one side of a relation, if one's purpose is to understand the relation. The question of knowledge is, after all, a question that involves both the knower and the known. Socrates emphasizes the interconnection of these in his summary of the discussion which he offers to Theaetetus for acceptance and which will set the stage for the examination of the "child': "So after all, it has been said very beautifully that knowledge is not anything else than perception, and there has been a coincidence to the same point of the assertion, according to Homer and Heraclitus and the entire tribe of this sort, that all things are in motion like streams; of the assertion, according to Protagoras the most wise, that (a) human being is the measure of all things; and of the assertion, according

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[10] Cf. Kenneth M. Sayre, Plato's Late Ontology: A Riddle Resolved (Princeton: Princeton University Press, 1983), pp. 206-218.

to Theaetetus, that since these things are so, knowledge comes to be (*gignesthai*) perception" (160 d-e).

This passage challenges us once again to explain why there is a link between Protagoras and Heraclitus and how the linking of the two is tantamount to knowledge and what kind of knowledge that would be. Historically there is a straightforward explanation of why Socrates links Protagoras and Heraclitus and why Theaetetus assents to it so readily. Both Aristotle and Porphyry make the same connection and they explain it on the basis of Protagoras's opposition to Parmenides.[11] Plato is not quite straight-forward about the role of Parmenides and he hints at it negatively by exempting Parmenides from becoming a topic of discussion. The clearest indication of Protagoras's objection to Parmenides occurs at the end of his dictum where he uses *ouk estin*, speaking of things that are not and indicating that a human being is a measure of that as well. This stands in stark contrast to Parmenides' poem, where he has the goddess proclaim: "It is necessary both to say and to think that being is, because to be is possible but not being is not

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[11] cf. Aristotle, Metaphysics XI, 6 1062b; cf. Hermann Diels and Walther Kranz, Fragmente der Vorsokratiker: Griechisch und Deutsch (Zürich-Berlin: Weidmannsche Verlagsbuchhandlung, 1964), 11th ed., 80[74] B.2. Cf. Edward Schiappa, Protagoras and Logos: A Study in Greek Philosophy and Rhetoric (Columbia, S.C.: University of South Carolina Press, 1991), pp. 121ff.

(*ouk estin*)".[12] In the course of the poem Parmenides reveals that motion and change are impossible. This stands, of course, in stark contrast with Heraclitus's river fragments and the one quoted in this dialogue that all is flowing and in motion. Traditionally, Heraclitus's fragments are interpreted to refer to the sensible world while Parmenides speaks about the intelligible realm. For Parmenides it would seem to follow that there can be no inquiry and knowledge of the sensible world; all that is possible in that arena is the way of opinion.

In contrast to this, Protagoras suggests that all that is needed to know the sensible, which is in motion, is a frame of reference that will allow the sensible to become measurable and he offers the human being as that frame of reference: man is the measure. (Edward Schiappa, in his interesting book Protagoras and Logos, suggests that we too often overlook the great accomplishment of Protagoras, namely, that Protagoras is the first one to formulate the concept of relativity.)[13]

Socrates is ready to move on after this his lengthy and difficult exegesis of the first definition of knowledge. He

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[12] Parmenides, Fragment 6. Cf. Kathleen Freeman, Ancilla to the Pre-Socratic Philosophers: A Complete Translation of the Fragments in Diels, Fragmente der Vorsokratiker (Cambridge, Mass.: Harvard University Press, 1957), 28.6, p. 43. Cf. Hermann Diels and Walther Kranz, op. cit., 28 [18], B.6, vol. I, pp. 232-233.

[13] Cf. Edward Schiappa, op. cit., pp. 117-133.

is ready to examine the newborn and determine its "status of being." If Theaetetus had truly given birth to "perception is knowledge" he would not consent to the testing and examination of the doctrine for to agree to that is to refute it. If Protagoras is correct and Theaetetus believes that Protagoras is correct, then that should be the end of the discussion. For Theaetetus to consider that, even though he thinks that his definition is good and correct and although he at the same time entertains the notion that he may nevertheless be in error, shows that Socrates' measure of *maieutikē* has defeated Protagoras's principle. Interestingly enough it is Theodorus who agrees on behalf of Theaetetus and urges Theaetetus to submit to further examination. No wonder Socrates remains so eager to dialogue with Theodorus. We, in fact, never discover whether Theaetetus was truly persuaded by Protagoras.

MEASURING PROTAGORAS

The testing of the hypothesis that man is the measure is complex and different parts are examined at different stages. Protagoras's maxim is refuted three different times: The first inspection considers majority opinion. The second refutation is the so-called self-refutation of the *homo mensura* claim. The third attack involves the consideration of future judgements: Here the notion of the

wise man as expert is introduced, the wise man as the one who is the measure of future judgements. The refutation of Protagoras encircles the passage (172a-177c) which Socrates himself calls a "digression," in which he and Theodorus examine the philosopher and the orator and consider political matters. The importance of this passage will come to light at the end of our examination of the dialogue, for the interpretation of this passage has important implications for the dialogue as a whole. Cornford and others, for example have argued that it is the digression that proves their reading of the Theaetetus as a dialogue which shows that knowledge is impossible without the theory of the forms.[14]

After the refutations of Protagoras, Socrates constructs a separate argument about motion to refute the Heracliteans (179c-183c). We will need to examine how his discussion of the two motions, local/spatial motion and alteration, differs from the myth of the twin motions. All these attacks are undertaken by Socrates with the assistance of Theodorus, rather than Theaetetus, because Protagoras had demanded a level of seriousness which required adults rather than children. The last part of the refutation (183c-187a) concerns Theaetetus's own formulation that knowledge is

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[14] Cf. Francis MacDonald Cornford, Plato's Theory of Knowledge: The Theaetetus and the Sophists of Plato translated with a running commentary (New York: Liberal Arts Press, 1957 [1934]), pp. 82-83, 98-99.

perception and Theaetetus himself will be the participant in this examination. All of these very "serious" discussions, however, are preceded by a playful *ad (Protagoram) hominem* attack, a scolding by Protagoras, three debater (*antilogikos*) points, and a lengthy *apologia*, a speech in his own defense by Protagoras.

Theaetetus's "newborn" is attacked viciously by Socrates, who makes the charge that, given the identity of perception and measure in Protagoras, any sentient creature, whether it be pig or dog-faced baboon (161c), could equally well be considered the measure of the things that are. To make matters still worse, Socrates introduces the gods -- which is a stab at Protagoras, who specifically excluded the gods from discussion, claiming that nothing can be known abouat their existence or non-existence or their form.[15] So if pigs and gods, as well as Joe Schmo, are all possible measures,[16] then why should we admire and pay great wages

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[15] "About the gods, I am not able to know whether they exist or do not exist, nor what they are like in form; for the factors preventing knowledge are many: the obscurity of the subject, and the shortness of human life," in Freeman, op. cit, 80.4, p. 126; cf. Diels and Kranz, op. cit, 80 [74]. B.4, vol. II, p. 265.

[16] Cf. Xenophanes, Fragment 15: "But if oxen (and horses) and lions had hands or could draw with hands and create works of art like those made by men, horses would draw pictures of gods like horses, and oxen of gods like oxen, and they would make the bodies (of their gods) in accordance with the form that each species itself possesses." Cf. Freeman, op. cit., 21.15, p. 22; cf. Diels and Kranz, op. cit., 21[11] B15, vol. I, pp. 132-133.

to the wise Protagoras? Within this *ad hominem* attack Socrates makes an important transition from perception to opinion, which seems to nullify the very attack he just made. Socrates asks Theodorus how it is that we would consider Protagoras wise,

> "if it will be true to each whatever each opines (*doxaze*) through perception, and if neither someone else will discriminate the experience of someone else better nor will another be more competent to examine (*diakrinei* [discern]) the opinion of an other whether it's correct or false, but as it has been said many times, each one alone by himself will opine (*doxasei*) his own things, and all these are correct (*ortha*) and true (*alethē*) ... since each of us is the measure for himself of his own wisdom" (161d-e).

So here we have the claim that what is true is not the perception as such but rather the opinions formed on the basis of perception. Opinions are not as easily attributable to all sentient beings and it will turn out that the serious refutation of Protagoras as well as his own *apologia* will have opinion, not perception, as the main target. Once this transition is made from perception to opinion, it is also clear, as Socrates himself points out, that his very own activity of *maieutikē*, as well as Theodorus's expertise are called into question -- or at the least considered laughable. When Socrates impresses these points upon Theaetetus, the mathematician is baffled and considers his own position and in fact the entire doctrine is refuted. It is indeed shocking how quickly Theaetetus is willing to give up

his "newborn" and Socrates' rebuke in the voice of Protagoras admonishes him to take the discussion more seriously. Thus far, the "Socratic Protagoras" claims, the discussion has been based on "plausibility and likelihoods" (*pithanalogia te kai eikosi*) and matters as important as these demand the same kind of examination that geometrical problems would, i.e., instead of basing the argument on probability, they should proceed in accordance with necessity (*ananke*) (162e-163a). The procession that follows is based on what Socrates later describes as verbal disputes, as though quarreling about the meaning of names and demanding linguistic precision could somehow fulfill the demand for "the necessary."

Socrates and Theaetetus engage in three brief skirmishes, each leaving Theaetetus a bit more baffled and the more ready to abandon his original hypothesis. The first (163b-c) concerns the identity of perception and knowledge, and Socrates suggests that it is possible to either see or hear something without knowing it, using as an example the letters and phonemes of a foreign language. Theaetetus deals with this objection by pointing out that while we don't know the meanings of the letters and sounds of a foreign language, we do know the letters and sounds as letters and sounds through perception. After quick praise, Socrates brings up the next objection (163d-164b), which concerns memory and more specifically whether a remembered perception

would count as knowledge. He construes the problem, with the help of sight, claiming to show that after seeing something I can shut my eye, and while I'm literally not seeing, I can remember what I saw. So either remembering a perception or experience does not count as knowledge or else knowledge is not identical to perception. The last skirmish, and what appears to be the most sophomoric objection, is introduced immediately after Socrates steps back and condemns the previous discussion as contentious and agonistic:

> "We seem in the contentious way of contradiction to have gained an agreement in light of agreements about words (names) and to be satisfied with our prevailing over the speech by something of the sort. And though we say we're not competitors but philosophers, we are, without our being aware of it, doing the same things as those dreadful men" (163c-d).

To underline the shortcomings of the competitors he illustrates how they would argue against the proposition that knowledge is perception by employing the law of contradiction and illustrating the violation of that law by showing that it is possible both to see and not see at the same time, when you shut one eye and keep the other one open. Applying the adjectives and adverbs of perception to knowledge might be the next argument and Socrates points out that it is high time that we hear from Protagoras himself to see how he would deal with these contentious speeches. Since Theodorus has refused to speak on behalf of Protagoras Socrates himself will take on this task.

Some may wonder about the import of this passage: we are confronted with what appear to be frivolous objections and with an interlocutor who seems to fall for every trick in the book. Theaetetus appears to be incapable of defending his own hypothesis and calls into question whether he has actually given birth to an hypothesis of his own. From the very outset of the definition of knowledge in terms of perception we should have been suspicious, for how can someone who claims that he does not know what he is experiencing (148e) seriously put forth the identity of knowledge and perception and agree with Protagoras about "man the measure." This last discussion calls into question the authenticity of Theaetetus's definition all the more, it is a windegg indeed and the smell does not proceed from the content of the definition but rather from the one who supposedly hatched it. The outcome of this seemingly trivial discussion is finally to engage Theodorus in the dialogue and have him confront some serious objections to a dictum that has protected him from ever getting involved in anything other than mathematics. If *homo mensura* is called into question or even refuted, then the mathematician has to justify his doings on different grounds.

THE SEDUCTION OF THEODORUS

OR *APOLOGIA PROTAGOROU*

Protagoras -- with Socrates taking on his role -- begins his defense speech with a sort of *ad hominem* as well: he accuses Socrates of doing nothing more than frightening children with his verbal displays. He continues to advise Socrates on the proper operation of the dialectical method and later on provides a recipe for turning people into students of philosophy rather than students who loathe him. This latter part is particularly relevant, if we consider that Socrates is about to face charges against him brought by people who loathe him. Protagoras insists that Socrates' method of questioning and examination can only refute him if the interlocutor responds, answers, and reacts exactly the way he, Protagoras, would; in all other cases his arguments would still be valid. This is a very strange assertion from the man who holds that every man is the measure of the truth. If Theaetetus is the measure and he proclaims Protagoras refuted, then wouldn't it follow from Protagoras's dictum that Protagoras must be refuted? Socrates will bring up a similar point when he responds to Protagoras's defense (170a-171c) and he will claim that the opinion of the majority refutes Protagoras's claim.

From the various objections discussed by Socrates and Theaetetus, Protagoras picks out the argument concerned with memory and perception to show how it misses his point. He points out that everyone would agree that there is a difference between the memory of an experience and the experience itself. He doesn't quite tell how he would characterize the difference, but surely something like the difference in the degree of vividness would serve him quite well. This somewhat "Humean" interpolation is appropriate, especially if we consider what follows. Protagoras reminds Socrates of the discussion about difference and otherness and argues that there is no way to compare the differences between experience and a remembered experience, because there is no underlying subject of these experiences, but rather a succession of individual experiences. This principle also calls into question the applicability of the law of contradiction, for there seems to be no way to construe "he knows and he doesn't know" on this interpretation. So Protagoras, self-satisfied, reiterates his maxim, having made it clear that perceptions are completely private, with some reformulation: "each of us is the measure of the things which are and are not, and another differs from an other in thousands of things by this very fact, that to one different things are and appear, and to one different" (166d).

The last counter-argument contained in Protagoras's defense speech refers back to Socrates' *ad hominem* attack

and concerns the topic of wisdom. This is a serious challenge issued here. Socrates, at the beginning of his conversation with Theaetetus, identified wisdom and knowledge, calling them "the same thing" (145e). Protagoras, on the other hand, distinguishes knowledge from wisdom in the following way: knowledge is concerned with truth and is indeed covered by the principle of measure, but wisdom has to do with the good and the conditions necessary for attaining the good. Protagoras describes the wise man as one who "by inducing a change makes appear and be good things for anyone of us to whom they appear and are bad" (166d). He compares himself to physicians and farmers who can bring about changes in their subjects' condition that effect a change in their perceptions. (Yes, Protagoras believes that plants have perceptions). And just as a doctor can bring a change about that makes the bitter wine taste sweet by using drugs, so by means of speeches the sophist and orator can effect a change in the city that makes good rather than bad things appear or seem just. Protagoras does not explain what the farmer does to bring about a change in plants, but it is not that difficult to fill in this lacuna. These constructions are not exactly parallel but there are many important points to be garnered from the comparison of the sophist and the physician. First, we need to recognize that after this speech it should be clear that Protagoras cannot be characterized as a "mere" perceptual relativist, for here

he includes "political predicates," such as justice, as well. This is not so surprising, since there have been several times where the discussion shifted from perception to opinion. In the political context, then, it is the city that is the measure of the things that are just or beautiful for it. What is not entirely clear is whether or not Protagoras is promoting "moral relativism" for he says:

> But it's wise and good public speakers who make cities be of the opinion that the good things in place of the poor things are just. Since no matter what sort of things these are that are just and beautiful in the opinion of each city, these also are for it as long as it holds them to be so, but the wise makes good things be for it and be so in its opinion in place of the several poor things it has (167c).

Who is the measure of the good? Protagoras nowhere explains on the basis of what the sophist or orator determines the good, all he says is that their wisdom is concerned with the good. If we examine the analogy with the physician we can come up with some clues but how the sophist arrives at the good remains unanswered. If the city's need of a sophist is just like the body's need for a doctor, then the city must be sick. So the city is in need of a sophist who can remedy its sickness through speeches only when it is unjust.[17] Just as the goal of the physician is health, so the goal of the sophist is justice. The physician accom-

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[17] cf. Gorgias 464ff.

plishes health through his knowledge of medicine, but what is the knowledge that enables the sophist or orator to heal the feverish city? These characteristics ascribed to the sophist are applicable to Socrates himself and in the Apology he describes his concern with the city in a language similar to the one employed by Protagoras. The question about the good remains and we can only wonder whether we are to consider this a refutation of moral relativism or an incomplete argument.

THE REFUTATIONS OF PROTAGORAS

Socrates responds to Protagoras's challenge in the following manner:

> you will truly examine what we're saying, in declaring that all things are in motion, and which is the opinion of each, this also is for a private person or a city. And on this basis, you'll go on to examine whether knowledge and perception are the same or may be different... (168b).

After some coaxing he finally persuades the reluctant Theodorus to become an interlocutor who will assist him in examining the Protagorean and Heraclitean doctrine. As his starting point Socrates puts forth a "counter-truth" which claims that all human beings distinguish between ignorance and wisdom and when asked manifest this opinion by claiming themselves to be wiser in some areas than others and others to be wiser than themselves in other areas. Socrates be-

lieves that the everyday behavior of people verifies this claim, in times of sickness, people consider the doctor wiser than themselves, in times of war they listen to the generals and sometimes they'll even listen to the weatherman. This apparently universal claim becomes truly threatening to Protagoras when we find out the definitions of wisdom and ignorance: "They are convinced that wisdom is true thought and folly false opinion" (170b). Here, in his refutation of Protagoras, Socrates once again assumes the identity of wisdom and knowledge. And furthermore, their behavior demonstrates that they do not consider themselves to be the measure of all the things that are.

Socrates proceeds to a further weakening of Protagoras's claim when he applies the general principle established above to the Protagorean dictum itself. He attempts to catch Protagoras in a self-contradiction by showing that his "truth" refutes itself. Within this argument Socrates appeals to the majority: Even if Protagoras's principle is correct, if the majority would assert that Protagoras's measure principle is false then by this very principle they would be asserting a truth and thus the principle would be false. This is the so-called self-refutation argument. It is in this context that the shift to opinion plays such a crucial role because judging Protagoras true or false surely is outside of perception and would best be considered the expression of an opinion. Protagoras before his defense

speech may have been able to rescue his doctrine by limiting it to perception. But in his own *Apologia* he extended it to include political matters which surely cannot be explained on the level of perception. Some commentators try to defend Protagoras's claim by noting that the qualifier "for him" has been dropped from the argument and once re-introduced can resolve the self-refutation. Burnyeat counters that even if we were to supply the missing qualifiers that would appropriately "relativize" each opinion, the doctrine would still remain paradoxical, in that it would relativize everything but itself. As Burnyeat puts it:

> The relativist may reply that 'All truth is relative' is not asserted as an absolute truth, which would indeed be self-refuting, but only as a relative one: *it is true for me that all truth is relative*. This is no help. This second proposition is less interesting (because it is no longer clear that the objectivity of *our* beliefs is jeopardized if relativism is true only for the relativist), but it is still an assertion. 'It is true for me that all truth is relative' is put forward as itself true without qualification. A commitment to truth absolute is bound up with the very act of assertion."[18]

Burnyeat's underlying assumption is that relativism as such is self-refuting because it is like saying 'Never say never." This entire line of argument is of course immaterial, if Protagoras is not an "absolute" relativist; and his point about the distinction between knowledge and wisdom

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[18] Burnyeat, The Theaetetus of Plato, p.30.

seems to confirm that there is at least one area, the realm of the expert, in which he would limit the relevance of the doctrine of measure. Like Burnyeat, Socrates too is guilty of constructing an interpretation of man the measure that would allow his self-refutation argument. Bostock, I think, puts forth a valid point when he claims that: "As it stands, Protagoras has the defence that he can distinguish between 'it is true for me that it is false for others that P' and 'it is false for me that P'; and this defence is not adequately rebutted."[19] Bostock claims that Protagoras may very well argue that the measure principle does not apply to itself, i.e., that a human being is indeed a measure for what is the case for her but she is not the measure of the measure. We can add that the principle itself is the utterance of a wise man and thus it cannot be refuted by the ignorant.

The last point of attack that Socrates offers Theodorus, whom he occasionally addresses as "Protagoras," is that his measure principle does not apply to what will be, the future. If we are concerned about the arrival of a fever, whether the wine will taste bitter or sweet, we consult experts in such matters rather than relying on ourselves as measures. This attack picks up from the previously introduced principle that all human beings consider

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[19] Bostock, Plato's Theaetetus, p.92

others wiser than themselves in certain circumstances. The circumstance here is the future and I would venture that few of us would feel comfortable predicting future outcomes when it comes to sickness, battles and other events of that sort. Socrates tightens the strangle-hold by pointing out that it is precisely with regard to the future outcome of a court case and the general well-being of a city that Protagoras would proclaim himself and other sophists to be the measure. Socrates demands the following agreement from Theodorus on behalf of Protagoras:

> "So it will be stated by us in a measured way before your teacher that it's a necessity for him to agree that someone is wiser than someone else, and that whoever is of that sort is the measure, and there is no necessity whatsoever for me the non-knower to become the measure, as the speech on his behalf was just now compelling be to be of that sort, whether I was wanting to or not" (179b).

In this statement Socrates continues to identify wisdom with knowledge -- despite Protagoras's attempt to distinguish them -- and he involves himself in an indirect contradiction by identifying himself as non-knower and at the same time claiming to speak in a measured way. Surely this is a hint from Plato that this argument is not to be considered a total refutation. Nevertheless, Bostock who argued very persuasively against the notion that Protagoras's position is self-refuting, thinks that the introduction of experts and judgments about the future -- both of which are directly

relevant to Protagoras's acknowledged profession of sophism -- finally accomplishes a successful refutation, for if that doctrine is correct, then no one should pay attention to him. So, the doctrine becomes fruitless. Burnyeat also makes the interesting claim: "The very notion of the future makes us submit to objectivity. So, then, does action. That is to say, life itself."[20] Obviously Burnyeat agrees wholeheartedly with Theodorus that the problematic of future judgements cannot be handled by Protagoras and he is thus thoroughly refuted.

There is, however, a way to question what it is that Socrates has done. First of all, he relies heavily on time to make his point about experts and we may wonder whether the expert is wiser than the rest of us because he knows the truth for a longer time. When Socrates and Theaetetus were discussing dreams both of them rejected the notion that length of time should determine truth. Furthermore, even if the expert can prophesy the future, whether or not he did so correctly depends on measure of the then present. All predictions are in need of verification and thus Protagoras could argue that future events are in need of the same measure as present ones. This would call into question the argument which relies on the expert's ability to predict the future.

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[20] Burnyeat, The Theaetetus of Plato, p.42

Has Protagoras really been refuted, and if not, what is the point of all these attempts at refutation? We should notice that the refutation rests entirely on the "opinions of the many." It is the distinction between wisdom and ignorance on the part of the many that Socrates appeals to when he begins his refutation. Furthermore, it is the consultation of experts by the many that brings up the issue of future judgments for Socrates. The one thing that Socrates establishes with his constant appeal to the many is that they make a distinction between knowledge and opinion which is in fact most clearly exemplified by their consultation of experts. Socrates, we can surely say, is practicing philosophy "in the marketplace" here. But what is it that he tries to accomplish with his counter-speech against Protagoras? Socrates' refutation seems to be pointed at the claim that every human being is the measure of everything. What we have seen in the discussion about perception is that such a claim holds true for perception, and Socrates wants to limit it to that. He never denies that man is the measure, but what he does emphasize in his refutation is that some human beings are the measure of some things and other people of other things. That surely is the basis on which there can be a distinction between experts and non-experts, as well as the distinction between knowledge and opinion. There is no expertise in perception, but there are experts in other areas. In fact, the interlocutors in this dialogue

are all of them experts. Socrates has begun an examination, which he will continue throughout the rest of the dialogue, where he will address directly that which here is merely suggested, namely the distinction between knowledge and opinion.

REFUTATION OF HERACLITUS

Following Protagoras's instructions, Socrates next turns to an examination of the Heracliteans. Theodorus expresses a great deal of passion and cannot hide his intense dislike of these "despicable characters". Socrates identifies their position at this point to be somewhere in between the "motion people" and the "being people." He proposes that they first examine the "streamers" and later if unpersuaded, examine Parmenides and his group. The entire passage employs images taken from warfare and it is all but irresistible to "root" for the hero caught in the war between motion and being. It is surprising that being is not dealt with in a dialogue on knowledge and, even though it is briefly mentioned here, Socrates and Theodorus will refuse to examine it. Being appears, however briefly, in the refutation of Theaetetus's thesis but it is not until the Sophist that it becomes the subject of examination.

In contrast to the myth of motion which offered a physiological analysis of motion, this treatment is better

described as a logical analysis of motion. Socrates characterizes the problem they are about to confront in the following way:

> "... from the ancients who were concealing it from the many with poetry, it was that the becoming (*genesis*) of everything else happens to be streams, Oceanus and Tethys, and nothing is at rest, and from those later who, because they were wiser, were revealing it openly, in order that even the shoemakers, once they heard it, may understand their wisdom and stop believing in their foolishness that some of the things which are are at rest and some in motion, but once they understand that everything is in motion they may honor them?" (180e).

There is a noticeable difference between the ancients and the moderns, the former account for becoming (genesis) while the latter address themselves to motion proper without giving an account of genesis. It is in the context of discussing motion without using motion to explain the becoming of anything that both experience and language become tied into contradictions and are deemed impossible. The premisses of the argument are quite simple. Socrates distinguishes between alteration and locomotion (181d) neither of which can be identified with the passive and active motion of the previous discussion but apply to both. He then insists that if the Heracliteans want to avoid contradiction they must agree that everything is in motion in both ways. Now, if seeing something white is the result of spatial motion as it was described in the myth of twin motion,

then how are we to superimpose the motion of alteration? The alteration of seeing would be not-seeing and similarly white would be non-white. This extreme version of Heracliteanism would make it impossible to say "I see white" for as soon as I utter the sentence I could have uttered "I do not see white" and "I see non-white", contradicting both the verb and the predicate. In contrast to the earlier account of motion and becoming where "I see white" referred to the coincidence of the motions 'seeing eye' and 'being white', this account of motion makes reference impossible.[21]

Bostock, aligning himself with Cornford, insists that the point of this discussion is to show that without the theory of forms we cannot give a satisfactory account of language. The argument he presents in favor of his point of view is however, decidedly circular. He argues that all Socrates has shown is that a particular instantiation of the abstract "whiteness" has no referent. He writes:

> "I conclude, then, that despite the occurrence of the abstract noun "whiteness" our argument should not be construed as concerned with a change in any such abstract objects as the colour white, or the form of whiteness, or the meaning of the word "white". It is concerned with changes in particular occurrences of whiteness, and similarly with changes in particular episodes of seeing and hearing (182d8-e1). ...But this result must be admitted to be somewhat disappointing, for now we have to admit that Plato's own argument is a thoroughly **bad** argument: it

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[21] Cf. Cratylus 402ff, 440d-e.

> gives **no** convincing reason to say that if the flux doctrine is true then language is impossible..."[22]

Bostock attempts to show that, as long as there are stable objects such as the forms there are stable meanings, and if we add appropriate time frames, it is possible to account for the experience of the Heracliteans in language. If we start the argument by accepting the forms as the conveyers of meaning and have forms lurking around behind motion, then maybe it is indeed possible to construct a meaningful language. But why should we assent to the proposition of forms, especially when we are dealing with a dialogue that does not at all discuss the theory of forms? The final refutation of Bostock's position requires us to develop an interpretation of the dialogue that shows that the problem of knowledge cannot be solved solely by introducing the theory of forms. At this point we can already show that to say that knowledge is knowledge of forms puts us back at the beginning of the dialogue, where Socrates explicitly rejects this kind of an answer. There Socrates had told Theaetetus that stating the contents of knowledges -- for example, to say that cobbling is knowledge or mathematics is knowledge -- does not answer the question. "Yes, but the question, Theaetetus, was not this, of what things there's knowledge, nor how many sciences there are either, for we didn't ask

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[22] Bostock, Plato's Theaetetus, p. 105

because we wanted to count them, but to get to know knowledge whatever it itself is" (146e). What Socrates has shown in his examination of perception is that neither the object of perception nor the perceiver, by themselves, are the sole condition of perception, but that both are involved and co-generate perception. It is quite possible that Socrates is looking for something analogous with regard to knowledge. And thus both the knower and the known must be taken into consideration when answering the question what is knowledge.

TROJAN BEING

The final stage of the refutation of the definition of knowledge as perception concerns Theaetetus's definition itself and takes back Theaetetus as the main interlocutor. Socrates insists on a precision of language that enables Theaetetus to distinguish between perceiving through the eyes and ears or with the eyes and ears. The difference between the instrumental dative and the construction of the genitive with the preposition *dia* (through) is the difference between having a being that can collect the perception into a whole, versus, having a bunch of individual perceptions. Referring to the deception perpetrated by the Greeks with the "Trojan horse," Socrates describes the difference in the following way:

> That's because it's surely dreadful, my boy, if many kinds of perceptions sit in

> us as if in wooden horses, but all these do not strain together toward some single look (*idea*), regardless of whether it's soul or whatever one must call it, by which we perceive through these as if they're tools all the perceived and perceptible things (184d).

Socrates is differentiating between the sense-organs themselves perceiving and something underlying the sense-organs perceiving through them.

Socrates underscores the limitations of the senses by showing that each of them is function-specific, i.e., each sense can only fulfill its particular function. Thus, the eyes can only see and the ear can only hear, neither one of them can assume the task of the other. So, if we have the perception of a color and a sound, something other than perception is needed for us to think about them in conjunction. Socrates remarks that the mere fact that we can count them, consider them a pair, or think of them individually, suggests that there must be a faculty other than perception whose function it is to consider these matters. Socrates, using a contrafactual construction, forces Theaetetus to look at something other than perception to consider the following:

> If it should be possible to conduct an examination as to whether both of the pair are salty or not, you know you'll be able to say by what you'll examine it, and this appears as neither sight nor hearing but something else" (185b-c).

Add to that the question of being and not-being and Theaetetus cannot help arrive at the following conclusion: that "the soul itself through itself, it appears to me, examines the common things about all of them" (188e). This is a remarkable conclusion indeed.

The passage in question explores perceiving, examining and thinking, and arrives at the conclusion that, insofar as we have a concept of common things (*ta koina*), it is necessary to suppose the existence of soul. Soul as it is here discussed is capable of attaining being "through itself." Experiences "stretch to the soul through the body" (186c) and the soul examines and inspects them and considers their being. Socrates insists that it is the "hitting" upon being that should be equated with truth and this task can only be accomplished by the extra-perceptual activity of the soul. How precisely this is accomplished Socrates does not say. Is it that he does not need explicitly to state it, because he is "showing" it? The "action" of the dialogue shows how Theaetetus and Socrates, through the *logos* they are having, are aiming at the being of knowledge.[23]

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[23] Cf. Sophist 248a: "And we, you say, share in becoming through perception by means of body, but theory and calculation (*logismou*) by means of soul in being in its being, which is always, you assert, in the same state in the same respect, but becoming (is) at different times in different states." trans. Seth Benardete, The Being of the Beautiful, Part II (Chicago-London, University of Chicago Press, 1984 [1986]), p. II.41.

What is remarkable about the development of the discussion on perception is that it is only when we come to this very brief passage that Socrates actually refutes Theaetetus's initial definition of knowledge as perception. If there are things which cannot be accessed by perception, but things about which we nevertheless pronounce judgments, then there must be something other than or in addition to perception that is involved in knowledge. Presumably, Socrates could have made the distinction between sense-organs and their functions as over against the soul and its function early on. Instead, however, he took Theaetetus on a circuitous journey through Protagoras and Heraclitus. He apparently found it necessary to deal with the issues of measure and motion and present a thorough analysis of perception. Part of the explanation of this is related to his midwifery: He is more concerned with getting Theaetetus himself to examine his answer, with all its implications, than with showing Theaetetus that he is wrong. Theaetetus must himself come to know what it is that he is saying before he can move on to the next level on his journey to knowledge. Socrates not only has shown that perception is not identified with knowledge; he has also revealed to Theaetetus that it did not in fact appear to Theaetetus to be so, despite what Theaetetus initially said "appeared."

Another reason for the lengthy examination of perception is that it sets up the way in which we can look for

knowledge. Motion is put to rest with Socrates' identification of being as truth, which brings with it the search for a measure other than perception. The notion of "the common things," *ta koina*, replaces "the being things," *ta onta*, and our attention is turned from the unfathomable multiplicity generated by motion to a principle of unity which makes *ta koina* possible. It will now become the task to establish the measure for *ta koina*. If the discussion of perception is to serve as a guide, we should be looking to that to which the soul is bound and whether the bond is "necessary," as it was said to be in the case of perception. The first step in that direction is the examination of opinion, *doxa*.

CHAPTER THREE:

DOXOLOGY

On the way to knowledge one must almost inescapably confront questions about opinion, as that which is nearly always distinguished from knowledge, yet is sometimes deceptively similar to knowledge. Plato discusses the difference between *doxa* and *epistēmē* in several dialogues, most notably the Meno and the Republic[1]. In the Theaetetus Socrates plunges directly into a discussion of the problem of false opinion, without lengthy deliberations about the nature of the distinction between opinion and knowledge in general; to the contrary, the examination rests on an identification of opinion with knowledge. In contrast with the analysis of perception, there appears to be no need to establish the

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[1] Cf. especially Meno 85b-86c, 96e-99b and Republic V 474b-480a, VI 506b-511d, and VII 533c-535e

possibility of error in the realm of *doxa*, and yet it is precisely false opinion which presents a very tricky problem for Socrates.

In the section on opinion we are confronted with the difficulty referred to by the Skeptics as the problem of the *criterion*. The distinguishing mark between opinion and knowledge is that the former can be either true or false, whereas knowledge is necessarily true.[2] Obviously, therefore, there is a great distance between false opinion and knowledge, but the criterion that distinguishes true opinion from knowledge is more difficult to specify. The case is further complicated by the consideration that Socrates, when contrasting *epistēmē* and *doxa*, uses different kinds of *epistēmai* (sciences or "knowledges") -- empirical, mathematical, and philosophical. And yet another difficulty presents itself when we try to determine from which perspective any discussion of true and false opinion could take place, or from which vantage point the distinction between true opinion and knowledge could be made.

In contrast to knowledge, an opinion or belief remains an opinion, regardless of its truth or falsity -- i. e., whereas knowledge is true by definition, opinion can be either true or false. When we assert an opinion, it is

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[2] Cf. Aristotle, Posterior Analytics I, 2. Cf. also Republic V 477e-480a; Meno 97a-98a; Gorgias 454cff -- where the distinction is between "knowledge" and "belief" [*pistis*].

typically with the conviction that it is a true opinion and we would probably all agree with Wittgenstein's assertion: "If there were a verb meaning "to believe falsely," it would not have any significant first person indicative."[3] The difficulty of coming to terms with opinion stems from the fact that I may be convinced that I am asserting a true opinion, but that opinion, upon inspection, turns out to be false. To clarify this point we can turn to Bertrand Russell's observation

> although truth and falsehood are properties of beliefs, yet they are in sense extrinsic properties, for the condition of the truth of a belief is something not only involving beliefs, or (in general) any mind at all, but only the objects of belief.... What makes a belief true is a *fact*, and this fact does not (except in exceptional cases) in any way involve the mind of the person who has the belief"[4]

That I believe my opinion to be true is not sufficient ground to guarantee its truth; rather it must be the case that there is a state of affairs or a fact which is the object of my opinion.

Another way of approaching the difficulty of opinion is to compare it with perception as we discussed it in the foregoing. In perception I perceive what I perceive and

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[3] Ludwig Wittgenstein, Philosophical Investigations: The English Text of the Third Edition, trans. G. E. M. Anscombe (New York: Macmillan, 1968 [1958]), Part II, x, p.190.

[4] Bertrand Russell, The Problems of Philosophy (New York: Oxford University Press, 1959 [1912]), pp. 129-130.

there is nothing extrinsic to the act of perception that would allow for the possibility of a false perception. But, as Socrates has pointed out, at the conclusion of his refutation of Theaetetus's definition of knowledge as perception, the act of perceiving is often followed by the soul's attempt to "touch" upon being and this is what is identified by Theaetetus as opinion. It is the soul's ability to hold on to a false thing instead of being that presents to Socrates the problem of false opinion. Before we can examine his discussion of false opinion, however, we must consider whether Plato's general distinction between opinion and knowledge allows for a clear distinction between true opinion and knowledge. For that purpose we should turn to an examination of opinion and knowledge as they are discussed in the Meno and the Republic.

The Meno introduces two very different cases of true opinion: one which concerns empirical knowledge and the other which involves an account of a true opinion about a mathematical proposition that can be turned into knowledge. It looks as though Plato is offering two ways of establishing the truth of one's opinion and thus of gaining knowledge -- one which relies on the immediacy of experience and the other depending on the process of deduction. The Theaetetus analogously offers two kinds of false opinion -- one that arises form a mismatch between sensation and thought and the other occurring on the level of thought alone. We will

therefore look to the Meno to provide a framework within which to discuss the problem of false opinion, because it offers us some guidelines along which we can explain how true opinion might be transformable into knowledge.

The Republic provides an analysis of opinion and knowledge which allows us to construct a case where someone might have grounds for believing her opinion to be true, but where this must be deemed insufficient for any claim to knowledge. In Republic, Book V, Plato introduces "knowing" and "opining" as two different capacities, each of which has its own specific object. Just as the eye cannot speak, so opinion cannot know. The question we need to ask is whether Plato's analysis of opinion and knowledge in these three dialogues is inconsistent, or whether he is pointing to three different kinds of knowledge: empirical, mathematical and philosophical. Lest Socrates somehow make an appearance and accuse us of once again being busy "counting knowledges," instead of getting on with the business of saying what knowledge is, let us begin this investigation of opinion by analyzing the arguments of the Meno.

In the Meno Socrates discusses the distinction between knowledge and opinion in two different contexts. The first discussion concerns the difference between having a true opinion about the solution to a mathematical problem, on the one hand, and knowing the answer precisely (*akribōs*), on the other. The second differentiates having a correct opinion

on the basis of hearsay from having knowledge on the basis of direct experience or immediate perception. It is never spelled out precisely in the Meno how we are to distinguish knowledge from opinion, but Socrates is vehement in his assertion that there is such a distinction to be made. He explains to Meno that much of their discussion about the teachability of virtue has been based on guesswork and conjecture, and continues: "However I certainly do not think I am guessing that right opinion (*orthē doxa*) is a different thing from knowledge (*epistēmē*). If I claim to know (*eidenai*) anything else -- and I would make this claim about few things -- I would put this down as one of the things I know (*oida*)."[5] This is a very strong assertion by Socrates, one of his very rare claims to direct knowledge of any specific thing.[6] He speaks as though the very endeavor of philosophy depended on the distinction between knowledge and opinion; and, as will become clear, to a certain extent it does. To be able to distinguish and recognize the difference between true opinion and knowledge is the task of philosophy. Opinion is omnipresent and accompanied by the possibility of error; to sniff out falsehoods and inauthenticity is the task of the philosopher-dog. The most dangerous error is, of course, to mistake opinion for knowledge

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[5] Meno 98b.

[6] Cf. Symposium 177d; Gorgias 509a; Apology 20d.

and thus to preclude an examination of one's opinion. Only a thorough dialectical work-over of one's "opinions" can establish that this kind of error has occurred.[7] In order to successfully establish the difference between knowledge and opinion we must work through opinion -- not abandon it. The philosopher must "return to the cave," as it were.

Much of what we claim to know is based on guesswork and hearsay and an examination of these two processes -- and opinion in general -- are central themes of the Meno. We hear Meno's definition -- which he quite freely attributes to Gorgias. We hear Socrates tell a story -- which he claimed that he had heard from wise priests and priestesses. A breakaway from the hearsay occurs when Socrates suggests that he can give a demonstration of his theory of recollection by conversing with one of Meno's servants. Socrates develops his theory of recollection in response to Meno's argument against the possibility of inquiry[8] and the exhibition with the servant will serve to secure the possibility of a further search for knowledge and new insight: If Meno's "eristical argument" were conceded, further inquiry would have had to cease. The demonstration involves the solution of a mathematical problem: what is the base of a

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[7] Cf. Euthyphro and Euthyphro's presumption of knowledge at the beginning of that dialogue, as opposed to the uncertainties about his opinions raised by the dialogue.

[8] The so-called "eristical argument" at Meno 80d-e.

square double the area of a four-unit square. Socrates, through his questioning, leads the servant from false opinion (four and three) to *aporia* (I just don't know) to true opinion: the diagonal of the four-unit square is the base of its double in area. At the end of this exhibition Socrates makes the following observation: "So the man who does not know has within himself true opinions about the things he does not know.... And at this moment those opinions have just been stirred up in him, like a dream; but if he were repeatedly asked the same questions in a variety of forms, you know he will have in the end as exact an understanding (*akribōs epistēsetai*) as anyone" (Meno 85c-d). There are a several questions that we must ask: 1) Why is it that, after the servant solves the puzzle and does so correctly, he is still merely expressing an opinion, albeit a true one? And 2) What is it that further repeated and varied questioning will accomplish?

Socrates compares the servant's state of mind to a dream-like state, which suggests not merely a lack of clarity and precision, but a confusion of image with reality. The experience of a dream is one in which we mistake the image of something for that of which it is an image.[9] If the servant is able to arrive at an answer on the basis of

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[9] Cf. Republic V 476c: "Consider: is this not dreaming, namely, whether asleep or awake, to think that a likeness is not a likeness but the reality which it resembles."

an image -- i.e. drawings in the sand -- and at the same time is not aware that the image is in fact merely an image, then while his answer may be correct, we cannot attribute knowledge to him. The precision required in mathematics cannot be seen in the images we use as aids in thinking about the problems. Thus further questioning must lead the servant away from the images, "free" him from the particular square that has been drawn and lead him to think about the nature of "squareness" as such. If he were to remain at the level he has reached, he would be like the cave-dweller who successfully identified the properties of shadows on the wall. As Socrates' concluding remarks on recollection suggest, the servant now has incurred an obligation to inquire further: "I do not insist that my argument is right in all other respects, but I would contend at all costs both in word and deed as far as I could that we will be better men, braver and less idle, if we believe that one must search for the things one does not know, rather than if we believe that it is not possible to find out what we do not know and we must not look for it" (Meno 86b-c) The passage of the Meno in fact suggests that opinion is that which makes inquiry possible; and by implication knowledge is that which makes inquiry necessary.

Later on in the Meno, after Anytus has joined the conversation and vented his anger, Socrates turns once again to the discussion concerning the difference between opinion

and knowledge. Here he uses both "correct" and "true" opinion, as if they are interchangeable, even though it appears that empirical and practical matters are better described in terms of correctness rather than truth. To illustrate that correct opinion is as good a guide as knowledge in practical matters, Socrates compares the ability to give accurate directions to Larissa by a person who has actually travelled the road to Larissa with those given by someone who has a correct opinion about it. He thinks that both could do equally well, except that the knower will always be a good guide, whereas the opiner is limited: "As long as he has the right opinion about that of which the other has knowledge, he will not be a worse guide than the one who knows, as he has a true opinion, though not knowledge (Meno 97b). In this example, the main difference between true opinion and knowledge is that the one has actually experienced and thus confirmed his directions, whereas the other gives directions on the basis of hear-say. Thus knowledge in this context depends on the immediacy of one's experience: direct sense-perception is the basis for the judgement of the knower. The notion that knowledge can be based on sense-perception and experience has led some

thinkers to credit Plato with the founding of empiricism or, as Sprute puts it, "*Erfahrungserkenntnis.*"[10]

The other distinguishing feature that Socrates hints at comes in the discussion of the example of the "road to Larissa": The point is made that true opinion is as good as knowledge as long as it "doesn't get lost." This idea of losing one's opinion is more fully explored with another illustration: the statues of Daedalus, which are prizes indeed, should one possess any, but they are fleeting unless they can be tied down. Socrates points to *aitias logismōs* (causal reasoning) as the bond that will tie down true opinion securely. It is this binding causal reasoning which distinguishes knowledge from opinion. If we apply this notion back to the examination of the servant we can see now what is required for him to turn his true opinion into knowledge. He needs to reason out for himself what has been compiled for us in Euclid's Elements. Knowledge of a mathematical problem requires that we locate it within a system. In contrast to the illustration of the road to Larissa -- where tying down one's opinion securely must mean something like empirical verification or confirmation -- in the mathematical realm true opinion becomes knowledge when we can tie

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[10] Cf. Jürgen Sprute, Der Begriff der DOXA in der platonischen Philosophie [Hypomnemata: Untersuchungen zur Antike und zu ihrem Nachleben, ed. Albrecht Dihle, Hartmut Erbse, Wolf-Hartmut Friedrich, Christian Habicht, and Bruno Snell, Heft 2 (Göttingen: Vandenhoeck & Ruprecht, 1962), p. 98.

it down within a system. It is axioms and theorems that constitute the *aitias logismōs* which allow for the deduction of the problem's solution.

A question that remains to be discussed is whether and how the "experience" of knowledge differs from true opinion. If the servant has indeed mastered the geometrical system, does he see a different image when solving the problem of the $\sqrt{8}$? What lies behind this question is whether knowledge and opinion are two different and distinct capacities, separate from one another, as described in the Republic, or whether knowledge is the result of the manipulation of opinion, parasitic on opinion. If we think of the image that Socrates uses to aid the servant, is it the case that Socrates sees something different from the servant? The discussion of the Republic would suggest that the difference between the opiner and the knower is like the difference between someone who sees many beautiful things, but doesn't know what Beauty itself is, and someone who has contemplated Beauty. The latter would look at the beautiful thing as something that receives its beauty through participating in Beauty and she would know that the beautiful thing is lacking and imperfect. The same could be applied to the mathematical image.

Both the Meno and the Republic discuss the difference between knowledge and opinion, but neither dialogue investigates the problem of false opinion. It is as though the

issue of false opinion "raises its ugly head" and becomes problematic, only when someone entertains the particular false opinion that knowledge and opinion are in fact the same. This is precisely what occurs in the second definition in the Theaetetus, where Theaetetus, who had to abort his first definition of knowledge as perception, next offers up "opinion" as a definition of knowledge -- and after a little prodding from Socrates "true opinion." Instead of investigating the definition itself, however, Socrates turns their attention to the problem of false opinion, a matter about which he says that he has been perplexed for a long time. It is not until the end of the section that he refutes the definition directly by discussing the example of a jury trial. It is ironic that Socrates introduces the jury as an illustration of "true opinion," when it is in fact the false opinion of the jury at his upcoming trial that will cost him his life. In the light of his imminent trial, it is not surprising that Socrates should be interested in false opinion and he may even be "sincere," after his own fashion, in wanting to have it declared an impossibility.

The investigation of opinion falls naturally into three sections: 1) Paradoxy and heterodoxy (187a-190c), a rigorous logical exercise that will require considerable imagination; 2) the image of the wax, which examines false opinion as a mismatching of perception and thought (190e-196c); and 3) the image of the aviary, in which Socrates

attempts, but ultimately fails, to give an account of false opinion on the level of pure thought (196c-201c). The latter two are complex and will call for thorough analysis.

PARADOXY AND HETERODOXY

In the section from Stephanus 187a-190c Socrates offers two main insights into the nature of opinion -- and one of them, in fact, may not be about opinion at all, while the other is the result of his definition of thinking. After Socrates and Theaetetus agree that perception cannot be the same as knowledge, Socrates offers the following summary of their accomplishment: "But still and all, we've advanced so far at least, so [sic!] altogether not to seek it [knowledge] in perception but in that name, whatever the soul has, whenever it alone by itself deals with the things which are" (187a). Theaetetus believes this to be a description of opinion and is now ready to define knowledge in terms of opinion. It is not entirely clear why Theaetetus thinks that opinion is the name for the capacity that Socrates is describing. In fact, Socrates' words are reminiscent of Republic V (477a ff), where he defines knowledge, in contradistinction to opinion, as that which has as its object "the things that are." If Socrates is in fact describing knowledge and Theaetetus mistakes this for opinion, we are here confronted with a case of false opinion, which is not sub-

jected to any discussion in the ensuing conversation. In a way, this is a reversal of a much more serious mistaking -- namely, the mistaking of opinion for knowledge. It is against that kind of mistake that dialectics provides a safeguard.

Socrates characterizes opinion somewhat differently when he is defining "thinking":

> "Soul thinking looks to me as nothing else than conversing (*dialegesthai*), itself asking and answering itself, and affirming and denying. But whenever it has come to a determination, regardless of whether its sally was on the slow or keen side, and then asserts the same thing and does not stand apart in doubt, we set this down as opinion. Consequently, I for one call opining speaking (*legein*), and opinion a stated speech (*logon eirēmenon*); it's not, however, before someone else any more than it's with sound, but in silence before oneself" (189e-190a).

Many commentators, following Burnyeat, translate "opinion" as "belief" or "judgement" and analyze the discussion of false opinion as being concerned with propositions -- or at least they presume that it should be so concerned -- relying on the presupposition that all thinking is inherently propositional.[11] In this way they turn the discussion of false opinion into an analysis of false statements; this in turn leads such commentators to introduce "modes of

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[11] Cf. Myles Burnyeat, The Theaetetus of Plato, with a translation of Plato's Theaetetus by M. J. Levett, revised by Myles Burnyeat (Indianapolis-Cambridge: Hackett Publishing Co., 1990).

presentation" and "referential opacity," which then allows them to accuse Socrates of committing "fancy" fallacies.[12] It is not clear, however, that such a transformation is justified. We should rather be careful to notice that, throughout the section on false opinion, Socrates and Theaetetus are investigating the process of opining falsely -- i.e., that which goes on silently within the soul -- while a propositional analysis examines the product of such a process, without giving any particular consideration to the work that went into the making of the product.

There are various translations of *doxa* and *doxazein*: some regard "belief" and "believe" as the most appropriate renderings, while others think that "judging" and "judgement" better capture the meaning of the Greek term.[13] Burnyeat offers the following reasoning in favor of his preference for "judgement":

> First, *doxa* is initially described as an experience (187d) or episode (187e), occurring at a particular time and place. In due course it will be defined as a statement made silently to oneself (190a). All this is better suited to

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[12] See footnotes on "identity statements" below.

[13] In addition to Burnyeat and Levett (and in contrast to them), cf. Jürgen Sprute, Der Begriff der DOXA in der platonischen Philosophie [Hypomnemata: Untersuchungen zur Antike und zu ihrem Nachleben, ed. Albrecht Dihle, Hartmut Erbse, Wolf-Hartmut Friedrich, Christian Habicht, and Bruno Snell, Heft 2 (Göttingen: Vandenhoeck & Ruprecht, 1962); Theodor Ebert, Meinung und Wissen in der Philosophie Platons: Untersuchungen zum "Charmides," "Menon," und "Staat" (Berlin-New York: Walter de Gruyter, 1974).

> "judgement" than to "belief," which stands for a continuing state of mind or, on some philosophical views, a disposition. Second, although "opining" can, unlike "believing" refer to an act or episode, "opinion" imports a contrast with 'knowledge" and would make Theaetetus's second definition seem absurd rather than merely false"[14]

Pace Burnyeat, however, if it would be absurd for *doxa* to mean "opinion" here because of that contrast, it would be equally so in all the other passages. The contrast between opinion and knowledge is made by Plato both in the Meno and in the Republic; yet Plato chooses to employ *doxa* rather than *krisis* in this dialogue. By choosing a different translation, we may bring Plato closer to modern problems, but we are also distorting what Plato is doing. For the sake of clarity we will continue to follow Benardete's translation, where *doxa* and *doxazein* are consistently translated as "opinion," "opine," and "opining". It turns out that Socrates will also speak about believing and judging, and when he does he uses terms other than those reserved for "opinion."

The first part of the examination of false opinion falls naturally into three parts: 1) An analysis of the possibility of misidentification in terms of knowledge and ignorance -- which concludes that false opinion is an impossibility. 2) A switch from the consideration of false

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[14] Cf. Burnyeat, op. cit., p. 69.

opinion in terms of knowledge to an examination of it in terms of being and not-being -- which also concludes that false opinion is impossible. And 3) An analysis of switching what is the case for something else which also is the case, which Socrates calls "else-opining" -- which concludes with a puzzle whose solution will not be found until the examination of false opinion and memory.

KNOWING

Socrates supposes that opinion is like knowledge in that, when one opines, there is always something which one opines. Granted this supposition, Socrates wonders how it is possible to misidentify one thing for another. In examining this problem, Socrates uses knowledge as his model -- which might seem somewhat surprising, but is less so if we consider that Theaetetus's definition itself identified opinion with knowledge.[15] If knowledge is opinion, then what is true of knowledge must also be true of opinion. No one at Plato's time would have thought it absurd to insist that false knowledge is impossible. So, similarly, if opinion and knowledge are the same, then false opinion should turn out to be an impossibility as well. The fact that Theaetetus qualified his answer by limiting knowledge

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[15] Cf. Gail Fine, "False Belief in the Theaetetus," Phronesis XXIV (1979), pp. 70-80.

to true opinion, shows that opinion is not in fact knowledge, because opinion can be either true or false, whereas knowledge can only be true. Everyone knows that there are false opinions, yet Socrates undertakes to lead us through the complex perplexity of a demonstration of the impossibility of false opinion. Why? To show that, if we assume the identity of opinion and knowledge, then false opinion is impossible on the same grounds that false perception had been shown to be impossible. If false opinion is possible, then knowledge and opinion are different -- in which case the question arises whether it is possible to transform opinion into knowledge.

The model of knowledge which Socrates employs leads him to enumerate four cases, each of which is intended to show the impossibility of false opinion.

> 1. If both ***x*** and ***y*** are known, it is impossible to mistake one for the other. Socrates offers the example that someone who knows both him and Theaetetus would not say to himself that Socrates is Theaetetus. The example has led some commentators to suspect that Socrates is primarily concerned with knowledge by acquaintance. If Socrates' analysis can be applied to Russell's notion of knowledge by acquaintance, so much the better for Socrates. The onus of proof, however, rests with those who would want to limit Socrates to that and then identify this as a shortcoming of his analysis
>
> 2. If both ***x*** and ***y*** are not known, it is impossible to misidentify them. Misidentification requires that there be some identities to begin with, just as a

> mistake requires that there be something to be mis-taken.
>
> 3. If ***x*** is known and ***y*** is not known, it is impossible to mistake ***x*** for ***y***. Someone might object and begin by analyzing what it would mean to know something, since Socrates' example of knowing individuals seems to invite troublesome objections, such as: Isn't it possible that what I know about Socrates are certain properties which are shared by other human beings and thus it is possible to mistake one of the properties that belong to him for the same property that belongs to someone else whom I don't know. But in that case I am not making a mistake in terms of what I know but in the inference I draw from my knowledge.
>
> 4. If ***x*** is unknown and ***y*** is known. it is impossible to misidentify ***x*** for ***y***. If ***x*** is unknown there is no identify ***x*** in the first place and this precludes any talk about misidentifying ***x***.

Socrates examines the mistaking of 11 for 12 as the answer to 7 + 5. Without engaging in Kantian concerns about the possibly synthetic nature of mathematical statements, we can surely recognize that the identity that is asserted between 7 + 5 = 12 and "Theaetetus is Theaetetus" is different. Or are we to say that 7 + 5 = 11 is the same kind of mistake as "Theaetetus is Socrates"? In the one case we have what might be called a "miscounting"; but to explain the other would require some elaborate story. The other possibility of constructing a similarity between two different identity statements is to say that "Theaetetus is Theaetetus" is like saying "12 is 12" and "Theaetetus is Socrates" is like saying "12 is 11". This last assertion will

loom large in "the aviary" and Socrates will raise numerous difficulties in trying to account for the possibility of mistakes on the level of thought alone.

It is quite possible that the intent of this passage is not so much to explore identity statements, as to examine Socrates' putting together of knowing and not knowing.[16] How does Socrates' assertion of knowing that he does not know fit in here? Throughout the discussion of knowing and being it turns out that there is no way of putting together knowing and not knowing without falling into contradiction. As will become clear in the discussion of the aviary, howev-

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[16] The discussion on false opinion in this passage has elicited numerous responses that attempt to cast the problem under discussion as an issue regarding the logical structure of identity statements. Examples can be found in Bostock, Plato's Theaetetus (Oxford: Clarendon Press, 1988), pp. 169-190, where he explains the problem of "other-judging" and the mistaking of 11 for 12 as the result of a misapplication of Leibniz's Law, and further attributes the lack of any resolution to Plato's failure to distinguish between *de dicto* and *de re* reports of beliefs. Cf. also John Ackrill, "Plato on False Belief: Theaetetus 187-200," Monist L (1966), pp. 383-402.

For a Quinean reading of Theaetetus, cf. C. J. F. Williams, "Referential Opacity and False Belief in the Theaetetus," Philosophical Quarterly XXII: 89 (October 1972), pp. 289-301. Williams applauds Plato's analysis of false belief as reflecting "the views of a man who has read Quine's 'Reference and Modality,' but has not yet got round to Word and Object." Plato, on this view, has failed to distinguish between transparent and opaque interpretations of belief constructions.

Burnyeat also tries to be "generous" by examining the passage in the light of Frege, wondering whether Plato has found a way to replace sense and reference -- what Burnyeat considers a linguistic solution to the problem of connecting mind and world -- with two or perhaps even more epistemic routes.

er, there are at least two different kinds of knowledge possible which allow for the construction of case of simultaneous knowing and not knowing.

BEING

The strictly epistemic approach to the problem of false opinion led to the puzzling conclusion that false opinion is impossible, and he proposes that they explore false opinion in terms of being and not-neing. "Are we then not to examine what we're looking for along these lines by proceeding in terms of knowing and not knowing, but in terms of being and not?" (188c-d). In this part of the discussion Parmenides' presence is unmistakable, for the entire argument rests on his principle that it is impossible to either think or say that nothing is.[17] Rather than deal with this problem in a direct and straight-forward manner, however, Socrates proceeds to investigate the possibility of "opining nothing" by likening it to perception. He replaces knowledge with perception as the model for their further investigation of opinion.

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[17] Cf. Parmenides, Fragment 6: "One should not say and think that Being is; for To Be is possible, and Nothing is not possible...." Kathleen Freeman, Ancilla to the Pre-Socratic Philosophers: A Complete Translation of the Fragments in Diels, *Fragmente der Vorsokratiker* (Cambridge, Mass.: Harvard University Press, 1957), p. 43.

Socrates begins with the assumption that whenever someone sees ***x***, she sees at least some one thing and thus cannot be said to see no-thing. The same is true for hearing and touching and Socrates wants to conclude that the same principle applies to opinion: "But whoever's opining some one thing, isn't he opining something which is?" (189a). So when one is opining that which is not, one isn't opining even one thing, which for Socrates, following Parmenides, translates into saying that one is not opining at all. It is surprising that Socrates reverts to perception, after it has just been left behind as that which is not knowledge. The examples of seeing, hearing, and touching need further investigation before we can accept them as appropriate models for opinion. It seems at first glance, at least with regard to seeing, that one can construct a case where one is seeing nothing -- namely when, in the absence of any light, we might say that we "see in the dark," even though we are not able to see anything clearly. But in order for vision to be possible according to Plato, both a visible object and a seeing eye and the presence of light are necessary. The discussion of the analogy between the sun and the good in Republic VI makes that much clear.[18] Are we then to look for the parallel condition that is necessary for opining?

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[18] Cf. Republic VI 507b-508a.

If opinion is knowledge, then by the analogy of the sun, truth corresponds to light and thus truth would be the necessary condition for opinion. Thus falsehood would correspond to darkness and it would then be possible to conclude that to opine falsely is not to opine at all. In addition, the later discussion of the Theaetetus discusses memory in terms of a wax-block and the condition of the wax is responsible for the difference between true and false opinion. It thus seems that opinion at least shares this much with perception, that something in addition to the perceiver and the perceived is necessary in order for the activity of perception to be complete.

Another line of comparison between perception and opinion is disclosed when we bring our attention back to the myth of twin motions. According to that analysis, seeing became actualized by the see-able object and the see-able object was made visible by the activity of seeing. A kind of reciprocal exchange of activity and passivity gave rise to perception. Is the same true for opinion? What are the objects of opinion and how do they differ from the objects of perception? There are some easy, indeed facile, answers to this question. Bostock contends that the difference between perception and opinion ("belief" in his translation) is that the former takes a direct object and addresses things directly, while the latter deals with propositions. He goes so far as to suggest that Plato actually causes

problems for himself by muddling the distinction whenever he uses *doxazein* with a direct object.[19] Bostock writes about the difference between perception and opinion ("belief"): "It arises because the kinds of things that are believed in ... are not simple physical objects (or sense-data) but a special kind of complex thing, to be named by "nominalizing" a whole sentence."[20] Bostock believes that these complex things do not carry with them the burden of existence, the way simple things do, and with this he thinks that he has provided a solution to the second puzzle, one that Plato unfortunately -- to Bostock's mind -- never saw.

In his discussion of this passage, Bostock picks up on an important distinction in Socrates' formulation: "So it's not possible to opine that which is not, either about the things which are or itself by itself" (189b). Bostock argues that Plato trades on the difference between opining something about ***x*** and opining ***x***. Even though Bostock previously argued that opining takes a complex rather than a simple as its object, he allows Plato his mistake and grants

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[19] The passage is curious: "I said a moment ago that the verb 'to believe' does not take a direct object construction, and I would maintain that that is equally true of the Greek verb in question (δοξάζειν). But Plato here writes as if it does. He uses the verb with a direct object construction in this passage at 188a7-8, and often hereafter...." Presumably Bostock is no reincarnate native speaker, so one wonders from whom he learned his Greek. Cf. David Bostock, Plato's Theaetetus (Oxford: Clarendon Press, 1988), p. 164. Cf. Sprute, op. cit., pp. 53-57.

[20] Ibid., p. 166.

him that the case of opining ***x*** in the absence of ***x*** is problematic, but opining something falsely about ***x***, or as Burnyeat puts it "misdescribing" ***x*** does not entail any contradiction, and thus can serve as a possible scenario for the existence of false opinion. Unfortunately, Bostock's entire argument rests on a misunderstanding of the text itself. A literal translation of the passage shows where Bostock errs. "Then to opine that which is not (*to mē on*) is not possible either with regard to the things that are (*peri tōn ontōn*) or itself by itself (*auto kath' auto*)" (189b) What Bostock misses is that the *auto kath auto* refers back to the *to mē on* and not to one of "the things which are." What Socrates is saying is that it is impossible to say that that which is is not, and that it is also impossible to say that that which is not is not. So Bostock's argument, while interesting in and of itself, is inapplicable here.

What the discussion about being does show is that false opinion is impossible if there is "just one." The minimal condition for false opinion is "two." The "twoness" of false opinion is then tackled in the next section where neologism abounds and *logos* is pushed very hard indeed to provide an entry into the problems of *allodoxia* (else-opining) and *heterodoxia* (other-opining).

ALLODOXIA AND *HETERODOXIA*

Allodoxia represents Socrates' last attempt at solving the puzzle of false opinion before he resorts to images and brings the soul into play. Combining the findings of the two previous attempts, Socrates puts together knowing and being and coins a new word, *allodoxia*, else-opining, which he defines as "whenever someone makes an exchange in his thought of some one of the things which are for something else of the things which are and says it is that" (189c). Theaetetus, in his keenness, offers an illustration of the definition, which creates difficulties rather than solving any. He suggests that someone who opines that the beautiful is ugly, or the ugly beautiful, would be guilty of else-opining, or as he puts it, "would truly opine falsely." Socrates rightfully scolds him for engaging in such blatant contradictions and sees this as a sign that Theaetetus does not respect him (189c).

Socrates proceeds to examine the possibility of thinking the other an other as an explanation for false opinion. On the dialogical level Theaetetus's controversial illustration is not as shocking, for with it he expresses his own experience. In likening him to Socrates, Theodorus has implicitly identified Theaetetus as ugly, while Socrates explicitly contradicted Theodorus's opinion by proclaiming

Theaetetus to be beautiful. If Theaetetus is in fact thinking that his own case provides an example of Socrates' definition then he is missing the point of else-opining. The difficulty lies not in explaining how two different people can assign contradictory predicates to the same one thing, but rather how two contradictory things can be identified as the same thing.

'Theaetetus ugly' and 'Theaetetus beautiful' reminds us of the discussion of 'Socrates sick' and 'Socrates healthy,' where Theaetetus and Socrates agreed that each is wholly other from the other. The only way one can arrive at the opinion that the 'beautiful is ugly' from the premises 'Theaetetus is ugly' and 'Theaetetus is beautiful' is by forming an invalid syllogism (AAA-3) that commits the fallacy of the illicit minor. There is in fact no thinking other than fallacious thinking that would lead to this conclusion. If all false opinions are reducible to logical fallacies, then the solution to the problem of false opinion should be fairly straight-forward. But it is not.

Socrates' dismay at Theaetetus's illustration may point to yet another way of falsely opining something. What has occurred on the dialogical level might be taken as a mistaking of one meaning for another meaning. Theaetetus thinks he understood what Socrates meant by his definition and exhibits his understanding by calling the definition correct, but his own example and Socrates' rebuke show that

Socrates in fact meant something other than what Theaetetus understood him to mean.[21]

In the two previous examinations of false opinion, knowledge and perception served as models for opinion or at least as guides to help us understand opinion. Knowing and being were two respective possibilities introduced to explain false opinion, but both showed the impossibility of false opinion. This section puts the two together -- not as misidentification or misdescription, however, but as knowing and being, and it is *logos* that becomes the mediator.

In his definition of thinking and opinion (189e-190a), Socrates likens thinking (*dianoeisthai*) to conversing (*dialegesthai*) and opining (*doxazein*) to speaking (*legein*). Opinion, however, is not just any kind of speech, but a speech that follows thinking, a "stated speech (*logon eirēmenon*), a speech said in silence to oneself. Benardete's suggestion that *logos* here really means "conclusion" clarifies Socrates' point about the impossibility of opining the ugly as beautiful. It is possible to say that -- those words anyway -- as Theaetetus illustrates, and indeed we are able to babble on about all sorts of gibberish, but it is impossible to opine gobbledygook as a derived conclusion.

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[21] Benardete takes an example of this mistaking of one's own understanding of someone else's meaning from Republic VII, 523a-524c, where Glaucon shows with his reference to "things that appear from afar and shadow-painting" that he has not understood what Socrates meant. Cf. Benardete, op. cit., pp. 150-151.

No thinking will lead to the conclusion that "the other is an other" and Socrates emphasizes this point several times during his conversation with Theaetetus, underlining that, whether we are awake or asleep, we cannot come to the conclusion that "the odd is even" (190b), "the horse is an ox," or "two is one" (190c). Since there are no apparent fallacies committed by Socrates in this passage, we must either accept the conclusion that "else-opining" demonstrates false opinion to be impossible or reject Socrates' definition of "opinion." But perhaps the introduction of *logos* will allow us to find the locus of false opinion.

Socrates concludes this section and builds a transition to the next one by insisting that they cannot leave the problem in a state of such perplexity which opens up such a sea of absurdities. To prevent the experience of sea-sickness, Socrates suggests that they re-examine what had previously been agreed upon to be impossible: "to opine what one does not know to be what one knows" (191a). What was considered as impossibility from a logical point of view will become possible with the introduction of memory.

WAX: MATCH ME IF YOU CAN

Socrates responds to the logical conundrum of the impossibility of false opinion by developing two memorable images: that of wax and that of an aviary. Each is de-

signed to explore the connection between false opinion and memory. The first example asks us to imagine that the soul is wax-like, capable of receiving impressions both of the perceived and of the thought. The problem of false opinion can then be cast as a mismatching between a received imprint and a new perception or a new thought. Socrates is eager to reconsider a previously rejected case, to opine, namely, that that which one does not know is what one does know. Theaetetus is once again quick to offer an illustration in which someone, being familiar with Socrates, sees a man in the distance whom he identifies as Socrates, but who turns out to be someone he does not know. So it is the complexity of matching a perception with something which is already present to us -- i.e., something with which we are already acquainted or familiar -- which becomes the key factor in an explanation of false opinion. Theaetetus's example introduces distance, or more generally space, as a variable that leads to mistakes. Socrates then adds time as yet another consideration in the treatment of false opinion, and it is time that opens the door to the problem of memory. The wax image then really becomes an image for memory.

In explaining the role that memory plays in the construction of false opinion, Socrates is led to tell the following story: the wax which takes on different shapes and consistencies in different individuals is a gift from Mnemosyne (Memory), mother of the Muses. The wax is capable

of receiving impressions (*smeia*) of both our perceptions and thoughts (*aisthēsis* and *ennoia*) and we can be said both to remember and to know as long as there remains an image of the received impression. Socrates adds the following puzzling comment: "...but whatever is wiped off or cannot get impressed, that we forget and we do not know." (191e) Surely, we must wonder what lies outside the capability of memory and furthermore we must question whether that which is not impressible can also give rise to false opinion and whether the later discussion of the aviary is meant to cover these "non-memory" cases. Are we to infer from Socrates' description of the wax that memory is the storehouse of images and any thought which cannot be translated into an image cannot be remembered?[22]

Socrates proceeds with the discussion by displaying his agility at thinking. He rattles off a list in which he enumerates all cases where a mismatching between "memory knowledge" and perception is impossible. We might note that the entire list is concerned with a type of knowledge that is very close to Russell's "knowledge by acquaintance" and the term used for "knowing" is *oida*, which is closely related to seeing. So Socrates is not investigating *epistēmē* as such here, but rather the kind of knowledge that is based on

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[22] It might be appropriate to try to distinguish between memory and recollection in such a way that the theory of recollection can be understood as encompassing all non-experiential and non-imagable thoughts.

perception. The rapid specification of the impossible cases -- the "impossible possibilities," as it were -- is very confusing on first reading. Like Theaetetus, the student is initially at a loss to understand what Socrates is saying. The following chart of the fourteen possibilities -- more precisely, the "impossibilities" -- that Socrates enumerates will help us keep track and examine the principles that underlie Socrates' discussion.

IMPOSSIBLE MISMATCHINGS
Theaetetus 192a-c

	K	*P*	*~K*	*~P*	*K&P*	*K&~P*	*~K&P*	*~K&~P*
K			*b*					
P		*e*		*f*				
~K	*d*		*c*					
~P		*h*			*g*			
K&P	*j*	*k*			*i*			
K&~P						*a*		
~K&P								
~K&~P			*l*	*m*				*n*

The letters here refer to the order in which the instances are cited in the text.

K refers to things which are known;
P refers to things which are perceived.

Socrates presents his list as an exhaustive set following from his thinking through of all the cases "from the beginning" (*ex archēs*). It is up to us to infer the principles that he relies upon, which enable him to present all cases in such a rapid fashion. After Theaetetus's dumbfoundedness Socrates gives us some hints which enables us to deduce the principles. One principle which underlies the discussion is that anything known (in the sense of "memory knowledge") can either be perceived or not perceived and the same is true for that which is not known, with the qualification that it is possible that "the not known" may only be perceived. This last addendum confirms once again that perception is not knowledge.

On this basis Socrates re-introduced the logical principles that provided him with the starting points for the discussion of false opinion: 1) it is impossible to mistake something one knows for something else one knows or for something one does not know; 2) whatever one does not know cannot be mistaken for something else one knows or does not know. These same principles can also be applied to perception. Since what one knows can either be perceived or not be perceived, there are three cases where one both knows and perceives something, and it is impossible for there to be mistakes regarding something else which one either knows or perceives or both knows and perceives. Socrates then constructs three parallel cases for the negative state of not

knowing where whatever is neither known nor perceived cannot be mistaken for something else which is not known or not perceived or neither known nor perceived. The last impossible misidentification is concerned with the case where something that is known and not perceived is mistaken for something else which is known and not perceived.

As the negative cases illustrate, we need some kind of an impression in our wax in order for the mismatching of it with something else to occur. In order to mis-take something for something else, there has to be something "there" for the "taking" in the first place. Since Socrates has exhausted the possible combinations of knowing and perceiving and since what one does not know is either not perceived or only perceived, the cases for false opinion are all concerned with knowing something (i.e., having an imprint in memory) and mismatching it with either the perception alone or with the perception combined with knowledge of something else. He finally does provide a case where other-opining is a case of false opinion: when both x and y are known and both are perceived at a distance and mis-matched such that the perception of y is combined with the knowledge of x and the perception of x with the knowledge of y. Socrates summarizes the discovery in the following passage: "But about what we know and are perceiving, it's in these very cases that opinion whirls and twists about and becomes true and false -- true if it brings together its own impressions and

(fresh) impresses straight-forwardly and in a direct line, but false if it's crosswise and crooked" (194b). Socrates clearly indicates that the false opinions that arise from mismatching knowledge and perception are avoidable. The case of putting on one's shoes backwards or mistaking left for right when looking in a mirror (193c) are like those cases of false opinion which can be avoided or corrected through care and attention. Nevertheless false opinions abound. Socrates addresses the reasons for this in a strange account about the various conditions of the wax-soul.

To explain the cause of false opinion, Socrates turns his attention to things that "they say." It is not clear whether "they" here refers to "the poets,"[23] or to common opinion, or whether Socrates is merely distancing himself from the story he is about to tell. Nevertheless, the unidentified "they" explain the cause of false opinion in terms of the conditions of one's soul. The issue of the beautiful is woven into the description of the wax, where a measured kneading creates beautiful wax, wax whose beauty is evident in that

> [the owners] first of all learn easily, and secondly have good memories, and so it's not they who interchange the seals of their perceptions but they opine what is true. For inasmuch as their seals are plain and have plenty of room, they dis-

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[23] Cf. Meno 81a-d.

> tribute them quickly to their own several casts, and it's these casts which get called the things which are and it's these people who get called wise" (194d).

This passage can plausibly be interpreted as a foreshadowing of the Kantian (or, more precisely, neo-Kantian) picture of the "working" of the mind (*Arbeit des Geistes*). Burnyeat, attempting his own reading, instead invites us to employ Locke's discussion of wax and error as a guide. It is a strange turn of events to see Socrates -- who clearly introduced the image as an image, to enable us to take the next step in our examination of false opinion -- turn around and treat the image literally. At the same time, Socrates distances himself from that description by introducing it with "they say."

It may be the case that the initial point of the wax was to examine the process of opining and to learn that "the true" and "the false" of opinion come about through the process. Reason can exhibit the structure of false opinion, but not the process, and it is impossible to talk about the process directly. Just as the myth of twin motions was necessary to get a a grip on perceiving, so the story of the wax is necessary to deal with opining. The reason for the story and for Socrates' distancing himself from it, is his recognition that talking about a process arrests that process. Since opining itself, like perceiving, is a process, there is a particular difficulty in talking about it. In

contrast, metaphor and image, being completely other, may be better able to "let the process be."

We can fairly well guess what the "ugly wax" is like, but the question that Socrates leaves unanswered is who is responsible for the condition of the wax -- unless, of course, we are to assume that Mnemosyne endows us, not just with wax, but with different qualities of wax. Can education, *paideia*, for instance, alter the condition of the wax?

Socrates concludes the discussion of the beautiful and ugly wax by pointing out that "after all, false opinions are in us? ...And true too" (195b). So he suggests that we are a mixture of the two extreme cases and that each case provides us with a *schema* for explaining both true and false opinion. True opinions come about whenever we are in possession of a good and clear impression, which is derived either from a perception or a thought, and we are able to match a future perception or thought with that impression. False opinion, on the other hand, occurs when we mismatch a fuzzy or indistinct impression with a future perception or thought.

And so Socrates has achieved what he set out to do: he has arrived at an explanation for the possibility of false opinion. The example of the wax provides an explanation of false opinion that is the twin of Socrates' discussion of true opinion in the Meno. Having a true opinion about the road to Larissa depends on the accuracy of the instructions

that were heard. In order to transform true opinion into knowledge it would be necessary to confirm or verify the instructions through one's own immediate experience. As soon as we venture an opinion, we run the risk of falsehood, for opinion is mediated and, unlike perception, it is not immediate experience. The fickleness of opinion, which Socrates discusses in the Meno, is precisly related to the need for constant verification in the realm of empirical knowledge. It is certainly possible to imagine the case where I have actually confirmed my directions to Larissa and yet, two years later, when I pass them on to an inquiring stranger, I might find myself to be mistaken. As it so happened, the previous year the Deparment of Transportation had excess funds, having cut the tuition budget for the Academy, and it built a new road to Larissa, using the old one as a drainage canal. The difficulties of misidentifying the man at the distance as Socrates cannot be explained as a problem of perception but rather opinion's venturesomeness in arriving at a conclusion in the light of inconclusive evidence. So it is the loss of immediacy that opens up the possibility of false opinion. And it is the twoness of opinion that explains the details of false opinion with regard to our making judgements about sense-perception. Opinion about perception can misfire because it involve both a perception and a memory.

Although Socrates claims that his listing of impossible mismatches between perceptions and "knowledges" is exhaustive, he does not claim that his list of possible false opinions is complete. To point toward this incompleteness and to motivate further discussion, Socrates questions whether mis-taking is possible on the level of thought alone. His discussion of the possible mistaking of 11 for 12 in response to the question "what is 7 + 5?" leads us to suppose that another image is necessary. Consequently Socrates will engage in another round with false opinion, trying to "catch" it one more time, when he turns to investigate false opinion in the realm of pure thought. For this we need to enter the whirling breezes of the aviary.

THE AVIARY: CATCH ME IF YOU CAN

The conceit of the aviary introduced at Theaetetus 197b comes in response to the role given to the "debater" or "contradictor" (*antilogikos*, 197a), whom Socrates invokes to question the effectiveness of the wax as an image to deal satisfactorily with false opinion. The shortcomings of the wax model are elaborated by a delineation of its limitations. The debater claims that Socrates and Theaetetus have done nothing more than address false opinion in terms of mismatching thought and perception and the challenge is issued either to show that false opinion is impossible on

the level of thought alone or to come with an additional explanation for such false opinion as mistaking eleven for twelve either when attempting to add five and seven or by themselves. Before we can fully evaluate Socrates' new image of the aviary, we need to understand why it is that the wax model could not provide any answer to a challenge of this sort. This would be equivalent to ascertaining the requisite conditions for explaining false opinion at the level of pure thought.

Socrates maintains that if we think of 11 and 12 in connection with touching and seeing, then indeed it may be possible to mistake one for the other when replying to a question concerning the sum of 7 and 5; but if we were to consider the numbers by themselves such mistaking would be impossible, at least if we were to remain with the image of the soul as a wax-block (195e-196a). To flesh out this claim, let us imagine that someone is asked to determine the number of people who are standing in line at a popular Souvlaki Stand in ancient Athens. Upon counting those in the queue, this individual, wanting to set up shop as a second Souvlaki salesman, arrives at the result that there are 11 people, when in fact it turn outs that there are 12. In this case the person is mismatching a perception with an already present memorial under the assumption that numbers are already present in his memory. In order to perform the function of counting we have to assume that numbers are

already in some way present for us. He is not really mistaking the number eleven for the number twelve; rather he is misdescribing a group of people by wrongly assigning the number eleven to that group. The counter is mistaking twelve "things" for eleven "things" -- which could be likened to the mistake of misidentifying one individual as another individual, except that here the process of counting replaces the process of perceiving. When dealing with the task of summing 7 and 5, we can arrive at a similar explanation in the context of seeing or touching numbers. Imagine the arrival of capitalism in ancient Athens. A third Souvlaki seller joins the two others on a sidewalk of the *agora*, selling his goods for half the price of the other two. He is looking at the five customers of the first vendor and the seven of the second and tries to figure out his potential profit, should all of then come to his stand. He underrates his income, for he thinks that he will have eleven instead of twelve customers.

All of this type of mistaking could be explained in terms of the wax mold, for all of it occurs on the level of experience. In fact, Elfriede Tielsch suggests that the transition that Plato makes in going from this problem to the next one is the transition from empirical mathematics to

pure mathematics.[24] What occurs as a mistake in this so-called empirical mathematics of addition and subtraction can easily be explained as a recurrence of the previous mis-counting of 11 for 12. As such there is no operation of addition occurring but rather the same process of counting that has led to the previous error. What prompts Socrates to launch a new investigation of false opinion is that this explanation does not apply when we are dealing with numbers by themselves. Instead, he argues that we are confronted with the same impossibilities that confronted us when we were dealing with the issue of mistaking Socrates for Theaetetus. The underlying principle -- which enabled Socrates to show that in the cases of either knowing or not knowing, one or the other or both, it was impossible to mistake one for the other -- can now be put more straight-forwardly as the impossibility of thinking that two is one. The reason why numbers themselves, on the example of the wax block, cannot be mistaken for each other, rests on the same principle, i.e., that if we inspect the wax and find the two imprints of 11 and 12, it is impossible for us to think that they are identical, for if they were there would be one imprint rather than two. With this in mind Socrates virtu-

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[24] Elfriede Tielsch, Die Platonischen Versionen der griechischen Doxalehre: Ein philosophisches Lexikon mit Kommentar [Monographien zur philosophischen Forschung, est. Georgi Schischkoff, vol. 58] (Meisenheim am Glan: Verlag Anton Hain, 1970), pp. 151-163.

ally predicts their forthcoming failure to explain false opinion at the level of pure thought, when he suggests that they must first get hold of what knowledge is before they can give a satisfactory account of false opinion.

Socrates proceeds then to define knowledge as, minimally, the "having of knowledge," whose actuality depends on the "possession of knowledge." This distinction has been usefully discussed by Frank A. Lewis, who prefers to rename the two as "dispositional" and "actual" knowledge.[25] Unfortunately, he proceeds to confuse the issue by introducing the further distinction between actual and virtual belief, in an attempt to explain the possibility of believing that 11 is 12. The problem with this latter distinction is that he assumes that what is a distinction with regard to knowledge can just as well be applied to belief (*doxa*). Equipped with this he can easily construct a scenario whereby one can have the virtual believe that 11 is 12 and thus mis-recognize one number for another. But there is no evidence in the text to indicate that this is where Socrates is heading.

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[25] Frank A. Lewis, "Foul Play in Plato's Aviary: Theaetetus 195bff," Exegesis and Argument: Studies in Greek Philosophy Presented to Gregory Vlastos, ed. E. N. Lee, A. P. D. Mourelatos, and R. M. Rorty [Phronesis: A Journal for Ancient Philosophy, Supplementary Volume I (1973) (Assen, Neth.: Van Gorcum & Co, 1973), pp. 285-305.

Cf. F. A. Lewis, "Two Paradoxes in the Theaetetus," Patterns in Plato's Thought: Papers Arising out of the 1971 West Coast Greek Philosophy Conference, ed. J. M. E. Moravcsik (Dordrecht-Boston: D. Reidel Publ. Co., 1973), pp. 123-149.

In fact, the text shows that Socrates finds himself in a quandary and is unable to solve the puzzle of false opinion at the level of pure thought, fulfilling his own prediction that in the absence of a discovery of what knowledge is, false opinion will have to remain a puzzle.

In response to the *antilogikos*, Socrates develops the new image of the aviary, which is intended to represent the level of thought unmixed with perception. By choosing to describe the difference between the possession of knowledge (*ktēsthai*) and the having (*echōn*) of knowledge as the difference between capturing birds and putting them into a cage in the first case and then re-capturing them to "having them" and "holding them," Socrates is giving us some hints as to the way in which pure thought differs from experience. The image of living birds suggests activity, and even after their capture the birds are said to fly around in the cage and they need to be hunted down once again. Socrates intensifies the image by suggesting that actively knowing something is having that which is to be known under one's thumb and thus putting an end to the incessant bird-like motion. We must wonder to what degree this controlling also changes the nature of the bird. If it is the nature of something that we want to know, and if we need to hunt it down and "domesticate" it, then what we finally have is not precisely the same as that which we set out to discover. Some significant change must indeed occur if it is possible to transmit

the sort of knowledge that Socrates describes as involving both teaching and learning.

The entire discussion is reminiscent of the Meno and it seems to contradict virtually everything that Socrates tries to demonstrate there with the example of the slave and the adumbration of the theory of recollection. In contrast to the Meno, where Socrates argues that we already know all there is to know and all that is necessary is for the soul to recollect that which it already has within it, here Socrates supposes that the soul, represented as a cage, is, at the time of birth, empty: it is filled with different "knowledges" (birds) through the activities of teaching and learning. There is, however, an important similarity as well, in that both discussions explain knowledge in terms of a process that involves two kinds of knowledge: one that is residing "passively" within the soul and the other that activates what is already there. It is clear in both cases that knowledge requires a process which can "proceed" from some kind of "foundation." Socrates defines learning in the following way: "And whatever knowledge one acquires and confines in the enclosure, one has to say that he has learned or found the matter of which this was the knowledge, and this is to know" (197e). Throughout this passage, in contrast to the discussion of the image of the wax, the knowledge and knowing under consideration are all different grammatical forms of the root word for *epistēme*. We are

apparently no longer concerned with memory, as we were earlier when the term *oida* was used.

Equipped with this rather strange image, Socrates is ready to tackle the problem of numbers themselves and offers the different senses of the term "knowledge" as solution to the initial contradictory state of both knowing and not knowing the same thing at the same time. Through learning and transmission we, as arithmeticians, possess the numbers 11 and 12, but we still need to access them in order to have them. It is in this re-acquisition that false opinion is said to occur: "whenever in hunting on some occasion some knowledge somewhere, while they're flying about, one misses and seizes another instead of an other [sic!], it's just at that time that one comes to believe the eleven is twelve -- when one seizes the knowledge of the eleven in oneself instead of the knowledge of the twelve, as if it were a ring-dove instead of a dove" (199b). The language of this passage is reminiscent of the earlier discussion of *allo-doxia*, and indeed the issue is whether that which could be worked out at the level of perception and thought of mistaking the other for the other is here once again raised at the level of thought by itself.

It is not surprising that Socrates follows this proposed solution with objections, such as the impossibility of mistaking one knowledge for another. We are after all not hunting down two numbers but the "knowledges" of these

numbers. If it is possible to mistake one's knowledge of 11 for one's knowledge of 12 then there seems to be no hope, for it is difficult to imagine what could possibly be the remedy for such mistaking. Socrates' follow-up comment on this matter, however, may point to a possible solution to such dreadful false opinions. He claims: "On the basis of this speech, nothing stands in the way of the presence of ignorance making one know something and blindness making one see, if knowledge in fact will ever make one ignorant" (199d). The two examples he uses remind us, of course, of Socratic wisdom and of Oedipus's insightfulness and wisdom after blinding himself -- the wisdom that always comes too late.[26] Is it not precisely the practice of Socratic *maieutikē* and dialectics that can reveal the false opinions of thought? The question whether Socrates' method can be as successful with the mathematician as it had been with the likes of Euthyphro remains as yet unanswered. On some level we know from the Meno that Socrates is able to assist some people at least in detecting their false opinions in the mathematical realm and in remedying them. The servant's experience of the journey from ignorance -- in the sense of not knowing -- to false opinion to the knowledge of ignorance to true opinion displays precisely what Socrates here describes as problematic.

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[26] Cf. Sophocles, Oedipus Rex, 1328-1391; Antigone 1347-1353.

Instead of directly addressing the problem that Socrates describes, Theaetetus attempts to find a way around it by suggesting that the cages contain non-knowledge as well as "knowledges." He thus proposes that one could describe false opinion in terms of a seizing of some non-knowledge instead of "a knowledge," whereas a successful hunt would lead to "a knowledge" or true opinion. This suggestion is by no means self-explanatory and needs some elaboration before it can make very much sense. Non-knowledge cannot function in the same way as ignorance, because no one would set out to hunt ignorance.

Furthermore, we must assume that these non-knowledges share some resemblance to knowledge, since we would otherwise be unable to explain how anyone could mistake non-knowledge for knowledge. If non-knowledge cannot be ignorance and must appear to be like knowledge to the hunter, then it would seem that opinion is the ideal candidate for Theaetetus's non-knowledge. Now, it is not so easy to imagine how we can apply this case to the mistaking of numbers, or how one is to characterize opinion within the field of mathematics. One way of approaching an understanding of this difficulty would be to consider under what circumstances a person might wrongly assert that 11 is the

sum of 5 and 7, and how that constitutes opining.[27] Furthermore, if the same person were to assert that 12 is the answer, would that still be a matter of opining? It must be granted that the arithmetician, when thinking about the numbers themselves, would not be capable of arriving at 11 as an answer to the stated problem. One reason for that is that, instead of merely counting, the arithmetician is by definition someone who knows odd and even and thus knows that when adding two odd numbers the answer must be even. There are too many things that would have to go wrong for a mathematician to mistake 11 for 12. If we contrast that with the non-arithmetician, we can see how that person may operate on the level of opinion and thus be capable of committing such a glaring error. Rather than knowing anything about numbers, that person may be someone who is merely repeating from memory something he has heard. And thus the case of false opinion has to be constructed along

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[27] Cornford's solution to this puzzle is not warranted and was long since refuted by Lee. Cornford introduces a whole new set of creatures, such as a bird representing the knowledge of "7 plus 5" that is distinct from either 7 or 5 and which is then mistaken with 11. When Socrates sets up the aviary, however, he explains it in terms of an arithmetician's knowledge and clearly identifies the birds as knowledges of numbers, more specifically a knowledge of the odd and the even. Cf. Francis MacDonald Cornford, Plato's Theory of Knowledge: The Theaetetus and the Sophist of Plato, trans. with commentary (New York: Liberal Arts Press, 1957), p. 137; cf. H. D. P. Lee, "The Aviary Simile in the Theaetetus," Classical Quarterly, vol. XXXIII (1939), p. 208-211, a refutation of Cornford referred to regularly in the literature.

the lines of mis-remembering. In that case he is not really mistaking his knowledge of 11 for his knowledge of 12, but rather his opinions about 11 and 12, which were acquired on the basis of hearsay.

Socrates, however, is not interested in exploring Theaetetus's suggestion. Instead, he praises him indirectly and refutes the idea of non-knowledges by resorting to a "skilled refuter" (*elenchtikos*), who reduces the imagined cage of knowledge and non-knowledge to a shambles of absurdities. The refuter brings up once again the initial paradoxes of both knowing and not knowing the same thing. The new aspect of the refutation is that Theaetetus's suggestion is shown to lead to an infinite regress as well:

> "Or will you tell me once more that there are in turn knowledges of the knowledges and non-knowledges, which their possessor confined in some ridiculous dovecotes or wax molds, and knows as long as he possesses them, even if he does not have them ready at hand in his soul? If it's in this way, won't you all be compelled to run around to the same point thousands of times and get nowhere?" (200c).

What is striking about this passage is that Theaetetus considers himself completely refuted. There is of course a way to halt such a process of infinite regress and we would expect the mathematician to be able to answer this challenge. It is surprising that Theaetetus fails to mention "first principles" or "axioms" in response to the *antilogikos*. He was, after all, able to put a stop to the tortuous

labor of Theodorus in undertaking to prove the problem of the surds one by one; he introduced a principle that enabled him to address all cases. The introduction of first principles would have allowed the discussion to proceed and to go on to an examination of the difference between the kind of false opinion that is a mismatch between a perception and a thought and the kind of false opinion that arises from a mistake in counting or deduction. But, as has been the case throughout the dialogue, Theaetetus is somehow reluctant to use his own experinece in discussing the question of knowledge. The question of first prinicples will be hinted at later on in the examination of Socrates' dream. Perhaps the reason why first prinicples are not introduced here in the discussion of the aviary is that they cannot be "birds." Unlike the knowledge that is deduced from first principles and which clearly involves a process, axioms or first prinicples cannot, by definition, be deduced.

Socrates, in contrast, must be reminded of his practice of dialectics and the conversation he once had with Critias, where self-knowledge was turned into the very same formulation -- the knowledge of knowledges and non-knowledges.[28] Yes, there may be different orders of "knowledges," but an argument that assumes that true opinion is the same as knowledge cannot enter into this discussion. Socrates, the

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[28] Cf. Charmides 166e.

mid-wife, prepares instead to aid Theaetetus in aborting this his second-born. He prepares the way by once again asserting that it is impossible to give an account of false opinion without first arriving at an understanding of what knowledge is.

And so finally they take up Theaetetus's original definition of knowledge as "true opinion" and Socrates quickly disposes of it with the example of a jury trial (200d). If, on the basis of eyewitness accounts, a jury is persuaded about the guilt or innocence of someone accused of robbery, then, if the eyewitnesses are indeed reporting what they saw, then the jurors will arrive at a true opinion about what occurred. But their opinion needs to be distinguished from the knowledge of those who were actually present at the events. This entire example and its reasoning run parallel to the account of the "road to Larissa" in the Meno, except that Socrates adds persuasion as a factor in the account here.

But what exactly does persuasion accomplish? How does it differ from teaching? Is persuasion primarily concerned with the character of the witness or with the occurrence of the events? Surely they are linked. If I desire to persuade you that my words are believable, ultimately I am asking you to trust me as well as my words.[29]

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[29] Cf. Gorgias, 450e-457b; cf. Republic II 368b.

The final failure to resolve the puzzle of false opinion can be explained by pointing out what was lacking from their discussion, which, in Socrates' words, was knowledge. But since knowledge is always knowledge <u>of</u> something, according to Socrates, we must wonder what the "something" is that this knowledge would be <u>of</u>. The first part of the discussion, which splits knowing from being and then introduces the confusion of interchanging the other with an other, is designed to create a state of perplexity, one that cannot be overcome unless we put together knowing and being. Socrates advanced the images of the wax mold and of the aviary to make his way out of the initial perplexity and they were partially successful in showing what was lacking: namely soul. The appearance of soul in the wax image enables Socrates and Theaetetus to make some progress towards solving the riddle of false opinion in terms of mixed opinions -- opinions that are a combination of thought and perception. But success is frustrated by discussion of the aviary, in which Socrates and Theaetetus set out to examine the activity of thought by itself. But they could not, in the end, arrive at a satisfactory solution.

The examination of opinion has demonstrated that Theaetetus's identification of opinion as that capacity which touches on being has proven to be very troublesome, because it has opened the door to false opinion. While the analysis of perception introduced the notion of infallibility, to

that extent making perception appear to be knowledge, perception failed as a definition of knowledge, because it did not address being. Here, opinion is introduced, and according to Theaetetus opinion does touch on being but opinion cannot meet the infallibility criterion. It is clear from Socrates' analysis of false opinion that the reason for this fallibility is that opinion apprehends being mediately or discursively. As long as we were dealing with only one kind of knowing or only with being, false opinion did not arise; but once we had two, as in the case of perception and memory and virtual and actual knowledge, the possibilities for false opinion became evident. The road that has brought us here should have provided sufficient grounds to anticipate what the next step needs to entail. Socrates and Theaetetus must do one of two things: either they must find an account of knowledge that provides for the direct apprehension of being, thus meeting both the criteria of infallibility and being, or they must find some way to ensure the truth of opinion. Theaetetus will opt for the latter, working on the assumption that it must yet be possible to convert true opinion into knowledge.

CHAPTER FOUR:

INTERPRETATIONS OF A DREAM

The third and final definition of knowledge discussed in the Theaetetus, that "knowledge is true opinion accompanied by *logos*," falls into two parts: the first part (201d-206b) examines the possibility of knowing any complex thing, as well as the elements of which that compound is constituted. This section is generally referred to as "Socrates' dream." The second part (206c-210b) analyzes the different definitions of *logos* in order to determine whether there is any one of them that can provide sufficient conditions under which true opinion could be considered knowledge.

The two parts actually capture, upon reflection and analysis, the essence of *epistēmē*: the talk of dreams and letters characterizes the representative aspect of knowledge, the otherness of knowledge over against that which is

to be known; the second part discusses three senses of *logos* which, when they are taken together, present the evolution of *logos* from the pre-philosophical voicing of opinion to the philosophical analysis of difference which successfully completes the process of intellectual movement from whole to parts to synthetic unity. Instead of reaching this conclusion, however, Socrates and Theaetetus conclude their discussion in an admitted aporia. But the impasse is accompanied by Socrates' articulation of the benefits which have come to Theaetetus by virtue of his having undergone this painful process of "birthing" his opinions (210b-d).

The final sentence of the dialogue points forward to further discussion the next day, after Socrates will have completed his visit to the "Porch of King Archon," where he will learn about the indictments that his accusers have drawn up against him. We know from the Sophist, which takes place on the following day in the dramatic sequence, that Theaetetus is indeed subjected to a renewed examination. It is not Socrates, however, but the Eleatic Stranger, who will guide Theaetetus in that dialogue and who introduces him to a very different method of inquiry. Instead of the art of midwifery, Theaetetus will be subjected to another medical art, that of the surgeon and the surgeon's cutting and segmenting knife, i.e., the method of division (*diairēsis*).

THE LOGIC OF DREAMS

There is not much warning or foreplay before Theaetetus spouts forth his final definition of knowledge in the dialogue: he neither acknowledges nor responds to Socrates' refutation of the prior version of knowledge as "true opinion." It is as though Theaetetus were leery of discussing anything having to do with the political, such as the goings-on in courts of law. Socrates has hardly finished his refutation of knowledge as "true opinion," when Theaetetus digs up from somewhere his final answer to the question about knowledge, repeating the words he has heard "from somewhere":[1]

> He said true opinion with speech (*logos*) was knowledge, but true opinion without speech was outside of knowledge, and of whatever there is not speech, these things are not knowable -- that's just the word he used -- and whatever admit of speech are knowable (201d).

This definition not only provides the criterion for knowledge -- namely, *logos* -- but it also includes the distinguishing mark which differentiates knowledge from non-knowl-

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[1] Cf. M. F. Burnyeat, "The Material and Sources of Plato's Dream," Phronesis, vol. XV (1970), pp. 101-122. Burnyeat attempts to trace the possible sources of the dream, including Aeschines, but ultimately argues that the dream is of Plato's own making and that its source is irrelevant.

edge.[2] Socrates takes up the latter part of the definition, zeroing in on the criterion and asking what it is that distinguishes knowledge from non-knowledge. But Theaetetus is not up to the task.

In clear contrast with earlier sections of the dialogue, Theaetetus makes qualifications and distinctions with respect to his inability to answer Socrates' request, distinguishing the inability to find or discover an answer -- which he claims is his problem -- from the inability to recover or follow a recounting of the difference between the knowable and the non-knowable, which he is confident he could do. Earlier in the dialogue, when Socrates confronted him with his art of midwifery, Theaetetus was incapable of comprehending his own experience -- experiencing something close to complete perplexity. Later, during the discussion on perception, Theaetetus is struck speechless, when faced with what appeared to be a silly contradiction -- namely, when someone is covering one eye and looking at an object one can be said both to see and not to see. Even in the

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[2] A good discussion of the different translations of "logos" in the context of the dream, and the need to understand logos as both proposition and definition, can be found in W. B. Bondeson, "The 'Dream" of Socrates and the Conclusion of the Theaetetus," Apeiron, vol. 3:2 (1969), pp. 1-13. Bondeson makes two important points: 1) Just as one cannot make entities such as statements through an additive process of cumulative non-stateables, so a definition cannot rest on cumulative indefinables; 2) True opinion is the genus of knowledge, but Plato has not clearly state what its differentiae are.

discussion just preceding this one, Theaetetus finds himself more often at a loss than on track with Socrates. But now, even though he is still a bit uncertain and hesitant, he seems to have learned and he apparently appreciates the effects of Socratic midwifery, i.e., he knows that even though he cannot give birth by himself, Socrates will surely put something forward that will induce the appropriate labor pains. And, indeed, Socrates is about to "intone an incantation"[3] that is so powerful that eminent philosophers thousands of years later are still bringing forth "philosophical children" as a result.[4]

Instead of bringing forth phantom babies or "windeggs," Socrates this time turns to using a "phantom drug" -- a dream. Socrates continues to assist Theaetetus by offering a dream in exchange for a dream. Theaetetus never objects to having his definition named a "dream," and in fact he concurs with Socrates' telling of the "true content" of the dream. Before considering in the abstract the reasons for classifying the ensuing account as a dream, let us work through the elements of the so-called dream. The first part of the dream divides into the following elements:

> 1. The first things are just like elements, out of which everything else is composed, and they themselves do not admit of any *logos*.

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[3] cf. Plato, Charmides 153.

[4] Consider Ryle's Oxford lecture discussed below.

> 2. One can do no more than name any thing taken alone by itself, i.e., the elements are only nameable.
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> 3. One can neither apply being nor non-being or anything else to those first things. "It," "that," "each," "alone," "this," cannot be applied, for each one of these is used in a way that qualifies them as universals rather than singular terms. If we think of the fact that each of them can be applied to a myriad of things -- virtually all things, in fact -- we can easily enough understand what Socrates is getting at. Insofar as every one of them can be used to pick out an indefinite number of things, each one them fails to name any one thing uniquely.
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> 4. If it were possible to use any of the terms discussed in (3), then it would be possible to construct a *logos* of the first things.
>
> 5. But it is not possible to use universally applicable names to pick out anything simple and unique. Therefore,
>
> 6. We can only "name" the elements and naming is not a sufficient condition for knowing.

Within the first part of the dream an important distinction is drawn between the elements, on the one hand, and the complexes which are composed of elements, on the other. The significance of the unspeakable (*alogon*) nature of the elements becomes clear when we consider that *logos* is introduced as that which, when added to true opinion, would be a satisfactory explanation of knowledge. If the third definition is supposed to provide the sufficient condition for knowledge, the dream suggests that there can be no knowledge

of the building blocks of what there is. The conditions laid out in 1-6 suggest that the limitation of the first things is that we cannot predicate anything of them and without predication knowledge is impossible. It is only when I can ascribe something to something that I can think of myself as being on the way to knowledge. The ability to name something is not sufficient for knowledge. Socrates addresses this difficulty in the second part of the dream when he discusses the relation between names and *logos*.

That which is composed of the elements provides the model for *logos* in that *logos* is composed of names. Just as the plaiting together of elements brings about a compound, so the plaiting together of names <u>becomes</u> a *logos*, "for the plaiting of names is the being of speech" (202b). Socrates proceeds with this analogy by pointing to perception as the "middle term" -- i.e., the elements are perceivable and thus nameable, but in contrast to the compounds they do not admit of an account (*logos*). "Compounds are knowable, speakable and opinable by true opinion" (202b). The discussion here confirms, of course, the earlier refutation of perception as knowledge. Perception is accountable for our acquaintance with what there is, but it is incapable of asking and answering the question "what it is." Perception enables us to name things, but it cannot give an account of what it is that it has named.

Socrates does not offer any details as to how it is that we can perceive and name the simples nor of how we proceed from that to the knowing of the compounds, though he does assign a significant role to *logos*. But the conclusion of the dream makes clear that, although *logos* is a necessary condition for knowledge, it is not a sufficient condition. It too is conditioned and it is that which conditions *logos* that remains mysterious. Socrates concludes the dream with the following words:

> And that, in short, whenever anyone gets the true opinion of anything without speech, his soul tells the truth about it but does not know, for whoever is incapable of giving and receiving an account (speech) is without knowledge of this very fact. But if he gets in addition a speech, he becomes capable in all these respects and is in a perfect condition relative to knowledge (*kai teleios pros epistēmēn echein*) (202c).

But what is it that activates or actualizes this "perfect" condition?

Logos as such is not a new topic in the dialogue, for in his definition of thinking and opining Socrates already introduced *logos* as a crucial part in the discussion of knowledge. What he adds here, however, is essential. Instead of the silent speech of opinion, *epistēmē* demands externalization and the first step of getting out the word is characterized by Socrates as "giving and receiving" *logos*. Surely it is dialectics which is at stake here. *Epistēmē*, defined as true opinion and *logos*, requires dia-

logue. It is as if Socrates suggests that thinking as an internal dialogue is incapable of self-examination and some form of examination is requisite for the attainment of knowledge. Presently Socrates will suggest another level of externalization, when he examines the relation between the simple and the compound, as well as the part and the whole, by using the examples of letters and syllables.[5] It is this discussion that has inspired thinkers such as Gilbert Ryle to see in this analysis, as well as the critique of it, something precursory to the formulation and critique of logical atomism.[6] Before turning to Ryle's discussion however it is incumbent upon us to formulate our own interpretation.

The first point to be noticed is that Socrates uses examples from the written and not merely from spoken language. The written word gives us the illusion of being an "all," which is the result of the addition of elements (letters). In that sense, the written word is an example of a complex composed of simples, where the enumeration of the simples might deceive us into thinking that we know the

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[5] On the discussion of parts and wholes, cf. Plato, Parmenides, 145b-e and 157b-158d.

[6] Gilbert Ryle, "Logical Atomism in Plato's Theaetetus," Phronesis, vol. XXXV:1 (1990), pp. 21-46. The lecture was originally delivered to the Oxford Philological Society in Magdalen College, February 16, 1952. The Phronesis publication of Ryle's lecture was based on notes taken by Winifred Hicken, Secretary of the Oxford Philological Society.

complex. Socrates then turns around and talks about the word as in fact being a whole, and in that sense it is a simple and thus, according to the dream theory, it would be unknowable. What needs to be underscored, however, is this: that which makes the word into a whole is prior to and different from the written word: namely, meaning. There is a principle that guides and determines which letters can and should be added to which others. That principle of unity is meaning. If this is a tenable interpretation of the problem, then that provides us with a clue as to why Socrates asserts in response to Theaetetus's definition that he thinks it is likely that they have hit upon the correct definition "for what would knowledge still in fact be apart from *logos* and correct opinion?" (202d). And it is the "doubleness" of the definition -- involving opinion but explicitly mentioning *logos* -- that gives an indication as to what is involved in *epistēmē*.

The definition suggests that it is doxa that gives us the whole and it is only thereafter that we can turn to the task of analysis which is accomplished through *logos*.[7] *Logos* as analysis is only possible when meaning is already given. Complexity is a concept that arises out of analysis

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[7] Cf. Mitchell Miller's remarks: "Right judgment [doxa] ... and logos do indeed disclose the self-same object in distinctive ways, the one bringing it to mind in its simplicity, the other explicating it by laying out a plurality of parts." "Unity and Logos: A Reading of Theaetetus 201c-210a," Ancient Philosophy, vol. XII (1992), p. 103.

and analysis needs a whole for its work. The further difficulty of reconstituting wholes, synthesizing elements, is pointed out by Socrates in his insistence that this requires an identity between the all and the whole. This process of analysis and synthesis is possible on the level of *logos* but presumably, the end-product of *logos* -- *epistēmē* -- differs significantly from the original.[8] Socratic dialectical method proceeds to the whole, whereas division proceeds from the whole. Plato has chosen to connect Socrates with the method of dialectics and the Eleatic Stranger with the method of division. In the context of our discussion, it seems that it is Socrates' task to lead the interlocutor "upward" to the whole, while it is the task of the Eleatic Stranger to lead Theaetetus "downward" in the analysis of the whole. The two of them together represent "the whole" of philosophical knowledge or wisdom.

On the next day of the dramatic trilogy, Theaetetus will be introduced to the method of division (*diairēsis*), by the Eleatic Stranger, not by Socrates. Plato seems to be indicating awareness that we can always get from the whole to the part, but that there is no clear or reliable method of proceeding from part to whole, because the first cut destroys the principle of unity, without which all we can

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[8] Cf. Plato, Phaedo 96-100 and discussion of that passage in my previous chapters.

have is a myriad of minute parts.[9] To judge from the Apology, which in dramatic timing follows shortly after the Theaetetus, Socrates prefers knowledge of ignorance, i.e., the knowledge that he does not know the whole, to partial knowledge or knowledge of a part. The appearance of a whole that can be accomplished by *epistēmē*, by fitting the parts together on the basis of a system is not a satisfactory solution to Socrates' desire for wisdom. This systematic making of wholes may be an appropriate program for scientific knowledge, but will not do for philosophy.

After recounting the dream, Socrates proposes that they should "torture" it, using *logos*, not forms, as paradigms.[10] Socrates suspects that the author of the dream had written speech in mind and thus, to test the dream theory, they turn to an examination of syllables and letters. In fact, it appears that the entire examination is backward: instead of examining the different meanings of *logos* first, they turn to examine the application of *logos*. Socrates invites Theaetetus and the rest of us to an "autobiographical" self-examination of how it is that we learned to write.

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[9] Cf. Plato, Phaedrus 264aff on the matter of "natural" and "unnatural cuts."

[10] It should be mentioned that, throughout the discussion of the third definition *idea* (203e, 204a, 205c, 205d) and *eidos* (203e, 205d) are used. But here these terms are not meant to refer to the forms of the Republic, but rather they are here seen as characteristics referring to the wholeness of things.

Even though he does not clarify the point, it is clear that the ensuing analysis can only pertain to written speech, since the conclusion suggests that we do indeed learn the simple elements first, and no one would maintain that we learn language by learning the letters first and then putting them together in syllables and words and only then finally into sentences. One of the things that this examination accomplishes is to persuade Theaetetus, who initially wants to distinguish the all from the whole (204b), to conclude that they are the same (205a). In addition, Socrates brings it about that their initial assumption that the simples are unknowable because they are unsayable (*alogon*), garnered from the dream, will be turned upside down when applied to written speech.

To turn Theaetetus "upside down," in his assumption that there is a difference between the whole (*to holon*) and the all (*to pan*), Socrates introduces a third term, "all things" (*ta panta*), which serves as a "middle term," bringing about an equivalence between the whole and the all. Using the example of the syllable to stand for the complex, Socrates presents the following choice to Theaetetus: "Do we mean by the syllable both elements, or if there are more than two, all of them (*ta panta*), or some single look (*mian tina idean*) that has come to be when they are put together" (203c).

Theaetetus chooses the former option and is quickly thrown into a state of confusion when Socrates questions him as to how the addition of two unknowables, the elements, can be conjoined into something knowable. It is as if one is claiming that (*e&f*) is knowable, but that is somehow derived from the fact that *e* and *f* are not knowable separately. An absurdity indeed! Naturally, Theaetetus wants to explore the other option, namely, that the syllable is a whole, but that too proves to be unacceptable, for as a whole it is like the elements and thus unknowable. To explain to Theaetetus that there is no distinction to be made between the all and the whole, Socrates resorts to mathematical examples showing that there is no difference between the all (*to pan*) and all things (*ta panta*). He uses four examples, each of which relies on numbers: there is no difference between 1, 2, 3, 4, 5, 6; 2 x 3, 1 + 2 + 3, 4 + 2 (*ta panta*) and 6 (*to pan*); no difference between the number of the plethron (*ta panta*) and the plethron (*to pan*); no difference between the number of the stade and the stade; and no difference between the number of the army and the army. The conclusion Socrates draws on the basis of these examples is that the numbers represent the parts of the all, and in that sense the all is identical to the number of its parts.

The last example introduced by Socrates raises a question about the identity of the whole and the all. The army, in contrast with a stade or a plethron, is presumably "more"

than the number of its constituents: there is a principle of organization and unity that combines the number of individuals into a complex whole which, like the syllable of the dream, constitutes one look (*mia idea*) (203c). So there is a sense of "whole" which differs from "the all," as aggregate, that Socrates is not mentioning here. Theaetetus, too, seems to suspect that Socrates' account is not exhaustive, but he nonetheless gives in to Socrates very quickly.

Theaetetus could still defend his distinction by insisting that in contrast to the all, the whole does not have parts. But Socrates is prepared for this kind of objection and he puts forth the following argument: "But won't a whole be this same thing, from whatever nothing in any way stands apart? But from whatever there is a standing apart, it is neither a whole nor an all, and that is the same result for both of them at once out of the same" (205a)? This finally convinces Theaetetus that the whole and the all are the same and Socrates concurs that the whole that has parts is identical to the all. Part of the motivation behind Socrates' proof derives from the fact that any discipline that relies on addition and division cannot successfully make a distinction between the all and the whole. The very act of counting which Theaetetus presented as his first attempt to answer the question of knowledge defies the idea of the whole. It is this notion of "whole" that Socrates is trying to "teach" Theaetetus. Hence the initial refusal to

accept the distinction between the all and the whole. Now that Theaetetus has given up the distinction, Socrates introduces him to the idea of a whole without parts. It is as though Socrates is inviting the mathematician to consider one. It is the unknowability of the one that is indicated and imagined in the dream through the unknowability and unsayability of the elements.

The one possibility not considered by Socrates is a whole which has parts, but which is not reducible to its parts. If we take a human body, for example, it is certainly possible to list all of its parts; but something in addition to the parts is needed to constitute the whole, something like a principle of organization. It would be strange to call that principle a "part," because it is very different from all the other parts, so that any discussion of that difference would presumably involve its role in organizing the parts into a whole.

In contrast to the dream, where the compounds are knowable and the simples merely perceivable and nameable, Socrates shows that in written speech it is precisely the simple letter rather than the syllable that we know most vividly and clearly. The prime example that guides these reflections is the first syllable of Socrates' own name. Σω (Sō) has a *logos*, insofar as it is voiceable, and thus amounts to some form of speech; and it is furthermore divisible into its elements, Σ (sigma) and ω (omega). Thus an account can

be given of it to the extent that one can enumerate its elements. To show the first part of the dilemma, i.e., that the complex is knowable but the simple is not, Socrates and Theaetetus agree that it is impossible to say what the "Σ" is. The most one can say is that it can't be voiced, that it is at most a hissing sound. Maybe most of what we claim to know would actually, upon examination, look very much like the "Σ," but that presumably is not the point here.

Some commentators, however, insist that this is precisely where one can refute the dream. Gail Fine, for example, argues that the division of the simples into that which has voice and that which does not, is indeed to give an account of the simple.[11] We see here an attempt to define knowledge in terms of systems. Fine's point is that Socrates is systematic in the division of vowels and consonants and is thus being systematic generally, which reveals that he does know the simples after all. He is consequently able to meet the minimum definition of knowledge -- namely, being able to give an account. The argument that division amounts to knowledge, which the Eleatic Stranger will introduce in the Sophist which follows "the next day," is not at all evident in the Theaetetus. The Stranger appears, so to speak, before his time. Instead of going down Fine's path

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[11] Gail Fine, "Knowledge and Logos in the Theaetetus," Philosophical Review, vol. LXXXVIII (July 1979), pp. 366-397.

"proclaiming" knowledge, Socrates chooses to travel to the paradox: if the compound itself is only knowable in terms of its elements but the elements themselves are unknowable, then how can knowledge be possible? The paradox becomes doubly paradoxical when we consider that the syllable is a whole and quâ whole is a simple, and thus unknowable. It would be a quite fantastic claim to assert that the syllable as an "all" is knowable, because it is compound, and that all we need to do to assert knowledge is to name its elements, but on the other hand to insist that the syllable is an unknowable "whole," claiming it mimics the simple elements.[12]

Julia Annas, in an article comparing the Theaetetus with the Cratylus, arrives at a final refutation of the "dream theory" in much the same way that Gail Fine does.[13] Annas concludes her analysis of that section of Theaetetus:

> The refutation of the dream theory shows us that we are committed to the principle that knowledge must be based on knowledge. Plato's examination of the dream theory now has a clear point: it brings out how two assumptions about knowledge (it requires logos, it has a hierarchical

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[12] For a good discussion of the reasons why this is not an ultimate dilemma, cf. Rosemary Desjardins, "The Horns of Dilemma: Dreaming and Waking Vision in the Theaetetus," Ancient Philosophy, vol. I:2 (Spring 1981), pp. 109-126.

[13] Julia Annas, "Knowledge and Language: the Theaetetus and the Cratylus," Language and Logos: Studies in Ancient Greek Philosophy Presented to G. E. L. Owen, ed. Malcolm Schofield and Martha Craven Nussbaum (Cambridge: Cambridge University Press, 1982), pp. 95-114.

> structure) force us to recognize a third important point about it: it cannot be based on unknowables.[14]

But this refutation itself is based on experience. In the case of the parallel Cratylus passage, Annas writes about the "elements" that Plato is led to the theory that the element names, the single sounds, are correct when they imitate what they are applied to -- not, he insists, in the ordinary sense of 'imitate,' but in an artificial sense, whereby imitating does reveal the nature of what is imitated (422e1-424a6).[15] Annas offers Aristotle as the solution to Plato's dilemma and suggests that Plato should here be making a distinction between different ways of knowing.[16]

This particular passage has elicited numerous interpretations, the most famous of which is Gilbert Ryle's 1952 lecture to the Oxford Philological Society. In "Logical Atomism in Plato's Theaetetus," Ryle interprets Socrates' dream as a prescient formulation of logical atomism, and an analysis of the problems it entails as well. He likens both Russell's and Frege's analysis of sentences as complex names to Socrates' discussion of the syllable "Σω." Just as the complex syllable can be dissected into its simple elements "Σ" and "ω," each of which is unknowable but perceivable, so

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[14] Ibid., p. 105.

[15] Ibid., p. 107.

[16] Cf. ibid., p. 113.

a sentence can be broken down into its simple names, which by themselves can neither be known nor be asserted, but with which there can be an acquaintance and which can be mentioned.

Ryle includes analysis of the work of both G. E. Moore and Alexius Meinong, and he shows that the same basic analysis pertains whether we talk about simple and complex names or concepts. He uses passages from Wittgenstein's Tractatus and compares Wittgenstein's critique of the short-comings of logical atomism to Socrates' refutation of the dream theory. He then offers the following startling conclusion:

> "Socrates' Dream was a first rate precognitive dream. Philosophers have, in this half-century, held views about the import of propositions, which have tallied not merely in general pattern, but often in actual phraseology with the doctrine that Socrates expounded and criticized. This doctrine did generate just those consequences which Socrates foresaw. The notions of true and false, assertion and denial, belief and knowledge (*savoir*) are not accommodated but exiled by the doctrine that sentences are names of either molecules or congeries of atomic nameables. Answering questions is not an affair of calling things names."[17]

Ryle's discussion is quite persuasive, but he assumes his own reading of the paradigm of letters and syllables, rather than arguing for it. To Ryle, the only issue that Socrates' discussion could possibly address is the problem raised by logical atomism. He claims that the dream "is not

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[17] Ryle, op. cit., p. 46.

meant to be a sort of physical theory, e.g., an hypothesis of the composition of matter. It is a logician's theory, namely a theory about the composition of truths and falsehoods."[18] It is not clear why Ryle denies a reading of the dream that would constitute a critique of the atomists. Furthermore, Ryle does not consider a reading of the dream that would explain the nature of mathematical knowledge, but that is also a possible interpretation. The simples of the dream, which are perceivable and sayable, can be taken to represent the first prinicples of mathematics, which are self-evidently true and which do not themselves allow of demonstration, but which make a demonstration of the complex possible. We intuitively apprehend axioms and we do "name" them, and it is because of these starting principles that we can derive conclusions. Glenn R. Morrow reminds us that *stoicheia* (elements) is a term used in geometry to refer to the basic premisses long before Euclid wrote his work of that title. Thus Morrow concludes:

> The dream then would naturally be taken as expounding the basic character of geometrical procedure; that is, all demonstration is a texture of propositions composed eventually of simple premises which,being simple and ultimate, cannot be demonstrated and therefore cannot be known to be true.[19]

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[18] Ibid., p. 30.

[19] Glenn Morrow, "Plato and the Mathematicians," Philosophical Review LXXIX (July 1970), p. 327.

Morrow's overall conclusion is that the dream can be generalized to all forms of analysis whether they be physical, lexical, or mathematical.

The most devastating assertion that Ryle makes in the context of the dream -- devastating, at least, for those who think that Plato is writing the Theaetetus to present an argument for the necessity of forms -- is that the simples can be understood to represent the forms themselves and that Plato is subjecting his own theory of forms to further damaging critique -- a critique which he first undertook in the Parmenides and whose very success is demonstrated by the introduction of a new method of inquiry in the Sophist.[20] Thus Ryle also supports his own view of the Theaetetus, which he identifies as one of Plato's self-critical dialogues. We shall see later that some other commentators have worked towards a different reading of the dream theory, often beginning their discussion with a debate about the meaning of *logos* in this passage. Let us turn then to the attempts to explain *logos*.

THE LOGOS OF LOGOS

The examination of *logos* appears abruptly: Socrates provides neither a segue nor any reason why he abandons the dream and turns to *logos*. The examination of *logos* itself

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[20] Cf. Ryle, op. cit, pp. 44-45.

could bring with it some difficulties, such as the circularity that must arise when *logos* is examining *logos*. Under what circumstances can we give a speech about speech? Is this problem similar to the problem of knowing knowledge? If the former is possible, then it might provide a model for the latter. Socrates begins by discussing *logos* as the voicing of one's thought, and from there he proceeds to a discussion of its capability of performing an analysis of wholes, and finally he moves on to the discriminating ability of logos, which enables us, as possessors of *logos*, to distinguish one thing from another. If *logos* does provide a model for knowledge, then it should be possible to show how each stage in the definition of *logos* "mirrors" the respective definitions of knowledge. Such an approach to the examination of *logos* would also contribute to our understanding of a comment that Socrates makes in the Phaedo about his chosen method of investigation:

> [I] feared that my soul would be altogether blinded if I looked at things with my eyes and tried to grasp them with each of my senses. So I thought I must take refuge in discussion and investigate the truth of things by means of words. However, perhaps this analogy is inadequate, for I certainly do not admit that one who investigates things by means of words (*en tois logois*) is dealing with images any more than one who looks at facts (*tois ergois*) (99e-100a).

Socrates here identifies his method of investigation as one that is based on *logos*. He denies that *logos* is a mere

image of things, but he is not entirely clear what exactly the relation is between *logos* and things. This relation becomes clearer in the analysis of *logos* in the Theaetetus.

Another question we must ask ourselves, as we proceed through the three definitions of *logos*, is how we should understand the relationship between the different definitions. Is it the case that each one is refuted and replaced by another? Or is there an increasing level of complexity, in which each one is subsumed by the subsequent one. Finally, we need to establish some connection between the dream theory and the definitions of *logos*.

The refutation of the "dream theory" brings Socrates and Theaetetus to the last stage of their examination of the definition of knowledge, a speech about *logos* itself. The refutation of the "dream theory" established that we can know the elements on the basis of experience and, if we reflect on our learning of letters or musical notes, we can conclude that we do know these elements more vividly (*enargesteron*) and more authoritatively (*kuriōteron*) than the complexes. If this is the case, then the third definition of knowledge as "opinion and *logos*" is refuted, because the addition of *logos* has created a dilemma which does not reflect our own experience, and on the basis of experience we can establish knowledge independent of *logos*. Socrates and Theaetetus do not prove that anyone can actually give a *logos* of the elements, but rather that they are knowable.

Thus Socrates and Theaetetus have in fact severed the connection between knowledge and *logos*.

The dialogue does not end here, however, because Socrates devises the conditions for a type of knowledge that cannot be achieved by experience, namely, the most perfect and complete knowledge (*progenomenon tēn te teleōtaton*). The criteria of perfection and completeness, which are presumably characteristics of the whole, are now laid at the feet of *Logos*. With this in mind, Socrates steers the discussion to an examination of the different meanings (sēmainein) of *logos* to see if any one of them could fulfill the requirements of complete and perfect knowledge.

Socrates set out to examine three different "significations" of *logos* in an ascending level of complexity. He does not address the issue whether this is a complete listing, nor question which kind of *logos* enables him to put forth the argument about *logos*. The first definition of *logos* rings of the poetic, as "that which makes one's own thought evident through sounds with words and phrases, just as if it were into a mirror or water one was striking off one's opinion into the stream through one's mouth" (206d). The beauty and allure of the image is a temptation to simply leave it alone, but some demythologizing is necessary to garner a full understanding of *logos* as the "image maker" of one's thought.

How should *logos* as an image be distinguished from the thoughts themselves? To talk about language as an image of thought has a paradoxical ring to it, because many people would think about thought itself as an image. My thought about a tree, for example, differs from the actual tree and my voicing my thought "through words and phrases" seems to be at a still further remove. Add to this "motion or streams" and it is difficult indeed to determine what it is that is being said here. If *logos* is the making of images in the context of a Heraclitean flux then it is unclear how the image would hold.[21] Furthermore, if we consider the nature of images we need to clarify what it is that *logos* does to thought to convert thought into an image, i.e., what is the distortion that occurs when someone voices his or her thoughts? If thought is a process and *logos* is static, then converting the former into the latter would be the distortion that arises when one attempts to "arrest" that which moves. The language that Socrates uses here, and the attendant problem of interpretation, point back to Theaetetus's first definition of knowledge and it looks as though the first definition of *logos* mirrors the problems of perception. As in perception, so here the possibility of flux presents a major difficulty. Socrates already established

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[21] Cf. Cratylus 431c-432c, where there is discussion of the paradoxes of mimesis in general and in relation to the flux in particular.

the impossibility of nouns and demonstratives when he discussed perception, for when everything is in flux, there is no referent for these. In fact, even "one" cannot be meaningfully uttered.

Nevertheless, Socrates continues with his discussion as though the meaningfulness of *logos* were not the real problem, but rather the fact that this definition of *logos* would apply equally well to all those who are capable of hearing and speaking, as a way for indicating "their opinion of which each thing is" and thus cannot provide the grounds for any distinction between opinion and knowledge. If we consider the criteria of perfection and completeness it is clear as well that *logos* as the voicing of one's opinions cannot meet either one of them. The very notion of image implies incompleteness and imperfection. Indeed, if the parallel between perception and the first definition of *logos* is adequate, we can explain its failure in terms of the same shortcomings as applied to the definition of knowledge as perception. The final refutation of "knowledge is perception" pointed to the inability of perception to touch upon being and the same problem arises when we speak of *logos* in terms of voice and nothing else. And just as perception can be understood as providing the basis for further development, so too can this first definition be looked upon as propaideutic. It is necessary for the next two definitions to follow, but the voicing of one's opinion

cannot itself provide the ground for knowledge. Language is a necessary condition for knowledge, but it is not sufficient for the attainment of "complete and perfect knowledge."

The next definition of *logos* explicated by Socrates is cast with mathematical overtones, claiming that the enumeration of elements might be identical to knowledge. *Logos* is "the capacity, when asked what each thing (is), to give the answer back to the questioner through the elements" (207a). Here is the first indication of *logos* as dialectical, which adds a new dimension to the first definition of *logos*, where the focus was the individual and the movement from the inner to the outer, i.e., the externalization of one's thoughts through voice. Here the emphasis is on the communication of one's thoughts to another thinker in the form of questioning and answering. Knowledge, then, would be understood as the ability to answer questions, but Socrates adds an important qualification, which restricts this kind of *logos* to the expert. As he himself discusses with an example from Hesiod, the expert will be able to say what a wagon is by listing all its one hundred parts while he, Socrates, could merely name five parts or so. He wonders whether the ability to say that a wagon is "wheels, axle, carriage-body, rails" is as adequate an answer as the one provided by the expert. Is it the case that my *logos* of "Theaetetus" in

terms of syllables is just as good as the one given by somebody else who specifies each letter?

Socrates here wants to establish the difference between common sense and expertise. The scientist can name each element, whereas the layperson can only name either the most evident or functional parts. Theaetetus then agrees to the following proposition: "Tell me whether it's [your impression], comrade, and whether you accept the procedure through elements to be speech about each thing, while the procedure which is syllable by syllable or is in terms of something greater still is not-speech (*alogia*), in order that we may go on to examine it" (207c). This criterion, if accepted, can be used to distinguish knowledge and opinion. The knower is capable of elemental analysis while the opiner can only offer a "partial" account. Socrates voices his opinion about the essential part of a wagon when asked what it is, while Hesiod would be able to enumerate each element.

> "Whoever has the capacity to explicate its [the wagon's] being (*ousia*) through those hundred things of it, by his addition of this, has added speech to his true opinion, and has become, instead of an opiner, artfully competent and a knower of a wagon's being, because he has gone through the whole through its elements from end to end" (207c).

So, according to the criteria of completeness and perfection, this definition of *logos* fulfills the criterion of completeness, i.e., if I can give an account of all the elements of a particular thing, I have exhausted all the

parts. This of course depends on our accepting the identity between the all and the whole, which Theaetetus accepted in the discussion of the "dream theory."

Socrates then turns to the refutation of this second particular definition, which in part reveals what it is that enables the knower to enumerate all the elements. And it turns out that it is the criterion of perfection that cannot be met by this second definition of *logos*. The example Socrates uses is drawn once again from the ability to spell a name. He wonders whether we would consider someone knowledgeable concerning Theaetetus's name if he could spell the first syllable correctly and so on for the rest, but failed to see the sameness of the first syllable of that to Theodorus's name, and instead insisted on spelling that "*tau - epsilon*," instead of "*theta - epsilon*."

This example is rather complex and runs deeper than it at first seems, because it involves the issue of writing and conventionality. In an oral culture the person who can pronounce both names would not make any mistake in thinking the first syllable of one to be different from or other than the first syllable of the other name. Part of the mistaking that occurs in this example depends on an accepted convention which arises only in the context of writing. If it were the case that, due to regional accent or dialect, someone actually pronounced the first syllables of "Theaetetus" and "Theodorus" differently -- imagine an Englishman

pronouncing the first name and an Irishman pronouncing the second -- then to say that the two differ would not in fact be a mistake. It is the invention of written language and its applicability independent of local dialects that brings about the risk of being mistaken in such a concrete fashion. It is the art of writing then that should provide us with some clue about the relevance of the second definition of *logos*. In order to state the elements of something, it is necessary to have available some kind of system that allows one to create a standard of universality such that the similar cases are subsumed under the same rule. In the case of the "spelling bee" that Socrates discusses, it is precisely someone's inability to apply the rule to other cases which exhibits a lack of knowledge. So the second definition, like the dream, points to the possible limitations of analysis. What would be required to avoid misspellings entirely and reliably would be a general rule about spelling and the ability to apply such a rule appropriately in all cases.

Even though the only reason why I can spell out Theaetetus's name letter by letter depends on the development of a system, I might be able to succeed in employing the system without knowing it. It is that point that Socrates illustrates by the example of the mistaking of "*The*" for "*Te*." Socrates concludes his refutation with the claim that it is after all possible to have right opinion with speech, but

nevertheless still be without knowledge (208b). It is by virtue of the possibility of making mistakes -- either in not recognizing similarity and thus arriving at a general rule or, when in possession of a rule, misapplying that rule -- that this kind of mistaking comes about.

This second definition of *logos* mirrors, then, the second definition of knowledge in that both of them raise the issue of error. The second definition of knowledge involves a lengthy investigation of the possibility of false opinion, and here the second definition of *logos* fails because of the possibility of mistakes. The second definition of *logos* also shares the problem of the "common things" with the second definition of knowledge. The occasion for introducing opinion as the definition of knowledge was perception's failure to touch on the "common things." Here, as in clear in the example of the two names of "Theaetetus" and "Theodorus," a principle of sameness is needed, establishing the θε (The) as the common element, in order to spell the first syllable of both names correctly. If there is indeed a recapitulation of the dialogue taking place, then the third definition of *logos* should prove to be the most interesting of all for it would involve a double reflexivity.

Socrates provides the following transition to the final definition of *logos*:

> Then, it seems, we grew rich just on a dream, in our belief that we had the truest speech of knowledge. Or are we

> not yet to issue an accusation? For perhaps one will not define it as this, but as the remaining species of the three, just one of which, we said, he will set down as speech, whoever defines knowledge to be right opinion with speech (208c).

As the first sentence indicates, this definition of *logos* is an attempt to give a true speech about knowledge. To emphasize that this is the production of a speech of knowledge in the form of speech is surely an attempt to move the reader toward reflection on reflexivity, so to speak. The complexity of this problem can be more fully appreciated if we also notice that the different definitions of *logos* build upon one another, that Plato constructs an ascent, in which definitions incorporate and subsume the previous definitions. The successive definitions of knowledge subsume one another, and at the same time there is a mirroring of the previous definitions of knowledge in the discussion of each of the definitions of *logos*.

In the light of the dream and its discussion of the distinction between the all and the whole, we must also wonder whether Plato here gives us an example in which we are given the parts of *logos* -- maybe even all the parts of *logos* -- and yet we are unable to arrive at the whole of *logos*. It is not entirely clear whether it would be possible to determine whether the three definitions presented are exhaustive, without having the whole of *logos* to begin with. If it is possible to arrive at the whole through the part,

then knowledge must be additive. A "mid-term" addition at this point would amount to saying that *logos* is dialogue, i.e., the voicing of one's opinion plus the analysis of such on the basis of a question. This, however, does not add up to knowledge, according to Socrates, because it is possible to arrive at the correct answer to a question on the basis of right opinion anyway. How then does "knowledge with speech" differ from "right opinion with speech"? The clue is provided in the refutation, where Socrates exposes "false opinion with speech" as resulting from someone's not being able to judge the difference between the same and the other. Out of this revelation grows "naturally" a third definition of *logos*, that will take difference into account.

The final definition of *logos* reflects the opinion of the many who think that he or she is knowledgeable who is able on the basis of "some sign to say by means of which that which is asked about differs from all things" (208c). Socrates, upon a request from Theaetetus, offers an illustration: the sun "is the most brilliant of the things that go around the earth across the sky" (208d). If one were to identify the sun as a bright body in the sky, one would be merely expressing a right opinion, but not knowledge, because this *logos* could be nothing more than the voicing of an opinion on the basis of perception. As such one can make the same judgement about the moon and a host of planets and stars, and unless one can say how the sun differs from all

the other referents of "bright body" one cannot be said to have knowledge. The characteristic which Socrates points to as the distinguishing difference is that it is "the brightest," offering a superlative that can only be met by one thing, the sun.

How then does this differ from right opinion? Could not the same account given to explain the judgement "the sun is a bright body" be applied also to "the sun is the brightest body"? What is it that is added to perception and opinion when a comparison is made? Minimally we need a measure for the degrees of brightness in order to make the judgement that one body is brighter than another. But, in addition, there has to be some principle which determines which bright bodies can be measured in relation to each other and which ones it would be inappropriate to include. It is measure -- or, in this case, the "frame of reference" or "system" in which such measure is applied -- that allows us to arrive at the judgement of a superlative. The third definition of *logos* points then to the requirement of measure and system. How else could we tell how one thing is different from all others?[22] Here too we note a similarity between *logos* and *epistēmē*. Just as the third definition of *logos* requires a principle of difference, so the third

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[22] Cf. Mitchell Miller, "Unity and Logos: A Reading of Theaetetus 201c-210a," Ancient Philosophy XII (1992), pp. 87-111.

definition of knowledge adds *logos* to true opinion to differentiate it from false opinion. If I can give an account of the truth of my opinion, then I know how it differs from my other opinions, which lack an account. What I know about this particular opinion is that I know it is true. In that sense, we also see the double reflexivity that arises from the third definition, namely, that just knowing something is not sufficient for knowing, but I must in addition know that I know and that requires a *logos*.

Socrates is perplexed at his own discovery. After establishing that anyone who in addition to right opinion can establish difference through *logos* has transformed himself from an opiner into a knower, Socrates says: "Now all of a sudden, Theaetetus, I don't understand anything at all, not even a little, since I've got too near to what is being said, just as if it were a shadow painting. For as long as I stood way off from it, it appeared to me that something was being said" (208e). Socrates' confusion is the result of his inability to make sense out of the claim that one opines that which is common (*ta koina*) in the individual and in that sense has an opinion of the individual, but one knows how this individual differs from all others and in that sense has knowledge of the individual.[23] If one has an opinion of the individual through the common

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[23] Cf. Theaetetus 185aff.

things, then one isn't really opining the individual, for one thing because the common characteristics are precisely those shared by many others. But the definition of knowledge leads through right opinion and the addition of *logos* to knowledge. So either I do opine the individual and thus opine difference, or else the addition of *logos* to opinion cannot properly add up to a knowledge of the individual.

If right opinion already establishes difference, then how are we to distinguish right opinion from knowledge? Socrates shows that to answer this question is to find oneself in a circle: "If to take a speech in addition, my boy, urges us to come to know but not just to opine the difference, what a pleasantry the most beautiful speech of all about knowledge would be! For to come to know is surely to take knowledge, isn't it?" (209e-210a). In this fashion knowledge is defined as right opinion with the knowledge of difference. And so it appears we are once again back within the aviary, where Socrates and Theaetetus earlier abandoned their discussion in the face of an infinite regress.

The attempt to enlist *logos* as aid in the quest for knowledge has brought about the dreaded conclusion that none of the attempts have led to a viable child. Many commentators describe this penultimate stage of the Theaetetus as an impasse or aporia and consider the dialogue negative in its outcome, unless some fanciful deconstruction can reveal that the answer to the question can actually be garnered from

what has been discussed in the unsuccessful attempts. It is important to notice that neither Theaetetus nor Socrates consider their conclusion a failure. In fact, they both agree that they have accomplished what they set out to do when they agreed to engage in this discussion. Theaetetus is free of labor pains and Socrates has had a chance, through the exercise of his art, to examine Theaetetus's soul. It should also be noticed that the dialogue has accomplished a great deal towards getting us underway to knowledge. What Socrates' midwifery has done for Theaetetus, Plato's dialogue has done for the reader.[3] It is thus not suprising that there are many "children" that have been brought forth from the hands of Platonic midwifery. Let us look at some of those "children" before giving birth to our own.

Many commentators attempt to solve or resolve the *aporia* of the dialogue by introducing different senses of "knowing," either reflecting Russell's distinction between "knowledge by acquaintance" and "knowledge by description" or the Aristotelian distinction between the intuitive grasping of indemonstrable first principles and the knowledge derived from those principles. In both proposed solutions, the forms make their appearance. David Bostock offers the forms as the solution to the final puzzling conclusion of the Theaetetus, in that they are the objects of acquaintance.

The forms are also seen as an essential constituent of the third definition of knowledge by Bostock.[24] Bostock "suspects" that the discussion of the knowledge of difference, fueled as it is by the example of the recognition of Theaetetus, which establishes the need for a "distinguishing mark," established on the basis of experience -- all that points to non-analytical knowledge, the kind of knowledge that enables us to "recognize" the forms. Bostock claims that it is this kind of knowledge that enables us in our proposition-making activity to "know" the terms of the propositions, which, according to him, was of some concern to Plato.

Others have pointed out that Plato failed to distinguish between different kinds of knowledge -- and hence the aporia in which the dialogue ends. Plato has succeeded in formulating the need for two kinds of knowledge in the dream, one that through analysis "comes to know" the complexes, whereas the other comprehends the simples through some form of intellection. Julia Annas, for example, discusses this problem and claims that Plato at least knew about the need for different kinds of knowledge in the Republic, where he distinguished the reasoning employed by the mathematicians, which proceeds from accepted starting points downward toward conclusions in a deductive manner,

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[24] David Bostock, Plato's Theaetetus, (Oxford: Oxford University Press, 1988).

from the noetic knowledge of forms, which is presented as an immediate comprehension following a dialectical mode of reasoning. Somehow Plato does not apply this distinction here -- or, as Annas remarks: "Indeed, in the Republic Plato implicitly distinguishes the reasoning that leads us to see or grasp the basic principles of goodness, and that grasp of the ultimates itself; unfortunately he does not see the relevance of this to the kind of problem that he faces in the Theaetetus."[25]

Annas joins Glenn Morrow in suggesting that it is the Posterior Analytics, where Aristotle distinguishes the reasoning that leads to necessary truth from the cognition (*nous*) that enables us to grasp the starting points (*protai, archai*), in which we are provided a satisfactory solution to the dilemma presented by the dream theory.[26]

Still others attempt to puzzle through the text itself to derive a satisfactory conclusion to the question of knowledge. Rosemary Desjardins, in her ingenious paper "The Horns of Dilemma: Dreaming and Waking Vision in the Theaetetus," argues convincingly for the need to grasp both horns of the dilemma presented in the dream and, instead of arriving at an either/or, one can come to the positive resolution of a both/and reading. Knowledge has to account for both

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[25] Annas, op. cit., p. 113.

[26] Cf. Morrow, op. cit., pp. 326-327.

the complexes and the elements by developing a *logos* that shows that the complex is not a mere addition of elements. The conclusion of the dialogue is then not merely negative but rather it tells us that any definition that merely lists the element of knowledge and relies on something like addition will fail.[27] With her Kantian enthusiasm, Desjardins assigns to *logos* the task of creating a synthetic unity out of the elements.

Burnyeat, in The Theaetetus of Plato, suggests similarly that the accomplishment of the dialogue is that it has provided us with an admirable list of possibilities that keep the quest for knowledge on an honest footing. Like Desjardins, Burnyeat thinks that it is of philosophical importance to keep both sides of the asymmetrical options in the dream for the sake of accruing "vital philosophical benefits."[28] Burnyeat applauds Plato for creating a host of confusions and ambiguities that prevent us from closing the book on knowledge. He concludes his very elaborate introduction to the Theaetetus with the following exhortation:

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[27] cf. Rosemary Desjardins, "The Horns of Dilemma: Dreaming and Waking Vision in the Theaetetus," Ancient Philosophy I:2 (Spring 1981), pp. 109-126.

[28] Myles Burnyeat, The Theaetetus of Plato, with a translation of Plato's Theaetetus by M. J. Levett, revised by Myles Burnyeat (Indianapolis-Cambridge: Hackett Publishing Co., 1990), p. 203.

> "The defining of knowledge is important when, and only when, as with each of the three definitions in the Theaetetus, it leads into a detailed investigation of the powers and prospects of the human mind. From this point of view the dialogue is not only a classic treatment of the problem of knowledge. It remains an exemplary model for us to emulate today."[29]

Plato does give an account of the problem of knowledge, more specifically the problems that are attendant upon knowledge understood as *episteme*. Expertise or scientific knowledge can only be achieved in the context of a system. Many thinkers have interpreted the ending of the Theaetetus as providing some hint as to the way in which we can arrive at a non-circular definition of knowledge, suggesting that a distinction between intuitive and discursive knowledge can be employed to solve the problem. They elaborate by asserting that the simples are grasped by intuitive knowledge, from which we can deduce all other knowledge. The first philosopher to do this was Aristotle, who provided an explanation of *epistēmē* as scientific knowledge in the Posterior Analytics,[30] an account which looks very much like that. So knowledge can be understood as systematic in that once the principles have been posited the rest can be systematically derived.

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[29] Ibid., p. 241.

[30] Cf. Aristotle, Posterior Analytics I, 3.

Gail Fine offers an interpretation of the third definition of knowledge that relies on an intuitive understanding of systems -- i. e., we somehow know how to subdivide our experience into fields and then can proceed to interrelate the elements within each field. (Or it may rather be the activity of interrelating which designates fields or systems.) Fine gives a reading of the last definition of knowledge, in which she takes it to introduce what she calls "the interrelation model" of knowledge, which she considers consistent with the notion that knowledge is opinion accompanied by an account, as that was introduced in the Meno. The modification she introduces is that "knowledge involves true belief with *several* accounts, explaining the interrelations among the elements of a discipline."[31] She wants to reject the idea that we need to introduce starting principles in order to solve the problem of infinite regress, and instead she offers the circle of accounts as the proper conclusion of the third definition. Gail Fine is right on the mark when she observes that we can make sense and give an account of the elements and letters that Socrates discusses in the dream, and that Socrates in fact does do so when he, along with Theaetetus, distinguishes the letters with sound from the ones that are voiceless. She claims that "accounts of elements consist in locating them within a

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[31] Cf. Fine, op. cit., p. 369.

systematic framework, interconnecting and interrelating them."[32] What her insight reveals is the continuing and continuous work of dialectics, or, as Socrates so often puts it, "Once more from the beginning." The assumption that is necessary for her reading, however, is the all-important claim that Socrates makes in his telling of the priestly tales about the immortality of the soul in the Meno: that learning and discovery are possible because all of nature is akin:

> As the soul is immortal...; so it is in no way surprising that it can recollect the things it knew before.... As the whole of nature is akin, and the soul has learned everything, nothing prevents a man, after recalling one thing only -- a process men call learning -- discovering everything else for himself, if he is brave and does not tire of the search, for searching and learning are, as a whole, recollection.[33]

Fine's interpretation appears to rest on two principles "told" in the Meno -- namely, that the soul already knows all things and therefore all we need do is recollect such knowledge and, secondly, that all of nature is interrelated and thus one piece of knowledge enables us to deduce the rest. She does indeed believe that Plato subscribes to what she calls the "KBK (knowledge based on knowledge)" principle, which is presumably the acronym for the theory of

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[32] Cf. ibid., p. 386.

[33] Meno 81c-d, Five Dialogues, trans. G. M. A. Grube (Indianapolis: Hackett Publishing Co., 1974), p. 70.

recollection. Her idea that knowledge requires several accounts is again consistent with the Meno, where Socrates explains that the servant, whom he has led toward discovery and solution of a geometrical problem, is in possession of "true opinion" and he is thus able, through repeated questioning, to transform that opinion into knowledge. As I have already argued in the previous chapter, the interpretation of this exhortation suggests that the servant will eventually come to a "recognition" of the first principles of geometry, which will allow him to deduce the answer to the problem, and thus to acquire the certainty which is characteristic of knowledge. What is not at all clear, however, is how Fine reconciles her interpretation with the text of the Theaetetus. Socrates clearly demonstrates that he does not think that the second definition of *logos* is sufficient for knowledge, and there are no indications that repeated analysis will somehow lead to knowledge. So, while Fine may have a good reading of the Meno, it is not clear whether the same can be applied to the Theaetetus. In fact, it is more likely that Plato is offering a critique of this so-called systematic knowledge with the second definition of *logos*.

The very fact that Socrates uses writing and letters in his example -- letters inevitably being arranged in systems and writing being necessarily "systematic" -- shows that Plato intended this to be a model for the "epistemic age."

Writing is used as the model for all systems, and appropriately so, for without writing *episteme* could never have come about. The criteria of completeness and perfection which Socrates expects from *logos*, and which will not be fulfilled by any definition of *logos*, set the stage for Theaetetus's final "abortion". It is not surprising that Theaetetus the mathematician is "empty" after the discussion of *logos*. Throughout the discussion of knowledge we expect the mathematicians to put forth their *episteme* as the model for all *episteme*, but that possibility has been undone by Socrates' analysis of the dream and of *logos*. Mathematics is, after all, a system.

CONCLUSIONS

What then is the outcome of the Theaetetus? Is it the primary purpose of this work to lay a foundation for skepticism -- i.e., to establish that there is no criterion for knowledge -- and thus to show that we should suspend judgement? Or is it some more limited form of skepticism, suggesting that sense experience and its objects are not in the province of knowledge but that there is another realm of beings, referred to as the forms, which are the proper objects of knowledge and which can be known somehow? I believe that the text supports a third alternative reading, especially if we pay attention to all the elements of the

dialogue. The dialogue is framed by a conversation between two Megarians, one of whom is the alleged "author" of the dialogue. As a writer, he took certain liberties and cut out what he found to be troublesome distractions -- things like "I said" and "he said." What he in fact cuts out is the connection between the speaker and what is said, as though *logos* could somehow stand on its own. Already in the frame conversation, then, we are introduced to the difficulties and limitations of *logos* and more importantly to the vicissitudes of any written *logos*. Within the dialogue proper, Socrates then offers three definitions of *logos*, which can be connected into a unified whole. The reason for connecting them is that the combination of voicing one's thought and then proceeding to analysis and finally attempting to establish the criterion of difference reflects precisely the procedure of Socratic dialectics and midwifery. In fact we can go so far as to say that it mimics the development of the entire dialogue. Both dialectics and *maiteutikē* require the tying together of the three senses of *logos*. If we look at the longest part of the dialogue, the examination of perception as knowledge, we see that it follows precisely that process. First, Socrates elicits an opinion from Theaetetus -- he entices Theaetetus into giving voice to his thoughts. Next the two of them analyze perception, trying to gain an understanding of what that is. Lastly, they examine whether perception is the "distinguish-

ing" mark of knowledge. The failure of the last step becomes in addition the beginning of the next definition, which again follows the three levels of *logos*. The dialogue itself then suggests that *logos* is a dominant feature of knowledge. Before we can fully evaluate the role of *logos*, however, we need to understand why perception and opinion precede the discussion of *logos*.

As such, there is no reason to suppose that the dialogue could not have begun with *logos* and only dealt with the last definition of knowledge; but Plato does not begin the dialogue with *logos*, he rather ends with that. This is surprising, especially if we consider that the interlocutors are mathematicians, who, of all interlocutors, are most likely to have the kind of training which would enable them to begin with the abstract. To use the imagery of the Republic, they appear already to be outside the cave, so why should Plato have them start with perception and opinion in a discussion on knowledge. It is as though Plato wants to address the content of *logos* before turning to *logos* itself. Just as Socrates told Theaetetus that knowledge is always knowledge of something, so *logos* is always *logos* about something. I would suggest that, just as the first step in *logos* is the voicing of one's thought, so the first step in knowledge is perception. The long and complex discussion of perception in the Theaetetus reveals that our sense organs come in contact with the motions of sensible objects, and

that the so-called "object of perception" is the product of the motions of both perceiver and of *percipiendum*. This does not amount to a simple perceptual relativism; minimally it is a "double relativism," for the motions are generated by both sides. Socrates and the interlocutors develop several arguments to refute the relativism suggested by Protagoras's "Man the measure," showing that the senses do not as such measure anything and, insofar as we make judgements about that which we sense, it is on the basis of something other than perception. The senses themselves cannot evaluate sensations, but we do evaluate sensation, so something in addition to sense perception must be involved. Opinion is thus quite "naturally" introduced as this other capacity, which makes judgements about that which we perceive. This is, after all, the issue of the "common things" (*ta koina*), and the question about them is generated by the first step, perception, and this is what drives the discussion forward to the next level. What the analysis of perception demonstrates is that the perceived object is the fitting together of our perceptual capacities and the object's perceivable qualities. As such, perception is infallible and provides us with the model of how the criterion of the infallibility of knowledge could be met. We need to find a capacity within the knower that does the knowing and determine which object is fitting for it. I believe that what is suggested by perception -- namely, the interactive

process -- is what is needed for knowledge as well. In fact, I suggest that the discovery of the capacity will reveal the nature of the object, and it is the task and purpose of the Theaetetus to lead us to that point. And *logos*, which comes at the conclusion of the dialogue, is that point.

The second definition of knowledge, like the second definition of *logos*, is really concerned with an examination of what the first step provided. And so, opinion is introduced as the capacity which considers the common things -- one of which is being -- and makes judgements about what is "reported" by the senses. After going through an inner dialogue called "thinking," we say on the basis of opinion that "That man is Theaetetus" or that "7 + 5 = 12"; but, as Socrates and Theaetetus find out, we can also be mistaken in these judgements. Opinion, like perception before it, points to another level, and the next step is already built into opinion. In the initial definition of opinion, Socrates already introduced *logos* and the last part of the dialogue is dedicated to an analysis of *logos*. It is interesting to note that opinion lacks the same capacity of "awareness" that was absent in perception. Just as the senses were unaware and thus unable to evaluate or judge the objects of perception, so opinion is shown to be unaware and unable to secure true judgements. Although opinion is concerned with the object of knowledge, it fails the test of

infallibility, because it too lacks awareness. Just as it is possible on the second level of *logos* to spell the first syllable of "Theaetetus" correctly and then fail to do so in the case of "Theodorus," so too it is possible for opinion to opine correctly that "7 + 5 = 12" and then on a different occasion to say that "7 + 5 = 11." The corrective for opinion is then introduced by adding *logos* to the definition.

The analysis of *logos* is preceded by a dream about the knowability of simples and complexes, which are described as the two horns of a dilemma Socrates does not explicitly resolve the dilemma in the dialogue, but he also does not close the door to the possibility of a solution. In the light of the final part of the discussion of *logos*, we can, I think, suggest a way of understanding the dream. Once the discussion turns to *logos*, we are presented with three definitions of *logos*, of which the third suggests that knowledge is true opinion with the knowledge of difference. If the present interpretation is correct, then that is in fact the final definition of knowledge, but it is incomplete, because the objects of knowledge have not yet been specified. The last definition comprehends the previous two, and *logos* does indeed mirror the development of the dialogue as a whole. What has been accomplished, then, is a specification of the capacity for knowledge, which has turned out to be complex -- i.e., the three definitions of

logos belong together and must be understood together. If perception is indeed the model which we need to follow in order to understand knowledge, then the task which remains after the Theaetetus is to find the objects of knowledge. The complex nature of *logos* suggests that the objects of knowledge must also have some level of complexity. Some commentators have suggested that the proper objects of knowledge are the forms. Their interpretation of the dialogue suggests that such objects are the forms, pretty much as they are characterized in the Republic and in the Phaedo. If my reading of the dialogue is a plausible one, it should be clear that this cannot be the case, for the forms, as they are discussed in those dialogues, are simple, unmoving beings. Ryle's suggestion that the unknowability of the elements in the dream is a criticism of the theory of forms, as it is articulated in those dialogues, seems correct. But if we look ahead to the Sophist, Statesman and Philebus, we find a different characterization of the forms. The forms in the Sophist are cast in the light of the problem of non-being; and by the end of that dialogue it is clear that the forms can move and act upon the knower, and similarly can be acted upon. My conclusion is that the Theaetetus, by developing an understanding of what it means to know -- i.e., by focusing on the process of knowledge -- paves the way for this new conception of the forms. Just as perception was the successful bringing together of capacity to perceive and

object being perceived, so knowledge will be the bringing together of the capacity to know -- *logos* in all its complexity -- and object to be known. And just as a full understanding of *logos* requires that we begin with the voicing of opinion, so a full understanding of knowledge requires that we begin with perception. Knowledge, then, is something complex and mixed and the objects of knowledge will resemble the syllables as they are discussed in the dream rather than the simples or the elements. The forms in the latter dialogues resemble the complex syllable that presents one look (*mia idea*). To understand the mixture and to analyze it brings with it the method of collection and division which Theaetetus will learn about from the Eleatic Stranger in the Sophist.

TRIALS

There are clues provided by the dramatic development of the dialogue that confirm the above reading of the Theaetetus. Philosophy shares the complexity of *logos*, which comes to light when we turn to the digression and its discussion of the "true philosopher" and comapre that with "Socrates the midwife."

In every part of the Theaetetus there are explicit reminders of Socrates' trial and imminent death -- except, that is, for the outer frame which reminds us of mortality

more specifically. Each definition of knowledge has some reference to a jury trial and to attribute this to coincidence or careless writing on Plato's part would surely not be acceptable.

In the middle of the dialogue (172c-177c), Socrates, after much coaxing, engages Theodorus in a discussion comparing the orator and the philosopher, the former enslaved to the opinion of the many, the latter free and at leisure. Socrates proceeds to depict the philosopher as someone who is unconcerned with worldly matters, who doesn't know his neighbor, does not distinguish the king from the shepherd, does not concern himself with any other political matters (174d-175a), but is entirely absorbed in his study of humanity itself and of justice itself and captivated by other matters above the earth and below the sky. Thales is introduced as the prototype for the philosopher, and we all laugh along with the servant girl who watches him fall into a well, as he is intent on his observations of the heavens. The philosopher appears ludicrous, because the picture here puts him at the apex of the philosophical ascent. This caricature of the philosopher delights Theodorus, who more than anyone else in the dialogue fits this description.

There are many parallels to the Republic and the images of ascent are clearly reminiscent of the cave story. The main shortcoming that Socrates points out with regard to this "true" philosopher is that he will appear ludicrous in

the law courts, should he ever come to trial. The ascent may indeed be toward the forms, as Cornford suggests, and it is even possible that this philosopher's escape from the world into the "pure realm of forms" represents a kind of knowledge that is not suffering from incompleteness and imperfection.[34] But such knowledge would surely suffer from irrelevance, for there is no descent back into the cave, no return.

If it is indeed the case that the "true" philosopher knows "human being," but cannot recognize his neighbor, then such a phenomenon would represent the reverse problem of the present dialogue: the philosopher in "flight" (173e) knows the whole, but he cannot apply it to anything. He, too, lacks self-knowledge or, as Socrates puts it, commenting on the aloofness of political matters: "And he doesn't even know that he does not know all these things, for he's not abstaining from them for the sake of good repute, but in truth his body alone is situated in the city and resides there, but his thought, convinced that all these things are small and nothing, dishonors them in every way and flies, as Pindar puts it, 'deep down under the earth' and geometricizes the planes, 'and above heaven' star gazing, and exploring everywhere every nature of each whole of the things

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[34] Cf. Cornford, op. cit., p. 89.

which are and letting itself down to not one of the things nearby" (173e-174a).

This is the image that the orators will paint of the philosopher, and, as we know from the Apology, a portrait that the Athenians, with the help of Aristophanes, have for the most part accepted. It is the "real" philosopher rather than the "true" one who will have to go to court and someone facing such a fate had better find a successor if he wants to undo this shadow- painting. Surely, nobody is naive enough to believe that this caricature of the digression is intended to refer to Socrates, the gadfly of the Athenian agora, who not only recognized his neighbors, but who can relate to Theodorus the parentage of Theaetetus.

And so Plato presents us with two very different images of the philosopher in the Theaetetus: Socrates, who introduces himself as a midwife to Theaetetus, and the "true" philosopher of the digression. I suggest that the appropriate task is to put the two together in order to get a complete picture of the philosopher. Just as we have had to learn of the importance of experience to arrive at knowledge, so the "true" philosopher must begin his task in the market place.

So too there are further references to the trial at the end of the second definition and to the fact that a jury can be persuaded about happenings that they themselves did not witness, that adds to the refutation of knowledge as true

opinion. The very end of the dialogue has Socrates himself pointing to his future trial, when he explains that he must go to the Porch of King Archon to meet the indictment filed there by Meletus, one of his accusers.

There are two possible interpretations of the relevance of these references to the trial: one is that Plato wanted constantly to remind his readers of the power of doxa; the other is recognition that Socrates, facing death, is concerned about the long-term future of his philosophical quest, the possibility of a successor, and the outlook for philosophy in Athens. In the very first sentence of the direct dialogue, as opposed to the outer frame, Socrates addresses Theodorus in the following way: "If I were to care, Theodorus, more for those in Cyrene, I would be asking you about the state of affairs there and whether any of the young there make geometry or something else of philosophy their concern. But as it is I don't, for I'm less a friend to those there than to these here, and I'm more desirous of knowing who of our young are expected to prove good and able" (143d).

In no other dialogue does Socrates specifically request to see the "brightest of them all." He has examined generals and mercenaries, future tyrants and current rhapsodes, sophists and rhetoricians, but this is his first encounter with the mathematicians. In the Apology he recounts his encounters with craftsmen, orators, poets, and politicians,

but it is only here in the Theaetetus that we are invited to listen in on his dialogue with the mathematicians. And it is clear from the discussion of mathematics in the Republic that it, more than any other field, lends itself as a good stepping stone to philosophy. There is also the general role of mathematical reasoning that is alluded to throughout the dialogues -- and of course the famous "motto" of the Academy, "Non-mathematicians need not enter." Whether we are reading the Euthyphro or the Meno, the Philebus or the Timaeus, we find mathematics introduced as a paradigm or as a contrasting against which one may try to sharpen the concept of measure or hone one's philosophical insights. How often do we see Socrates resort to an analogy from mathematics to solve a puzzle or take the next step in an inquiry about morality? So, it is not surprising that Socrates is looking up the mathematicians shortly before his death.

In his introduction of himself to Theaetetus Socrates makes it clear that his main interest is to examine the youngster's soul (145b) -- after Theodorus has commented on the similarity of their faces. As the dialogue shows, Theaetetus might have the face of a philosopher, but he has the mathematician's soul. What he is lacking throughout the dialogue is self-awareness, which he displays when he explains to Socrates that he does not know what he is experiencing and Socrates responds by explaining to him his art of

midwifery. Later on Theaetetus again and again displays his insecurity and self-ignorance by responding what it is that he thinks about a certain matter: "I don't know". While he has displayed prowess in the realm of mathematics, offering a solution to the problem of surds that his teacher Theodorus could not attain, Theaetetus cannot tell Socrates whether he thinks a or b is the better answer to a certain question. Theaetetus, like his teacher Theodorus, tries to resist making definitive judgements about mundane matters. He, too, seems to prefer the realm of the "true" philosopher of the digression. Socrates, in his conclusion, is almost a bit harsh when he says: "Well, then, if you try to become pregnant, Theaetetus, with different things after this, and you do become so, you'll be full of better things on account of the present review. And if you're empty, you'll be less hard on your associates and tamer, believing in a moderate way that you don't know what you don't know" (210c). This makes it sound as though Socrates, facing death according to the dramatic sequence, has failed to find a way of securing the future of philosophy in Athens.

In the trilogy of the Theaetetus, Sophist, and Statesman, the Theaetetus represents the last time that Socrates will have the opportunity to examine the opinions of interlocutors and practice his *maieutikē*. He is present in the frame conversation of the other two dialogues, but the bulk of the actual dialogue is conducted by the Eleatic Stranger.

Along with the arrival of the Eleatic Stranger, Plato introduces us to the method of division and collection. So, is the Eleatic Stranger the successor of Socrates? And is the method of division and collection the replacement of Socratic dialectic? These are questions that a commentary on the Sophist surely would have to address. And the other tetralogy that is connected to the Theaetetus through dramatic linkages tells us of the death of Socrates, which speaks in so many ways for itself. This too might be interpreted as a clue from Plato that, after the Theaetetus, things will somehow be different.

BIBLIOGRAPHY

Ackrill, John. "Plato on False Belief: Theaetetus 187-200," Monist L (1966), pp. 383-402.

Annas, Julia. "Knowledge and Language: The Theaetetus and the Cratylus," Language and Logos: Studies in Ancient Greek Philosophy Presented to G. E. L. Owen, ed. Malcolm Schofield and Martha Craven Nussbaum (Cambridge: Cambridge University Press, 1982), pp. 95-114.

Aristotle. A New Aristotle Reader, ed. J. L. Ackrill (Princeton: Princeton University Press, 1987).

Aristotle. The Basic Works of Aristotle, ed. and intro. Richard McKeon (New York: Random House, 1941).

Austin, J. L. Sense and Sensibilia, ed. G. J. Warnock (Oxford: Clarendon Press, 1962).

Benardete, Seth. The Being of the Beautiful, (Chicago-London: University of Chicago Press, 1984 [1986]). Part I: Theaetetus; Part II: Sophist; Part III: Statesman.

Benardete, Seth. Socrates' Second Sailing: On Plato's *Republic* (Chicago-London: University of Chicago Press, 1989).

Blachowicz, James. "Platonic 'True Belief' and the Paradox of Inquiry," The Southern Journal of Philosophy XXXIII (1995), pp. 403-429.

Bloom, Allan. The Republic of Plato, trans. with Notes and an Interpretive Essay (New York-London: Basic Books, Inc., 1968).

Bondeson, W. B. "The 'Dream' of Socrates and the Conclusion of the Theaetetus," Apeiron III:2 (1969), pp. 1-13.

Bonitz, Hermann. Platonische Studien, 3rd ed. (Hildesheim: Georg Olms Verlagsbuchhandlung, 1968 [1886]).

Bostock, David. Plato's *Theaetetus* (Oxford: Clarendon Press, 1988).

Brandwood, Leonard. The Chronology of Plato's Dialogues (Cambridge: Cambridge University Press, 1990).

Brandwood, Leonard. "Stylometry and Chronology," The Cambridge Companion to Plato, ed. Richard Kraut (Cambridge: Cambridge University Press, 1992).

Bruell, Christopher. "Socratic Politics and Self-Knowledge: An Interpretation of Plato's Charmides," Interpretation: A Journal of Political Philosophy VI (1977), pp. 141-203.

Brumbaugh, Robert S. "Four Types of Plato Interpretation," Plato's Dialogues: New Studies and Interpretations, ed. Gerald A. Press (Lanham, Md.: Rowman & Littlefield, Publishers, Inc., 1993), pp. 239-248.

Brumbaugh, Robert S. Plato's Mathematical Imagination: The Mathematical Passages in the Dialogues and their Interpretation (Bloomington, Ind.: Indiana University Press, 1968).

Burger, Ronna. Plato's *Phaedrus*: A Defense of a Philosophic Art of Writing (University, Ala: University of Alabama Press, 1980).

Burnyeat, Miles. "Idealism and Greek Philosophy: What Descartes Saw and Berkeley Missed," Idealism Past and Present, ed. Godfrey Vesey, The Royal Institute of Philosophy Lecture Series #13 (Cambridge: Cambridge University Press, 1982), pp. 19-50.

Burnyeat, Miles F. "The Material and Sources of Plato's Dream," Phronesis XV (1970), pp. 101-122.

Burnyeat, Miles F. "The Philosophical Sense of Theaetetus' Mathematics," Isis LXIX (1978), pp. 172-195.

Burnyeat, Miles. The *Theaetetus* of Plato, with a translation of Plato's Theaetetus by M. J. Levett, revised by Miles Burnyeat (Indianapolis: Hackett Publishers, 1990).

Campbell, Lewis, ed. The *Theaetetus* of Plato (Oxford, University Press, 1861; reprinted New York, Arno Press, 1973).

Clay, Diskin. "The Origins of the Socratic Dialogue," The Socratic Movement, ed. Paul A. Vander Waerdt (Ithaca-London: Cornell University Press, 1994), pp. 23-47.

Cobb-Stevens, Veda. "Perception, Appearance and Kinēsis: The Secret Doctrine in Plato's Theaetetus," Essays in Ancient Greek Philosophy III, pp. 247-265.

Cornford, Francis MacDonald. Plato's Theory of Knowledge: The *Theaetetus* and the *Sophist* of Plato translated with a running commentary (New York: Liberal Arts Press, 1957 [1934]).

Cross, R. C. "Logos and Forms in Plato," Mind: A Quarterly Review of Psychology and Philosophy LXIII: 252 (October, 1954), pp. 433-450.

Davidson, Donald. "Plato's Philosopher," Modern Thinkers and Ancient Thinkers: The Stanley Victor Keeling Memorial Lectures at University College London, 1981-1991 ed. Robert W. Sharples (Boulder-San Francisco: Westview Press, 1993) pp. 99-116.

Deicke, Wolf. "Platon, Theaetet 192 c 10," Phronesis IX (1964), pp. 136-142.

De Romilly, Jacqueline. The Great Sophists in Periclean Athens, trans. Janet Lloyd ((Oxford: Clarendon Press, 1992).

Desjardins, Rosemary. "The Horns of Dilemma: Dreaming and Waking Vision in the Theaetetus," Ancient Philosophy I:2 (Spring 1981), pp. 109-126.

Desjardins, Rosemary. The Rational Enterprise: Logos in Plato's *Theaetetus* (Albany, NY: State University of New York Press, 1990).

Desjardins, Rosemary. "Why Dialogues: Plato's Serious Play," Platonic Writings, Platonic Readings, ed. Charles L. Griswold, Jr. (New York-London: Routledge, 1988), pp. 110-125.

Diels, Hermann and Walther Kranz. Fragmente der Vorsokratiker: Griechisch und Deutsch (Zürich-Berlin: Weidmannsche Verlagsbuchhandlung, 1964), 11th ed.

Diogenes Laertius. Lives of Eminent Philosophers, trans. R. D. Hicks, Loeb Editions (London-Cambridge, Mass.: William Heinemann-Harvard, 1950), 2 vols.

Dyson, M. "Some Problems Concerning Knowledge in Plato's Charmides," Phronesis XIX (1974), pp. 102-111.

Ebert, Theodor. Meinung und Wissen in der Philosophie Platons: Untersuchungen zum "Charmides," "Menon," und "Staat" (Berlin-New York: Walter de Gruyter, 1974).

Feyerabend, Paul K. Three Dialogues on Knowledge (Oxford: Basil Blackwell, 1991).

Fine, Gail. "False Belief in the Theaetetus," Phronesis XXIV (1979), pp. 70-80.

Fine, Gail. "Knowledge and Logos in the Theaetetus," Philosophical Review LXXXVIII (July 1979), pp. 366-397.

Freeman, Kathleen. Ancilla to the Pre-Socratic Philosophers: A Complete Translation of the Fragments in Diels, *Fragmente der Vorsokratiker* (Cambridge, Mass.: Harvard University Press, 1957).

Freeman, Kathleen. The Pre-Socratic Philosophers: A Companion to Diels, *Fragmente der Vorsokratiker*, 2nd ed. (Cambridge, Mass.: Harvard University Press, 1959).

Friedländer, Paul. Plato, trans. Hans Meyerhoff, Bollingen Series, vol. LIX (New York: Pantheon, 1958), 3 vols.

Gadamer, Hans-Georg. Dialogue and Dialectic: Eight Hermeneutical Studies on Plato, trans. P. Christopher Smith (New Haven-London: Yale University Press, 1980).

Gaiser, Konrad, ed. and intro. Das Platonbild: Zehn Beiträge zum Platonverständnis (Hildesheim: Georg Olms Verlagsbuchhandlung, 1969).

Gaiser, Konrad. Platons ungeschriebene Lehre: Studien zur systematischen und geschichtlichenBegründung der Wissenschaften in der Platonischen Schule (Stuttgart: Ernst Klett Verlag, 1963).

Gosling, J. C. B. Plato. The Arguments of the Philosophers, ed. Ted Honderich (London-Boston: Routledge & Kegan Paul, 1973).

Grauss, Hermann. Philosophischer Handkommentar zu den Dialogen Platos in 3 Teilen (Bern: Verlag Herbert Lang & Cie, 1960).

Griswold, Charles L., Jr., ed. Platonic Writings, Platonic Readings, (New York-London: Routledge, 1988).

Griswold, Charles. Self-Knowledge in Plato's *Phaedrus* (New Haven: Yale University Press, 1986).

Griswold, Charles L., Jr. "Plato's Metaphilosophy: Why Plato Wrote Dialogues," Platonic Writings, Platonic Readings, ed. Charles L. Griswold, Jr. (New York-London: Routledge, 1988), pp. 143-167.

Gulley, Norman. Plato's Theory of Knowledge (London: Methuen & Co; New York: Barnes & Noble Books, 1962).

Hamlyn, D.W. "Forms and Knowledge," Mind LXVI (1957), pp. 547.

Hare, R. M. "Plato and the Mathematicians," New Essays on Plato and Aristotle, ed. Renford Bambrough (London: Routledge & Kegan Paul; New York: Humanities Press, 1965).

Harrison, Joan C. "Plato's Prologue: Theaetetus 142a-143c," Tulane Studies in Philosophy XXVII (1978), pp. 103-123.

Hathaway, Ronald. "Sceptical Maxims about the 'Publication' of Plato's Dialogues," ΑΓΩΝ II (1968), pp. 28-42.

Hathaway, Ronald. Review of Holger Thesleff, Studies in the Styles of Plato," Acta Philosophica Fennica, fasc. XX (1967), in: Journal of the History of Philosophy XII: 2 (April 1969), pp. 202-206.

Heath, Sir Thomas. A History of Greek Mathematics (Oxford: Clarendon Press, 1921), 2 vols.

Heath, Sir Thomas L. A Manual of Greek Mathematics (Oxford: Clarendon Press, 1931).

Hegel, Georg Wilhelm Friedrich. Vorlesungen über die Geschichte der Philosophie, 2. Band, ed. Karl Ludwig Michelet [1833], Jubiläumsausgabe, ed. Hermann Glockner (Stuttgart: Friedrich Frommanns Verlag, 1959), vol. XVIII.

Heitsch, Ernst. Überlegungen Platons im Theaetet. Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse IX (1988), Akademie der Wissenschaften und der Literatur, Mainz (Wiesbaden-Stuttgart-Darmstadt: Franz Steiner Verlag, 1988).

Hemmenway, Scott R. "Philosophical Apology in the Theaetetus," Interpretation: A Journal of Political Philosophy XVII:3 (1990), pp. 323-346.

Hicken, Winifred F. "Knowledge and Formsin Plato's Theaetetus," Journal of Hellenic Studies LXXVII (1957) pp. 48-53.

Howland, Jacob. "Re-Reading Plato: The Problem of Platonic Chronology," Phoenix: The Journal of the Classical Association of Canada LXV: 3 (Autumn 1991), pp. 189-214.

Hyland, Drew A. The Virtue of Philosophy: An Interpretation of Plato's *Charmides* (Athens, Ohio: Ohio University Press, 1981).

Inwood, Brad and L. P. Berson, ed. and trans. Hellenistic Philosophy: Introductory Readings (Indianapolis-Cambridge: Hackett Publishing Co., 1988).

Jordan, Robert William. Plato's Arguments for Forms. Cambridge Philological Society, Supplementary vol. IX (Cambridge: Cambridge Philological Society, 1983).

Kanayama, Yahei. "Perceiving, Considering, and Attaining Being (Theaetetus 184-186)," pp. 29-81.

Kelley, David. The Evidence of the Senses: A Realist Theory of Perception (Baton Rouge-London: Louisiana State University Press, 1986).

Klein, Jacob. A Commentary on Plato's Meno (Chicago-London: University of Chicago Press, 1989 [1965]).

Klein, Jacob. Plato's Trilogy: The Theaetetus, the Sophist, and the Statesman (Chicago-London: University of Chicago Press, 1977).

Kline, Morris. Mathematical Thought from Ancient to Modern Times (New York-Oxford: Oxford University Press, 1972), 3 vols.

Kline, Morris. Mathematics and the Search for Knowledge (New York-Oxford: Oxford University Press, 1985).

Koyré, Alexandre. Discovering Plato, trans. Leonora Cohen Rosenfield (New York: Columbia University Press, 1945).

Kraut, Richard, ed. The Cambridge Companion to Plato (Cambridge: Cambridge University Press, 1992).

Kruger, Gerhard. Einsicht und Leidenschaft (Frankfurt am Main: Vittorio Klostermann, 1948).

Lee, H. D. P. "The Aviary Simile in the Theaetetus," Classical Quarterly XXXIII (1939), p. 208-211.

Lewis, F. A. "Foul Play in Plato's Aviary: Theaetetus 195b-ff," Exegesis and Argument: Studies in Greek Philosophy Presented to Gregory Vlastos, ed. E. N. Lee, A. P. D. Mourelatos, and R. M. Rorty [Phronesis: A Journal for Ancient Philosophy, Supplementary Vol. I (1973) (Assen, Neth.: Van Gorcum & Co, 1973), pp. 285-305.

Lewis, F. A. "Two Paradoxes in the Theaetetus," Patterns in Plato's Thought: Papers Arising out of the 1971 West Coast Greek Philosophy Conference, ed. J. M. E. Moravcsik (Dordrecht-Boston: D. Reidel Publ. Co., 1973), pp. 123-149.

Lutoslawski, Wincenty. The Origin and Growth of Plato's Logic (New York, 1897).

Martens, Ekkehard. Das selbstbezügliche Wissen in Platons *Charmides* (München: Carl Hansen Verlag, 1973).

May, Yoo. "On the Third Attempted Definition of Knowledge, Theaetetus 201c-210b," pp. 420-442.

Maziarz, Edward A. and Thomas Greenwood. Greek Mathematical Philosophy (New York: Frederick Ungar Publishing Co., 1968).

McDowell, John. Plato: *Theaetetus*, trans. with notes (Oxford: Oxford University Press, 1973).

McPherran, Mark. "Knowing the Theaetetus," Phronesis XXXVIII:3 (1993), pp. 321-336.

Meyerhoff, Hans. "Socrates' 'Dream' in the Theaetetus," Classical Quarterly, n.s. VIII (1958), pp. 131-138.

Miller, Mitchell H., Jr. Plato's *Parmenides*: The Conversion of the Soul (Princeton: Princeton Univ. Press, 1986; pb. University Park, Pa.: Pennsylvania State University Press, 1991).

Miller, Mitchell. "Unity and Logos: A Reading of Theaetetus 201c-210a," Ancient Philosophy XII (1992), pp. 87-111.

Mittelstrass, Jürgen. "On Socratic Dialogue," Platonic Writings, Platonic Readings, ed. Charles L. Griswold, Jr. (New York-London: Routledge, 1988), pp. 126-142.

Morrow, Glenn R.. "Plato and the Mathematicians," Philosophical Review LXXIX (July 1970), pp. 309-333.

Nehamas, Alexander. "*Epistēmē* and *Logos* in Plato's Later Thought," Essays on Ancient Greek Philosophy, vol. III, ed. J. Anton and A. Preus (Albany: State University of New York Press, 1989), pp. 267-282.

North, Helen. Sophrosyne: Self-Knowledge and Self-Restraint in Greek Literature (Ithaca, NY: Cornell University Press, 1966).

Nussbaum, Martha C. The Fragility of Goodness: Luck and Ethics in Greek Tragedy and Philosophy (Cambridge: Cambridge University Press, 1986).

Plato. Platonis Opera, ed. John Burnet (Oxford: Clarendon Press, 1958 [1900]).

Plato. The Collected Dialogues of Plato, including the Letters, ed. Edith Hamilton and Huntington Cairns. Bollingen Series, vol. LXXXI (Princeton: Princeton University Press, 1961).

Plato. The Dialogues of Plato, trans. Benjamin Jowett, intro. Raphael Demos (New York: Random House, 1937 [1892]).

Plato. Five Dialogues: Euthyphro, Apology, Crito, Meno, Phaedo, trans. G. M. A. Grube (Indianapolis: Hackett Publishing Co., 1981).

Plato. Republic, trans. G. M. A. Grube (Indianapolis: Hackett Publishing Co., 1974).

Prauss, Gerold. Platon und der logische Eleatismus (Berlin: Walter de Gruyter & Co., 1966).

Press, Gerald A., ed. Plato's Dialogues: New Studies and Interpretations (Lanham, Md.: Rowman & Littlefield, Publishers, Inc., 1993).

Randall, John Herman. Plato: Dramatist of the Life of Reason (New York-London: Columbia University Press, 1970).

Righinos, Alice Swift. Platonica: The Anecdotes Concerning the Life and Writings of Plato. Columbia Studies in the Classical Tradition, ed. William V. Harris, vol. III (Leiden: E. J. Brill, 1976).

Ritter, Constantin. Platon: Sein Leben, seine Schriften, seine Lehre (München: C. H. Beck'sche Verlagsbuchhandlung, 1923). (Reprinted New York: Arno Press,1976).

Robinson, Richard. "Forms and Error in Plato's Theaetetus," Philosophical Review, LIX (1950), pp. 3-30.

Robinson, Richard. Plato's Earlier Dialectic, 2nd ed. (Oxford: Clarendon Press, 1953).

Rorty, Amelie Oksenberg. "A Speculative Note on Some Dramatic Elements in the Theaetetus," pp. 227-238.

Rosen, Stanley. Plato's Sophist: The Drama of Original and Image (New Haven-London: Yale University Press, 1983)

Runciman, W. G. Plato's Later Epistemology (Cambridge: Cambridge University Press, 1962).

Russell, Bertrand. The Problems of Philosophy (New York: Oxford University Press, 1959 [1912]).

Ryle, Gilbert. "Letters and Syllables in Plato," Philosophical Review LXIX (1960), pp. 431-451.

Ryle, Gilbert. "Logical Atomism in Plato's Theaetetus," Phronesis XXXV:1 (1990), pp. 21-46.

Ryle, Gilbert. Plato's Progress. (Cambridge: Cambridge University Press, 1966).

Sambursky, S. The Physical World of the Greeks, trans. Merton Dagut (London: Routledge and Kegan Paul, 1956).

Sallis, John. Being and Logos: The Way of Platonic Dialogue (Pittsburgh: Duquesne University Press,1975).

Santas, Gerasimos. "Socrates at Work on Virtue and Knowledge in Plato's Charmides," Exegesis and Argument: Studies in Greek Philosophy Presented to Gregory Vlastos, ed. E. N. Lee, A. P. D. Mourelatos, and R. M. Rorty [Phronesis: A Journal for Ancient Philosophy, Supplementary Vol. I (1973) (Assen, Neth.: Van Gorcum & Co, 1973), pp. 105-132.

Sayre, Kenneth M. Plato's Late Ontology: A Riddle Resolved (Princeton: Princeton University Press, 1983).

Sayre, Kenneth M. Plato's Literary Garden: How to Read a Platonic Dialogue (Notre Dame-London: University of Notre Dame Press, 1995).

Schiappa, Edward. Protagoras and Logos: A Study in Greek Philosophy and Rhetoric (Columbia, S.C.: University of South Carolina Press, 1991).

Schilling, Kurt. Platon: Einführung in seine Philosophie. Monographien zur philosophischen Forschung, vol. III/IV, ed. Georgi Schischkoff (Wurzach-Württemberg: Pan-Verlag Rudolf Birnbach, 1948.

Schleiermacher, Friedrich Ernst Daniel. Introductions to the Dialogues of Plato, trans. William Dobson (Cambridge-London: John William Parker, 1836).

Schleiermacher, Friedrich Ernst Daniel. Sämmtliche Werke (Berlin: Reimer Verlag, 1834ff), 31 vols.

Schleiermacher, Friedrich Ernst Daniel. Platons Werke (Berlin: Reimer Verlag, 1817-1828).

Schmidt, Gerhart. Platons Vernuftkritik oder die Doppelrolle des Sokrates im Dialog Charmides (Würzburg: Königshausen and Neumann, 1985).

Seeskin, Kenneth. Dialogue and Discovery: A Study in Socratic Method (Albany: State University of New York Press, 1987).

Sesonske, Alexander and Noel Fleming, eds. Plato's Meno (Belmont, Cal.: Wadsworth Publishing Co., 1965).

Sextus Empiricus. Adversus Mathematicos, trans. R. G. Bury. Loeb Classical Library (London-Cambridge, Mass.: William Heineman-Harvard University Press, 1933).

Shorey, Paul. De Platonis idearum doctrine atque mentis humanae notionibus commentatio; A Dissertation on Plato's Theory of Forms and on the Concepts of the Human Mind, Diss. [München, 1884], trans. R. S. W. Hawtrey, pref. Rosamond Kent Sprague Ancient Philosophy, II:1 (Spring 1982).

Shorey, Paul. Platonism Ancient and Modern. Sather Classical Lectures, vol. 14 (1938) (Berkeley: University of California Press (1938).

Shorey, Paul. The Unity of Plato's Thought (Chicago: University of Chicago Press, 1903).

Sinaiko, Herman L. Love, Knowledge, and Discourse in Plato: *Dialogue and Dialectic in Phaedrus, Republic, Parmenides* (Chicago-London: University of Chicago Press, 1965).

Sophocles. Oedipus the King, trans. David Grene. The Complete Greek Tragedies, ed. David Grene and Richmond Lattimore (Chicago-London: University of Chicago Press, 1954).

Sophocles. Antigone, trans. Elizabeth Wyckoff. The Complete Greek Tragedies, ed. David Grene and Richmond Lattimore (Chicago-London: University of Chicago Press, 1954).

Sprague, Rosamond Kent, ed. The Older Sophists: A Complete Translation by Several Hands of the Fragments in *Die Fragmente der Vorsokratiker*, edited by Diels-Kranz..., with a New Edition of *Antiphon* and of *Euthydemus* (Columbia, South Carolina: University of South Carolina Press, 1972).
Sprague, Rosamond Kent. Plato's Use of Fallacy (London: Routledge & Kegan Paul, 1962).

Sprute, Jürgen. Der Begriff der DOXA in der platonischen Philosophie [Hypomnemata: Untersuchungen zur Antike und zu ihrem Nachleben, ed. Albrecht Dihle, Hartmut Erbse, Wolf-Hartmut Friedrich, Christian Habicht, and Bruno Snell, Heft 2 (Göttingen: Vandenhoeck & Ruprecht, 1962).

Stenzel, Julius. Studien zur Entwicklung der platonischen Dialektik von Sokrates zu Aristoteles, 2nd ed. (Leipzig-Berlin: Verlag B. G. Teubner, 1931 [1917]).

Taylor, A. E. Plato: The Man and his Work, 2nd ed. (New York: Meridian Books, 1957 [1927])

Tejera, Victorino. Plato's Dialogues One by One: A Structural Interpretation (New York: Irvington Publishers, 1984).

Thesleff, Holger. "In Search of Dialogue," Plato's Dialogues: New Studies and Interpretations, ed. Gerald A. Press (Lanham, Md.: Rowman & Littlefield, Publishers, Inc., 1993), pp. 259-266.

Thesleff, Holger. "Looking for Clues: An Interpretation of Some Literary Aspects of Plato's 'Two-Level Model'," Plato's Dialogues: New Studies and Interpretations, ed. Gerald A. Press (Lanham, Md.: Rowman & Littlefield, Publishers, Inc., 1993), pp. 17-45.

Thomas, John E., trans. and comm. Musings on the Meno. Martinus Nijhoff Classical Philosophy Library, vol. I (The Hague-Boston-London: Martinus Nijhoff Publishers, 1980).

Tielsch, Elfriede. Die Platonischen Versionen der griechischen Doxalehre: Ein philosophisches Lexikon mit Kommentar [Monographien zur philosophischen Forschung, est. Georgi Schischkoff, vol. 58] (Meisenheim am Glan: Verlag Anton Hain, 1970), pp. 151-163.

Tuckey, T. G. Plato's *Charmides* (Cambridge: Cambridge University Press, 1951).

Vlastos, Gregory. Platonic Studies (Princeton: Princeton University Press Press, 1973).

Vlastos, Gregory, ed. The Philosophy of Socrates: A Collection of Critical Essays. Modern Studies in Philosophy, ed. Amelie Oksenberg Rorty (Garden City, NY: Doubleday/Anchor, 1971).

Vlastos, Gregory, ed. Plato I. Metaphysics and Epistemology: A Collection of Critical Essays Modern Studies in Philosophy, ed. Amelie Oksenberg Rorty (Garden City, NY: Doubleday/ Anchor, 1971).

Warnock, G. J., ed. The Philosophy of Perception. Oxford Readings in Philosophy, ed. G. J. Warnock (Oxford-New York: Oxford University Press, 1967).

Wedberg, Anders. Plato's Philosophy of Mathematics (Stockholm: Almqvist & Wiksell, 1955).

White, Nicholas P. Plato on Knowledge and Reality (Indianapolis: Hackett Publishing Co., 1876).

Wilamöwitz-Möllendorff, Ulrich von. Platon (Berlin: B. G. Teubner Verlag, 1919), 2 vols.

Williams, C. J. F. "Referential Opacity and False Belief in the Theaetetus," Philosophical Quarterly XXII: 89 (October 1972), pp. 289-301.

Witte, Bernd. Die Wissenschaft von Guten und Bösen: Interpretationen zu Platons *Charmides* (Berlin: Walter de Gruyter & Co., 1970).

Wittgenstein, Ludwig. Philosophical Investigations: The English Text of the Third Edition, trans. G. E. M. Anscombe (New York: Macmillan, 1968 [1958])

Woodbridge, Frederick J. E. The Son of Apollo: Themes of Plato (Woodbridge, Conn.: Ox Bow Press, 1989 [1929]).