A New Philosophical Tool in the *Meno*: 86e-87c

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'Every tool will be made best if it serves to perform one function rather than many.'
– Aristotle, *Politics* 1252b3-5

About halfway through the *Meno* (86e-87c) Socrates introduces a new technique, modeled on one used by geometers, to help answer the dialogue's opening question: is virtue teachable? It is difficult to see why this technique is supposed to be useful, in part because Socrates says that he would rather that they first investigate what virtue is. Interpreters are left with the delicate task of explaining why the technique is valuable enough to introduce, but not as valuable as searching for a definition. The most common proposal is that it is somewhat useful because it provides a provisional answer to whether virtue is teachable. I argue that the technique does not answer this question, either provisionally or non-provisionally. Instead, it helps them avoid a serious problem: Socrates requires that all knowledge be grounded in definitions and yet no one seems able to formulate viable definitions of important ethical concepts. Since knowledge must be grounded in definitions, there seems to be nothing to do except continually propose and test definitions. The geometers' technique provides an alternative way to make progress, allowing them to get closer to answering the question that they care about (in this case, whether virtue is teachable) without needing to first search for a definition.

Socrates introduces the technique as follows:

> But at any rate relax your mastery of me to a small extent, and allow that we should consider whether it is teachable, or whatever, from a *hupothesis*. I mean 'from a *hupothesis*' in this way, the way the geometers often examine, when someone asks them, for example, about an area, whether it is possible to inscribe this area in this circle as a triangle. [A geometer] might say, 'I don't yet know whether this [area] is such [as to make the construction possible], but I think I have as it were a *hupothesis* that would help towards the question, as follows: if this area is such that when it is applied to the given line [sc. the diameter of the circle], it falls short by an area similar to the applied area, then one thing seems to me to follow, but another if it is impossible for this to happen. Having hypothesized, then, I am willing to tell you what follows about inscribing [the

area] in the circle, whether it is impossible or not.'[1] (86e-87b)
Socrates does not provide a general description of the technique; instead, he gives us an example and then claims to do the same thing when discussing whether virtue is teachable. While there are difficult questions about the details of the mathematics and about the purpose and result of engaging in the technique, the basic mechanics are almost universally accepted and seem clear from the text.[2] It involves setting up two conditionals: if P holds, then Q holds and if not P, then not Q—or, for simplicity, P if and only if Q.[3] The technique, thus, allows us to reduce the question of whether Q is true to the question of whether P is true. I will call the proposition we begin with, which we are trying to evaluate (in the geometrical example: the area can be inscribed in the circle as a triangle), the 'original proposition'. The new proposition, which the original proposition is equivalent to, will be called the 'reduced proposition', since the question of whether the original proposition is true is reduced to question of whether this one is true.[4]

I argue that the technique does not do anything more than provide a biconditional between the original proposition to the reduced one; it does not involve provisionally accepting or rejecting either proposition. The technique is quite useful because it allows Socrates to map out logical space and show how Meno's original question (whether virtue is teachable) is equivalent to a question that Socrates thinks will be easier to answer (whether virtue is a type of knowledge). The reason Socrates would rather seek a definition is that the technique does not provide an answer to their central question, whether virtue is teachable; it simply shows that it is equivalent to another question. To acquire knowledge they will eventually need a definition of virtue and Socrates would like to go directly to this step.

My argument begins by examining why Socrates would rather seek a definition (section 1). This helps us understand the constraints that the technique works within. These constraints, in turn, help us understand why Socrates thinks the technique is useful for philosophers—in particular, how its biconditionals allow for progress without definitions (section 2). This leads to a discussion of why Socrates is justified in putting forward the biconditionals that the technique calls

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[1] Throughout translations are modified from Sharples 1985, except here, where the translation is modified from Menn 2002, 209.

[2] The best discussion of the mathematical practice is Menn 2002. Wolfsdorf 2008a/b goes into more detail defending the Cook-Wilson reading of this passage. I discuss the mathematics below in section 6.

[3] It is out of convenience that I use the phrase 'if and only if' or refer to 'biconditionals', but something is lost by formulating it this way. Socrates' more cumbersome phrasing makes clear that the two propositions are in an asymmetrical relationship: we evaluate one because doing so will give us the answer to the other.

[4] I am not using 'reduction' in the sense at issue in contemporary discussions of metaphysical reduction, where we might ask if the claim 'I am in pain' can be reduced to the claim 'I have c-fibers firing'. Rather, it is used simply in the logical sense of reducing the question of whether one claim is true to the question of whether another one is.

for (section 3). After completing this basic account of the technique, I examine Socrates' argument that virtue is knowledge (section 4). This comes directly after his initial application of the geometers' technique and is generally thought to involve a second application. I argue that it does not. Then, to further examine why the technique is useful, I show how it structures the remainder of the *Meno* (section 5). I end by explaining how the philosophical technique mirrors its geometrical analogue (section 6) and by examining a problematic sentence for my reading (section 7).

<div align="center">I</div>

At the beginning of the dialogue, Socrates says that to know if virtue is teachable, they need to know what it is (71a-b). He bases this on the general principle that you cannot know what something is like unless you know what it is. Following Fine 1992, let us call this PKW (Priority of Knowledge of What).[5] Meno proves unable to provide an acceptable definition. After Meno's paradox, the discussion with the slave-boy, and related arguments, Meno wants them to return to his initial question, whether virtue is teachable. Socrates introduces the geometers' technique to help them answer this question, but before doing so he reminds Meno of PKW while scolding Meno for trying to circumvent it (86d-e).

What sort of constraints does Socrates think that PKW places on inquiry? Taken on its own, PKW is a structural principle about how certain types of knowledge depend on other types. But Socrates treats it as going along with methodological constraints on the order of inquiry.[6] In the 86d-e passage just mentioned Socrates says that if he were in control they would search for what virtue is before investigating whether it is teachable. Note that this is a claim about the order of inquiry, not simply about how certain types of knowledge depend on others. A related methodological constraint is found at the beginning of the dialogue, when Meno asks how virtue is acquired. Meno does not ask for knowledge of this. But Socrates says that he cannot answer the question because of PKW. This response assumes that we should answer such questions with knowledge. Thus, Socrates thinks that in order to answer what virtue is like we must first know what it is. If he thought we could say whether virtue is teachable without knowledge, then PKW would be irrelevant to the discussion. Socrates never suggests that something other than knowledge might let them answer Meno's question.

We can put the issue in terms of what is needed for rational confidence in a claim. Socrates does not think we can be rationally confident in claims about

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[5] It is hard to see exactly why PKW is supposed to be true. The example Socrates gives—we cannot know whether Meno is handsome or wellborn unless we know who he is—does not obviously transfer over to the more general case of virtue. Should we take the example as a merely analogous case (as most commentators do) or as a case that is a literal application (e.g., as White 1976 and Burnyeat 1980 do, in rather different ways)? For my purposes, we need not settle this question.

[6] *pace* Menn 2002 and Benson 2003. They each claim, in different ways, that in the *Meno* the structure of knowledge does not parallel the method for acquiring it.

something unless we have knowledge; this is why he thinks we must acquire knowledge to answer Meno's question. Let us call his position strong PKW—not only can we not know what something is like unless we know what it is (as PKW says, taken on its own), we also cannot be rationally confident about what it is like unless we know what it is.[7] Without a definition of virtue we should not trust claims about whether it is teachable.

If Socrates did not accept strong PKW, he could have operated with a very different methodology for seeking knowledge. He could have first tried to gain rational confidence as to whether or not virtue is teachable, and then, as a second step, tried to work back to knowledge of what virtue is. Aristotle in the *Posterior Analytics* allows for this sort of approach.[8] He thinks that we can be confident in facts before we grasp why these facts are true and this allows for a quite different methodology for acquiring explanatory knowledge, one where we need not begin by determining the most fundamental facts. Socrates, on the other hand, thinks that we cannot be rationally confident in a claim without knowledge grounded in definitions. In the next section we will see how the biconditionals provided by geometers' technique allow Socrates to make progress within the strict methodological constraint of strong PKW.

II

We can now address my central question: why is this technique useful for a philosopher to engage in? Or, to put it slightly differently, what is the point of using it? There has been very little agreement about this. For example, according to Menn 2002, the point is to use biconditionals to work back to the foundational knowledge we are seeking and, in the process, to make this knowledge actual, instead of merely habitual and unrecollected.[9] According to Scott 2006, 129-145,

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[7] I do not mean that Socrates has terminology that corresponds to 'rational confidence'—in fact, he does not need such terminology since for him knowledge and rational confidence go together. Although not generally put in terms of what something is like (*poion*), we can see strong PKW throughout the Socratic dialogues (e.g., the opening of the *Euthyphro* and *Laches*, the end of the *Protagoras*): Socrates thinks they should acquire knowledge of definitions to answer the opening questions in these dialogues. One might claim that in the *Gorgias* Socrates thinks he can have rational confidence in claims despite lacking knowledge of a definition. In fact, I think the *Gorgias* is struggling with similar methodological issues as the *Meno* (how can we be confident in our claims despite lacking definitions) and provides a different solution. See section 8 below.

[8] While many features of Aristotle's account are controversial, this much comes uncontroversially out of *Posterior Analytics* ii 1-2. See, e.g., Charles 2000, 69-72 or McKirahan 1992. Of course, Aristotle's distinction and Socrates' (while related) are not the same: Aristotle's is between that and why, whereas Plato's is between what something is and what it is like. The point is this: Aristotle allows you to be confident of claims that are not at the explanatory foundation, whereas Socrates does not; nonetheless, both of them believe that knowledge requires grasping explanations. Note that neither are foundationalists in the contemporary sense of thinking that *justification* must start at a foundation; rather, they think that explanations must: the why (*dia ti*) question ultimately terminates in something, which is the foundation of our knowledge.

[9] Menn calls this account a speculation (209). He also says that it is not fully adequate, but he thinks this is because Plato's account is not fully adequate (219). I am hoping to show that Plato has

the point is that the ethical questions Socrates is interested in are too important for us to wait for knowledge, so we need a method that allows us provisionally to make claims about the nature of something despite not yet knowing what it is.[10] Benson 2003 includes elements found in the last two views: he thinks that the method provides us with a way to acquire knowledge, but in the end it is still provisional since it depends on the beliefs of the interlocutors. I will argue that the technique is not meant to stand alone. It provides us with non-provisional result we can be rationally confident of—namely, a biconditional—that would immediately extend our knowledge if we acquired definitions. On this account, the technique does not aim to do as much as on the other accounts, although what it does is extremely valuable.[11]

The two most common ways to interpret the technique are by investigating: (1) what the *hupothesis* is in the technique and why it is called a '*hupothesis*' and (2) the details of the geometry. No consensus has been reached on the first topic,[12] and, as for the second, I do not think the most likely reconstruction of the geometry provides enough information fully to understand the philosophical use of the technique. This should not be surprising, since it is not clear that Plato even expects us to understand the details of the geometrical example; they may be obscure because he does not think they matter for his purposes.[13] I will return to these topics in sections 6 and 7. I think the most likely reconstruction of the geometry supports my reading, but I will use it as confirmation rather than as primary evidence.

Instead, we will begin by examining how Socrates actually applies the technique. He puts forward the biconditional that virtue is knowledge if and only if it is teachable. After doing this, he argues that virtue is a type of knowledge. Since Cherniss' review in 1947 of Robinson 1953, the most common reading has been that the point of the geometers' technique is to use provisionally one claim (virtue is a type of knowledge) to support another (that it is teachable). But Socrates never says that he provisionally adopts the claim that virtue is a type of knowledge. Instead, he goes directly from the biconditional to trying to determine whether *or not* virtue is a type of knowledge, without apparently adopting

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an adequate account.

[10] Robinson 1953, 108, thinks it should be thought of as provisional, and moreover, approximate.

[11] It is not universally agreed that there is a point to using the technique. Seeskin 1987 argues that Socrates is ultimately criticizing geometers and we are supposed to conclude that the technique has no value to philosophers.

[12] The main question is whether the *hupothesis* is the biconditional itself or the reduced proposition. See Scott 2006, 138 and 220-221 for a list of which authors take which positions. Rose 1970 and Benson 2003, 112 argue that there are multiple *hupotheseis*. Benson alone seems to agree with me that the issue is a 'red herring' (112-113). The overall account I provide is, in a number of ways, similar to that in Wolfsdorf 2008a/b. One important difference is that he argues for his view through an account of what Plato means by '*hupothesis*'. While there are other differences, our views are similar in a number of ways and in many ways complement each other.

[13] For this idea, see, e.g., Sharples 1985, 158.

any new claim, provisionally or otherwise:

> Soc. Then we've quickly finished with this point; if it's of one
>   sort it's teachable, and if of another, not.
> Meno. Certainly.
> Soc. Then, it seems, we must consider what comes next,
>   whether virtue is knowledge or different from knowledge.
>   (87c)

The technique does not in any way stipulate, provisionally or otherwise, what outcome should be expected. He lists two possible options, both perfectly legitimate as far as the technique goes: either virtue is knowledge or it is different from knowledge. Note also that we are not finished once we have applied the technique. The technique comes along with a new task: to determine which option is correct.

It is sometimes claimed that Socrates proposes here what he proposes in the *Phaedo*, and so since that technique involves provisionally accepting one claim to support another, this one does as well (see, e.g., Scott 2006, 139-140). In the *Phaedo* (99d ff.) Socrates describes a process of hypothesizing a *logos* (account) that is at least provisionally accepted and not justified by some more basic *logos* (until the process is repeated, thus grounding the old *hupothesis* on a new, ungrounded one). The processes described in both dialogues are referred to in the secondary literature as the 'method of hypothesis', although the word 'method' is not used in either passage, nor is it clear that there is only one way to use a *hupothesis* to make philosophical progress. In the *Meno* Socrates says he is going to investigate from a *hupothesis*, as the geometers do; he gives a geometrical example that uses a biconditional to reduce one question to another and then does the same thing with the question of whether virtue is teachable. In the *Phaedo*, he describes a process of hypothesizing a *logos* in the context of doing natural science; in this process, one takes as true the things that harmonize with the hypothesis and as untrue those that do not. The simple use of the word '*hupothesis*' might suggest that the same process is described in both dialogues. However, Socrates' descriptions of the processes are importantly different. In the passage from the *Meno* above, Socrates' application does not involve the acceptance of any *logos*; he simply puts forward the biconditional and then goes on to investigate whether or not virtue is knowledge. By contrast, in the *Phaedo* Socrates is clear that one must hold onto the *logos* that seems best and take as true what harmonizes with it. And this is precisely what he goes on to do in the *Phaedo* with his claim that forms are causes. One reason I use the term 'geometers' technique' instead of 'method of hypothesis' is that the latter phrase is not used in the *Meno* and can suggest that a single method is described in both dialogues.

The other main reason that scholars think that the geometers' technique must involve something provisional is that Socrates says that he would rather pursue the question 'what is virtue?' than the question of whether virtue is teachable; he only pursues the latter because Meno wants them to. Thus, when Socrates turns to the question of whether virtue is teachable, it seems that he must think his

technique will not provide him with a definite answer—instead, it provides a merely provisional one. While I agree that Socrates does not think that the technique provides a definite answer to whether virtue is teachable or not, this is not because it provides us with something provisional. It does not provide us with an answer at all—that is not what the technique sets out to do. It simply sets up the biconditional and then asks us to evaluate the reduced proposition.[14]

If the technique does not provisionally answer the question we are interested in, why is it useful at all? To answer this, we need to consider the advantages of what it does provide, a biconditional. A biconditional between P and Q is advantageous precisely when we are not sure whether or not P or Q is true. If, for example, I know that P is false, then the conditional 'if P, then Q' is useless, but the conditional 'if not P, then not Q' may be useful. Biconditionals help us map out logical space, which is useful when we are not sure what is true. Because of strong PKW, Socrates cannot be rationally confident of whether or not virtue is teachable. The biconditionals allow him to map out the logical space without having this rational confidence. He would immediately learn interconnected facts if he were to learn whether or not a reduced proposition is true.[15]

What part of the logical space is useful to map out with biconditionals? In particular, what would make the reduced question (Is virtue knowledge? Does the area have the given property?) better than the original one (Is virtue teachable? Can the area be inscribed in a circle as a triangle?) that it is linked to? If it were not better in some way, there would be no point in engaging in the technique. Just as in the mathematical case, we would hope that the reduced proposition is easier to determine than the original one.[16] According to strong PKW, we cannot be confident about whether something is true until we know the appropriate definition. Thus, the method should bring us to something closer to the foundational truths found in definitions. How can the technique bring us closer to these foundational truths without bringing us all the way there? Just as certain mathematical theorems follow more directly from the axioms than others, so certain truths about virtue follow more directly from the definition of virtue than others. The hope is that the reduced question—whether or not virtue is knowledge—is closer

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[14] One might also think that the technique reaches a provisional conclusion because the ultimate results in the *Meno* are provisional (100b). This supposes that the provisional nature of the conclusion is due to the technique. I argue in section 5 instead that the provisional nature is due to other parts of Socrates' argument. In section 7 I argue against another reason to think that the technique involves provisional acceptance, based on how we read a key sentence in 87b.

[15] Someone who thinks the technique produces provisional results could accept much of what I say in this paragraph and the next. I do not mean this part of the story to be incompatible with the provisionalist's account; rather, I take myself already to have provided arguments against the provisionalist, and now I am explaining why the technique is valuable despite not providing provisional results. In this way, my account can be seen as strictly weaker than the provisionalist's: they could accept the benefits of my account; however, I do not accept theirs.

[16] In section 6 below, I argue that the philosophical application of the technique closely mirrors the method of analysis in ancient Greek geometry. With this method you can reduce one unknown question to another unknown question that you think will be easier to answer.

to the very nature of virtue than the original question—whether or not it is teachable. Of course, it is possible that we hope this and yet are wrong. Only in retrospect can we to tell for sure whether the reduction was truly useful.

The technique does not tell us how to learn what virtue is. It provides a biconditional; iterating the technique will simply provide another biconditional. This is why Socrates would rather start by seeking a definition. The geometers' technique, on its own, will not provide them with any knowledge. Eventually, Socrates and Meno will need to establish something at the foundation, so Socrates would rather they start there. But the alternative method that he provides is in no way deficient—it simply provides a different way of approaching the issue. If we have a string of biconditionals and determine whether a reduced proposition is true, there would be a domino effect that would allow us to know everything else that has been connected to it by biconditionals.

You can think of the technique as being top-down rather than bottom-up.[17] In a bottom-up approach, you would start at the foundation with an answer to the 'what is it?' question and then use this to answer questions, eventually building up to an answer to the question you are interested in. Socrates is suggesting, instead, that we start with the question we are interested in (whether virtue is teachable) and work our way down. But eventually we will need to stop providing biconditionals and argue for or against a reduced proposition.

It is useful to contrast this sort of top-down approach with Aristotle's. Aristotle thinks we can determine *that* something is true and use this to work our way down to *why* it is true. For example, using his methodology one might determine (say) that virtue is teachable and then work down to the claim that it is teachable because it is a type of knowledge. Socrates does not allow us to start out determining a fact, so we need to use biconditionals until we know the definitions.

We have seen why Socrates sets up this sort of biconditional. How do these benefits manifest themselves in the biconditional that Socrates actually provides: virtue is teachable if and only if it is knowledge? This biconditional provides us with useful information whether or not virtue turns out to be a type of knowledge. It also takes us from a claim that seems less fundamental, whether virtue is teachable, to one that seems more fundamental, whether or not it is a type of knowledge. And, as we will see in section 4, Socrates thinks he has a way to determine whether virtue is a type of knowledge and so the technique moves from a question that we do not know how to answer to one that Socrates thinks he can answer. Moreover, as we will see in section 5, this biconditional structures the last thirteen Stephanus pages of the dialogue, allowing them to keep track of their commitments. It lets Socrates lay out two arguments, clearly seeing why they are in tension with one another. He uses the biconditional to link claims that he does not think are grounded in knowledge. Thus, the results he ultimately reaches using the technique are provisional. However, this is not directly due to the tech-

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[17] This is to use the metaphor most natural in English, where understanding involves being grounded at the foundation and other claims are built on this foundation. In Greek, *epistêmê* generally involves being at the top and less fundamental claims are below it.

nique, but rather because of the arguments that Socrates uses along with the technique.

III

We have seen the point of the geometers' technique: to map out logical space, bring our questions closer to the fundamental truths that will answer them, and keep track of our commitments in arguments. But to complete an account of the technique, we still need to answer an important question, which has received little attention in the secondary literature: why think that the biconditional involved in the technique is true?[18] It would be unfortunate if it were not justified, since the biconditional seems to be a claim about what virtue is like (the sort of thing for which teachability and knowledge go together), yet we know from strong PKW that we cannot make such claims without knowing what virtue is.

To answer this, let us start with how Socrates applies the technique to the question of whether virtue is teachable:

> Socrates. Similarly then concerning virtue: since we don't know either what it is or what sort of thing it is, let's hypothesize and consider whether it is teachable or not, as follows: what sort of thing among those connected with the soul would virtue be, if it is to be teachable or not teachable? First, if it is different from or like knowledge, is it teachable or not—or, as we said just now, capable of being recollected; but let it make no difference to us which term we use—so, is it teachable? Or is this at least clear to everyone, that a man is taught nothing other than knowledge?
>
> Meno. I think so.
>
> Socrates. But if virtue is some sort of knowledge, it's clear that it will be teachable.
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> Meno. Of course.
>
> Socrates. Then we've quickly finished with this point: if it's of one sort it's teachable, and if of another, not. (87b-c)

How does Socrates justify the biconditional between virtue being knowledge and its being teachable without violating strong PKW? He connects teachability and knowledge independently of virtue. This is made clear by Socrates' question, 'Or is this at least clear to everyone, that a man is taught *nothing* other than knowledge?' (emphasis mine). Virtue is irrelevant to this connection. Once we realize this, we can see that Socrates was abstracting away from virtue two sentences earlier: 'what sort (*poion*) of thing among those connected with the soul would virtue be, if it is to be teachable or not teachable?' Socrates creates a link between sorts of things connected to the soul and whether or not something is teachable. Once he has made this independent link, he can ask which sort virtue is found in.

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[18] There is a short discussion in Benson 2003 and Wolfsdorf's reply. The fullest discussion is in Wolfsdorf 2008a/b. He does not frame the question in terms of how to avoid conflict with PKW.

Since Socrates' reasoning in this passage abstracts away from virtue, it is equally true that astrology is teachable if and only if it is a type of knowledge, basket weaving is teachable if and only if it is a type of knowledge, etc. The basic move Socrates is making—and I think it is really quite ingenious—is to look at the relation between various predicates that might hold of virtue. By doing this, we can learn a fair amount about the logical space that virtue inhabits without knowing anything about it. But, of course, we are not establishing any actual features of virtue. All the biconditional does is set up a structure that would provide us with knowledge if we knew whether or not the reduced proposition is true.

How can Socrates claim that something is knowledge if and only if it is teachable? He rhetorically asks Meno if one direction of the conditional is clear and then simply tells Meno that the other direction of the conditional is clear. Even if claiming this does not require knowing what virtue is, it still seems to require knowing something about knowledge and teaching and hence to conflict with Socrates' profession of ignorance. I think it is reasonable for Socrates to link teaching and knowledge. Many people, however, are so skeptical that they do not think that Socrates accepts his own claims that these conditionals are clear. The biconditional structures the rest of the dialogue, as we will see. Thus, if Socrates does not believe it, the last third of the dialogue is thrown into question. For these reasons, it is particularly important to understand why Socrates says that both conditionals are clear.

Let me begin by addressing one key reason people are skeptical: Socrates' earlier discussion with the slave boy is sometimes thought to complicate the connection between being knowledge and being teachable. But Socrates is clear in the previous passage (87b-c) that we are not supposed to concern ourselves with the discussion of recollection. When discussing whether virtue is teachable or not, he says 'or, as we said just now, capable of being recollected; but let it make no difference to us which term [teachable or capable of being recollected] we use'. Clearly Socrates thinks that the discussion of recollection is not relevant for their current purposes; he is using the term 'teachable' broadly here, so that it is interchangeable with being capable of being recollected.

Putting this to one side, there are other reasons to be concerned with both directions of the biconditional: it seems that you can teach some things that are not knowledge and that some knowledge cannot be taught. In response to the first concern, it is important to realize that Socrates describes more than just intellectual endeavors as knowledge. You can know who Meno is and how to get to Larissa—and crafts, of course, are also types of knowledge and are not purely intellectual.[19] Once we broaden our conception of knowledge, it is much more plausible that all teaching is of knowledge.

But can you not teach something that is less than full knowledge, such as true

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[19] This is not to deny that there are difficult issues in how to understand Socratic knowledge. One of them is how these more prosaic types of knowledge are compatible with the idea that knowledge requires grasping an account of a cause.

beliefs? While in some sense you certainly can, that is not relevant to whether everything teachable is a type of knowledge. For example, I can get you to have true beliefs of how to factor a quadratic equation, without giving you knowledge of this. But this does not mean that algebra is not a type of knowledge. If something is a type of knowledge, it is the sort of thing that can be systematically understood. Socrates' claim is that everything teachable has this sort of systematic coherence that allows it to be passed on to others.

Might there be topics about which there are only true beliefs, no knowledge? Near the end of the dialogue, Socrates entertains the possibility that virtue is such a topic. And he is quite clear that in this case virtue would not be teachable (99e-100a). He treats this as equivalent to not being able to pass it on to someone else. Socrates most likely thinks that in this scenario there would be no systematic connections between the facts that would allow them to be conveyed as a whole. Getting someone to believe some scattered true beliefs about virtue will not amount to teaching them virtue.

What about the other conditional, from knowledge to teachable? There are things that do not seem easily teachable, like knowing the way to Larissa. It might seem that you can only know this through experience; Socrates suggests that to know the way to Larissa you need to have gone there. But there is no reason to restrict ourselves to a narrow conception of teaching. Just as teaching someone to swim requires getting in the water, teaching someone the way to Larissa may involve going to Larissa. The point is that without a restrictive conception of teaching or of knowledge, these conditionals are not particularly problematic.[20]

Given the way that the biconditional structures the rest of the dialogue and given that we can understand the link between knowledge and teaching in a way that makes it unproblematic, we should accept that Socrates is sincere when he says that both conditionals are clear. And so we return to the question of why he would think himself justified in asserting this.

I think the most plausible explanation is that Socrates thinks it is clear because it is something like a trivial, analytic, or self-evident claim.[21] When he talks about teaching, he simply means getting someone to acquire knowledge. Knowledge is precisely the sort of thing that can be brought about in another person (whether by triggering recollection, by transmitting accounts, or in some other way) in a process we call teaching.[22] Hence something is teachable if and only if it is a type of knowledge. This is why he says that both directions of the conditional are clear. One might describe these as analytic or self-evident because they are supposed to be clear on their face, not because of anything more than the

[20] Similarly, if we have a restrictive conception of teaching and of knowledge, these conditionals need not be problematic. The problems occur if you have a restrictive conception of one of them, and a permissive conception of the other.

[21] These are called self-evident in Wolfsdorf 2008a/b and analytic in Wolfsdorf 2003. Wolfsdorf 2008a/b also calls these cognitively secure.

[22] See 100a for the assumption that if you have knowledge, then you can transmit it.

basic meanings of the words. But Socrates is not operating with a theory of meaning that would underwrite such a claim to analyticity, nor does he have an account of what it means for something to be self-evident. The intuition under-writing the claims is this: certain features of knowledge and teaching are so clear that if you were to deny them, you would no longer be talking about knowledge and teaching.

This is the sort of fairly trivial claim that Socrates is comfortable making but that does not seem to him to constitute real knowledge—supposedly because it does not tell us because of (*dia*) what. To have such knowledge typically requires a much better understanding than ordinary people have. The basic idea of these claims is that someone could be confident of certain basic facts without having explanatory knowledge.[23] Because it does not constitute genuine knowledge, it does not violate PKW to grasp that if virtue is teachable, then it is knowledge. At the same time, because it is something that is self-evident or analytic, it is not a result we hold onto provisionally; rather, we can be confident in these sorts of facts.[24] In asking what teaching is, we can be understood as asking how we bring about knowledge in others.

It is not unusual for Plato scholars to appeal to such claims, often calling them analytic, but these claims are rarely studied directly. They are sometimes brought up to explain how Socrates can confidently make claims despite his profession of ignorance.[25] Probably one reason these sorts of claims have not received much attention is that Socrates does not tell us why he is justified in making them; he simply makes them and acts as if, in making such claims, he is not at odds with his profession of ignorance or with strong PKW. Socrates says they are clear, but nowhere does he tell us why or how they are clear. This might stem from Socrates' main interests. In the Socratic dialogues, he is primarily interested in how we live, not in epistemological matters. The *Meno* directly discusses episte-mological questions (perhaps for the first time), but well within an ethical con-text. Meno's paradox is not restricted to ethical knowledge, but it arises from a context where we are trying to learn what virtue is. The distinction between knowledge and true belief arises as a way to explain what is wrong with Socrates' argument that virtue is a type of knowledge. Plato may not have had Socrates give an account of these clear claims because Plato's (or Socrates') interests did not turn on how we understood them.

This completes my basic account of the philosophers' use of the geometers' technique. It involves setting up a biconditional between two propositions (in this

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[23] Wolfsdorf 2008a/b has a very similar description of what he calls 'cognitively secure' propo-sitions (see esp. 2008a, 41).

[24] Does this mean, then, that strong PKW is false, because we can be rationally confident of what something is like without knowledge? I do not think Socrates would see it this way, because I doubt he would think of 'being the sort of thing for which knowledge and teachability go together' as what something is like (*poion*). The things that fall into this category, for Socrates, seem to be important features of a thing, whereas this is a trivial feature that need not be grounded in explanatory knowl-edge.

[25] E.g., one of the longer discussion of this is in Reeve 1989, section I.8 (especially p. 51).

case: virtue is knowledge and virtue is teachable) without relying on knowledge of the thing in the subject position of these propositions (virtue)—since we do not have knowledge of this—and instead relying on obvious truths about what is in the predicate position (knowledge and teachable). Once this biconditional is established, the technique invites us to determine whether or not the reduced proposition is true. The goal in applying the method is to get closer to foundational definitions, because only these allow us to be confident about whether the original proposition is true. By using biconditionals, rather than simple conditionals, we are able to reduce completely one question to another, so we can devote our attention entirely to the new question. These biconditionals are not held merely provisionally, nor are they simply grounded on unjustified beliefs. At the same time, they are not the foundational knowledge that would allow us to determine whether virtue truly is teachable.

<div align="center">IV</div>

Now that we have this account of the geometers' technique, let us consider how it relates to the argument that virtue is knowledge. Socrates turns to this argument immediately after he sets up the biconditional between virtue's being knowledge and its being teachable. Since Cherniss 1947, the most common view has been that this argument involves a second application of the geometers' technique. I will argue that this is incorrect.

The argument begins as follows:

> Socrates: Well then, we say that it is good, don't we, I mean
>   virtue; and this *hupothesis* remains for us, that it is good?
> Meno: Certainly.
> Socrates: Then, if there is anything else that is good, separate
>   from knowledge, perhaps virtue might not be some sort of
>   knowledge; but if there is nothing good that is not com-
>   prised in knowledge, we would be right to suspect that it is
>   some sort of knowledge.
> Meno: That is so.
> Socrates: And it is by virtue that we are good. (87d-e)

The argument continues for slightly more than a Stephanus page, but this is the most relevant part for deciding whether this is, in fact, an application of the geometers' technique. It is a natural suggestion since Socrates calls the claim that virtue is good a '*hupothesis*'. But it cannot be right, given the generally agreed-upon account of the basic mechanics of the technique. Recall that the technique tells us that the original proposition is true if and only if the reduced one is. As we will see, there is not any such biconditional in the text, so this *hupothesis* is not connected to the logical structure of the method. According to Cherniss' interpretation, accepted by most (e.g., Robinson 1953, Menn 2002, Benson 2003, and Scott 2006), we are trying to re-apply the technique to the previous result of the method, and so we are linking the claim that virtue is good to the claim that it is knowledge. First we reduced *virtue is teachable* to *virtue is knowledge* and

now we are reducing *virtue is knowledge* to *virtue is good*. The question, then, is whether virtue is knowledge if and only if it is good.[26] I will argue that Socrates does not claim this at all; he only argues for a conditional in one direction: if nothing is good except knowledge, then virtue is a type of knowledge.

It may seem that in the above passage Socrates asserts a biconditional after laying down the *hupothesis* that virtue is good:

> Then, if there is anything else that is good, separate from knowledge, perhaps virtue might not be some sort of knowledge; but if there is nothing good that is not comprised in knowledge, we would be right to suspect that it is some sort of knowledge. (87d)

The problem is that there is not a biconditional here. Socrates indicates this with his 'perhaps' (*tacha*)—'if there is anything else that is good, separate from knowledge, *perhaps* virtue might not be some sort of knowledge', which contrasts with his claim that on the other alternative we would be 'right' (*orthos*) to suppose that virtue is some sort of knowledge. Socrates is saying that we will not be able to draw any particular conclusion if anything is good separate from knowledge, but we can draw a conclusion if nothing is good except knowledge. Moreover, Socrates would not be justified in asserting the biconditional; this is why he says 'perhaps'. He starts from the fact that virtue is good, which only underwrites one conditional (if nothing is good except knowledge, then virtue is a type of knowledge). In order to underwrite the other conditional (if virtue is a type of knowledge, then nothing is good except knowledge), they would need the claim that virtue is the only good, a claim that Socrates does not make.

As mentioned earlier, biconditionals are informative regardless of whether the reduced proposition is true. And so they are useful when arguing from the top down, because in such cases we do not know whether the reduced proposition is true. But biconditionals only do so much; at a certain point you need to directly argue for or against a reduced proposition. That is what Socrates is doing here: he is arguing that virtue is a type of knowledge. He does this by arguing (in the passage that follows) that nothing is good except knowledge and by arguing (here) for the conditional: if nothing is good except knowledge, then (since virtue is good) virtue is a type of knowledge. He does not assert or argue for a full biconditional because there is no reason for him to do so, given his argumentative strategy.

Benson 2003, 117 is to my knowledge alone in arguing that there is a biconditional here; he says that Socrates 'repeatedly claims both that when "something

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[26] Wolfsdorf 2008a, 60-61 argues that there is an application of the geometers' technique in this argument, but not the application Cherniss points to. He thinks that Socrates reduces the question of whether virtue is a type of knowledge to the question of whether knowledge is the only good. For Wolfsdorf, once Socrates applies the technique a second time, he stops using the geometers' technique and directly argues that knowledge is the only good using standard Socratic argumentative techniques. The problem, as I explain after this footnote, is that the key passage does not involve a complete reduction and Socrates has no reason to do such a reduction.

in the soul" is associated with knowledge it is good, and that when it is not associated with knowledge it is not good'. On this view, virtue is associated with knowledge if and only if it is good. Benson points to evidence that the person with wisdom (*phronêsis*) or intelligence (*nous*) is guided to benefit. Socrates says that one is harmed if, instead, one's actions are guided without knowledge, without intelligence, or by folly (*aphrosunê*). The question, then, is whether we should understand wisdom or intelligence as the same as knowledge (*epistêmê*), as Benson needs to claim that if something in the soul is associated with knowledge, then it is good. However, this does not seem to be something Socrates would or should believe. He frequently points out that most types of knowledge *do not* consistently lead to benefit. The doctor does not know who is better off not healed (*Laches* 195c-d); the helmsman does not know who he has benefited and who he has harmed by providing safe journey (*Gorgias* 511c-513c); craftsmen think they have important knowledge when they do not (*Apology* 22c-e). Crafts each aim at some good, but it is not necessarily good all things considered. Crafts can be used or misused—it is only when guided by wisdom that they consistently benefit us.[27] Thus Socrates should not say that all knowledge is beneficial, only a type of knowledge about how to live our lives. For his argument, Socrates does not actually claim or need to claim that *all* knowledge is good, he only needs to argue that nothing is good except knowledge, and so the most reasonable reading is that Socrates does not merely fail to mention a biconditional, he also does not intend one.[28] Thus, we do not have an application of the geometers' technique.

On my reading, in this argument Socrates is using the word '*hupothesis*' in its fairly normal sense as 'starting point' and saying that they are laying it down as a starting point that virtue is good (see Robinson 1953, ch. 7). While I have stayed neutral on the meaning of '*hupothesis*' in the geometers' technique, it likely means the same thing there (see section 6 below). But this does not mean that the same technique is applied both places. The geometers' technique involves more than simply having a *hupothesis*; it involves setting up a biconditional and then investigating whether or not the reduced proposition is true, which does not happen here.[29]

<div align="center">V</div>

The geometers' technique is brought in because Socrates and Meno are in *apo-*

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[27] For a fuller discussion of these issues, see Burnyeat 1980.

[28] Perhaps Socrates could have argued that virtue is good if and only if it is wisdom, but then he could not have connected this to his claim that virtue is knowledge if and only if it is teachable. At some point we will not have a biconditional because knowledge is broader than wisdom.

[29] In fact, Socrates says something different about the *hupothesis* here from what he said in the geometry case. Here he says that the *hupothesis* remains (*menein*) for us. It is hard to know what this means, but one possibility is that this contrasts with the geometry case: in the geometry case, we do not know whether the reduced proposition is true or not, but here this fundamental claim remains for us. As Ron Polansky pointed out to me, Socrates may also be punning on Meno's name. For more on *hupothesis*, see section 7, below.

ria about whether virtue is teachable. It provides them with a way to be in *aporia* in a clear and careful way and then make progress from this state. The technique establishes a biconditional before arguing about whether or not virtue is teachable, allowing Plato to frame the last thirteen Stephanus pages of the dialogue around this. First Socrates argues that virtue is knowledge, and hence teachable. Then he argues that virtue is not teachable and hence not knowledge. By highlighting the structure of the argument, Socrates is able to pinpoint where the problem is: is it the claim that virtue is knowledge, or the claim that virtue is not teachable? Socrates argues that the problem is with the argument that virtue is knowledge; that was based on a mistaken assumption that only knowledge can guide us correctly, when, in fact, true belief can do so as well. Socrates has also argued that virtue does not come to us by nature (89b). Thus, he develops an account on which virtue is based on true belief, yet is not knowledge, not teachable, nor does it come to us by nature. How is this possible? It is difficult to see how such a thing could happen. Socrates claims that these true beliefs are a gift from the gods—an ingenious escape from a truly difficult bind.

Commentators often find it hard to believe that Socrates really thinks that virtue is grounded in true belief, unteachable, and a gift from the gods. Sometimes they say that Socrates' position is that there are two types of virtue—a lesser virtue based on true belief and a greater one based on knowledge (see, e.g., Fine 2004 and Scott 2006). Yet this is not his position. He says that virtue will be based on true belief *unless* (contrary to what he has argued for so far) someone is able make another person have virtue (100a). If that is the case, then that person will have knowledge and have virtue—and someone who merely had something based on true beliefs would not.[30] It is only if there is no such person that virtue is based on true belief. Another common temptation is to interpret Socrates as being ironic or in some other way deceptive when he argues that that virtue is a gift from the gods. We are supposed to see this proposal as obviously ridiculous and a *reductio* of some sort. I think we should be careful before dismissing Socrates' claims in this way.

My account of the purpose of the geometers' technique allows for a different interpretation. One of the technique's strengths is that it allows us to explore logical space and keep track of our commitments in a way that is not possible if we are forced to always answer 'what is it?' questions before discussing anything else. Socrates, near the end of the dialogue (99e-100a), explicitly flags that his discussion here is premised on his earlier arguments being correct. *If* he is right that virtue is not teachable and so not a type of knowledge and *if* he is right that virtue does not come to us by nature, *then* it will be something that we acquire from the gods. The technique has allowed him to explore a line of reasoning while keeping track of his commitments.

Notice that Socrates here does not blame the technique for the provisional

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[30] I suspect the assumption here is that virtue is the best possible state of the soul. If we can have the relevant knowledge, then that will be the best possible state. If not, the best available will be one based on true beliefs.

nature of the conclusion. Instead, he squarely puts the responsibility on the arguments that virtue is not teachable and not by nature. Socrates never questions the biconditional that was a result of the technique. As long as the technique has been properly applied the biconditional could be used in an airtight argument. But the arguments against virtue being acquired by nature and against its being teachable are not airtight. So, provisional in, provisional out. The biconditional has been used in such a way that the ultimate conclusion of the dialogue might be wrong. On the one hand, Socrates thinks that virtue is a type of knowledge, without having fully compelling arguments for this view. On the other hand, he is seriously worried that it is not teachable. Socrates creates a framework for exploring this tension and trying to resolve it. This ability to explore an argument about what something is like while keeping track of your commitments is hugely liberating compared to the methodology of the definitional dialogues. The technique allows him to come up with a positive proposal about how to resolve this tension, unlike the *Protagoras*, which highlights the same tension (361a-c) but ends in *aporia*. Socrates' approach does all of this without abandoning the thought that ultimately knowledge must be grounded in definitions. Socrates has retained his foundationalism about explanatory knowledge while increasing the number of tools available to the philosopher—significant progress.

VI

Having provided an account of the technique and examined why it is useful, I will end by arguing that the most likely interpretation of the mathematics confirms my account, and by considering a problematic sentence whose interpretation depends on what Socrates means by '*hupothesis*'.

Regardless of whether Plato intended us to understand the mathematical details, you might hope that they could provide clues about the point of the technique. Menn 2002 has done the best job explaining the geometrical technique Socrates describes; Wolfsdorf 2008a/b has since followed his account.[31] Menn argues that the method is an example of the Greek method of analysis, which was an ancient method for discovering mathematical proofs. In the simplest case of analysis and synthesis, a mathematician who wants to find a proof for P first shows (analysis) that if the unknown claim, P, is true, then so is a known one, Q, and then shows (synthesis) that if the known claim, Q, is true, so is the unknown one, P. Analysis involves establishing a string of conditionals leading to some known proposition; the hope, then, is to perform synthesis and reverse these conditionals, thus providing a proof for the (previously) unknown claim.[32] Analysis can also be used to reach something known to be false, in which case the mathematician will learn that the claim he started with is false (i.e., she will have a

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[31] Wolfsdorf defends the Cook-Wilson reading of the passage in much greater detail than Menn.

[32] This is not quite accurate, for reasons Menn 2002, 199-204 explains, but the complexities are not relevant to the application to philosophy. In fact, if Menn is right, people were bad at explaining what they were doing when they were doing analysis. It is quite plausible that Socrates would be basing the philosophical technique on the common conception of analysis rather than its actual practice.

reductio proof). And analysis is not always done on what we call a proposition; sometimes, it is done on a geometrical construction problem. In those cases, one starts out assuming that the construction is possible, then works to something known to be constructible (analysis), and finally tries to reverse the process to construct the desired object (synthesis).

Sometimes Greek mathematicians were unable to reduce the desired object to something known to be constructible, so instead of reducing an unknown to a known, they reduced one unknown to another unknown that they thought would be easier to construct. It is this latter process that Socrates describes in the passage: the process of reducing one problem to another without making any claim as to whether the reduced problem is possible or not. Socrates describes the geometers as merely setting up a biconditional, not as reducing an unknown claim to a known one.

The apparent disanalogy between the mathematical case and the philosophical one is that the Greek mathematicians were trying to reduce unknown claims to known ones, but Socrates is applying their technique before he knows anything about virtue. How, then, could Socrates use their technique? Menn thinks that Socrates is altering it, turning it into a technique for acquiring knowledge of definitions. On my reading, Socrates is not altering the technique. He is using it just as the mathematicians do when they reduce an unknown claim to another unknown claim that they think will be easier to discern. The philosopher's technique does not provide us with knowledge of a definition so there is no reason to think it is modified in this way.[33] If the technique were meant to stand on its own, it would need to provide us with this knowledge. But Socrates thinks of it as a tool that must, eventually, be supplemented with further argumentation.

Notice that when a mathematician provides her proof, assuming she does a good job, the result is in no way provisional, approximate, or uncertain: it is absolutely the case that if the area of the figure has some property, then it can be inscribed in a circle in such a way, and if not, not. Once the mathematician has done this, she still does not know whether the area can be inscribed in a circle. What she knows is that if she could determine whether the area has the property, then she would know whether it could be inscribed. How is the mathematician supposed to determine whether the area has the property? This technique does not dictate any particular method—and this is part of what makes the method powerful. Any legitimate method of proof is acceptable. While it might seem nice for the mathematician if she were told how to argue for this, it would only artificially limit her options. Socrates intends to provide the same flexible tool to philosophers. The main difference is that the philosophers do not have all of the axioms and theorems of mathematics at their disposal for establishing the biconditionals. Instead, they will need to rely on obvious claims to link the predicates.

There are a couple of problems that might arise when a geometer tries to use

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[33] My view here is the same as Wolfsdorf 2008a/b, although he does not highlight the differences with Menn 2002.

the technique. She might successfully prove that one question is reducible to another, but it might turn out that this is not useful because it is harder to prove this new proposition than the original one. Although a geometer can prove that one question is equivalent to another, there is no mechanical way to tell whether the reduced proposition is easier to prove. Similarly, the philosopher might perform a reduction, which, it turns out, does not bring her closer to the foundational truths. Another problem that might arise for a geometer is she might simply make a mistake in applying the technique and claim to have proven a biconditional when in fact she has not. That does not mean that the technique provides provisional results, just that people are fallible and so the technique can be misapplied. Similarly, it is possible for Socrates (or anyone else) to misapply the philosophers' version of the geometers' technique. Although it might seem obvious that nothing is taught other than knowledge and that knowledge can always be taught, perhaps Socrates is wrong about that. My goal is to understand the technique, not to argue that he applies it successfully.

VII

By not focusing on Socrates' use of the words '*hupothesis*' and '*hupothemenos*' (hypothesizing), I have avoided a difficult sentence for my interpretation. The sentence follows Socrates' example of the geometers' technique. He says, in the voice of the geometer, 'Having hypothesized (*hupothemenos*), then, I am willing to tell you what follows about inscribing [the area] in the circle, whether it is impossible or not' (87a-b). Socrates here seems to be saying that as soon as a geometer does what Socrates has just described—setting up a biconditional—he is willing to tell you whether or not the area can be inscribed in the circle as a triangle (call this claim 'T'). But it is not at all clear why simply setting up the biconditional would justify taking a stand on T. So this sentence seems to support a reading according to which the technique involves provisionally accepting that the original area has some property (call this claim 'P') that allows you to determine T.[34]

First let us consider the many ways in which this sentence, read in this straightforward way, is at odds with the surrounding text. On this reading, when Socrates says 'having hypothesized' he means the process he has just described the geometers as engaged in, and he is saying that once he engages in that process, he will be able to tell us whether T is correct. But the process he just described does not warrant providing an answer to whether T is true; that process just tells us that 'if the area is such that… (P), one thing seems to me to follow, but another if it is impossible for this to happen (not P)' (87a). When someone engages in this process, there is no reason for him to provide any sort of answer to whether or not T is true. This reading is also at odds with the sentence that follows it: 'hypothesizing, let us consider whether it is teachable or not, as follows: what sort of thing among those connected with the soul would virtue be, to make it teachable or not

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[34] For example, Seeskin 1987, 31 reads it this way.

teachable?' (87b). Here hypothesizing is involved in setting up the biconditional, not with accepting or denying one of the component propositions linked by the biconditional. A third problem is that Socrates does *not* go on to tell us what the result is once he has set up his own biconditional (that virtue is teachable if and only if it is knowledge). Instead, he moves directly to determining whether or not virtue is teachable. Thus the sentence, read in this straightforward way, is at odds with how he describes the geometers using the technique, at odds with how he says he will use the technique, and at odds with how he uses it.

Let us consider two other ways we can interpret this sentence. One of them involves interpreting what Socrates means by 'hypothesizing', regarding which I have tried to stay neutral.

First, let me avoid taking a stand on what 'hypothesizing' means. Perhaps when Socrates says 'Having hypothesized (*hupothemenos*), then, I am willing to tell you what follows about inscribing [the area] in the circle [T], whether it is impossible or not', in this last phrase he is *not* saying 'I am willing to tell you…the result concerning T, i.e., whether T is impossible or not.' Instead, rearranging the words for clarity, he is saying that, 'whether P is impossible or not, I am willing to tell you the result concerning T'. On this reading, 'whether it is impossible or not' is *not* governed by 'I am willing' and the 'it' whose possibility is at issue is P, not T. How could somebody tell you whether T is true regardless of whether or not P is impossible? The only way to do this would be to conditionalize one's answer, i.e., to say that *if* P is true, T is true, and if P is not true, T is not true. While this is a possible reading of the Greek, it might seem strained to some.

So how might we understand 'hypothesizing'? It might be that it is the process of assuming some proposition as the basis of your reasoning. If so, starting from a *hupothesis* would be starting from an assumption regardless of whether you believe that this assumption is true. We suppose it is true, and see what results. As we have seen, in employing the geometers' technique we consider both the options that virtue is knowledge and that it is not knowledge, and we see what results in either case. In our problematic sentence, then, Socrates is saying that if we suppose that P is true, then he is willing to tell us the result about T, i.e., whether T is impossible or not.

The difficulty with this interpretation is that it conflicts with some important work on the meaning of the Greek word '*hupothesis*' in Plato. According to much of the work on '*hupothesis*', a *hupothesis* is something that one actually believes, not merely entertains, unlike the English word 'hypothesis'. According to Robinson 1953, still probably the best examination of the topic, a *hupothesis* is a tentatively held starting point to reasoning. The verb *tithêmi*, from which the word is built, can mean merely to posit, but Robinson 1953, 95 tells us that *hupothesis* 'is a relatively permanent and solid part of thinking or discourse, for it determines the framework of the whole'. Yet Robinson 1953, 96 also emphasizes that the word in fact has a fair amount of variety in how it is used, and that in a few rare instances Plato talks about hypothesizing things that are known to be

false. The key point, according to Robinson, is that a *hupothesis* is the starting point of reasoning. The reading of *hupothesis* I suggested meets this key criterion: in hypothesizing something, we are laying it down as a starting point (e.g., laying down P, that the area has the given property), and then seeing what follows from this. On this reading, we are not committing ourselves to the truth of what we lay down. But I do not think this is a decisive problem since, as Robinson himself admits, Plato's use sometimes does not allow for such a commitment.[35]

Thus, there are plausible ways to read this sentence that do not conflict with my account. The weight of evidence suggests that Socrates is unwilling to commit to a result about T simply on the basis of having employed the technique.

VIII

I have argued that Socrates introduces the geometers' technique as a way for philosophers to make progress without definitions. I would like to conclude by asking why Plato introduces philosophical methods, such as the geometers' technique. We might take these methods primarily as concrete practical advice: here is how you should be doing philosophy. I think this is the wrong way to understand them. Instead, let me suggest another possibility: Plato is concerned with the possibility of doing philosophy and the different possible ways of doing it. He wants to show how we can do philosophy given the theoretical constraints that come from his epistemological and methodological beliefs. His main reason for providing techniques is not because of their practical utility. Thus, we should not be surprised if Socrates does not use this geometers' technique outside of the *Meno*. The *Meno* has expanded the realm of possibility already; when Plato turns to another dialogue, he would just as soon expand it again.[36]

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[35] Wolfsdorf has recently argued that a *hupothesis* in the *Meno* must be a proposed principle that we grasp in a cognitively secure way. I do not share his confidence that Plato could not here use *hupothesis* to refer to something merely supposed. In the *Phaedo* and the *Parmenides* a *hupothesis* need not be cognitively secure, as Wolfsdorf 2008b, 194 admits. Moreover, many of the examples that Wolfsdorf cites from earlier Greek literature do not involve cognitive security. But if he is correct, then he will need to take something like my first reading of the problematic sentence, since he agrees that Socrates does not provisionally accept either the original or the reduced proposition. Wolfsdorf does not provide an interpretation of the sentence in 2003 or 2008a/b.

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