

Plato's Rationalistic Method

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It is a commonplace that the two greatest Greek philosophers - Plato and Aristotle - split along the rationalist/empiricist divide. Plato is the rationalist, it is thought, and Aristotle the empiricist. According to this commonplace, Plato's fundamental ontological items are immortal, immutable, hyperborean universals known as Forms – like the Form of the Good and the Form of Justice – to which we have epistemological access through some sort of pre-natal noetic vision. Aristotle's fundamental entities, on the other hand are commonsense everyday things – like horses, and trees, and statues – to which we have epistemological access through our physical senses of sight, hearing, touch, etc. Like all commonplaces, there is much that is true about this picture, but it is also rife with caricature, distortion, and inaccuracy. To sort out the truth from the falsehoods in this commonplace is a monumental task well beyond the scope of this essay. A great deal depends upon not only what one thinks Plato and Aristotle are up to, but also upon what rationalism and empiricism amount to. Consequently, my goal instead will be to focus in on one side of the commonplace - Plato's alleged rationalism, and specifically on his alleged rationalistic method. I will not argue that Plato's method is rationalistic, although we will bump up against features of the commonplace that may sound familiar to readers of Descartes, and other philosophers of a rationalist stripe. Nor will I argue that Plato's method is not rationalistic. Rather, I will describe in a generally programmatic manner Plato's mature philosophical method.

My focus is on Plato and his philosophical method. I leave it to the reader to decide whether it is rationalistic, and to another time to address the Aristotelian half of the commonplace.

Preliminaries

Let me begin by turning to the notion of philosophical method. Much has been written on this issue to little consensus. Both what makes a way of behaving methodological and what makes a way of behaving philosophical are controversial matters. Consequently, I should say what I mean by 'philosophical method' in the present context. By Plato's 'mature philosophical method' I mean the systematic (purposive and repeatable) strategy Plato recommends (and may employ himself) in his classical dialogues in order to acquire the knowledge one lacks. For Plato, philosophy is the love of wisdom. Philosophy is not restricted to a particular kind of wisdom or subject matter. It is the desire for and attempt to acquire all knowledge or wisdom (see, for example, *Republic* 474c8-475c8; following Plato, I will be using 'knowledge', 'wisdom', and 'expertise' interchangeably). Philosophy may engage in other activities. It may attempt to teach others what one has come to know oneself. It may attempt to explain or justify further what one already knows or believes. But, for Plato, it is first and foremost the attempt to acquire the knowledge one does not yet have.

Plato recognizes two ways in which this attempt to acquire knowledge can be made. One can learn it from another who already possesses knowledge or one can discover it on one's own (see, for example, *Laches* 186a6-187a1). Moreover, Plato may allow two ways in which one can acquire knowledge on one's own - through oracles, dreams, and other forms of divination (see, for

example, *Apology* 33b9-c8) and through a systematic strategy. However, Plato would not take these distinctions to be sharp. He does not think that one with knowledge can simply hand over what one knows to the student nor that genuine knowledge is simply the result of hearing an oracle or having a dream. In order to acquire genuine knowledge in either of these ways one must engage in a strategy of examination much like the systematic strategy of discovering on one's own. It is this systematic strategy of acquiring knowledge whether aided by one who knows (human or divine) or not with which I will be concerned in this essay.

Of course to say that Plato recommends a systematic strategy of knowledge acquisition is hardly remarkable. The question is 'What is the nature of Plato's systematic strategy of knowledge acquisition?' What, that is, is the nature of Plato's philosophical method? I will argue that Plato's mature philosophical method has three components - the method of refutation or *elenchos*, the method of hypothesis, and the method of dialectic. Each component builds on the other. Plato proceeds not by abandoning one method in favor a new one, nor by revising an inadequate method. Rather, he retains each component for what it does well and adds components to address inadequacies. Plato highlights each of these components in different dialogues. The method of *elenchos* is highlighted in the so-called Socratic dialogues (in alphabetical order *Apology*, *Charmides*, *Crito*, *Euthyphro*, *Euthydemus*, *Gorgias*, *Hippias Major*, *Hippias Minor*, *Ion*, *Laches*, *Lysis*, and *Protagoras*), the method of hypothesis in the *Meno* and the *Phaedo*, and dialectic in the *Republic*. So understood, Plato's mature philosophical method appears in the *Republic* as a philosophical development of the virtues and vices of the methods depicted in other dialogues. Whether this development reflects Plato's own philosophical development (whether at the time each dialogue was composed or not) or instead Plato's pedagogical judgment concerning

how his views about philosophical method may best be presented remains an open question for the purposes of this essay. The key is that the method is presented in components - with each new component offered not as a rejection or revision of other components, but as an addition to those other components.

Finally, I should mention an additional method Plato discusses but not one that I will be examining in this essay - the method of collection and division. This method is not explicitly mentioned in any of the dialogues we will be discussing, but does get explicitly discussed in the *Phaedrus*. It becomes considerably more prevalent in a group of dialogues traditionally thought to have been written last in Plato's philosophical career - in alphabetical order - *Critias*, *Laws*, *Philebus*, *Politicus*, *Statesman*, and *Timaeus*. To include even a programmatic account of the method of collection and division and the dialogues in which it predominates would require an essay of twice the current length.

The *Elenchos*

In Plato's *Apology* Socrates explains the motivations for his prosecution. He claims that he is not being prosecuted because he is actually thought guilty of the official charges leveled against him in the sworn deposition. Nor does he appear to think that he is being prosecuted because of the unofficial or informal charges leveled against him on the streets or in the theaters. Rather, he tells the jurors that he is being prosecuted because of a certain practice he has engaged in ever since his friend Chaerephon received from the Delphic oracle the answer that no one was wiser than Socrates.

Socrates was at a loss at what the oracle could mean. For he was aware of being “not wise at all” (21b4-5; all translations are from Cooper 1997) and yet the god could not lie. In order to understand the oracle Socrates sought out those reputed to be wise either by themselves or others, thinking that he could thereby refute the oracle - saying “this man is wiser than I am, but you said I was wiser” (21c2). However, after going through the politicians, poets, and craftsmen, Socrates discovered that he was unable to refute the oracle in the manner he had anticipated. Instead he discovered that all of those whose reputed wisdom he examined suffered the same fault. They all thought they knew (or perhaps were reputed to know) certain things that they did not. Consequently, his investigation led him to conclude that the oracle meant that “This man among you, mortals, is wisest who, like Socrates, understands that his wisdom is worthless” (23b2-4) thereby commanding Socrates to “go around seeking out anyone, citizen or stranger, whom I think wise. Then if I do not think he is, I come to the assistance of the god and show him that he is not wise” (23b4-7).

In describing this practice that Socrates takes to be responsible for his prosecution two features become immediately apparent. First, Socrates examines the reputed wisdom of anyone he happens to meet. Second, Socrates performs this examination not only to come to understand the oracle, but also to persuade those reputed to be wise of their ignorance, if they are not wise (*Apology* 23b7), and to learn from them, if they are wise (*Apology* 22b5). Using these features as identity conditions we can see that Socrates engages in this practice throughout much of the Socratic dialogues. He does not, however, *only* engage in this practice. He is not always examining the reputed wisdom of interlocutors. Socrates is not examining anyone’s wisdom in the

Apology (except, perhaps, at *Apology* 24c4-28a4), during the speech of the Laws in the *Crito*, during the myth at the end of the *Gorgias*, or in the first half of the *Laches* leading up to the ‘What is courage?’ question at *Laches* 190d7-e3, to mention just four examples. Nevertheless, of the 34 interlocutors in the Socratic dialogues 21 have some claim to wisdom that Socrates does go on to examine. In nearly every case, Socrates indicates that he is prepared to learn from them should their wisdom be confirmed and he attempts to persuade them of their ignorance once Socrates recognizes it.

In these examinations a pattern begins to emerge. Socrates begins by asking the interlocutor a question, the answer to which is an indication of the interlocutor’s reputed wisdom. This is often, though not always, a question like ‘What is holiness?’ or ‘What is courage?’ Following the interlocutor’s answer to this initial question, a series of other questions elicit answers from the interlocutor that are used by Socrates to derive the negation of the original answer. At this point either the interlocutor changes his initial answer by revising it or offering an entirely new one, or the dialogue with that interlocutor comes to an end. Consequently, typical Socratic *elenchoi* have roughly the following formal structure:

First, (1) Socrates asks the interlocutor a question the answer to which is meant to exhibit the interlocutor’s wisdom usually, but not always, Socrates’ ‘What is F-ness?’ question. (I will refer to this initial answer, *p*, as the **apparent refutand**.)

Next, (2) the interlocutor provides answers, *q*, *r*, and *s* to a series of other Socratic questions. (I will refer to these answers as the **premises** of the *elenchos*.)

Third, (3) Socrates goes on to show that these answers entail the negation of the original answer.

Thus, (4) the conjunction $p \ \& \ q \ \& \ r \ \& \ s$ is false.

Here then we have something like a systematic strategy - a method, but is it philosophical? Is it a strategy for knowledge acquisition - a method of philosophical inquiry? The two leading interpretations of the *elenchos* appear to split on this question. According one it is. According to the other it is not, or at least not straightforwardly.

According to the constructivist interpretation of the *elenchos* - made famous in Vlastos' classic piece "The Socratic Elenchus" - Socrates takes and is justified in taking his *elenchos* to establish the truth of individual beliefs. Thus, according to the constructivist interpretation, the *elenchos* does not end at step (4) above, but Socrates goes on to conclude

Thus, (5) p is false and not- p is true,

and he justified in doing so. Thus according to this interpretation, the *elenchus* is a systematic strategy for acquiring knowledge. It is a method that proves or establishes the truth of individual beliefs like that piety is not (at least by definition) what is dear to the gods (*Euthyphro* 6e7-8b6) or that doing injustice is worse than suffering it (*Gorgias* 469b8-475e6).

According to the non-constructivist interpretation, Socrates neither takes nor would he be justified in taking his *elenchos* to establish the truth of individual beliefs. Thus, according to the non-constructivist interpretation, Socrates takes the *elenchos* to end at step (4) above, and wisely so. The *elenchos* can do no more than establish the falsehood of the conjunction. It can only establish an inconsistency among the premises of the *elenchos* and the apparent refutand. Understood in this way, however, the *elenchos* looks to be a dismal failure as a method of knowledge acquisition. By practicing the *elenchos* one can only acquire knowledge that a particular set of beliefs is inconsistent. One cannot come to know which of those beliefs is true and which false.

The utter failure of the *elenchos* as a method of knowledge acquisition on the non-constructivist account has led many to reject this account. Although, as I mentioned above, the *elenchos* is not the only method Socrates practices in the Socratic dialogues, it is the only method of knowledge acquisition Socrates recommends or practices in those dialogues. And so, if the non-constructivist account is accepted, then the Socratic *elenchos* as a systematic method of knowledge acquisition is a dismal failure. To reject the non-constructivist account for this reason, however, is to misunderstand the *elenchos* and Socrates' systematic method of knowledge acquisition in the Socratic dialogues.

First, the *elenchos*' inability to establish the falsehood of one of the conjuncts in step (4) is not a result of the form of the *elenchos*, but a result of the constraints Socrates places on acceptable premises and apparent refutands. Throughout the Socratic dialogues Socrates suggests that the only requirement that the premises of an *elenchos* must meet is that they are believed by the

interlocutor. There is no appeal to perception, expert opinion, or common sense, but only to the beliefs of the interlocutor. But being believed by the interlocutor is also a requirement of the apparent refutand. Consequently, in the Socratic dialogues Socrates recognizes no epistemic distinction between the conjuncts in (4). They are all equally credible. They are all believed by the interlocutor and Socrates does not suggest that any other feature of the conjuncts is relevant. Consequently, with no distinction in the credibility of the conjuncts in (4) - or at least none that Socrates indicates is relevant - the *elenchos* can do no more than establish the falsehood of the conjunction at (4), whatever the consequences for his only method of knowledge acquisition.

Second, while such a result may appear inadequate as a method of knowledge acquisition, the *elenchos* so understood provides the necessary first step for philosophical inquiry - or the systematic pursuit of knowledge. According to Socrates, philosophical inquiry cannot begin until one recognizes that one lacks the knowledge one seeks to acquire. The interlocutors whom Socrates elenctically engages in the Socratic dialogues begin by already thinking they have the knowledge Socrates is pursuing. By requiring that the premises and the apparent refutand are all believed by the interlocutor, Socrates can disabuse them of this conceit as long as Socrates and his interlocutors think that consistency of belief is a necessary condition of knowledge. Of course, to think that knowledge requires consistent beliefs is to be committed to a rather robust conception of knowledge, but there are a variety of indications throughout the entire Platonic corpus for thinking that Plato was so committed. The *elenchos*, then, on the non-constructivist account is exactly the right method to use to begin the method of knowledge acquisition for those who do not yet recognize the need to employ it. Recall that one of the aims of his method that Socrates mentions in the *Apology* is to persuade those reputed to be wise of their ignorance.

Finally, while Socrates does indeed take the *elenchos* as his method of knowledge acquisition, he does not - at least explicitly - understand it as his method of acquiring knowledge by discovering it on one's own. Rather his explicit recommendation is to employ the *elenchos* in order to learn from those who already have this knowledge. (Recall the second aim mentioned in the *Apology*.) But the non-constructivist account of the *elenchos* need not rule out the possibility of acquiring knowledge from another who already has it by practicing the *elenchos*. We need to be cautious here. Frankly, the Socratic dialogues provide little evidence one way or the other on this issue. Socrates never uncovers someone who has the knowledge he is seeking in order to learn from him (except the craftsmen at *Apology* 22d2-4 whose knowledge he apparently does not attempt to learn). So we can only speculate how Socrates thinks the *elenchos* would enable him to learn from such an individual if such an individual were to be found. Moreover, the Socratic dialogues may indicate that Plato is concerned about the *elenchos*' ability to uncover one with knowledge if it is being employed by one who does not yet know (*Protagoras* 313c4-314b4 and *Charmides* 167b10-172c3). Nevertheless, we should remember that Plato fails to testify very enthusiastically about the success of the *elenchos* as a method of knowledge acquisition. Even near the end of Socrates' life, Plato has him profess to not being "wise at all" despite having practiced the *elenchos* at least since Chaerephon reported back the answer from the oracle

In the Socratic dialogues, then, Plato presents us with a philosophical method that is largely unsuccessful. Plato has Socrates describe and practice in the Socratic dialogues a systematic strategy for knowledge acquisition. The strategy is to examine the knowledge or wisdom of those with some claim to it, and then to elicit from them a series of answers to questions in order to test

the consistency of their beliefs. He does this in order to learn from those he examines, if they are discovered to have the knowledge they claim - as none are, and in order to persuade them of their lack of knowledge, if indeed they are discovered to lack it - as they all are. He persuades these latter of their ignorance, so that they may join him in the pursuit of the knowledge they lack. The method is very successful in determining the ignorance of those who lack knowledge (at least given a robust conception of knowledge) - again as indeed everyone he engages does. It is somewhat less successful in persuading those who lack knowledge of their ignorance. And it is a dismal failure at acquiring the knowledge Socrates is seeking. We will see in the next two sections that Plato recognizes the inadequacies of the *elenchos* as a method of knowledge acquisition, but he does not abandon it. Rather he supplements it with additional methods once the *elenchos* has achieved its goal of leading the interlocutor to recognize the need to join Socrates in the pursuit of the knowledge he lacks.

The Method of Hypothesis

Plato's *Meno* begins like a Socratic dialogue. Meno professes to know what virtue is and Socrates seeks to learn this from him by asking him the 'What is virtue?' question and then a series of other questions. Meno's answers, however, turn out to be inconsistent, just like the interlocutors of the Socratic dialogues, so that by 80a8-b1 Meno has come to recognize his ignorance saying "... both my mind and tongue are numb, and I have no answer to give you." At this point, however, the similarity between the *Meno* and the Socratic dialogues comes to an end. For rather, than bringing the dialogue to a close or having Socrates turn to another interlocutor, Plato has Socrates say to Meno "So now I do not know what virtue is; ... Nevertheless, I want to examine and seek

together with you what it may be” (80d1-4). Rather than continuing the inquiry, however, the reader is presented with the following paradox: *Meno*’s paradox.

- [1] Either one knows what one is inquiring into (one has the knowledge one is systematically attempting to acquire) or one does not.
- [2] If one knows what one is inquiring into, then one does not need to inquire into it.
- [3] If one does not know what one is inquiring into, then one does not know how to begin the inquiry or when the inquiry has been completed.
- [4] If one does not know how to begin the inquiry or when the inquiry has been completed, then one cannot inquire.
- [5] So, if one does not know what one is inquiring into, then one cannot inquire.
- [6] So, inquiry, i.e., the systematic attempt to acquire knowledge, is either unnecessary or impossible (80d5-e5).

Here Plato has Socrates and Meno raise a more generalized version of the problem we faced at the end of the last section. There we worried whether the *elenchos* could be a successful systematic strategy for knowledge acquisition. Here the worry is whether *any* method could be successful. Plato has Socrates proffer the theory of recollection as solution to this more generalized worry. Yes, a successful systematic strategy for knowledge acquisition is possible because humans previously possessed the knowledge they are seeking to acquire and a systematic strategy for reacquiring knowledge is not generally problematic. Now, one might be skeptical concerning the plausibility of such a solution - both concerning the plausibility of an appeal to something like innate or pre-natal knowledge in general, and concerning the plausibility of such an

appeal being able to resolve *Meno*'s paradox, but I want to focus on a further question. Even if we grant that something like the theory of recollection is true and that it resolves the paradox, the *elenchos* continues to be a dismal failure at acquiring this previously possessed knowledge. It is a failure because as Plato understands the method in the Socratic dialogues it depends on finding someone who has already recovered the pre-possessed knowledge. It is a method of acquiring knowledge by learning from someone who already knows. Even granting the theory of recollection and what it is supposed to do, Plato still owes us a systematic strategy of acquiring (or re-acquiring) knowledge when no one who has already re-acquired it can be found. Plato meets this obligation following the conversation with the slave-boy offered to illustrate the theory of recollection.

At 86c Socrates and Meno agree to resume the inquiry that was interrupted by Meno's presentation of the paradox. Meno, however, insists that they return to the original question of the dialogue - 'Can virtue be taught?' - rather than the question which they had been pursuing just before the paradox - 'What is virtue?'. Socrates yields to Meno's insistence on the condition that Meno permit Socrates to use a new method - a method with which he suggests Meno will be familiar as a result of his knowledge of geometry. Socrates illustrates this new method by appealing to a complex geometrical problem and then uses it on the question Meno wants to pursue - whether virtue can be taught. While the details of these passages are obscure, the general structure of the method Socrates appears to be recommending is not. It begins by first reducing the target question to a secondary question which it is supposed will be easier to answer. One brings about this reduction by identifying a property such that it is true of the subject of the primary question just in case the property of the primary question is true of that subject. For example, when

the primary question is 'Is a F?', one seeks to identify a property G, such that a is G just in case a is F. So the primary question in the case of the *Meno* - 'Is virtue teachable?' - is reduced to the question 'Is virtue a kind of knowledge?' in virtue of the fact that a thing is teachable just in case it is a kind of knowledge. Once this reduction is accomplished, the next step in the new method of the *Meno* is to seek to acquire knowledge of the answer to the secondary question. So far this hardly is hardly an improvement on the *elenchos*. It has only pushed the problem back to the secondary question. If all Plato has to offer as a systematic strategy for acquiring the knowledge of the answer to the secondary question is to examine someone who has a claim to know it, persuade him of his ignorance if it turns out that he does not and learn from him if it turns out that he does, we have made no progress. Fortunately Plato has more to offer.

The new systematic strategy Plato recommends is described in the *Phaedo*. If we assume that a positive answer to the secondary question is the hypothesis, Socrates is made to recommend two complementary procedures for acquiring the knowledge of its truth. The first is that one "examine the consequences that follow from [the hypothesis to see whether they] agree with one another or contradict one another" (*Phaedo* 101d4-5). The second is to "assume another hypothesis, the one which seems to you best of the higher ones until you come to something acceptable" (101d6-e1). To better understand this description we can watch Socrates practicing the method in the *Meno*. Socrates first takes up the second procedure described in the *Phaedo* and derives a positive answer to the secondary question - that virtue is a kind of knowledge - from the 'higher' hypothesis that virtue is good which Socrates takes to be adequate on the grounds that it will 'stand firm for us'. Next Socrates takes up the second procedure examining the consequences of the hypothesis that virtue is a kind of knowledge. It turns out that the consequences do not agree

with each other but contradict one another: According to Socrates it follows from the hypothesis that virtue is a kind of knowledge that there are teachers of virtue. But as a matter of fact there are no teachers of virtue.

Here then we have described in the *Phaedo* and depicted in the *Meno* a systematic strategy for knowledge acquisition distinct from the *elenchos*. First one reduces the question the answer to which one seeks to know to another question. We might call this the reduction stage. One, then, assumes the answer to the secondary question to be positive and attempts to derive this positive answer from other positive answers until one reaches something 'adequate' - perhaps something with a high degree of antecedent probability. We might call this procedure the upward path since Socrates describes the process as proceeding through 'higher' hypotheses until one reaches something adequate. We might also think of this procedure as a continuation of the reduction stage except that the reduction requires an equivalence between the two questions while the upward path appears only to require that a positive answer to the higher question (together with other perhaps subsidiary premises) entails a positive answer to the lower question. The upward path, however, is distinct from a second procedure which we might call the downward path.

The downward path consists in deriving the consequences of the positive answer to the secondary question (one of which will, of course, be a positive answer to the primary question) and testing their consistency. The evidence from the *Meno* suggests that this consistency test is not meant to be merely a self-consistency test (despite the language of the *Phaedo*). Presumably few positive answers to the secondary question will be self-contradictory. Rather the *Meno* depicts Socrates as testing the consequences of the hypothesis that virtue is kind of knowledge against its

consistency with other logically independent propositions, e.g., that there are in fact no teachers of virtue. The status of these independent propositions is far from clear, but they appear to be roughly the phenomena - contingent matters of fact, perceptual evidence, expert opinion, common-sense - or conclusions of arguments with premises that are themselves the phenomena.

The method of hypothesis so understood is, of course, subject to a variety of inadequacies. First, and perhaps most obviously, the adequacy of the 'highest' hypothesis from which the positive answers to the secondary and primary questions are ultimately derived is suspect. As a method of knowledge acquisition, one's knowledge of the answer to the primary question can be no more secure than one's knowledge of the 'adequate' hypothesis and one's knowledge of this hypothesis appears at best provisional. Plato seems to be aware of the provisionality of the upward procedure since he supplements it with an additional check - the downward procedure, but this procedure too is problematic in ways reminiscent of the *elenchos*. We saw that Plato did not think that the downward path consisted simply in examining whether the answer to the secondary question was self-contradictory, but in examining whether its consequences were consistent with the phenomena - contingent matters of fact, perceptual evidence, expert opinion, common-sense. But consistency with the phenomena does not suffice for establishing the truth of the positive answer to the secondary question even if the phenomena are credible. Moreover, like the *elenchos*, inconsistency with the phenomena does not suffice for establishing the positive answer's falsity either. For Plato nowhere indicates a distinction in the credibility of the higher hypothesis and the phenomena. The truth of the phenomena appears no more secure than the truth of the positive answer to the secondary question. Finally, Plato provides little guidance concerning how to go on when the results of the two procedures conflict as they do for example in the *Meno*. The upward

path in the *Meno*, for example, suggests that virtue is indeed a kind of knowledge and so teachable, while the downward path suggests that it is not a kind of knowledge and so not teachable. In the *Meno*, Socrates goes on to reconsider the upward path and suggests that one of the premises used in deriving the positive answer that virtue is a kind of knowledge from the 'adequate' hypothesis that virtue is good, viz. the premise that the only good things are kinds of knowledge, is false. In fact some good things are true beliefs. But Plato's commitment to this final argument in the *Meno* according to which virtue is true belief and so acquirable by divine dispensation has been subject to considerable doubt. So we cannot be confident that the procedure Plato has Socrates adopt when these two procedures conflict is the procedure Plato means to recommend.

Despite these inadequacies - as formidable as they are - we should not think that Plato has failed to make progress. Recall the difficulty at this point in the *Meno*. Both Socrates and Meno have become aware of their lack of knowledge of what virtue is and so whether virtue is teachable. Nevertheless, Socrates encourages Meno to join him in the pursuit of this knowledge. Meno wonders whether any systematic strategy for acquiring this knowledge is possible and puts forward the paradox to drive this worry home. Socrates responds to this general worry by proposing the theory of recollection according to which it is possible to engage in a systematic strategy for acquiring knowledge because we all have already possessed the knowledge we are seeking to acquire. Nevertheless the specific systematic strategy to employ in this pursuit is yet to be addressed. The *elenchos* cannot be employed in this pursuit because as a systematic strategy of knowledge acquisition it aims to learn from those who know, but both Meno and Socrates have admitted they do not know. Thus, Plato proposes the method of hypothesis as the specific strategy to employ. Besides being a method of discovery as opposed to a method of learning from another,

the method of hypothesis differs from the *elenchos* in that [1] the elenchus contains no obvious counterpart to the upward path of the hypothetical method, [2] the positive answer to the secondary question unlike the apparent refutand of the *elenchos* need not be believed by any of the participants at the beginning of the method, let alone by the interlocutor whom Socrates is engaging, and [3] finally, the phenomena of the downward path must possess epistemic credibility besides being merely believed by the interlocutor (although, to repeat, their credibility is no more secure than the credibility of the positive answer to the secondary question). Nevertheless, the *Meno* makes clear that the *elenchos* is not abandoned in favor of the method of hypothesis nor transformed into the method of hypothesis. The method of hypothesis is employed only after the *elenchos* has accomplished all that it can. It is only after the *elenchos* has exposed the ignorance of both Meno at 80a8-b2 and the slave-boy at 84a1-2 so that they can no longer be reliably learned from and so that they will join Socrates in the pursuit of the knowledge they now recognize that they lack - it is only then that Socrates turns to the method of hypothesis as a strategy for going on. Thus, progress has been made despite the inadequacies of the method of hypothesis. We will see in the next section that Plato tries to respond to some of these inadequacies in the *Republic*.

The Method of Dialectic

In the middle books (V-VII) of Plato's *Republic*, Plato has Socrates turn to the question of the nature of the philosopher-rulers. We have already seen that for Plato philosophy is the love of all wisdom and philosophers for Plato are those who love and seek to acquire all wisdom. I want to focus on two passages in the course of this discussion in which Plato appears to have in view yet a third component of his philosophical method. These two passages are the analogy of the line at

Republic 509c-511d and Plato's description of the education of the philosopher at *Republic* 521b-540c. The first passage introduces explicitly for the first time a new method distinct from the method of hypothesis which Plato calls dialectic. The second passage makes clear that dialectic is not introduced as a rejection of or revision to the method of hypothesis but rather as a continuation and completion of his systematic strategy for knowledge acquisition.

In the second of his analogies aimed at explaining the nature of the good, Socrates imagines a line cut into two unequal portions. The smaller portion represents the things that share in Forms (e.g., the beautiful things) and the larger portion the Forms themselves (e.g., the Beautiful itself). Each of these two portions of the line is similarly divided into two unequal sub-sections. The smaller subsection of the portion of the line representing the beautiful things represents images of the beautiful things – shadows, reflections in pools of water, etc., while the larger subsection represents the originals of the things imaged in the smaller subsection. Turning to the subsections of the portion representing the Forms, Socrates says concerning the smaller subsection that the soul uses as images the originals of the previous subsection, is forced to investigate from hypotheses, and proceeds to conclusions, not to a first principle (510b4-6). In the larger subsection the soul makes “its way to a first principle that is not a hypothesis, proceeding from a hypothesis but without images used in the previous subsection, using forms themselves and making its investigation through them” (510b6-9). Notice that Plato has Socrates distinguish the sub-sections of the first portion in ontological terms, while he distinguishes the sub-sections of the second portion in methodological terms. Why he does so has been a matter of considerable controversy, but since I am concerned with methodological issues I will sidestep much of this controversy and simply focus on the nature of the methodological distinction.

The first subsection of the larger portion describes the method of hypothesis from the *Meno* and the *Phaedo*. The method of the first subsection is the method of “geometry, calculation and the like” (510c2-3) just as the method of hypothesis is described as the method of the geometers in the *Meno*. The practitioners of the first subsection’s method employ hypotheses “as if they were known” not thinking “it necessary to give any account of them, either to themselves or to others, as if they were clear to everyone” (510c6-d1). Here Plato refers to the higher hypotheses of the *Meno* and *Phaedo* which are described as ‘standing firm for us’ and ‘adequate’ respectively. Having arrived at adequate hypotheses, the practitioners of the first sub-section’s method then proceed to ends or conclusions (the Greek is *teleuten*) rather than to beginnings or first principles (*archen*) referring to the downward path of the method of hypothesis. Finally, Socrates explains that the practitioners of the first sub-section’s method “use visible figures and talk about them, [though] their thought isn’t directed at” those visible figures but at the things their visible figures are like (510d5-7). This appeal to perception is easy enough to explain in the case of geometry given its frequent appeal to constructions, but why think that an appeal to perception applies to the method of hypothesis generally? Recall that the *Meno* suggested that the downward path consisted not simply in testing the self-consistency of the higher hypothesis, but also in testing its consistency with the phenomena. It was because the hypotheses that all good things are instances of knowledge and that virtue is good were inconsistent with the quasi-perceptual contingent fact that there are (in fifth century Athens) no teachers of virtue that led to the rejection of the claim that virtue was teachable. According to Plato, in pursuing the downward path in the *Meno* Socrates and Meno were employing images of virtue though thinking about virtue itself. In all these ways, then, the method of the first sub-section alludes to the method of hypothesis.

Since Plato is referring to the method of hypothesis in the first subsection of the upper portion of the line, one should expect that the method in the second subsection with which it is contrasted will seek to resolve some of the inadequacies of the method of hypothesis which we mentioned earlier. And indeed, this is precisely what the method of dialectic appears aimed at doing. While Plato does not have Socrates explicitly call the method of this second subsection the method of dialectic until 533c7, he has dialectic in mind when he uses the phrase ‘the power of dialoguing’ at 511b4. Socrates tells Glaucon that the ‘power of dialoguing’ “does not consider these hypotheses as first principles but as stepping stones to take off from, enabling it to reach the unhypothetical first principle of everything. Having grasped this principle, it reverses itself and, keeping hold of what follows from it, comes down to a conclusion without making use of anything visible at all, but only of forms themselves, moving on from forms to forms, and ending in forms” (511b5-c2). Dialectic is here described as consisting of both an upward path and downward path like the method of hypothesis but the differences go directly to addressing the inadequacies of the method of hypothesis we discussed earlier.

The upward path of dialectic does not stop when it reaches an ‘adequate’ hypothesis or one that merely ‘stands firm for us’. It does not treat what is provisional (hypothetical) as though it were a first principle. Rather it continues on its upward path until it reaches what is no longer provisional, what is not merely adequate or firm for us, but what is an ‘unhypothetical first principle of everything.’ Plato explicitly recognizes the failure of the method of hypothesis to acquire knowledge precisely because it fails to go beyond its provisional higher hypothesis to the ‘unhypothetical first principle’ a little later in the *Republic* when he fills out his description of

dialectic. He has Socrates say “What mechanism could possibly turn any agreement into knowledge when it begins with something unknown and puts together the conclusion and the steps in between from what is unknown?” (533c3-5). Now that the upward path is no longer provisional the role of the downward path of dialectic is importantly different from the role of the downward path in the method of hypothesis. Recall that in the latter method the downward path provided an additional check on the truth of the higher hypothesis given its provisionality. But in dialectic the end of the upward path is no longer provisional, but secure. Consequently, the downward path in dialectic does not provide a further check on the ‘unhypothetical first principle’ but rather simply becomes the procedure by which one derives the results or consequences of that first principle much like the procedure of a deductive science whose first principles are taken to be necessary and self-evident. (See, for example, Aristotle’s *Posterior Analytics* or Euclid’s *Elements*.)

This novel role for the downward path in dialectic may avoid some of the inadequacies of the downward path of the method of hypothesis, but it leads directly to dialectic’s own inadequacies. For if the downward path is really meant to be simply drawing the deductive consequences of the ‘unhypothetical first principle’ one cannot expect to get very far on the basis of a single ‘unhypothetical first principle’. Deductive sciences of the sort mentioned above employ a plurality of first principles to even begin to appear substantive. Nevertheless, nothing in the middle books of *Republic* would suggest that Plato allows a plurality of ‘unhypothetical first principle[s]’. Indeed, Plato appears to identify the ‘unhypothetical first principle’ with a single Form - the Form of the Good. Plato may fail to see a difficulty here if he thinks of the ‘unhypothetical first principle’ as less like an axiom and more like an entire completed deductive theory. The Form of the Good, on this account, is not a single axiom acquired at the end of the

upward path of dialectic from which one is supposed to derive the theory via the downward path, but rather it is the complete theory ‘of everything’ acquired via the long arduous upward path from which implicit theorems are relatively easily derived via the downward path. Of course, understanding the Form of the Good or ‘the unhypothetical first principle’ in this way has its own difficulties, not the least of which is the allegedly self-certifying or non-provisionality of this principle. In the typical case one seeks epistemic security or credibility by stripping away content, while in the case of dialectic so understood one packs content in. One continues on the upward path - packing in content, so to speak - “until one can survive all refutation, as if in a battle, striving to judge things not in accordance with opinion but in accordance with being, and come through all of this with his account still intact ...” (534c1-3). It is as if the upward and downward paths of the hypothetical method have been absorbed into the upward path of dialectic. Perhaps, Plato has in mind something more like the experience that chess-masters are said to have when they ‘see’ the board and hundreds of moves ahead, than the experience of the Cartesian indubitable belief that I exist. Nevertheless, however Plato ultimately thinks the inadequacies of dialectic are to be met, Plato’s analogy of the line makes it clear that he sees dialectic as an advance beyond the method of hypothesis of the *Meno* and *Phaedo*.

Having said this, however, we should not think that Plato has abandoned the method of hypothesis in favor of dialectic. Rather the method of hypothesis is a preliminary step in his systematic strategy of knowledge acquisition as is made clear later in the *Republic* when he describes the education of the philosopher-rulers. According to Plato, following their compulsory physical education around the age of 20 the future philosopher-rulers embark upon a ten-year education first in number and calculation, then plane geometry, next solid geometry, then

astronomy, and finally harmonics - disciplines according to the divided line passage that employ the method of hypothesis. Following this ten-year immersion in mathematics, the future philosopher-rulers will be introduced to arguments (*logoi*) - a kind of preliminary dialectic - for five years. Plato has Socrates stress the importance of withholding this education in 'arguments' until the future philosopher-rulers have achieved a mature age and have completed their mathematical studies. For when this is not done "... young people getting their first taste of arguments ... misuse it by treating it as a kind of game of contradiction. They imitate those who've refuted them by refuting others themselves, and, like puppies, they enjoy dragging and tearing those around them with their arguments" (539b3-7). Plato here alludes to the elenctic method of the Socratic dialogues. Following this five-year immersion in 'arguments', the future philosopher-rulers must engage in a fifteen year practicum of politics, military affairs, and administration. It is only then at the age of fifty that the systematic strategy of knowledge acquisition known as dialectic can come to completion.

Then at the age of fifty, those who have survived the tests and been successful both in practical matters and in the sciences must be led to the goal and compelled to lift up the radiant light of their souls to what itself provides light for everything [the upward path of dialectic]. And once they've seen the good itself, they must each in turn put the city, its citizens, and themselves in order, using it as their model [the downward path of dialectic]. (540a-b)

Notice that Plato abandons neither the *elenchos* nor the method of hypothesis. Both are incorporated into the mature method as propaedeutic preliminaries to the final ascent to the Form

of the Good (however it is to be understood) and the derivations there from (however they are to be understood).

Exactly how the *elenchos* and the method of hypothesis are incorporated is only hinted at in these passages but the idea seems to be the following. The *elenchos* maintains its function of eliminating the interlocutor's false conceit of knowledge - a conceit that must be eliminated before the interlocutor will willingly begin the arduous task of dialectic. But the elimination of the interlocutor's false conceit of knowledge - at least of what is called 'the most important things' in the *Apology* (22d7) or what is called the Form of the Good in the *Republic* - should not be attempted until the interlocutor is in position to know that systematic knowledge acquisition is possible as a result of one's experience in successfully employing the method of hypothesis in the mathematical disciplines and until the interlocutor is sufficiently mature to have the courage to pursue knowledge acquisition in face of numerous set backs rather than opt for skepticism or relativism (see *Laches* 193e8-194b6). The *elenchos* will presumably still have this role to play even in the mathematical disciplines but it is less dangerous and less difficult to accomplish in those disciplines (see *Meno* 82e14-84a1).

The role of the method of hypothesis is at least three-fold. First, like the *elenchos* it prepares the interlocutor cognitively both as a kind of mental gymnastics, making the interlocutor agile in the use of sophisticated inferences, and as a reassurance that a systematic strategy of knowledge acquisition can make progress. Second, the hypotheses arrived at by the mathematical disciplines will be used "as stepping stones to take off from" as dialectic employs the upward and downward paths of the hypothetical method in ascending to the 'unhypothetical first principle'.

And finally, the method of hypothesis remains Plato's preferred method of acquiring knowledge when one does not have 50 plus years to spare (see *Phaedo* 100b1-c2 and *Republic* 435c9-d5). Even so it remains a second best method to the complete method of dialectic as described in the *Republic*.

Conclusion

In conclusion, let me summarize Plato's mature systematic strategy for knowledge acquisition as it is ultimately laid out in the *Republic*. It begins with a method designed to bring home to us the need to pursue such a strategy to begin with. It begins by making us aware of our lack of knowledge. It continues with a method arduously learned through years of immersion in the mathematical disciplines. It culminates in the 'vision' of the 'unhypothetical first principle of everything' from which everything that is knowable can be derived. It has little use for perception, except as a provisional form of verification and falsification. And, it presupposes a robust conception of knowledge or wisdom - the complete theory of everything which must be grasped before anything else can be genuinely known. Such a method contains traces of the Platonic half of the commonplace with which we began this essay - the noetic vision as the culmination of the years of arduous training in the mathematical disciplines, the prenatal access as the theory of recollection offered as part of the solution to *Meno's* paradox, the immortal, immutable, hyperborean universals as the 'unhypothetical first principle of everything'. But those traces are now seen in the context of some fairly sophisticated and rigorous theorizing concerning the nature of a systematic strategy of knowledge acquisition and the nature of philosophical inquiry itself. In

the end, of course, the plausibility of such a systematic strategy of knowledge acquisition remains open to question, but its influence - for better or worse - in the history of thought does not.

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