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To my parents,

Tali Elon and Yossi Ben Asher

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Figure 1. *Socrates' Final Diagram*, p. 53

Introduction:

Forms as Powerful Qualities in the *Meno* and the *Phaedo*

It is widely believed, although less often stated, that the theory of forms is born out of Socrates' pursuit of definition, which is, in the first place, ontologically neutral. This means that when Socrates poses the question, "what is temperance?" in the *Charmides*, for example, he does so without a determinate conception of the ontological category to which temperance belongs, namely, the category of quality. This dissertation approaches the topics of Platonic forms with a new question. I am asking whether Plato's Socrates is indeed ontologically neutral in the sense that I have just specified. Does he, or does he not, have a general conception of the kind of thing that he is asking about when he embarks on these investigations? If he does, in what way, if at all, does it inform his approach to definition?

I answer both of these questions affirmatively, which leads me to a new interpretation of the theory of forms in the *Meno* and the *Phaedo*. What looks to many like a metaphysical innovation in these dialogues, namely, the positing of transcendent causes or explanations of sensible beings, emerges on my reading as an increasingly pronounced commitment to an ontology of powerful qualities that is already in play in earlier texts. I will focus especially on the *Protagoras*, *Gorgias*, *Laches*, and *Charmides*. In these dialogues, Socrates often distinguishes and asks interlocutors to define qualities in terms of their *dunamis*. Scholars have noted this tendency; however, they have not attended to the potential ontological significance of this type of request.

Drawing on contemporary metaphysics of powers, I suggest that Socrates' conceptions of qualities is as essentially powerful. This means that qualities shape the dispositionality of their possessors, so that being qualified in a certain way means that one is ready and able to "act" thusly under specifiable conditions. Because this is a claim about the nature of qualities in general, any

active way of being is an “act” for our purposes, rather than something narrower, like deliberate actions or physical motions. In some cases, the powerfulness of Plato’s qualities is explicit and plays an important role in the discussion. I offer arguments for widening the scope of this ontology to include any genuine quality. I argue, then, that Plato’s Socrates conceives of what most contemporary philosophers would think of as inert objects, which exemplify properties, as dynamic complexes of agents with their powers.

While this may sound overly technical, or too “futuristic” to attribute to Socrates, I argue that this dynamic ontology emerges organically in a context where speakers are already inclined to think of natural things as powerful. Nor am I ascribing to Socrates a “bundle” theory of qualified beings, but rather an agential conception of objects, with human beings as the central case, especially for Socrates in the early dialogues. Furthermore, by treating the predominant use of and concern with *dunameis*, henceforth powers, as a central ontological topic in the dialogues, I am able to offer an interpretation of the concept of *parousia* (“presence”—see esp. *Lysis* 217c–e). For a quality to be present in something is for that thing to be able to manifest the power of that quality. This reading gathers the modal, instrumental, and locative significance of the Greek verb *pareinai*, from which *parousia* is derived, into a single concept, while other commentators either leave it uninterpreted, or gloss it with terms of art like *exemplification*, which does not fit as well.

I make the case that the *Meno* should be read in light of this earlier ontology, rather than as a harbinger of a new stage of metaphysical and epistemological speculation. Rather than thinking that the “form of virtue” is something that explains or causes things to *have* virtue, I argue that it *is* virtue, conceived just in itself, as the powerful quality which it happens to be.

By bringing the ontology of *dunamis* to bear on the *Meno*, I am able to offer an intuitive interpretation of the causal significance of the target object in this dialogue. Socrates instructs

Meno to “look at” and state the thing whereby everything virtuous is so (72a–72c). I interpret this as a request to state the quality that contributes, above all, to human happiness. This leads to a new unified reading of the ethical and the epistemological themes in this dialogue, against a dominant tendency to deal with each separately. Even though Socrates asks Meno, early in the dialogue, for a “form,” the content of the conversation, with the ontological background I provide, suggests that *eidos* is technical jargon that Socrates begins to use for powerful qualities when they become a topic of inquiry. In general, interlocutors are expected to state the powerfulness of what they are asked about: what active states the possessors of the quality are in, or are able to go into, owing to being thus qualified.

This insight about forms sheds light on a variety of thorny issues in Platonic epistemology in the early period, especially in the *Meno*. On the proposed reading, the exercise of a power makes the quality available, in principle, for knowledge, both locally, in specific cases, and in general through philosophical analysis. Platonic powers relate to their exercises, not as cause and effect, which are two distinct events, each with its own identity conditions; rather, they are the same thing, with the same identity conditions, active or inactive as the case may be. This gives me resources to articulate an alternative to the orthodox position, on which the topic of Socratic investigations is not available in everyday experience. Nevertheless, the striking thing is that Socrates seems to think that knowledge of distinctively human powers presupposes having the power in question, however much it is inhibited or idle.

This raises, for me, a question about the status of the recollection thesis in the *Meno*. If powers, indeed, lend themselves to examination and analysis, as I suggest, why do we need the promise of knowledge from a prior life? I shall assume, as well as offer proofs, that this thesis should not be taken literally; instead, we should see it as a metaphor for the philosophical pursuit of the forms,

on the one hand. On the other hand, it is a statement of the nature of human beings as able and disposed towards knowledge.

I develop this line of thought over the course of the first two chapters of my dissertation. In Chapter One, “Plato’s Powerful Qualities and their Epistemological Bearings,” I make the case that Plato is working with a powerful conception of qualities in the early period, and I theorize about what this means for his conception of qualified objects. Platonic qualities qualify their possessors by contributing to their dispositionality, rather than merely being true in their case or obtaining, as readers usually assume. I then apply the resources I develop in this first ontological discussion to a series of related epistemological topics.

The first is an assertion, which recurs in many places in the dialogues, according to which it is not possible to know facts about people that we haven’t met or seen. This sort of claim is usually read only as a (more or less) revealing analogy for what knowledge of forms consists in. I take these claims seriously in their own right and ask why Socrates believes them. My proposed answer is that his powerful ontology begs a distinction between having some fact in view (self-evidently) and taking it on trust. That is because he conceptualizes what we think of as inert “objects” which “exemplify” abstract universals as dynamic complexes of agents with their powers. He analyzes such complexes into “atomic” units—e.g., the presence of beauty in Meno. Unlike modern-day “states of affairs” or “propositions” which either obtain or not, but cannot themselves, in any conceivable sense, be apparent, I argue that Plato’s atomic situations are made apparent through the agency of the qualified object itself. For him, the ontological manifestation of a power, namely, its exercise or activity, is also what makes it available for knowledge. This makes it natural for Socrates to distinguish the veridical representation of a given situation from having it self-evidently in view. I thus read the analogy between Meno and virtue (*Meno*. 71b), as stating that

truths about them cannot be known, according to Socrates, without having these items in view. Socrates puts this forward, early in the conversation, as a general epistemic norm, whether doxastically or expertly, namely, that we should find out how things are disposed from them, by engaging with them in the relevant way, rather than by getting it from someone else.

The final part of the chapter explores the difference between true *doxa* and *episteme*, as well as the transition from the former to the latter, which Socrates calls recollection (98a). Socrates says that true opinions become pieces of knowledge by causal reasoning, and that this has a stabilizing effect on them. It is often argued that Plato is committed to a proto-Aristotelian conception of knowledge which says that we only know that *p* if we know the explanation for *p*. I criticize this view. One of my objections, which is central to the alternative I develop, points out that the relevant concept of knowledge in context is practical. The stabilizing effect of *episteme*, I contend, secures the application of thought to a reality in which the thinker has to act as well as think. On my reading, *episteme* is a state which both originates from and sustains true thinking about the “ordinary” reality—that is, the actual world—on the one hand. On the other hand, the ability to direct thought on these matters derives from the knower’s abstract representational capacities which afford her a permanent grasp of powerful constituents of reality apart from actual situations.

Socrates is especially interested in what it would mean to have such an ability in the domain of ethics and politics. This context has been overlooked by other scholars, but I argue that it is crucial for understanding the virtue of *episteme*. True opinions, Socrates argues, are good as long as they stay with us. However, no opinion, however important or well regarded, can tell us where it applies. In other words, the truth of so-called “true opinions” is something that only the epistemic user of such opinions can reliably benefit from, since such a user is the only one who knows whether and how they bear on actual situations. On the basis of this discussion, I develop a non-

mythological conception of recollection from which emerges a surprising unity of the pursuit of definition of powers with the geometrical analysis in the “proof” of recollection earlier in the dialogue (82d ff.).

Chapter Two, “Socratic Definition Redefined,” offers a new interpretation of the pursuit of definition in the *Meno*. Scholars have interpreted 71e–77b as a dialectical exercise which is not shaped by general ontological assumptions, nor for that matter by ethical ones. A neutral description of Socratic definitions is that they are answers to Socratic (“What is F?”) questions. On the standard reading, a correct answer to such questions meets at least the following criteria. It needs to cover all and only cases of F; and it needs to explain why they are cases of F. The second requirement is more stringent, and according to most readers it entails the first. An answer which satisfies both requirement “picks out” the form of F. This means that the form is or exemplifies the content expressed by the predicate of a true answer to the Socratic question. I argue that readers are wrong to focus on the form of Socratic definition, as something intelligible and epistemically normative independent of the subject matter.

The form of Socratic definition is shaped by the topic, as Plato’s Socrates perceives it, in two related respects. First, it is shaped by Socrates’ views about the nature of qualities. He thinks of them as contributions to the dispositionality of objects, and this informs his analysis of them. Second, interlocutors bring their own substantive assumptions about each powerful quality into the conversation. These assumptions are either true or false, not merely sharper or dimmer. In general, the truth of Socratic definitional statements has been wrongly marginalized, due to the adoption of modern formal semantic tools in the interpretation of them. Building on these points, I sketch an alternative “picture” model of Socratic definition which sees the substance of definitions, i.e., the item they seek to reveal, as inseparable from their form. Socrates, I argue, is

asking interlocutors to draw him a truthful picture of qualities, e.g., of virtue in general. The formal-semantic approach which quantifies over objects is an inappropriate way of thinking about answers to the Socratic question, I contend. Guided by this logical and ontological orientation, I offer a new interpretation of Socrates' model definitions: two definitions of shape and one of color (75b–76e). Scholars are puzzled by what looks, on their reading, like three strikingly different types of account. Some scholars pick one as the model for an essence giving, i.e. “real” definition, but Socrates seems to treat all three of them as paradigms (77b1). I contend that scholars have struggled with these examples because they lack the ontological roadmap, so to speak, for dealing with them, and I offer a reading of them as statements of natural philosophy, conceived as an examination of powers.

This brings us to the second part of my dissertation, which is about the *Phaedo*. This dialogue poses unique challenges and opportunities for my reading. On the one hand, it contains the main discussion of forms as causes of being, and becoming, and perishing (95e ff.). On the other hand, most readers think that forms in this dialogue are essentially separate from sensible things, and only related to them by a metaphysical nexus of participation. Thus, when Socrates mentions forms in things in the discussion of causation, i.e., Socrates' intellectual autobiography, most readers believe that they are not the same as the forms in themselves. Accordingly, those who interpret forms as causal powers in the *Phaedo* assume that they must be transcendent. This assumption is largely motivated by earlier parts of the dialogue, where forms are presented as pure intelligibles, and hailed as “everlasting and immortal and unchanging” (79d, cf. 81a). A conception of forms as immanent powerful qualities seems like a non-starter in this dialogue, and indeed, to my knowledge no one has pursued this project.

Chapter Three, “Mathematizing the Recollection Argument in the *Phaedo*,” explores the forms from a different perspective than the previous discussions. In the recollection argument (72e–77a), Socrates sets out to show that humans gain knowledge of forms by recollecting them from a previous life. In context, he aims to show that the soul is immortal, since it had to exist in a knowledgeable state prior to birth in order for us to recollect the forms now. The most famous, and debatable part of this argument includes an example, the form of equality, which Simmias allegedly recollected from a previous life by looking at equal sticks, stones, etc. Although the argument is supposed to apply to all the forms, it seems to me that the mathematical example is carefully selected for Socrates’ main interlocutors in this dialogue, Simmias and Cebes, who are inspired by Pythagorean teachers and doctrines. I look closely, therefore, at the mathematical content of the text. First, I argue that the form of equality is the ratio of one to one, a claim I motivate by discussing passages from *Republic* and *Philebus*. This, in turn, gives rise to a new understanding of the mysterious reference to “the equals themselves” (74c1), which, like equality, never appear unequal. On my reading, they indicate pure numbers of the sort that the main interlocutors, Simmias and Cebes are arguably passionate about.

By concretizing these terms, I am able to situate Socrates’ argument in a realistic context that his audience would have easily understood and related to. The putative recollection of equality from equal sticks refers to a familiar pedagogical situation: learning the ratio of equality (1:1) by looking and playing with sticks and pebbles, as Simmias arguably did when he made his first baby steps in the world of mathematics. The crux of the argument is when Socrates shows that the equality ratio is different from the material instruments by which it was taught. He does so by showing that it is not possible to have in mind equality with inequality as a complex, unified content: an unequal equality. The same holds of pure (“intelligible”) numbers: the number three

never occurs to us, in thought, as having some unequal ratio to itself, e.g., three is (never) the double of three. This contrasts with corporeal equals; taken mathematically, namely, as corporeal numbers, that is, material quantities, Socrates argues that they sometimes occur to thinkers mixed with a ratio that they do not actually have. This suffices to show that they are not the same as equality (74c).

This novel way of reading the argument distances it from philosophical, as well as mathematical expectations of our own era. On my reading, Socrates operates with a naïve conception of knowledge as having in one's thought some existent being or other, and he is not especially concerned with falsehood and error in this context. Insofar as these beings are available for thought, they are conceived as pieces of knowledge, that is, thinkable content. Cognizing a pair of sticks, on this picture, is having both of them in mind. Similarly, cognizing equality is having this idea in mind. Socrates' point, then, is just that these contents cannot be the same. He concludes that the definition of recollection as looking at one thing, and having in mind another thing as a result (73c–d), applies to the pedagogical situation of Simmias: the ratio of equality occurred to him because he was shown corporeal sticks, which differ from equality as well from pure numbers. Socrates performs an inductive step after this, arguing that all the forms are like equality and other mathematical contents. It is crucial, though, that he “proved” his thesis in this mathematical, and indeed specifically Pythagorean environment. In this context, unlike in his intellectual biography (95e ff.), he conceptualizes the relationship between sensible reality as imitation: striving to be like the forms, but inevitably falling short (74d–75a). Scholars usually assume that his ontology of forms remains the same throughout this dialogue, so that at the time we learn that the forms are causes, near the end of the dialogue, forms are still understood as the unapproachable, semi-divine entities that they were in the recollection argument (79d, 81a).

Chapter Four, “Forms as Empowering Causes,” challenges this assumption. I offer a new interpretation of Socrates’ lecture on causation in which he presents and criticizes the natural philosophy of his predecessors. Scholars have misconstrued the tenor and content of his objections. On the reading I defend, Socrates identifies an ontological assumption that underwrites their pursuit of causes. They looked for the cause (*aitia*) of being, becoming, and perishing in physical constituents of that which is (*Phd.* 96a–99a). I call this thesis “causation by parts”—e.g., the brain, for example, is the cause of thinking. Recognizing this as his target, rather than a broad “materialism,” is crucial for understanding both Socrates’ critique and his alternative. He offers a *reductio* on causation by parts by focusing on mathematical examples, e.g., being two, large, etc., the causes of which couldn’t possibly be parts of such beings (96d ff.). Scholars have assumed that the mathematical examples are continuous with the earlier set of examples, which echoed familiar pre-Socratic naturalistic theories. His criticism, they believe, comes later, when he mentions some objections that his own theory avoids (esp. 101a–b). By contrast, I contend that his absurd mathematical examples, e.g. someone’s being larger than another person by a head, which I interpret as the suggestion that the literal head of the taller person causes him to be large, are his main objection. An ontology that breeds the sort of nonsense that Socrates generates in this part of the discussion by applying “causation by parts” to quantitative cases cannot be upheld.

I approach Socrates’ theory of forms as an alternative ontological thesis. Things are such as they happen to be, e.g., beautiful, because of the form in which they participate, e.g., the form of beauty (99c ff.). “Participation” is traditionally interpreted as a metaphysical bond which ties sensible objects to unlocated forms, or even as a causal nexus. I suggest, by contrast, that Plato offers a metaphysical interpretation, an analysis, of qualified beings as empowered agents, e.g., the form of largeness empowers things to be large by comparison with something smaller. If I am

right, Socrates is not offering a metaphysical *mechanism* for unifying individuals and powers, but simply affirms that they are so unified, a unity he elucidates by the metaphor of participation, which has a surprisingly helpful political usage in rhetorical contexts.

The Athenians thought of themselves as sharing in the affairs of the *polis*: in festivals, political offices, etc. Phrases such as “having a share in the *polis*” (*metechein tes poleos*), or “sharing in the affairs of the *polis*” (*metechein ton tes poleos*),” were used from the classical period onward in rhetorical and legal contexts. Jakub Filonik has recently argued that they were used as metaphors “to describe an enfranchised status in the city-state” (2022, 257). I suggest that the political usages of *metechein* illuminate Socrates’ ontological use of the verb, and appeal to it to motivate the proposal that Plato’s forms are powerful qualities. Socrates criticizes the assumption that things are such as they happen to be due to their parts. Nonetheless, I believe that he has not given up the idea that there’s something *about* or *in* them which makes them so, contrary to the standard reading that he appeals to forms as separate metaphysical explanations. Overlooked by other scholars, political *metechein* reorients Socrates towards seeing corporeal wholes as bearers of qualities, which they have in a way that is analogous to political rights and privileges. The latter are distributed without being divided, unlike any material substance, such that each citizen has exactly the same right (the whole thing) as any other, collectively. A right, moreover, is nothing other than that which entitles a person to do whatever they have the right to do—e.g., the right to vote permits one to vote and is exercised by voting. I suggest that powerful qualities are essentially directed towards their own exercises, and are shareable, in the same way as rights.

This interpretation is made available by seeing the autobiography as seriously qualifying the two-world perspective of the earlier part of the discussion. What looked like an unbridgeable gap in the recollection argument, is quietly replaced by an alternative model: ontological participation

in forms (i.e., powerful qualities)—instead, not alongside, the earlier imitative model. As I show, Socrates' lecture on causation deploys forms as immanent unapologetically, and uses language that suggests that the only difference between the forms “in nature” and “in things” is whether or not someone shares in the form. I explain how the two are the same without compromising the special features of forms, especially their everlasting nature. On the reading I defend, forms are *locatable* to things, for they are manifestable by them, so that they always go with them. But forms do not have their own extension, for they are in themselves, by nature, immaterial and unlocated. This allows us to think of them as coincidentally immanent, and so as shareable, without changing internally.

Chapter One:

Plato's Powerful Qualities and Their Epistemological Bearings

1.1 Introduction

The central theme of this chapter is qualities. By “quality” I do not mean everything that philosophers might call a “property.” Philosophers tend to use this word for any general way a thing could be. Socrates might be in the marketplace, for example, and he might be talking to people. But being *at* a place, or *doing* something are not qualities of Socrates. Being poor, short, dialectical, etc., are some of his qualities. I will ask what sort of thing qualities are for Plato, in what sense we “possess” them, and how we come to know about them.

Qualities are, in a way, the oldest topic in the literature on Plato, and in another, entirely new. It is old, because Plato's forms, such as beauty, virtue, largeness, and so on, are qualities. But, it is also believed that not every quality is or has a form.¹ I am going to talk about qualities, as much as possible, before the introduction of the theory of forms.² My focus will thus be on dialogues from the earlier period, especially the *Meno*. This dialogue has a central role in investigating the epistemological significance of the nature of qualities.³

The structure and main claims of this chapter are as follows. I begin by arguing that Plato is working with a powerful conception of qualities in the early period (§1.2).⁴ I mean this in a way that is quite similar to how powers are understood in contemporary metaphysics—i.e. qualities

¹ E.g., Gosling 1960, McCabe 1994 (Ch. 3), Irwin 1999, Harte 2008, Sedley 2013. These studies are concerned with the status of forms as a subclass of universals, but they also make it clear that not every quality is or has a form.

² By that I mean “the theory of forms” as a salient theme in “middle” dialogues, especially the *Phaedo* and *Republic*. It is believed that in these dialogues, Plato elaborates a theory of forms, which is not present, or present in a somewhat different form than in earlier texts. See Prior 2004 for discussion and bibliography.

³ Some see this text as “transitional,” i.e., between early and middle Plato (see, e.g., Vlastos 1990, Benson 2000, 7–10, Dancy 2004, 10). My argument will also use the *Meno* as a kind of bridge between early and middle Plato, but not for the purposes of defending any chronology, but if anything to bring out some deeply unified dimensions of Plato's thought.

⁴ Later too, I believe (cf. Gonzalez 2011). But it helps to start at the beginning.

make contributions to the dispositionality of their possessors, so that being qualified in a certain way means that one is ready and able to “act” thusly under specifiable conditions.⁵ Because this is a claim about the nature of qualities in general, any active way of being is an “act” for our purposes, rather than something narrower, like deliberate actions or physical motions. In some cases, the powerfulness of Plato’s qualities is explicit and plays an important role in the discussion.⁶ I contend that these cases are not exceptional; on the contrary, Platonic qualities qualify their possessors by contributing to their dispositionality, rather than merely being true in their case or obtaining, as readers usually assume.⁷ The discussion concludes with a proposal about the ontological concept of *parousia* (i.e., “presence”): qualities are “present” in things that are naturally disposed to manifest them.

The following sections explain the epistemological significance of this ontological perspective. In some places in the dialogues, notably in *Meno* 71b, and *Theaetetus* 201b–c, Socrates suggests that we cannot know facts about people that we haven’t met or seen. Some readers find this view unattractive, whether or not Plato held it. These readers do not elaborate on these texts. Others believe that it points to a conception of *episteme* as a rarified apprehension of Forms, but they also have little to say about the apparently simple cases on which they draw. I dedicate §1.3 to a study of these assertions. Their point is not to draw an analogy between sense perception and *episteme*—something Plato never says. Instead they establish a norm about cognition in general, doxastic or epistemic as the case may be. The norm is that we cannot know how beings are qualified without

⁵ I.e., “manifestation-types” in contemporary jargon—see, e.g., Heil 2003, 97–9, 111–3, Molnar, 57–9, Marmodoro 2010, 29–30. I will not get into the issue of whether Plato’s powers are pure dispositionality, or whether they are grounded in structures.

⁶ I will emphasize *Laches*, *Charmides*, *Protagoras*, and *Gorgias*.

⁷ For they think of properties, in general, as exemplifiable predicates, with some predicates as dispositional, others as categorical. This position is defended by Armstrong, and rejected by Martin in T. Crane (ed.) 1996. I believe that Plato’s view of properties is closer to Martin than it is to Armstrong, but what we should really do is read Plato on his own terms.

relating to them in themselves, unmediated by others. Socrates is motivated to think so because he thinks that beings manifest their qualities not merely in the sense of exercising them, but also that in this very exercise they make it apparent, evident, that they are thus qualified. E.g., Meno makes it evident that he is beautiful by generally looking so to people.

Socrates' rule excludes a conception of *episteme* that is unable to distinguish truthful reports from self-evident truths, but it doesn't give us resources to distinguish doxastic from epistemic veridical cognition. The final section (§1.4) seeks an understanding of this distinction by offering a new reading of *Meno* 98a. In this enigmatic text, Socrates says that true opinions become pieces of knowledge by causal reasoning, and that this has a stabilizing effect on them. He also says that this is "recollection." It is often argued that Plato is committed to a proto-Aristotelian conception of knowledge which says that we only know that *p* if we know the explanation for *p*. I begin by criticizing this view. One of my objections, which is central to the alternative I develop, points out that the relevant concept of knowledge in context is practical. The stabilizing effect of *episteme*, I contend, secures the application of thought to a reality in which the thinker has to act as well as think. Rather than taking the topic of "causal reasoning" as an abstract, formal cause, Socrates is concerned with powerful qualities. Here I rely on §1.2. In this earlier discussion, I gave examples of respondents who are asked to articulate the contribution of *F*, e.g., temperance, to their dispositionality. I motivate reading the *Meno* by the lights of dialogues like *Charmides*, *Gorgias*, *Laches*, and *Protagoras*, where powerful qualities are prominent, by showing that Meno defines virtue as a powerful quality. For him, and I argue for Socrates as well, the target, what needs to be stated in a definition, is just virtue, i.e., a quality which might or might not be present in someone. In context, "form" (*eidos*, *idea*) is technical jargon for qualities. This diverges from the widespread assumption that "the form of virtue" explains why things have this quality.

If the causal reasoning in 98a is reflection on powerful qualities, as I suggest, why does Socrates call it “recollection”? This question sends me back to the geometrical lesson by which Socrates “proves” that learning is recollection of truths from a prenatal state. I offer a non-mythological reading of the recollection episode, which allows me to find a surprising connection with the pursuit of virtue.⁸ Meno wasn’t able to define virtue, and this has led him to deny the possibility of finding the truth about things that we do not already know (80d–e). In response, Socrates offers him a piece of edifying fiction, namely, that all learning is recollection of truths from a prenatal omniscient state. Socrates explicitly distances himself from the story, while stressing its positive influence on those who believe it (81d–e, 86b–c). I argue that what the lesson really shows is that human beings are innately disposed to “see” the truth about beings when they attend to them in the right way. This resonates with dialogues like *Republic* and *Theaetetus* where Socrates says that every soul has an innate power of learning, akin to an eye (*Resp.* 518b8–c6; cf. *Tht.* 185c–186c). The upshot of the geometrical lesson is the discovery that the diagonal of a given square measures the side of its double. I draw attention to the fact that in Greek mathematical jargon, the diagonal of a square (διάμετρον, 87b5) is also a *dunamis*, inasmuch as it “produces” the double square area (cf. *Tht.* 148a–b). This reveals a hitherto unknown connection between the pursuit of definition and the geometrical “proof” of the recollection thesis.

In the final discussion, I offer a new interpretation of the difference between true opinion and knowledge which draws on the vulnerabilities of the slave, despite the fact that he was able to identify the side of the square by his own intellectual powers. On my reading, *episteme* is a state which both originates from and sustains true thinking about “ordinary” reality—that is, the actual world—on the one hand. On the other hand, the ability to direct thought on these matters derives

⁸ *Contra*, most recently, Bronstein and Schwab 2019

from the knower's abstract representational capacities which afford her a permanent grasp of powerful constituents of reality apart from actual situations.

1.2 The powerfulness of qualities in some early dialogues

“Early dialogues” in the title of this section denotes a group of texts in which Socrates is the main speaker and the conversation typically revolves around some ethical topic, notably the virtues, in attempt to define it. These texts are believed to be chronologically earlier than others, like the *Republic* and the *Phaedo*, where Socrates elaborates [Plato's] theory of forms. The main thesis of this paper, which I begin to defend in this section, is that the dominant conception of qualities in this early period of Plato's philosophizing, up to and including the dialogue *Meno*, is as powerful. This means, I suggest, that when the Socrates of the early dialogues attributes a quality to someone, and when he asks about a quality, what is it?, he attributes and shows interest in the dispositionality of things that possess it: what do they—e.g., Fs—do by being thus qualified?

The first type of evidence is linguistic. In multiple places Plato talks about what we would call “properties” as if they were *dunamis* or as if they had *dunamis*, and the word *dunamis* means potency, force, disposition, or power.⁹ However we translate it, *dunamis* denotes something dynamic.¹⁰

In the *Protagoras*, Socrates wants to know whether the “parts” of virtues—justice, temperance, etc.—are qualitatively identical, like pieces of gold, or whether they are more like the parts of the face. Protagoras says that they are like the parts of face (329d5–8).¹¹ This means—as Socrates

⁹ As noted by others—see, e.g., De Rijk 1986, Penner 1973, Wolfsdorf 1999, 2005a, Gonzalez 2011. I believe that these scholars are too focused on the relationship between *dunamis* and the “theory” of forms, as they understand it in advance, namely, as eternal, transcendent, etc., which results in distortions.

¹⁰ Souilhé 1919 is a book length study of the term as it appears in Plato. Cf., more recently, Macé 2006, Giovannetti 2022b. My own framing of the topic through the unifying lens of the powerfulness of the qualitative gives rise to different interpretations of some of the texts on which these and other studies center.

¹¹ References advert to the latest OCT. Translations are mine, unless otherwise noted.

clarifies, and as Protagoras agrees— that each part of virtue has its own proper (ιδίαν, 330a6) *dunamis*, just like the eyes and the mouth have theirs (330a6–b3).¹² Notice that the transition from qualitative differences to different contributions to the dispositionality of things is immediate and natural for both interlocutors: if the virtues differ qualitatively and not just numerically or in quantity, like gold, this means that they have different powers.

The sense in which powers belong to parts (see., e.g., δύναμιν ἔχει 330a6, ἡ δύναμις αὐτοῦ, a7) is initially left open. I already used the somewhat technical language of contributing to the dispositionality of objects to describe it, but now I want to motivate it a bit more from the text. Shortly after this exchange (332a2–333b6), Socrates will argue that wisdom (σοφία) and temperance (σωφροσύνη) are the same because they have the same contrary, namely, folly (ἄφροσύνην). In this context, it is agreed that agents do qualified things, or act in a qualified way, by “using” the corresponding quality: e.g., people do strong things, or act strongly, with or thanks to strength; they do moderate things, or act moderately, with or thanks to moderation, and so on (cf. 332c1–2).¹³

This suggests to me that the *dunamis* of each virtue is just whatever unique contribution it makes to the dispositionality of its possessors, i.e., the sort of thing that it enables and disposes to do by exercising it.¹⁴ This means that the virtues, and arguably other qualities, if they are like the virtues, *import* powers to their possessors, as opposed to having them in some other sense, e.g., as their (the qualities) own properties, as parts, etc. In this sense, then, I suggest that qualities might

¹² Cf. The myth of creation earlier in the *Protagoras* which focuses on the distribution of *dunamis* to animal species (320d–321b). Salient qualities, e.g., having wings, hooves, etc., are understood there as means of preservation for the species Protagoras mentions

¹³ Plato uses different constructions to express the causal responsibility of the quality: instrumental dative, ὑπό + gen., and later on διά + agential accusative (at 360c2–8). See note in Denyer 2008, 131.

¹⁴ Cf. Wolfsdorf 2005b, 30–1, and Sedley 1998, 118–9. While they interpret the proper act of each *dunamis* as an effect, on my reading they are what a given *dunamis* affords by exercising it, so the relationship between the two is more like the difference between a used and unused instrument. This will be important in later sections.

be powerful in general in the dialogues; they are powerful because, in virtue of having them, things are able or disposed to do such things, or in such a way.¹⁵

Socrates' preoccupation with powerful qualities is noticeable in other early dialogues. In all of them, he moves from talking *about* and often *with* agents who are qualified in some way, or wish to be, to the specific contribution that this quality makes to their dispositionality.

In *Laches*, the topic is courage, a quality that the characters of Nicias and Laches, famous Athenian generals, are expected to have and to know how to impart to others. Socrates compares virtue in general to the powers of hearing and sight which need to be present in the ears and eyes, if they are going to be good (190a1–5). Courage is again viewed as a powerful quality: “what *dunamis* is there, the same whether in pleasure or in pain or in any of the things which we said just now it was to be found, that has been labeled ‘courage’?” (192b5–8). Socrates illustrates how he wants Laches to define this power using the example of speed: “the power to achieve a lot in short time, whether in speech or in a race or all other things” (192b1–3). This example will be helpful later.

The topic of the *Charmides* is temperance. The powerful nature of this quality is first hinted at 156b1 ff., when Socrates implies that its *dunamis* is such that it would cure Charmides' headaches once and for all, if he had it (esp. 157a5–b1). This makes it clear, if anyone had doubts, that the young man had developed a bit of a drinking problem, and so suffers from frequent hangovers. At the same time, Socrates assumes that Charmides is temperate—out of playfulness, or because he thinks that his temperance is currently “masked” by a contrary intemperance, which

¹⁵ Whether there is in every case something else to a quality besides being powerful, like a mouth, for example, seems to be something in addition to giving us the power to do certain things, is not relevant for my argument. In contemporary literature, the question becomes whether properties are pure powers or require something categorical (i.e., purely qualitative) to exist. See note 5 for literature.

is dominant.¹⁶ For he asks him to examine his own personality, and observe what sort of man (ὁποῖόν τινά) he is by the presence of temperance (ἡ σωφροσύνη παροῦσα) in him, and what sort of thing temperance is (ποία τις οὔσα), if it is going to make him temperate (τοιοῦτον ἀπεργάζοιτο ἄν, 160d5–e1).

Charmides thinks that temperance causes [him] *to feel ashamed* (αἰσχύνεσθαι ποιεῖν ἡ σωφροσύνη), so that the sort of man he is because of temperance is *bashful* (αἰσχυντηλὸν), and temperance is just *a sense of shame* (αἰδῶς, 160e2–5). Notice that he is moving from a type of “act” (a passive one, but still)—namely, feeling ashamed—and from this he goes to the quality of the person who exhibits this type of act, calling him bashful, and this finally leads him to identify temperance as a sense of shame. His answer might be materially false, if temperance is not shame, and still teach us something important about Socrates’ question. Charmides assumes that temperance qualifies a man by disposing him to act in some characteristic way, presumably in circumstances that trigger this sort of response, although Charmides doesn’t say so explicitly. This fits with Socrates’ own approach in the texts we’ve read.

So far we focused on the powerfulness of the virtues, which occupy a central place in the dialogues. My final example of a powerful quality falls in a different category. Skills, arts and sciences may not be the first thing that come to our mind when we try to understand the nature of qualities, but Socrates thinks of them as qualifying their possessors to be thus and such. So when, in the *Gorgias*, Socrates asks Gorgias, “what is rhetoric?”, his question is about a quality that the eponymous character is expected to know about by being a rhetorician himself, just as he assumed

¹⁶ Cf. *Ly.* 216d5–7: there are things which are neither bad nor good in themselves but are somehow “between” good and bad. See also the suggestion in the *Phaedrus* that “in each one of us there are two ruling and leading forms (δύο τινέ εἰσιν ἰδέα ἄρχοντε καὶ ἄγοντε) ... one is the innate desire for pleasures, the other an acquired opinion which strives for the best” (237d6–9).

about Laches and Charmides. Also like them, the rhetorical quality of Gorgias is conceived as a power that he has.¹⁷

As soon as he arrives at Callicles' house, Socrates expresses his desire "to find out from the man what is the *dunamis* of his art, and what it is that he professes and teaches" (*Grg.* 447c1–3; cf. 455d6–7).¹⁸ This shouldn't be translated as "function" (e.g., Lamb 1967), certainly not as "the point" of Gorgias' art (e.g., Dodds 1959, 190). These translations obscure the ontological significance of *dunamis*, as distinct from something merely pragmatic or ethical.

Socrates thinks that the different "parts" of knowledge, art, skill, virtue, the face, and so on, qualify their possessors: knowledgeable things are knowledgeable because of their knowledge, nosed things because they have a nose, skillful things—in the first instance, the practitioners themselves, e.g., Gorgias—are so because of the skill they have. Crucially for my current purposes, these items, whatever else Socrates says about each of them, make dynamic contributions to their possessors who are able and disposed to "do" certain things because they have them: they are able and disposed to smell because they have a nose with which to do so, to act justly because they possess justice which enables and disposes them to do that, and so on and so forth.¹⁹

Going by examples means that there could in principle be qualities that Socrates would not classify as powerful, contrary to my proposal that qualities are by nature such that they contribute to the dispositionality of their possessors. However, there are other considerations which count in

¹⁷ This might seem too obvious to point out: how could a skill *not* be a power of sorts? And yet this has never been taken, together with similarly "obvious" cases, as indicative of Socrates' conception of qualities in general, which is my present contention.

¹⁸ There are several other occurrences (collected in Souilh  1919), some of which lean more into the quantitative sense of a force of greater or less intensity, and involve a normatively loaded sense to the effect that powers are only for good things (*Grg.* 466d ff.). But in other places Plato certainly talks about powers just as dispositions, good or bad—e.g., δ ναμιν  χει κακία τε καὶ ἀρετή, *Lg.* 964c2–3.

¹⁹ If it turns out that the activity of justice is in the first instance *internal* to its possessors, and only then an external act, so be it, as long as we agree that justice and the other virtues make dynamic contributions. See esp. *Resp.* 358b4–7, 443b4–5; cf. 433d9.

favor. Consider, first, the surprising range of Socrates' uses of *dunameis*. He not only uses the term frequently, to talk about qualities, but he does so even in cases that the average modern reader would think of as “categorical” properties (i.e., non-dispositional). In the *Charmides*, he says that large and small, half and double, more and less, are correlative *dunameis* (168b5–c9). Socrates' repeated references to things which *have* them (esp. at 169a3–4), suggest that these powers qualify measurable/countable quantities which co-manifest them relative to each other. E.g., Simmias manifests largeness relative to Socrates' smallness.²⁰

The quantitative *dunameis* in this section are not “purely logical properties,” if the point of this is to deprive them of any potency.²¹ As I said, the word *dunamis* denotes something dynamic in the dialogue (always or normally), and the topic of the *Charmides* is clearly not “purely” logical, but a powerful quality that Charmides has, or should have.²²

But the strongest indication that Socrates' quantitative qualities—e.g., being the double of some half, etc.—are powerful, is that they appear alongside, and without any distinction from, paradigmatic cases of powerful qualities, including but not limited to: the *dunameis* of color and sight, sound and hearing, and in general the object of sense and the corresponding sensory faculty (167c–d, 168d); specific desires and what they desire (167e); the sciences and their subjects (168b; cf. *Resp.*, 438a–e). These qualities are not “merely” logical, for they contribute to the dispositionality of their possessors: e.g., things are disposed to see or be seen by having sight or color, respectively. Moreover, it would be entirely opposed to Plato's way of thinking to view these

²⁰ I develop this example in chapter 4.

²¹ *Contra* Vlastos 1981, 413

²² Someone might object that what Charmides should have is an *instance* of the quality, while the quality itself (i.e., the topic) is perhaps a purely logical concept, powerful maybe only relative to the mind. The issue is too complicated to address here in a satisfactory way. Let me just state, by way of clarification, that instantiated qualities are in my view of the dialogues localized universals (defended in chapter 4), rather than abstract particulars (so-called “tropes”). *Pace* Rowett 2018, 18–9, Silverman 2002, 95–100. Thus the topic of the *Charmides* is the very thing that this character has, or should have. Cf. Fine 2003b, Mates 1979.

contributions as fortunate accidents. On the contrary, whatever else happens to be true of sight, it is first and foremost (“essentially”) a power to see.

Secondly, my thesis needs to be tested against the alternative. Is it better to think that Socrates’ qualities are powerful, as I suggest, or should we bifurcate this category into dispositional and non-dispositional? The latter is the default (unargued) position in the literature, but it is not preferable. In the next sections, I will show that my thesis can settle controversies and explain difficult epistemological issues, which others have not been able to settle or explain.

Before that, partly by way of an introduction, I want to say a word on the concept of *parousia*—i.e., “the presence” of qualities in things which is frequently invoked in the early period.²³ Readers of Plato often say that what is “present” are characters, or universals, but they tend to be very vague about the sense in which they are “present” in things.²⁴

That “presence” cannot mean *exemplification* or *instantiation*, as the term is normally used today, is not hard to show.²⁵ There’s no difficulty in saying that Socrates exemplifies *being at the marketplace*, for he might be there. But Plato never says that *being at the marketplace*, or anything

²³ Also in later dialogues. See note 26 for examples.

²⁴ E.g., Allen 1970: “‘Presence’ is a metaphor... to explain the special sense in which whiteness [e.g.] is present to a thing that is white, Socrates has recourse to the instrumental dative... Holy things are holy *by* holiness, temperate things are temperate *by* temperance ...” (123). How is causality relevant for the concept of *parousia* whose focal meaning, as the translation suggests, is locative? Allen doesn’t explain this. Instead he continues to argue that the instrumental dative and similar formulas are concerned with “essences by which things are what they are” (123). But the essence, or form, is according to him, “only a necessary condition for [e.g.] the beauty of a rose: it is a cause of that beauty in that if it did not exist the rose would not exist as beautiful” (125). And what ensures that the rose is actually beautiful? “The *presence* of the Form of beauty”—says Allen— “is a necessary and sufficient condition for calling this rose beautiful: we baptize the thing because of the character in it, and the *presence* of the character (as distinct from the character itself) ensures the appropriateness of the baptism” (125). But Allen has not given any specific meaning to *presence*, so the adequacy conditions he spells out are not made meaningful. After all this, he says that presence is just the *sui generis* nexus of *exemplification* which is not helpfully glossed by any metaphors (147). On this issue, then, his historical Plato is indistinguishable from contemporary Platonism—see Loux 1998, 48.

²⁵ *Contra* Fine 2003b, 307, Allen 1970, 147. Others leave the term uninterpreted, even when it is quite important for understanding the views that they attribute to Plato. See, e.g., Fronterotta 2007: “An answer to the Socratic question ‘what is *X*?’ can now [*Hippias Major*] be given solely by indicating a unique and universal object - qualified by Plato as an ‘Idea’ or ‘Form’ itself - that is always unchangeable and identical to itself and yet ‘present’ in a multiplicity of particular things, to which, by virtue of its ‘presence’, it confers that same property whose true nature it embodies” (44).

like that, is present in Socrates, nor, of course, that *the marketplace* is present in him. Only qualities are said to be present (παράγινεσθαι, παρῆναι, παρουσία) in things.²⁶ Thus it is at the very least inaccurate to say that what's present is a “universal,” and “presence” is just the primitive nexus of exemplification or instantiation, as it is conventionally understood today.

My thesis can explain the ontological significance of *parousia*. If Socratic qualities are powerful, as I suggest, then they can be “in” agents inasmuch and to the extent that agents are *ready to exercise them*.²⁷ The point—to be extra clear—is not that qualities are exemplified by things which then exemplify some other, dispositional qualities. I offer this interpretation of *parousia* instead of exemplification: for a quality to be present in something is for that thing to be able to manifest the power of that quality.

Thus construed, the presence of qualities is analogous to having useful things *at one's disposal*.²⁸ That Socrates has something like this in mind is particularly noticeable in the case of “good” qualities—e.g., beauty, courage, strength, wealth, health, etc., which he conceptualizes as tools which can be used well or poorly.²⁹ (It is easy to imagine their opposites, e.g., ugliness, etc., as categorically harmful instruments, by analogy.)

Unlike tools, though, powerful qualities shape the very dispositionality of their possessors so that they are powerful themselves. The disanalogy is no less important, for it sheds light on the dominant, locative significance of qualities whose powers *lie within agents, having no spatial boundaries of their own to be in or occupy, but rather coinciding with those of their bearers*.³⁰

²⁶ E.g., *Grg.* 506d1 (virtue); *Hip. Mai.* 293e11, 294a1, c4, 6 (beauty); *Phd.* 100d5 (beauty); *Ly.* 217b6 (badness), d4, 5, 8 (whiteness); *Euthyd.* 280b2 (wisdom), 301a4 (beauty); *Sph.* 247a5 (justice), a8 (injustice).

²⁷ See: “παρῆναι” as possibility, power (LSJ, III).

²⁸ See: “παρῆναι” as being at hand, ready (LSJ, II).

²⁹ Thus wisdom (σοφία) is arguably the instrument of all instruments by allowing the one in whom it is present to use everything else in the best possible way (*Euthyd.* 279a–282a; *Men.* 87e–89a).

³⁰ See: “παρῆναι” as being present at or in (LSJ, I).

Consider Socrates' point that white color is present in two different ways in Lysis' hair, if he painted it with white lead, and when he is old at *Lysis* 217c3–e2 (arguably, the main text for this concept in the early period). On my reading, the hair itself is naturally disposed to look white (i.e., relative to sight) only in the second case, i.e., when whiteness is present as a powerful quality of the hair, rather than an external substance; in the first case, it is disposed to look blonde, but can't because of the physical (non-qualitative) presence of lead.

This explains Socrates' assertion that the painted hair is unlike the white thing that's present in it, but unpainted hair is like it (see: οἷον ἂν ᾗ τὸ παρόν, 217c3–4; cf. e1–2). What he's getting at, if I am right, is the idea that qualities are in things only when they are manifesting them through their own agency, rather than something external: here, the agency of white lead.

1.3 Making (one's) qualities known

So far our focus was ontological. I showed that Socrates' concern with qualities in the early dialogues is so entwined with the *dunamis* that they contribute to their possessors, that it makes sense to think that he construes qualities as such as powerful. The proposal showed us, in the final part of the section, a new and hopefully more authentic way of understanding the “presence” of qualities in the dialogues: for a quality to be present in something is for that thing to be able to manifest the power of that quality. This reading gathers the modal, instrumental, and locative significance of the Greek verb, *pareinai*, from which *parousia* is derived, into a single concept, while other commentators either leave it uninterpreted, or gloss it with terms of art like *exemplification* or *instantiation*, which do not fit as well.

In the remaining sections, I am going to argue that powerful qualities can also help us with thorny epistemological issues. I'd like to introduce the first topic by considering the opening scene of the *Meno*. The dialogue begins when Meno, an ambitious young man from Thessaly, asks Socrates whether virtue is teachable, and if not, how do people achieve it (70a1–4). Socrates says that he “doesn’t know virtue at all” (οὐκ εἰδὼς περὶ ἀρετῆς τὸ παράπαν, 71b1), and this means, as he explains, that he doesn’t know how virtue is achieved. The reason, which Socrates presents in the form of a rhetorical question, is that it is not possible to know what something is like (ὅποῖόν τι), without knowing what it is (τί ἐστίν, b3).

This has the air of a general “rule.” Unfortunately, it is not so clear what this rule actually says. Most readers believe that this rule is concerned with knowledge in the robust sense, as distinct from true belief. The thought, they argue, is that non-essential facts about X are grounded, or explained by, the essence of X, as spelled out by a true definition.³¹ In knowing that virtue is essentially knowledge, for example, one is able to explain, and has grounded knowledge of the fact that virtue is teachable, for that is how knowledge is generally acquired.³²

In favor of this reading, scholars cite *Meno* 98a3–4, where Socrates says that true opinions become knowledge when they are “tied down” with causal reasoning (αἰτίας λογισμῷ). But there are also serious drawbacks. The distinction between true opinion and knowledge appears some 27 Stephanus pages after Socrates lays down his epistemic rule; Meno, a visitor from Thessaly, has no way of knowing about it in advance. And yet, when Socrates says that we cannot know what

³¹ Often labeled as *Priority of Definition*. This view has enjoyed wide popularity over recent decades—e.g., Scott 2006, 20–21; Dancy 2004, 36; Fine 2014, 40; 1992, 203; Nehamas 1986, 277; Benson 1990, 2013; Santas 1979, 69–70, 116–17; Burnyeat 1977; Irwin 1977, 40–1; Vlastos 1985, 1990; Kahn 1996, 148–180; Klein 1965, 41–51; Prior 1998; Franklin 2001, 425 n. 21; Weiss 2001, 22–4. Wolfsdorf 2004; 2008, 121–31; Ebrey 2014, 3; Schwab 2015, 9; Politis 2015, 73–92.

³² Cf. *Men* 87e–89a, where Socrates argues that virtue is a kind of knowledge, and infers from this that it is teachable. But notice that the proof is offered by Socrates who has not officially retracted his profession of virtue ignorance, and that he immediately presents a counterargument to the effect that virtue is not knowledge (89c–e). So the evidence doesn’t fit so well the *Priority of Definition* as it is usually conceived.

things are like without knowing what they are he makes it sound like an obvious point, and Meno apparently agrees with him.³³

Most importantly for my purposes: Meno's agreement to Socrates' rule is motivated by an example which on its face has nothing to do with deductive explanations of the sort that readers are imagining. Socrates presents the example, again, by way of a rhetorical question: "Does it seem to you possible for someone who doesn't know (μὴ γινώσκει) at all who Meno is (ὅστις ἐστίν) to know whether he is beautiful (καλὸς) or wealthy (πλούσιος) and well-born (γενναῖός), or the opposite of these things?" (71b5–8). Meno asserts that it is not possible (71b9).

The analogy, and especially the invocation of Meno's alleged beauty, suggested to some readers that Socrates' point is that the only way to know what someone is *like*, i.e., their qualities, is by being acquainted with this very person; the knowledge verb Plato uses here (γινώσκει, akin to the French *connaître*), lends further support since it usually denotes familiarity or recognition of some sort.³⁴ In this logical space there are two options. Some have thought that, if the analogy between Meno and virtue is to be respected, then virtue-knowledge would appear to consist in some sort of acquaintance with the form of virtue.³⁵ Others do not go as far as to identify knowledge with intellectual acquaintance, but they think that the analogy brings to the surface a certain requirement for first-hand knowledge of the topic at hand as a precondition for successful definitional inquiries.³⁶

Eventually I will offer a reading more in the spirit of this second group—namely, one which seeks to accommodate the firsthand character of Platonic cognition (not just full blown *episteme*,

³³ Cf. Robinson 1953: "the principle is offered as self-evident and too obvious for discussion" (228). Other notable instances include: *Euthyph.* 6e3–6; *Hp. mai.* 286c8–d2; *La.* 190b7–c2; *Prt.* 312c1–4; *Ly.* 223b4–8; *Chrm.* 176a6–b1; *Tht.* 147a1–b9; 196d11–e7; *Grg.* 463c3–6; 462c10–d2, *Resp.* 354c1–3; *Phdr.* 237b9–d3.

³⁴ See Bedu-Addo 1983, 230–3

³⁵ E.g., Cherniss 1936, 4; Bluck 1964, 32–3, 213–4; Bedu-Addo 1983, 246; Gonzalez 1998; Gerson 2009, 28–9. Cf. Szaif 2007, Moss 2021

³⁶ E.g., White 1976, 36; Franklin 2001, 420–1; Aronadio 2002; Cf. Smith 1979.

as we shall see) in definitional inquiries without denying the definability of forms.³⁷ I will focus on the *Meno* as the *locus classicus* for seeing the dialectical process both at work and thematized as to its intellectual goals. Unlike these readers, though, I will focus on the “simple” example by which Socrates motivates his “rule” and sets the entire conversation in motion. By the lights of it, the claim about virtue, too, will sound truistic—as I will explain at the end of the paper.

The trouble with Socrates’ simple example

The example of Meno is polarizing in a way that reveals deep epistemological and scholarly convictions on both sides of the *Meno* debate. An influential group of scholars have strongly objected to the very suggestion that knowledge about Meno can only be gained “by acquaintance,” to adopt Russell’s somewhat misleading jargon.³⁸ Some of them think Plato was in fact drawn to such a view, at least in some dialogues, but that he was entirely wrong in thinking so. Their main worries are that acquaintance theories of knowledge psychologize the concept, thereby making knowledge subjective and unshareable (akin to perceptual states), thus threatening skepticism in many areas.³⁹

Others believe that his view is much closer to the orthodox analytical position that knowledge is a propositional attitude.⁴⁰ Thus Gail Fine maintains, about the example of Meno, that while information about an individual might be derived by acquaintance, the information itself is propositional—presumably, some sort of unique description (akin to a definition); this, she holds,

³⁷ I regard this as an undesirable feature of the acquaintance interpretation as it is often offered—see note 35.

³⁸ E.g., Nehamas 1994, 224; 1986, 284; Burnyeat 1980, 188; Fine 1979, 2014, 32 n. 4; Barnes 1980, 194; Kahn 1996, 159 n. 12. Cf. Owen 1973, 357

³⁹ Esp. Burnyeat 1980, 180–6, Barnes 1980, 198

⁴⁰ Esp. Fine 1979

is what Socrates means when he says that we cannot know Meno's qualities without knowing who he is (ὅστις ἐστίν).⁴¹

Proponents of the acquaintance reading believe that Plato's world isn't populated by propositions or states of affairs, but with objects.⁴² Moreover, some of these items are sensible, others are intelligible (i.e., the forms), and the soul, so they argue, contains two corresponding faculties for "grasping" these items: perception and intellectual intuition, respectively.⁴³ This interpretation is faithful to some famous texts (e.g., *Resp.* 532a, 533a, *Phd.* 79a; cf. *Ti.* 28a). That is both a strength and a weakness, arguably, since closeness to the original text could prevent us from penetrating the philosophy behind Plato's words. At any rate, these readers have leaned on the analogy at 71b to make the case that Plato's epistemology in the *Meno* is the same or similar to their favorite readings of the epistemology of the "middle" period. For them, Meno represents a perceptible object, the perception of which is analogous to the direct intellectual apprehension of the form of virtue.

Is this really the point of 71b? Of the three attributes in the text: beauty, wealth, and good birth, only the first seems perceptible in a sense that would count in favor of the suggestion that to know Meno is to *perceive* the man and his qualities. As noted by Alexander Nehamas, the best information about someone's financial status is not delivered to us by the senses, simply as a result of seeing him.⁴⁴

⁴¹ This is clear from the fact that knowledge of Meno's qualities (Fine says "properties") would need to be derived, on her account of Socrates' rule, from another, more basic and explanatory "property" (Fine 2014, 34, 32 n. 4).

⁴² See esp. Gonzalez 1996 which focuses on the *Republic*, but this reading clearly informs his interpretation of the *Meno* (Gonzalez 1998). The intense of focus on knowledge and forms by proponents of acquaintance means that it is never quite clear, on their view, what knowledge of Meno's beautifulness consists in. Is this an object? Is it intelligible or sensible?

⁴³ E.g., Bluck 1964, 213; Gonzalez 1998, 259; Bedu-Addo; 1983, 246. See Gerson 2009, Ch. 3 for further discussion.

⁴⁴ See Nehamas 1986, 280

This is not a trivial detail. Although Nehamas' intention in offering his objection is quite narrow, it reminds us that Plato's glorified "forms," whatever else is true about them (e.g., that they are what Socrates is asking about, etc.), are also, perhaps mainly, qualifiers.⁴⁵ As noted earlier, beauty, wealth, and virtue are often included in lists of "goods" as desirable qualities, including in the *Meno* (87e–89a). There's no indication in the relevant texts that Socrates wants us to divide these features into sensible and intelligible, and from a theoretical view it is clearly undesirable.

This gives us a reason not to take Meno merely as a representative of the "sensible" realm, and as such as a mere analogue of the quality of virtue, conceived as something "intelligible." But does it also give a reason to junk the acquaintance reading of the analogy altogether?

It does not. First of all, Nehamas' own attempt to assimilate the example of Meno to the model of virtue and the teachability of virtue, i.e., grounding the second in the definition of the first, is not successful. On his reading, Meno's social "essence" is his provenance, knowledge of which allows people to know important facts about him.⁴⁶ This makes little sense of the example of beauty, knowledge of which is not grounded or explained by his "provenance" and Nehamas' attempt to reinterpret καλὸς to mean "noble" is implausible: Meno is clearly handsome (see esp. 76b4–5), and γενναῖος ("well-born") is too close in meaning to "noble." In general, the thought that there might be a piece of knowledge that would allow us to have justified beliefs about some or all of a person's qualities is not serious, which is why Nehamas significantly limits the scope of Socrates' rule only to some qualities, but with little textual justification.⁴⁷

⁴⁵ At least according to many readers. See, notably, Penner 1987. Others believe that qualities are form-copies (see, e.g., Gerson 2004, 309 n. 15). I disagree with this in general, and especially as a reading of the earlier period, where there is little or no evidence to support this view. My position in this regard is closer to Fine 2003b: form-instances are forms.

⁴⁶ Nehamas 1986, 283–4

⁴⁷ Nehamas 1986, 284

Seeing that it is not possible to come up with something analogous to a “grounding” definition in the case of Meno, some proponents of this reading of 71b ask us not to attach “too much philosophical importance” to the example of Meno.⁴⁸ But it seems to me that these scholars impose their reading of 98a on a much earlier passage, while what they really should be doing—and what I will do in the next section—is to revise their understanding of this later text in light of the best reading of 71b.

Furthermore, while the existence of an “essential property” of an individual is implausible, and we hear nothing of it in the dialogues, Socrates does seem committed to the thought that acquaintance with an individual is necessary for knowing things about them. But—and this speaks to the weakness of the acquaintance reading as we’ve been discussing it so far—the strongest evidence in favor of reading the case of Meno as an instance of knowledge by acquaintance (so-called), is not concerned with perceptual states (although perception is trivially involved in them). Instead, multiple passages suggest that people’s qualities, as well as specific actions of theirs, can only be evident to someone who has spent at least some time in their presence, cognitively “dealing” with them.

My plan for the remainder of this section is to show this evidence, first. Then I will contend that, on the correct interpretation of the acquaintance principle, it is just what we would expect from someone who has the powerful ontology I attributed to Plato. In showing this, I will answer readers who believe that an epistemology of acquaintance is categorically undesirable. Socrates is not wedded to any problematic “privacy” of knowledge, and so not to any form of skepticism; he simply distinguishes between self-evident truths—as I will call them—and accurate

⁴⁸ Scott 2006, 22. Sharples 1985, 125 calls it “ironical” as does Klein 1965, 42.

representations of reality which are not self-evident to the one who thinks them, a contrast which is firmly rooted and well-motivated by his ontological commitments.

Socrates' commitment to the acquaintance requirement

The last text we looked at was from the *Gorgias*. This dialogue also happens to contain a clear statement of the need to be acquainted with the individuals we want to have knowledge about. At 470d, Polus tries to refute Socrates' claim that it is better to act justly than to do as one pleases by providing a counterexample. He finds it obvious that the Macedonian King is both happy and unjust. Socrates denies that he knows either that the king is happy or that he is unjust because he has “never associated with the man” (οὐ γάρ πω συγγέγονα τῷ ἀνδρί, d9). Surprised, Polus asks, “What? You’d know this if you had associated with him, but otherwise you do not realize on the spot that he lives happily?” (αὐτόθεν οὐ γινώσκεις ὅτι εὐδαιμονεῖ, e1–2). Socrates responds in the negative (e3). Before that, he indicated that he has only heard about the man, but has not seen him, which apparently rules out knowledge by testimony (d5–7). Clearly he believes that he must meet a person to know what they are like and whether they are happy as other people say.

Consider another passage from the *Meno*. After Anytus expresses his strongly negative opinion of the sophists, Socrates asks him whether any of them has wronged him (92a7–b6). Anytus proudly asserts that he has never associated with any of them (συγγέγονα πώποτε αὐτῶν οὐδενί, b7). Socrates doesn’t understand how someone can be wholly unacquainted (παντάπασιν ἄπειρος) with the matter at hand (περὶ τούτου τοῦ πράγματος) could know whether it’s good or bad (c1–3). Anytus insists that he doesn’t need to be acquainted with the sophists (ἄπειρος αὐτῶν εἰμι) to know “who they are” (οἳ εἰσιν, c4–5), from which Socrates infers that he might be a prophet (μάντις εἴ ἴσως); how else (ἄλλως) could he know anything about them? (τούτων πέρι, c6–7).

Our third text is from *Alcibiades I*. Socrates is trying to persuade Alcibiades that he cannot know what belongs to the innermost part of his soul without getting to know this part; that is, without self-knowledge (133c–d). He arrives at his conclusion, however, through an apparently trivial premise: “I suppose it seems impossible (ἀδύνατον) to you that someone who doesn’t know Alcibiades (μὴ γινώσκοντα Ἀλκιβιάδην) would know that Alcibiades’ possessions are really his” (τὰ Ἀλκιβιάδου γινώσκειν ὅτι Ἀλκιβιάδου ἐστίν, 133d1–4). This seems obvious to Alcibiades, who is willing to extend the rule to knowledge of one’s own soul and its possessions (133d5–10).

Notice three things. First, Alcibiades putative “possessions” in this dialogue, much like other lists of “goods” and their “bad” counterparts, include, on the one hand, material items at his disposal, e.g., a ring, and on the other hand intrinsic features of his body and soul, e.g., weakness or strength, virtue or vice (*Alc.* 131a–d, 133b–c, 134b–c; cf. 128a–d). Inasmuch as he has any of these things, he is qualified by them. Thus we should think of such lists in the dialogues as qualities insofar as they are possessed by agents who are qualified as a result of having them (*Euthyd.* 279a–279b, *Men.* 88d–e; cf. *Resp.* 357a–358a).

Second, while “experience” or “association” do not occur in this text, Socrates’ language and the surrounding context strongly suggest that knowing Alcibiades is a matter of personal acquaintance.⁴⁹ Besides, what is the alternative? Socrates’ thought cannot be that we need to have a true *conception* of Alcibiades in order to know things about him.⁵⁰ This sort of claim wouldn’t serve the argumentative purpose of directing Alcibiades’ attention to the quality of his soul. Indeed, if self-knowledge through the grapevine is out of the question, then so is knowledge of others to which the former is presently being compared.

⁴⁹ For context, see 132d–133c (the eye-soul analogy). For language, consider his frequent use of γινώσκειν in this short stretch of text (133c15, c18, c19, d1, d2, d11).

⁵⁰ As some have tried to read *Meno* 71b—e.g., Scott 2006, 19, Nehamas 1994, 224; cf. Rowett 2018, 63–4.

Third, Gail Fine has argued that “ὅστις Μένωνα μὴ γινώσκει” at *Meno* 71b5 means “whoever does not know who Meno is,” but being (un)acquainted with Meno is different from not knowing who Meno is.⁵¹ I deny that Plato has a special sense of knowing that is acquaintance, as distinct from knowledge *that* or *what*. I offer a different interpretation below. At present, note that the parallel with *Alc.* 133d undermines Fine’s linguistic evidence. Here *knowing someone’s possessions* requires *knowing him*. Plato uses γινώσκειν with a direct object for both knowledges, so Fine’s attempt to distinguish between being acquainted with x and knowing who x is for grammatical reasons is unpersuasive.

The final text is from a “later” dialogue, but it is too important to leave out. In *Theaetetus* 201, Socrates refutes the proposal that knowledge is true opinion with a counterexample. He explains that jurors “who have been rightly persuaded about things that one can know only by having seen them and in no other way (περὶ ὧν ἰδόντι μόνον ἔστιν εἰδέναι, ἄλλως δὲ μή), judging them from hearsay (ἐξ ἀκοῆς) ... have true opinion without knowledge” (ἀληθῆ δόξαν λαβόντες, ἄνευ ἐπιστήμης, 201b7–c1). It follows that the two states are different.⁵² Here it sounds as if it is not possible to know the truth about events that we ourselves did not attend (cf. οἷς μὴ παρεγένοντό, b1).

There’s a textual challenge, though. In the interlude to this counterargument, Socrates says that “rhetoricians and lawyers” (ρήτοράς τε καὶ δικανικούς, 201a8) are not clever enough (δεινούς, a10) to adequately teach the truth about what happened (τῶν γενομένων τὴν ἀλήθειαν b3) in the short time they have, without the help of eyewitnesses (b1). Here it sounds like the jurors cannot

⁵¹ Fine 2014, 32 n. 4

⁵² On some readings, the point of the jury passage is to analogize perception and knowledge, e.g., Polansky 1992, 69, Gerson 2003, 223–5, Giovannetti 2022a. But seeing is cited as the necessary means (ἰδόντι μόνον) for knowing (εἰδέναι, b8). My reading is more literal: being present at the event and seeing it is apparently necessary for knowing the truth about it. Socrates is not interested in a rarified (scientific) sense of knowing at this point.

have knowledge of the case just because lawyers are unable to teach it to them in a short time, and this is how many readers have understood the text. But if shortness of time is what prevents lawyers from persuading, then it may be possible to have knowledge of the case even without seeing what happened with our own eyes.

One solution is to deny that teaching about the case would lead to well-founded true opinion, as distinct from knowledge.⁵³ This seems unlikely, though, since a similar passage in the *Gorgias* (454e–455a) explicitly says that teaching leads to knowledge (cf. *Tht.* 171c), while the persuasion used by orators in the courtroom results in opinion for lack of sufficient time. On another proposal, the things about which we only have knowledge from seeing them might be different from what the jurors would gain knowledge about, if the lawyers had enough time to teach it; the eyewitness might have factive knowledge of the crime, but others might be able to teach relevant conceptual knowledge, whether a given act constitutes an injustice, whether it is a punishable offense, etc.⁵⁴ This reading points us in the right direction, but it doesn't seem realistic. The single most important call in every trial is whether to convict or acquit, and this turns on whether the defendant committed the alleged offense or not. Of course there are many concepts that jurors ought to know about in order to do their job well, and a trial might be a good opportunity to sharpen their understanding of them; still, we should prefer an interpretation on which teaching and seeing the event point to the same content.

My reading has three key points. First, shortness of time might be coded language for another problem. As we know from other contexts, Socrates likes to oppose his own question-answer style, which moves at a rapid pace, with sophists and orators who offer long speeches (μακρολογία

⁵³ See Burnyeat 1980, who has philosophical reservations about this solution, inasmuch as “involves a sharp separation between knowledge and true belief” (180). Cf. Giovannetti 2022a, 414 n. 9.

⁵⁴ See Rowett 2018, 243–6

versus βραχυλογία—e.g., *Grg.* 449c, *Prt.* 335b). The “orators and lawyers” he mentions do not have this skill, but use other means of persuasion (τῇ ἑαυτῶν τέχνῃ, 201a8). Second, the central question, as I said, is whether the defendant did what the plaintiff charges them with; the charge is always a putative violation of a sanctioned law, otherwise it would not be tried in a court of law, so the case is conceptualized for them in advance. Suppose someone charges another person with stealing their money (b1); the jurors need to form an opinion on whether the defendant actually stole money from the plaintiff.⁵⁵ Socrates tells us that they normally decide by believing an eyewitness, which in the best case gives them true opinion without knowledge (ἄνευ ἐπιστήμης, c1). Third, Socrates really believes that the truth about whether the defendant committed the act or not is knowable only by seeing it. But—and here’s the main point—what if there is a way of seeing the truth that is open to jurors?

Here is my solution, which I will further explain in the coming discussion. The “teaching” Socrates wishes to see in the courts consists in an effective interrogation, akin to his *elenchus*.⁵⁶ If the person actually did what they are being charged with, an ideal prosecutor will bring this truth into the light of day by making it clear that he in fact did it even to the point of an outright confession (as often happens in detective novels, after they unraveled the crime). If the man is innocent, his defense lawyer will do the same thing to the unjust plaintiff, compelling him to admit the false allegation. This hardly ever happens in a courtroom—not because of the shortness of time, but because orators and lawyers lack the relevant dialectical skill and are mainly interested in winning the case.

⁵⁵ Cf. Bostock 1988: the question is “who did it” (200), Burnyeat 1980: “whether the defendant is guilty” (177). This is close, but inaccurate. The question before the court is whether the defendant committed the unlawful act specified in the formal charge.

⁵⁶ Socratic investigations are not about “what Alcibiades did or what was done to him” (Aristotle, *Poet.* 1451b). Nevertheless, they maintain a direct relation to agents by questioning them about qualities in their possession, or that they should care about having or not having. In this way, he believes he can reveal the quality of his interlocutors’ soul (esp. *Chrm.* 154d3–e6).

An ontological perspective on Socrates' epistemic rule

In the last example, I used “seeing” for the case of witnessing an authentic admission of wrongdoing. This points far from “acquaintance” as perceptual experience. I now want to explain my alternative, and why on a proper understanding of Socrates’ rule, he is not vulnerable to the usual allegations that the acquaintance reading faces: that in assimilating knowledge to perception, it psychologizes the former, resulting in a concept of knowledge that is subjective and unshareable and so inevitably leads to some form of skepticism.

Let’s start with the rule. Proponents of the acquaintance reading of *Men.* 71b assume that Meno and his putative qualities fall in the category of “sensibles,” and that “knowing” them is a matter of *perceiving*, and that is why we must “know” Meno in order to know whether he’s rich, etc. How else are we supposed perceive his qualities, if not by perceiving him? The significant upshot of the analogy, on their reading, is that knowledge of forms consists in rarified mental apprehension, akin to perception. This is also the view that their opponents target by arguing that this concept of knowledge is subjective, unshareable, etc., to which some add that acquaintance with forms is too obscure to be admitted in the present context, and perhaps in general.⁵⁷

Is the “perceptual” reading of *Men.* 71b well motivated? It would be, perhaps, if the qualities Socrates mentioned were prominent cases of perceptible qualities, but only one of them falls neatly (arguably) into this category, namely, beauty; good-birth and wealth do not invite such a reading.⁵⁸ Now that we’ve seen some similar passages, it is even clearer that Socrates’ rule is not about perceptual experiences as such, and their alleged intellectual analogues. *The (un)happiness of Archelaus, the (un)beneficial nature of sophists, the (un)healthy soul of Alcibiades, are not*

⁵⁷ E.g., Nehamas 1986, 280. Cf. Rowett 2018: “concepts or types... are *not* objects, and grasping one is not *knowing a thing*” (82).

⁵⁸ I should note that in my view of Plato, all qualities are ultimately intelligible—even those that are given to us through the senses (cf. *Tht.* 184a–186e).

perceptible items. The only text that highlights seeing is the jury-passage. But even there “the truth” concerning the disputed event is knowable only *by* seeing (“ιδόντι μόνον ἔστιν εἰδέναι,” 201b8). Socrates doesn’t say that the knowledge of it is itself something perceptual (cf. *Tht.* 186d2–5). Far from it; it seems that we could have *ex post facto* knowledge of the disputed event, according to Socrates, if lawyers knew how to teach such things in a short time!

I offered a “Socratic” interpretation of this claim. Perhaps he thinks that human agents can reveal the truth *about themselves* in word as well as in deed. In the jury-passage, the issue was whether the defendant did what the accusation alleges. I suggested that there might be a way of exposing the untruthful party by rationally forcing them to confess. Jurors who follow the process closely will have firsthand knowledge, I suggest, of the disputed action. Now, if human actions were mere motions, the proposal would be outrageous; such a thing can only be witnessed in real time. But we do not have to think so, and Socrates presumably doesn’t. He might think that an action is essentially a choice, an intention, that someone carries out. The agent’s intention is not confined to the time and place in which it was carried out; if so, we might be able to see it before, during, or after the act. An honest confession (obtained by rational means, not force) allows jurors to see for themselves the expressed intention of the unlawful party, which is arguably as good or better than witnessing the act.

Now we are finally in a position to see Socrates’ epistemic rule as an offshoot from prior ontological assumptions. The rule says that we cannot know what “belongs” to a thing with which we’ve had no interaction. This rule does *not* tell us what knowledge is, but it does rule out certain options. Knowing that Meno is handsome, for example, *cannot* be for Plato a matter of thinking that this state of affairs obtains when it does, for this can happen with no interaction. This might be because he has a different conception of knowledge than ours; but then we cannot say that it

consists in or even just justified by sense-perception, for the reasons I have just articulated. The alternative I would like to offer is that Plato's conception of states of affairs—e.g., Meno's being beautiful—begs a distinction between having them in view (self-evidently) and taking them on trust.

Let's say that Meno is in fact beautiful. This means, as you recall, that this quality is *present* in him, although Socrates sometimes uses other words to describe the same situation. Scholars either leave the metaphor of presence uninterpreted, or assimilate it to modern equivalents, usually "exemplification." The problem, as I explained, is that exemplification doesn't privilege qualifiers as presence does. Walking to the marketplace is not present in Socrates as he walks there, but he exemplifies this universal. Instead I argued that for a quality to be present in something is for that thing to be able to manifest the power of that quality. Instead of a primitive nexus of exemplification which links up abstract universals and located particulars, we have agents with various dispositionalitys that they are able to manifest in different circumstances.⁵⁹ On the present model, there's a characteristic act that Meno is ready to perform insofar as he is handsome, namely, to look beautiful to another person; this description is minimally informative, but it works for our current purposes.

Now, if an agent's powers were cognitively *unavailable* to those who interact with them, according to Socrates, always or for the most part, then it wouldn't make a difference, arguably, whether we hear a truthful report about Meno, saying that he is beautiful, or formed this opinion about him in his presence. This would appear to be the case if Socrates believed powerful qualities—here, beauty—lie behind the veil of perception, as it were, or that people are generally

⁵⁹ A "primitive" relation of exemplification is problematic, if we understand it as "linking up" ("primitively") located particulars and unlocated universals. That this is the default "realist" position in philosophy is, in my opinion, striking. See Grupp 2003 for further discussion.

ill-equipped to identify their exercises even as they happen before their very eyes when they are sufficiently intelligent and attentive to them. This seems like a bad view to me, and one that does not fit well with the character of Socrates. Besides, in some contexts he seems to think that we have a power (*dunamis*) to identify and distinguish powerful qualities by their exercises, which pretty much rules out this suggestion.⁶⁰

Let's assume that he holds the contrary position, then. On this view, agents manifest their powerful qualities not only in the primary sense of exercising them, but also in the secondary sense of *making them apparent* to competent observers. If this is a position he endorses, then we can finally see the point of his rule and why he finds it intuitive. Being with or nearby things puts us in a position to observe how they are disposed in various respects. Meno can make it apparent to an observer that he is handsome, for example, simply by looking so.

Does this mean that knowledge of a man's beauty is now all of a sudden a perceptual state, despite everything I've said? Absolutely not. My point is that *the presence of beauty in Meno* is made evident to observers when they register the activity of beauty in him; and, no less important, that this is the only way an "atomic" situation of this sort (i.e., an object's being thus qualified) becomes evident to anyone. The orthodox view on these matters is very different. States of affairs obtain or not, but they cannot be apparent, self-evident, or not, in any conceivable sense. Thus my contention is that Socrates' conception of states of affairs as complexes of agents and their powerful qualities motivates the rule because these complexes are such as to make themselves apparent through activity. The thinking subject directly engages the fact: attending and registering

⁶⁰ See *Phdr.* 270c–d with *Tht.* 184b–186e, *Resp* 518b–533c. I revisit the point in §1.3.

the dispositionality of the object before them. And yet the concept of empirical knowledge that emerges from this analysis is not as an inner psychological experience.⁶¹

Let me sharpen the point through a contrast. Epistemologists usually appeal to direct knowledge (“knowledge by acquaintance”) as a way of justifying “ground-level” beliefs about the world. In such contexts, it is argued that our experience furnishes evidence for propositional beliefs.⁶² The view I attribute to Plato’s Socrates is different; for him, the evident situation is the very content of the belief in it—e.g., the (active) presence of beauty in Meno is the very content of Socrates’ belief (i.e., empirical knowledge) that he is evidently beautiful, not a psychological experience which justifies it. Although sensory faculties are certainly involved, they do not stand between us and the self-evident situation we’ve registered.⁶³

We can see why Socrates is not worried about the subjectivity or unshareability of knowledge, or skepticism, as some of his readers are.⁶⁴ Situations are unproblematically shareable by witnessing them together, and the situations which make themselves self-evident to some have communicable content which need not be doubted by others (unless they have some reason to do so). What we cannot do is make it evident to another person that what we are talking about is as we say; only the thing itself, with which our report is concerned, can make its objective situation evident through its own observable activity.⁶⁵

⁶¹ Pace Gerson 2022 who talks about “the *pathos* of *epistēmē*.” In *Sph* 248d–e, the most decisive text on this question, knowing (τὸ γινώσκειν) is a doing (ποίημα, ποιεῖν), not a suffering (πάθος, πάσχειν). See Leigh 2010, 71–2. Gonzalez’s contention that beings both act and are acted upon by the knower in becoming known is likewise unjustified (2011, 83).

⁶² E.g., Brewer 1999

⁶³ This analysis does not exclude error—e.g., wrongly taking it to be self-evident that Meno is handsome under the influence of a drug, say. I’m focusing here on the good case of knowledge which is the topic of Socrates’ rule.

⁶⁴ Cf. *Phdr.* 229c–230a: Socrates doesn’t allow himself to disbelieve tradition except when it comes to issues of self-knowledge (“πειθόμενος δὲ τῷ νομιζομένῳ περὶ αὐτῶν ... σκοπῶ οὐ ταῦτα ἀλλ’ ἐμαυτόν” a2–3)

⁶⁵ By this I do not mean “perceptible,” as I have emphasized, and as I will further explain in §1.3.

I offered this interpretation schematically, using only the simple example of beauty, in order to simplify matters. However, now that we have established the difference between the contemporary orthodox position on states of affairs, and the model of dynamic situations, which can become apparent to observers, we should interpret anything that could conceivably “belong” to an object, such as external possessions, intentions, actions, experiences, etc., on the latter model. In each case, the situation is essentially dynamic, with agents either actively bringing their powers to bear in that situation, e.g., Socrates exercises his ability to walk in going to the marketplace, or having at their disposal usable items. Socrates’ rule holds in such cases just as it did in the paradigmatic case of Meno’s beauty. Only the possessor can make it evident what his situation is by exhibiting his “belongings.” For extrinsic qualifiers, like the material goods, the having of which qualify Meno as wealthy, can become apparent either by observing Meno’s financial activity, or by his granting access to his assets. This could be as informal as an invitation to his home, or as formal as a court-ordered declaration of assets.⁶⁶

1.4 The virtue of knowledge and the truth of recollection

I offered a new reading of Socrates’ rule on which empirical knowledge about objects presupposes direct engagement with them; in this way, and only in this way, their objective situation becomes apparent, self-evident. This reading explains why it is necessary to be nearby or with objects to gain knowledge about them without psychologizing cognition. If I’m right,

⁶⁶ According to Gabrielsen 1986, the Athenians maintained a legal distinction between concealed and revealed property for tax purposes (*ἀφανής* and *ἀφανής οὐσία*, 103). Initially the association of “the legal owner with the property” occurred naturally, as part of a shared life; and yet, “from the same psychological domain of the ‘open ethic’ there emerged a compensatory element manifest in the propensity to conceal [wealth]” which made it necessary “that the owner admitted publicly his ownership” in legal contexts (113, 104). This study has awakened me to the possibility that public acknowledgement or confession could allow the veridical association of a person with their belongings in general, as in my solution to the jury case.

empirical knowledge, e.g., knowing that Meno is beautiful, is an attitude towards objective situations, past or present, that the knower has witnessed.

My interpretation of Socrates' rule sharply diverges from a common reading of *Men.* 71b. As I explained, a majority of readers interpret this text against the backdrop of *Men.* 98a: true opinions (αἱ δόξαι αἱ ἀληθεῖς) become pieces of knowledge (ἐπιστῆμαι γίνονται) by causal reasoning (αἰτίας λογισμῷ). What I translate as "causal reasoning" is rendered by them as "giving an explanatory account" or "reasoning out the explanation." Thus they maintain that one needs to know the explanation of some fact believed, to have robust knowledge (as distinct from mere opinion) of it. They illustrate this for virtue: if it is essentially knowledge, then it is demonstrably teachable. However, it is not obvious that this is a good reading of 98a, let alone of Socrates' (much) earlier point. In this section I argue that their reading of Plato's analysis of knowledge in 98a3–4 is improbable. I then offer an alternative reading based on the ontological approach I developed in the previous discussion.

Objections to the common reading of Meno 98a

One shortcoming is that Socrates just doesn't seem to reason in the way these scholars suggest.⁶⁷ The example of virtue is inspired by events in the *Meno*. At 87b7–c7, Socrates argues that if virtue is knowledge, it is teachable. He then offers an argument for the antecedent (87c11–89a5), and then a counterargument (89c5–e3). So, the text that inspires this reading clearly doesn't offer an objective explanation of virtue's teachability, for it results in an impasse.

⁶⁷ Cf. Gerson 2022

Instead of finding parallels in Plato, some readers motivate their interpretation with an appeal to what they perceive as a parallel text in Aristotle's *Posterior Analytics*. To quote Dominic Scott: "[Plato's Socrates] is already committed to significant, but as yet undeveloped, metaphysical and epistemological assumptions that were to reach their clearest expression with Aristotle" (see *PA* I 6; II 2, 8, 10). Scott goes on to explain Aristotle's distinction between "the essence of something" and "features that do not belong to the essence itself but are dependent on it for their explanation" (so-called "necessary accidents"). Thus, Aristotle has a conception of knowledge as apodeictic, according to Scott, with the definition acting as "a principle from which we can deduce other properties."⁶⁸

Let's say we wanted to read all of this Aristotle into one enigmatic sentence in the *Meno* (98a3–4), and then on these dubious foundations to interpret Socrates' enigmatic analogy 27 pages earlier.⁶⁹ Our reading wouldn't make much sense of the broader argumentative context. As we will see, Socrates describes the "causal reasoning" by which opinions are converted into knowledge as *anamnesis*.⁷⁰ I take it that recollection refers to definitional inquiries. Neither the process of defining, nor its result, has the character of explaining one proposition *p*, with reference to another, *q*. Socrates never instructs any interlocutor to articulate such a relation between beliefs, and I am unaware of any instance of someone providing such an articulation.

The other case of recollection in the *Meno*, by which Socrates motivates the thesis that learning is recollection of truth from a prior life, is an impromptu geometrical lesson. The gist of it, famously, is that a slave without prior geometrical figures out how to double a square with a side of two-feet just by responding to questions. What we have here is a construction problem: how to

⁶⁸ Scott 2006, 21

⁶⁹ And in doing so to dismiss the "simple" example of *Meno*, as I showed.

⁷⁰ Cf. Tarrant 1989, 65

double a square. I'll return to this shortly. My point now is that the slave is not taught to demonstrate a theorem, nor is there any indication that such a proof is impending or even required.⁷¹

Finally, Socrates is called to explain the difference between true opinion and knowledge after having said that true opinion can guide a person just as well as knowledge in practical matters, which he illustrated by the example of the road to Larissa. He needs to explain why the knowledgeable guide—described as someone who has gone there and is experienced—is more highly esteemed than the person who has true opinion about the road (97a–b). It is fairly clear from the context (89e ff.) that the metaphor is political: why should we prefer the rule of knowledge to laws and tradition?⁷² This makes Socrates argue that knowledge is the transformation of true beliefs by a causal reasoning which stabilizes them; otherwise they tend to “run away” from us like Daedalus’ statutes when they are not tied down.

I'll say more about this metaphor shortly. For now, I want to emphasize how unlikely it seems that true beliefs are devalued because they lack explanation. In context, the instability of true opinions presents a problem for a thinking that is guided by them. Socrates is careful not to make his point too explicit—maybe because Anytus, later his prosecutor, is present; but when he says that true opinions tend *to run away* what he means, arguably, is that the correct application of general propositions or “laws” to reality is not warranted by their sheer presence in us. Going by some received opinion, in other words, is good just in case *they actually apply to the case on hand* (cf. *Plt.* 294b). The ability to explain some propositions by reference to other propositions,

⁷¹ Pace Schwab 2015. On his reading, the slave believes a proposition that needs to be “grounded” by a formal proof in order to become known. But Socrates says that the slave will become an accomplished geometrician “if someone asks him the same things many times and in many ways” (85c10–11).

⁷² Perhaps under the leadership of inspired politicians (*Men.* 99b–100b).

arguably, has no bearing on the application of general thoughts to reality, which further suggests that the “casual reasoning” Socrates has in mind is not of this sort.⁷³

My alternative

I will offer a new interpretation of the transformation of true opinion into knowledge (i.e., “recollection”) and the difference between the two states in four steps. It will emerge that knowledge is a state which both originates from and sustains true thinking about situations in everyday experience, on the one hand. In this way it is like true opinion, but better. On the other hand, the ability to direct thought on these matters derives from the knower’s abstract representational capacities which afford her a permanent grasp of powerful constituents of reality apart from actual situations.

Before everything, the text:

True beliefs are also a thing of beauty, [like Daedalus’ statues], and produce all good things, but they are not willing to stay for long (πολὺν δὲ χρόνον οὐκ ἐθέλουσι παραμένειν); instead they run away from the person’s soul. As a result, they are not worth very much (ὥστε οὐ πολλοῦ ἄξιαί εἰσιν) until someone ties them down by causal reckoning (ἕως ἄν τις αὐτὰς δῆσῃ αἰτίας λογισμῷ). And this, Meno, my friend, is recollection (ἀνάμνησις), as we have earlier agreed. When they’ve been tied down (δεθῶσιν), they first of all become pieces of knowledge (ἐπιστῆμαι γίγνονται), and then stable (μόνιμοι). It’s precisely for this reason that knowledge is more highly esteemed (τιμιώτερον) than correct belief, and it’s being tied down (δεσμῷ) that makes knowledge different from correct belief (97e4–98a8).

Socrates compares true opinion and knowledge. He argues the former is a great thing to have as long as it stays with us; but it tends to run away, and so it does not have much value after all, unless we are able to tie it down. This happens, he argues, through causal reasoning by which true beliefs become stable pieces of knowledge. What does he mean?

⁷³ This topic has affinity with what Kant calls the power of judgment. See Kant 1787/1998, A130/B169–A136/B175

Step 1: Runaway true opinions

The first thing we need to get clear on is the genus of which true opinion and knowledge are species.⁷⁴ The answer, I suggested, lies in the surrounding context. In the Road to Larissa passage, the knowledgeable guide and his doxastic counterpart both think truly (“οἰόμενος μὲν ἀληθῆ, φρονῶν δὲ μή, τοῦ τοῦτο φρονοῦντος,” 97b6–7). A natural way to understand the situation is that they have overlapping intentions at every point along the way. This means the doxastic guide doesn’t make any false turns, but moves exactly as the knowledgeable guide does, thus they deliver equally good results (οὐδὲν χείρων ἡγεμὼν ἔσται, b6). How realistic is this scenario, though?

Socrates is walking a tight rope. On the one hand, he wants to reassure Meno—and Anytus, whose menacing presence leaves an unmistakable mark on the closing part of the discussion—that one can do well by following conventional wisdom. At the same time he wants to warn him that true opinions are useless if they do not match the situation at hand. Let’s say that the road to Larissa from Athens goes through A, B, and C. Having successfully passed A, and B, the doxastic guide misses C, arriving instead at D. Our “guide” still has his old *doxa* about how to get from Athens to Larissa; but this true belief no longer applies to his situation.

The common thing between true opinion and knowledge, then, is that they allow us to think truly. The trouble with true opinions, I suggest, is that the relevant ones are not always available to us. This captures well the metaphor in the passage: true opinions escape us, leaving us either with no clue what to think or do—or, what’s worse, we might let “true opinions” tyrannize over objective reality. Remember what Anytus said: he knows who the sophists are without knowing any of them! If so, what runs away is not the content of what a given opinion says, nor our confidence that it is right, in some contexts, to think it; instead, the “truth” of “true opinions” is

⁷⁴ This is not the same thing as saying that true belief is a species of knowledge, a claim that Lloyd Gerson rightly objects to, even though I disagree with some aspects of his analysis. See Gerson 2009, Ch. 3.

unstable, for it is not always right, true, to maintain them. This, I will argue, is what needs to be “fastened” by causal reasoning.

Step 2: Causal reasoning

On the reading I criticized, *aitia* means “explanation.” Some scholars believe that *aitia* has causal force for Plato, so that we shouldn’t understand it as explanation. The form (*eidos*) of virtue, for example, doesn’t merely explain this attribute, but also in some way produces instances of this property.⁷⁵ While I agree that *aitia* has causal force, the assumption that forms are abstract objects which produce their own instances is clearly unattractive. As Terry Penner puts it, we want to give Plato views that he “could have had in mind.”⁷⁶ The present proposal fails this test.

In general, the frequent use of “the form of F” (which are by the way hard to find in the dialogues) shouldn’t incline us to think that *eidos* or *ousia* refer to anything but the quality in focus, under a different label—indeed the sort of label that indicates that the quality has become a topic for the speaker.⁷⁷ Socrates’ increasing reliance on philosophical jargon contributes to a widespread belief that “a’s being F” and “the presence of [the form of] F in a” express different facts: the second explaining the first, or even, as I just said, that one metaphysically causes the other. But Socrates never says that the form of justice, whiteness, etc., is present in something, only that justice, whiteness, etc. are. These are qualities. Or he asks for the form shared by many Fs, by which he seems to mean a quality such that if anything has it, then it is right to call that thing an F (*Men.* 72b–d, esp. c7–8, *Euthyph.* 6d–e). If Platonic “facts” are dynamic complexes, and those are analyzable into “atomic” situations, e.g., the presence of justice in Socrates, as I suggested, then

⁷⁵ E.g. Wolfsdorf 2003, 2005; Sedley 1998; Fronterotta 2007; Leigh 2012.

⁷⁶ Penner 1987, 43–4

⁷⁷ Cf. Klein 1965, 49

“Socrates’ being just” and “the presence of justice in Socrates” are different ways of *describing the same fact*, the first ontologically less determinate than the second. The second does not “ground” or “explain” the first, but offers an ontological analysis (“elucidation”) of it.

The main thesis of the paper is that Plato is working with a conception of beings as powerful thanks to their qualities, which make diverse contributions to their dispositionality. If we set aside the misleading assumption that Socrates is looking for *forms* of qualities, as distinct from qualities, as well as the assumption that qualities, or some qualities, are “unknowable” by ordinary means, or hide behind the veil of “ordinary” human understanding, then we can propose a causal reading of 98a that Plato could have entertained. First, the reasoning he alludes to, which he calls “recollection,” might be reflection on powerful qualities.

Let’s look again at an episode from *Charmides*. Socrates asks Charmides to attend (προσέχων τὸν νοῦν, 160d5) and take note (ἐννοήσας, d6) of temperance, “what sort of person you are by its presence and what sort of thing it must be to make you so?” (d7). Charmides needs to “sum all of this up” (πάντα ταῦτα συλλογισάμενος, d8). He figures that: (1) temperance makes him feel bashful; (2) shame disposes people to feel this way; thus (3) temperance is shame, conceived precisely as the disposition to feel ashamed; indeed even though Charmides doesn’t say that shame is a *dunamis*, his reasoning makes the most sense if it is.

Notice also that the verbal noun λογισμός in αἰτίας λογισμῷ is a close relative of συλλογίζεσθαι (“summing-up”). Here, Socrates instructs Charmides to work his way to temperance by thinking about its putative contribution in his case, rather than explaining this property with reference to another fact. If the pursuit of virtue in the *Meno* is similar to the one in the *Charmides*, then it makes sense that at 98a Socrates has in mind “causal reasoning” along the lines we just saw.

According to some, these dialogues differ significantly; in the *Meno*, the *definiendum* is an *eidos* conceived as the metaphysical cause of dispositions, but in the *Charmides* the disposition itself is at stake, conceived merely as psychological phenomena.⁷⁸ I already stated my reservations about such readings. I cannot see the theoretical payoff in giving so much weight to Plato's philosophical taxonomy, especially when the topic and the definitions it elicits from interlocutors are so similar. Consider Meno's definitions. First he assumes that "virtue" names a family of dispositions. The gist is that different social categories have different virtues; a virtuous man is politically competent (ικανὸν εἶναι, 71e3), a woman needs to be good at domestic tasks, and so on (εὖ οἰκεῖν, e8). Socrates explains that he is looking to the *eidos* shared by all of these cases (c7–8). The context suggests that he is looking for the virtue of *human beings*, whereas Meno is concerned with conventional simulacra of virtue relative to social categories.⁷⁹ Socrates' intention aside, it is clear that Meno is not amazed by the invocation of *eidos*.⁸⁰ Instead he defines virtue as "being able to rule other people (ἄρχειν οἷόν τ' εἶναι τῶν ἀνθρώπων, 73c9). This definition is criticized, so Meno tries another one: "being able to procure the beautiful things one desires" (ἐπιθυμοῦντα τῶν καλῶν δυνατόν εἶναι πορίζεσθαι, 77b4–5). And then another: "the power to procure goods" (δύναμις τοῦ πορίζεσθαι τὰ γαθὰ, 78c1). Clearly, Meno assumes that virtue, a quality, needs to be stated, not the form of this quality, as though the two were different, and also that it is powerful; all of his attempts focus on virtue's contribution to the dispositionality of its possessors. Granted, none of these definitions stand up to scrutiny. And yet the underlying

⁷⁸ Wolfsdorf 2005, 343

⁷⁹ *Contra* Dancy 2004: "we may assume both that Meno's list is correct as far as it goes" (211). Cf. Nehamas 1975, 296–7. In the *Republic*, Socrates says that women and men have the same virtue, because they have the same nature (455e–456b), and also that helping friends and harming enemies, which Meno includes in "political competence" (71e4–5) is not virtuous (335e).

⁸⁰ Cross 1965: "On the orthodox view of the theory of Forms, a 'universal,' and the discovery of universals and their relation to particulars is hailed as one of the achievements of the theory. But neither Meno nor Socrates seem much interested in this revelation" (20).

assumption that virtue is a powerful feature is never challenged. If so, the causal reasoning Socrates has in mind is arguably concerned with powerful qualities in general.

Step 3: Recollection

If the causal reasoning in 98a is reflection on powers, as I suggest, why does Socrates call it “recollection”? Nothing in the immediate context suggests that the true opinions converted into knowledge are from a preincarnate state of absolute knowledge, as the earlier story suggested (81b–e). In fact, the source of true opinions doesn’t play any role in the discussion, which focuses rather on the benefits of converting them into knowledge. Furthermore, while the reckoning which Socrates now calls “recollection” leads to knowledge, the geometrical “proof” of recollection has resulted only in true opinions (85c, 86a).

Here's what I think is happening. Meno wasn’t able to define virtue, and this has led him to deny the possibility of finding the truth about things that we do not already know (80d–e). In response, Socrates offers him a piece of edifying fiction, namely, that all learning is recollection of truths from a prenatal omniscient state.⁸¹ Plato is nearly explicit. The moral of the story is that we shouldn’t believe Meno’s sophistical argument, “for it would make us lazy ... but this one produces active inquirers” (81d5–e1). Later he is even more direct:

I wouldn’t insist on the other points very strongly, but that we would be better, and more manly, and less lazy by believing that one should search for what one doesn’t know than if we believed that we cannot discover what we do not know and that we shouldn’t even search for it—that is something over which I would fiercely contend, if I were able, in both word and deed (86b6–c3, tr. Sedley and Long 2011, modified).⁸²

⁸¹ Cf. Ebert 1973, 177; Weiss 2001, 63–76; McCabe 2009, 241.

⁸² Cf. *Phdr.* 265b2–d1

Besides its moral function, the recollection story might be a vehicle for two related thoughts. The first is that human beings are innately disposed to know the truth. Or, to put it differently, humans are knowers by nature, even if we do not already know everything (*contra* Meno), and probably never will. I mentioned earlier that in some dialogues, Socrates says that every soul has an innate power of learning, akin to an eye (e.g., *Resp.* 518b8–c6; cf. *Tht.* 185c–186c). This intellectual *dunamis* needs to be trained, exercised, and that is what learning is all about—at least according to these other dialogues. It seems very relevant that Socrates is addressing himself to gifted, well-educated souls in these texts (i.e., Glaucon and Theaetetus), whereas in our dialogue he deals with a problematic figure, as he constantly remarks and as Meno’s accounts of virtue reveal. It seems reasonable that what he tells the former is closer to Plato’s thought than the mythical version.

Interestingly, the slave’s personality appears more similar to these good fellows, especially Theaetetus, than to Meno. He learns quickly and gives honest answers (e.g., 84a2–3). Let’s take a quick look at his *eureka* moment. Socrates gives him a challenging problem. Given a four feet square; *how long* (πηλίκη τις) is the side of a square twice as large? (82d8–e1) The slave tries four, and then three feet, but he realizes that these numbers yield areas of sixteen, and nine square feet respectively, instead of eight (82e2–83e11). Then Socrates puts the question differently: *from which line* can an eight feet square be generated? Can he point to it? (δεῖξον ἀπὸ ποίας, 84a2). He then draws the following structure in the sandbox:

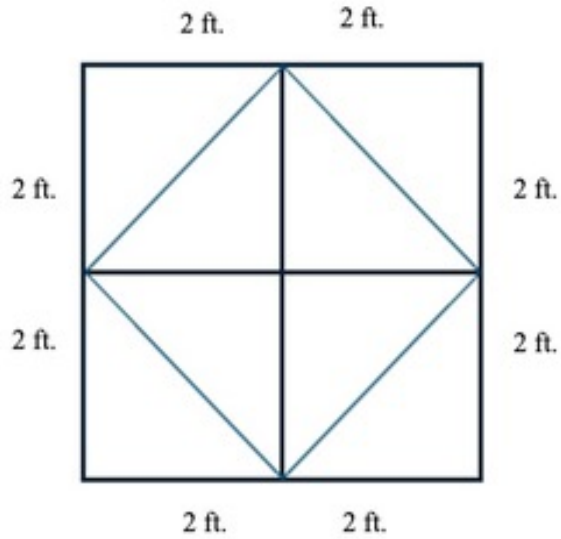


Figure 2. *Socrates' Final Diagram*

Socrates makes it salient to the slave that the lines he drew from corner to corner are equal (87a1–2), and that they divide each four feet square into two equal triangles to a total of eight (a5–7). This makes it easy for the slave to see that each of the four feet squares contains two triangles, while the square area inside these lines contains four; so it is double, and two times four is eight (a7–9). Thus it becomes evident to him that we get an eight feet square by constructing it on the line that goes from corner to corner, as he makes clear by pointing (b2). The experts, says Socrates, call this line “diagonal” (διάμετρον, b5).

Another for this line, which we find in the dialogues, is *dunamis* (*Tht.* 148b1; cf. *Plt.* 266a5–b7). This term seems to capture the ability of the diagonal to produce a double square area.⁸³ A

⁸³ Squares are also called *dunameis* (e.g., *Tht.* 147d3–4), presumably because they are what their sides are potentially, See Alexander of Aphrodisias, “Commentary on Aristotle’s *Metaphysics*,” note on 1019b33 (Hayduck 1891 ed.). Cf. Tannery 1884, Burnyeat 1978, Høyrup 1990; *Contra* Szabò 1969.

diagonal, then, is a line that connects the opposite corners of a square; but the salient feature of the line, for a mathematician, is that it measures the side of a square with a double area, which can thus be constructed on it. Presumably that is why Socrates names the line only after the slave has seen this powerful feature at work, i.e., *acting* as the limit of such an area. This puts us in a position to see Meno's failed attempt to "recollect" virtue, and the slave's successful discovery of the doubling power of the diagonal as two cases of "causal reasoning."⁸⁴

I have tried to demythologize the geometrical lesson by suggesting that the slave has the power to see the power of the diagonal at work in a given geometrical situation, and in this way to learn about it. If this is right, he has just *gained*, and hopefully he will retain, a true opinion, as opposed to recollecting it. In this respect, his situation is *unlike* the respondents in the dialogues. They need to define a quality that they have, or wish they had. Here one must have an opinion on the topic, however difficult it might be to articulate or admit it to others. Philosophy more than any other form of thinking seems to have this reflective character, where one tries to bring forth ideas that are as it were "buried" in one. The thesis that learning is recollection, demythologized, is true to the essence of philosophy, it seems. So Plato has at least two deeper reasons to offer this particular myth.

Step 4: True opinion and the virtue of knowledge

Earlier I argued that having a true opinion, in the present context, means thinking something true—e.g., that if I want to get to Larissa from Athens, say, I need to arrive at A, then B, then C, and finally Larissa. I also suggested that this is a metaphor for political leadership. The drama at this juncture is about whether it is possible to become virtuous by following leaders who are guided

⁸⁴ *Contra* Fine, who contends that "the correct answer [to a geometrical problem] has an explanation but not a cause" (2021, 75)

by laws with a touch of divine inspiration. If so, “Larissa” represents virtue, and the road is the process of bringing it about, i.e., *paideia*. This, as you might recall, was Meno’s original question. How do we become virtuous? Socrates’ answer gave us his rule, but we never explained why it was necessary to know virtue in order to know whether it is teachable. The reason is simple. If we don’t know what agents are able to do owing to their virtue, or do best, then we cannot even begin to think about how this quality is achieved (cf. *La.* 189e). Ways and means are adjusted to aims. Thus, if we want to know how people become virtuous, we have to think long and hard about what virtue is before we can take any other question about it.

I want to end by explaining the difference between true opinion and knowledge: what it means and where it applies. Scholars usually read the distinction into Socrates’ rule at 71b. It seems to me, by contrast, that Socrates’ rule paves the way for the later distinction without already assuming it. On my interpretation of the rule, it sets a norm on knowing in general, expert (i.e., “robust”) or nonexpert alike. The rule says that we cannot know how things are disposed in the actual world without having them in view. The reason, I argued, is that things make their situation apparent through their own agency. So they must become apparent to us if we wish to find out how they are disposed in any respect whatsoever. This *excludes* a conception of knowledge that is unable to distinguish between truths which are revealed in direct engagement with their object from hearsay, without committing Plato to a determinate conception of *episteme*.

Nevertheless, I hinted already in §1.2, and then more forcefully in the present discussion, that my ontological-dynamic framing of the rule goes hand in hand with the ontological-dynamic assumption that human beings have the power to grasp self-evident truths. Thus Socrates can lead the slave to see that the square on the diagonal of a given square is double in size. He also says that he has true opinion on the matter, not knowledge (85c9–d1). Socrates didn’t mention this

distinction before. Notice that the slave's true opinions are about a self-evident situation, as distinct from second-hand knowledge. This is extremely important. Unlike the jury passage, which was about a disputed charge, the slave is making his first baby steps in the science of geometry. Here there are more distinctions than in the other case: the slave can know the answer by being told it, or he can discover it as he just did, or he can be a master geometrician. The transformation of true opinion into knowledge by "causal reasoning" is concerned with the transition from the second to the third and has no application in the jury case.

Plato's Socrates, who thinks that there should be a science of ethics, is arguably trying to show us how true opinions need to be formed by someone who is going to develop mastery in a domain. He also offers a helpful characterization of the slave's cognitive state as "dreamlike" (85c9), which resonates with the metaphors of running statues. Putting all of this together, I want to sketch an account of *episteme* as a state that emerges out of true opinions which are formed in the right way, as illustrated by the slave, and sustains true thinking in that domain.

Consider a quality *F*, and a thinker, *S*. This is the sort of thing that Socrates is asking his "What is?" question about. When *F* qualifies an object, this means, on my interpretation, that it is ready to act in a certain way, in the capacious sense of "acting" I have assumed throughout, which now applies even to the activity of lines when they act as limits. If *S* has true opinion about what *F* is, this means that they have "seen" it active in a situation one or more times, just as the slave did. Furthermore, the sighted item must be labeled, as Socrates did as soon as the slave grasped the dynamic significance of the diagonal.

Having true opinion about *F* once, twice, or *n* times doesn't guarantee that we will always be able to recognize *F* when it is present. Remember how much help the slave received, first. Secondly, as Socrates stresses elsewhere, humans are easily deceived by similarities (*Phdr.* 261e6-

262b9). But the most important thing which seems in a way to capture the other two is that the slave observed the diagonal in a specific situation. Does he understand, for example, that the values Socrates assigned to them are not relevant? That is, can he generalize from this case to others which are superficially unlike it? It is of the essence of knowledge to be able to do that.

Now let's think of the state of *episteme*. Socrates describes it as emerging out of successful reflection on causes, which stabilizes true opinion. Let's say that S was able to define F truly by drawing on her firsthand true opinion. Socrates suggests she has to do this often enough and across an entire system of related qualities (85c–d). Assume she does. The effect of this, I suggest, is that now F, G, or any other quality that is relevant in the domain she inquires about has been isolated, such that S can conceive it “in itself” or “by itself,” as the phrase goes. Originally, it was observed in clusters with other things “in” agents.

A central feature of my reading which distinguishes it from others is that S's earlier doxastic state about F had the exact same content as it does in a state of *episteme*.^{85, 86} The difference (which makes all the difference) is that S used to have a fleeting recognition of F in situations, including her own, but now she has seized it along with other things. This steady grasp of F is made by possible by focusing attention on the familiar item and giving it articulation in words. Initially, this can be as simple as “virtue is that whose presence in us makes us do well” (cf. *Men.* 87e1, 88c3). The thinker then needs to articulate her preexisting conception of happiness—not as a distant

⁸⁵ Readers may also recognize here a possible solution to the *aporia* at the end of the *Theaetetus* (cf. *Plt.* 277d–278d), as well as the other horn of Meno's dilemma: why pursue truths that we already know? (80e3–4)

⁸⁶ Pace Franklin 2001: “the items through which the property is explicated are other properties” (418 n. 11; cf. Aronadio 2002). And this is supposed to make “an inchoate, intuitive grasp of the property under investigation ... sharper and more explicit” in the end (433–34). He clearly thinks of properties as modes of presentation. On my reading, qualities are powerful possessions which are understood by humans doxastically through their activity, and then formulated in words.

“rumor,” but in her actual life. What about her own being allows her to do well? What features dispose her towards the opposite?⁸⁷

The doxastic troubles I mentioned vanish with the arrival of knowledge. S can now recognize F in every imaginable situation; she is not misled by similarities; and of course, she no longer depends on others to tutor her. This stabilizes the relation of S to F in an everchanging, complicated reality. Recall that this was the payoff Socrates highlights. This doesn’t take away the special rewards of scientific contemplation, including the ability to explain and the confidence that comes from having good arguments. But the real prize from *episteme*, according to the *Meno*, is not the ability to prove or explain in abstract scientific contexts, as scholars have argued, but the steady and reliable application of thought to reality to achieve pressing goals.

1.5 Conclusion

In this chapter I approached a group of early dialogues, up to and including the *Meno*, with a new question. I asked whether Socrates has a determinate conception of the sort of thing he’s asking about. I argued that he does. In the *Charmides*, *Gorgias*, *Protagoras*, and *Laches* the powerfulness nature of qualities is pronounced. This bears on the way that Socrates expects his interlocutors to answer him. I further motivated my claim that the use of *dunamis* is ontologically revealing in the early dialogues by showing that it points to a promising, and believable, conception of *parousia*. For a quality to be present in something is for that thing to be able to manifest the power of that quality. This reading gathers the modal, instrumental, and locative significance of the Greek verb, *pareinai*, from which *parousia* is derived, into a single concept, while other

⁸⁷ Productive conversations in the dialogues exhibit this pattern—e.g., *Republic* books 2–10. Interlocutors who float around conventional sayings are immediately subjected to a purging *elenchus* aiming at the removal of ignorance. Plato doesn’t care for *endoxai*.

commentators either leave it uninterpreted, or gloss it with modern terms like *exemplification* or *instantiation*, which do not fit as well.

The second part of the chapter considered the epistemological significance of Plato's powerful ontology. I began by drawing attention to a recurring statement. In many places, Socrates says that we cannot know what holds of someone, especially with respect to their qualities, without having some personal familiarity with them. This sort of claim is usually read only as a (more or less) revealing analogy for what knowledge of forms consists in. I took these claims seriously in their own right and asked why Socrates believes them. My proposed answer was that his powerful ontology begs a distinction between having some fact in view (self-evidently) and taking it on trust. That is because he conceptualizes what we think of as inert "objects" which "exemplify" abstract universals as dynamic complexes of agents with their powers. He analyzes such complexes into "atomic" units—e.g., the presence of beauty in Meno. Unlike modern-day "states of affairs" or "propositions" which either obtain or not, but cannot themselves, in any conceivable sense, be apparent, I argued that Plato's atomic situations are made apparent through the agency of the qualified object itself. For him, the ontological manifestation of a power, namely, its exercise or activity, is also what makes it available for knowledge. This makes it natural for Socrates to distinguish the veridical representation of a given situation from having it self-evidently in view. On my reading, he puts forward a general norm for knowing, whether doxastically or expertly, namely, that we need to learn the truth about how things are disposed from them, by engaging with them in the relevant way, rather than by getting it from someone else.

This analysis pointed me to a reading of the difference between true *doxa* and *episteme* which is attentive to the practical context in which this distinction is drawn. Indeed I argued that even the geometrical lesson needs to be understood in active, dynamic terms. The diagonal of the square is

shown, self-evidently, to be the line which produces the double square area by proving that the square that is constructed on it contains an area twice as large the original square. The diagonal acts as a limit, I argued. This makes more sense than thinking that the slave is “pulling up” the right answer as a propositional item that’s buried in him. On the reading I defended, recollection is a myth whose real upshot is that humans are innately disposed towards self-evident truths. The challenge is to approach objects in a way that allows them to show us whatever it is that we want to know about them. They do so, again, by acting in different ways, even when the activity is something that strikes us as too abstract to count as one. However, as I showed, Plato finds it natural to talk even about “abstract” mathematical qualities as *dunameis*.

Still, there’s a difference between grasping the objective situation of this or that object in a fleeting moment, with the help of some guide, e.g., Socrates, as the slave did, and having a steady ability to do so that ranges over a scientific domain. Socrates is especially interested in what it would mean to have such an ability in the domain of ethics and politics. This context has been overlooked by other scholars, but I argued that it is crucial for understanding the virtue of *episteme*. True opinions, Socrates argues, are good as long as they stay with us. However, no opinion, however important or well regarded, can tell us where it applies. In other words, the truth of so-called “true opinions” is something that only the epistemic user of such opinions can reliably benefit from, since such a user is the only one who knows whether and how they bear on actual situations. Anytus, for example, might think that he applies the laws truly in Socrates’ case, but he is arguably wrong. Similarly, and relatedly, he might think that he knows what sophists are like, and that Socrates is a sophist. But his opinion, whatever truth it possesses, is not one that he can reliably entertain and apply. It orients him even when it leads to disorientation. Or so my reading suggests.

Finally, I argued that Socratic investigations are in a crucial respect unlike geometrical ones. The slave can work productively with Socrates because he has sufficient, if minimal background, and enough mathematical ability. He can do basic arithmetic, and he can identify familiar shapes. Most importantly, his head is not full of notions to which he is deeply attached, but which might clash with the truth about the case at hand. Ethics is different. The analytic work that Socrates invites Meno to pursue with him presupposes a great deal of prior efforts in the right direction. Not only talent, but also good habituation is needed. It is not obvious that Meno is able, in his current state and maybe at all, to make progress in philosophical ethics. In truth, it is not obvious that he is suited for any intellectual effort, from which he routinely escapes. Nonetheless, we will see, in the next chapter, what Socrates is able to do with Meno, and what the conversation between the two of them might teach us about the pursuit of definition. As we shall see, Meno's shortcomings are also a window to Socrates' project. Meno's refusal to do any work himself compels Socrates to tell us more about what he's after by offering examples and by orienting and reorienting Meno, again and again, to the quality he is asking about, namely, virtue. Furthermore, Meno's views about virtue clash in productive ways with Socrates'. This, I will argue, brings out the scientist in Socrates more so than other dialogues, not just the logician or dialectician. Indeed on the reading of Socratic definitions that I will defend, they are statements of natural philosophy which are guided by the ontological assumptions that I have begun to develop in this chapter.

Chapter Two: Socratic Definition Redefined

2.1 Introduction

A neutral description of Socratic definitions is that they are answers to Socratic (“What is F?”) questions. On the standard reading, a correct answer to such questions meets at least the following criteria. It needs to cover all and only cases of F; and it needs to explain why they are cases of F.¹ The second requirement is more stringent, and according to most readers it entails the first. An answer which satisfies both requirement “picks out” the form of F. This means that the form is or exemplifies the content expressed by the predicate of a true answer to the Socratic question. On this picture, then, Plato’s forms begin their career as referents of correct answers to Socratic questions.²

The standard reading draws heavily on Socrates’ objections to Meno’s proposed definitions of virtue. They derive the above constraints from these criticisms, which they read as a kind of “crash course” on the correct form of answer to the “what is F?” question. R. M. Dancy is especially clear about the methodology:

When Socrates rejects definitions he uses certain arguments against them. We ask: what would an answer have to be like in order not to fall to that argument? We identify the assumption, and ask what general claim it might most naturally be taken to instantiate. The assumptions in question are not ones that require reference to any special entities that figure as the objects of these definitions (2004, 80).

If we looked only at Socrates’ responses to Meno’s proposals, this could seem like a promising interpretation of what he has set out to do: namely, to provide criteria that allow us to distinguish

¹ E.g., Allen 1970, 38; Santas 1979, 105–15; Taylor 1992, 140; Fine 1993, 49; Irwin 1977, 61, 136; Wolfsdorf 2003, 2008, 185–96; Karasmanis 2006, 132–33; Dancy 2004, esp. Chs. 4–6; Scott 2006, 27–30; Kahn 1996, 172–78.

² As R. E. Allen puts it: “to say that Forms exist is to say that real definition should be pursued”; conversely, “to say that real definition should be pursued is to say that Forms exist” (1970, 68). For a recent discussion, see Ebrey 2023, 70–5.

between adequate and inadequate answers. However, the view seems less promising once we turn to Socrates' positive instruction on how to go about defining.

I will focus on two aspects of his positive teaching. One is the instruction to look towards (ἀποβλέψαντα) the form (εἶδος) that the definition reveals (ἐκεῖνο δηλῶσαι, 72c).³ Some have argued that forms in the *Meno* are “separate,” metaphysical causes, which I take it is the view that Dancy wants to deny, and with reason.⁴ I am not interested directly in this issue, though. Instead, I will try to understand the work that “looking” and “showing” do for Plato in this text. I think that the indirect method of coming up with a proposed definition from one's beliefs and seeing whether it satisfied the above stated requirements is a rather unprincipled way of thinking, and that it doesn't match the language of looking and showing very well. The instruction to look, and to show, also suggests, as Dancy holds, that *eidos* cannot be the exotic entity that some scholars have made it out to be, since this is hardly something that interlocutors can attend to, and express. At least it is very unclear how they might do so.

The second aspect of Socrates' positive teaching that I will explore here in depth are his model definitions: two accounts of shape and one of color (75b–76e). Read through the lens of the standard reading's application of formal criteria, these definitions don't exemplify one type of explanation, but, as we will see, three. Some scholars pick one as the model for an essence giving, i.e. “real” definition, but Socrates seems to treat all three of them as paradigms (77b1).⁵ I will contend that scholars have struggled with these examples because they lack the ontological roadmap, so to speak, for dealing with them. Plato's Socrates goes about asking, and answering, the “What is?” question from a specific ontological perspective. Readers either assume that

³ Cf. cf. *Euthyph.* 6d–e; *Cha.* 158e–159a, 160d

⁴ See: Allen 1970, 84; Wolfsdorf 2008, 185–96; Fronterotta 2007, 44, 52; Prior 2013, 91–2

⁵ There might be a certain hierarchy, as we shall see. Nevertheless they are offered as acceptable models. Cf. Karasmanis 2006, 141

Socrates has no preexisting ontological commitments going into this inquiry, or, what's worse, they tacitly assume that his are the same as theirs, so that we doesn't need to take a stand, or even reflect on, fundamental questions in logic and/or ontology when we approach them.⁶ On the other hand, there are scholars who, as I said, make the whole enterprise seem so out of reach and exotic that one can hardly see Plato's metaphysics as something scientific or critical in essence. By contrast, I will contend that Socrates in the *Meno*, much like other early dialogues, assumes an ontology of powerful qualities. These are the items about which Socrates asks, what is it? (e.g., virtue, color, etc.). I will furthermore argue that this ontological orientation is in a sense shared between Socrates and Meno as a part of a shared cultural framework, in the deep *Weltanschauung* sense of the term, and this informs the way Socrates directs the conversation in the dialogue.

To further motivate this proposal, and enrich the discussion, I turn to two related moments in the *Phaedrus*. This dialogue is rarely (if ever) brought into conversation with the *Meno* and related ("early") texts. But it is there that Plato's Socrates speaks most openly about his intellectual agenda. The dialogue begins with a statement of mission. We learn that Socrates dedicates his life to study of his own, human nature; he wants to know what sort of animal (ζῷον) he is. Later in the same conversation (*Phdr.* 270c–d), Socrates explains that the investigation into any nature, or the nature of anything, is a study of powers, as well as how powers should be defined.⁷ This passage sheds unexpected light on the conversation in the *Meno*, and especially on Socrates' three models. The definitions of shape and color make perfect sense, I contend, are well unified, and illuminating, if we read them as statements of a nascent natural philosophy of the sort that Socrates recommends in the *Phaedrus*. I offer some general reflections on why scholars have not synthesized Plato's natural philosophy with earlier so-called "Socratic" dialogues, but my main interest lies in showing

⁶ I will criticize the assumption that Socrates quantifies over objects, for example.

⁷ Not transcendent powers, as I explain.

that the pursuit of definition in the *Meno* is best read as ontological (as distinct from “metaphysical” in an obscure sense), and how this perspective differs from a formal-semantic approach to definitions.

The plan is as follows. In §2.2, I introduce the standard approach to the pursuit of definition by setting out the two basic requirements on Socratic definition, as the topic is usually understood. I then sketch an alternative “picture” model of Socratic definition which sees the substance of definitions, i.e., the item they seek to reveal, as inseparable from their form. Socrates, I argue, is asking interlocutors to draw him a picture of qualities, e.g., of virtue in general. The formal-semantic approach which quantifies over objects is an inappropriate way of thinking about answers to the Socratic question, I contend.

In §2.3, I introduce Socrates’ definitions of shape and color, which he offers as a model of definitions, and discuss some well-known problems for their interpretation. Then, in §2.4, I turn to Plato’s discussion of the correct method in science as he presents it in the *Phaedrus*. This text contains important clues about Socrates’ ontological assumptions at the starting point of his investigation. However, this text has not been brought into conversation with earlier texts. I make the case that it should, by pointing out the affinity between what is being described there and the definition of speed in the *Laches*. In both cases, Socrates presents his subject matter as a natural power, and analyzes it accordingly. The *Meno* is not usually read as similar to the *Laches* and related dialogues. However, I make the case that powers are also in play in the *Meno*.

Finally, in section §2.5, I return to Socrates’ model definitions and offer a fresh reading of each as a statement of natural philosophy. Although Socrates does not use the word *dunamis* in any of them, I argue that a powerful reading of the definitions both solves the standard reading’s many problems, and brings out the hidden depth and systematicity of Socrates’ thinking in offering them.

2.2 Logical preliminaries

Meno 71e–77b has for many years been read as a crash course in definition, conceived formally. First, Socrates teaches Meno that an answer to the “what is F?” question needs to be unified; this means that he cannot answer Socrates’ question about virtue by offering a list. Put in positive terms, the respondent needs to mention one thing that is true of all F and nothing else. Let’s call this requirement *Unity*. Scholars see *Unity* at work, for example, in Socrates’ criticism of Meno’s first definition of virtue.⁸ In response to Meno’s list of manly virtue, feminine virtue, the virtue of a child, an old man, etc., Socrates complains that he did not ask for a “swarm” of virtues, but only for one (71e–72b).⁹

After the initial critique, Socrates offers positive instruction, from which scholars glean a stronger demand. He first compares the virtues to bees; the latter differ in size and in beauty but not insofar as they are bees (72a–b). Similarly, he says, when it comes to virtues,

Even if they are of many kinds, they all have one and the same form on account of which they are virtues. And *when responding to questions it is right, presumably, to observe [this form] when one reveals what virtue happens to be to the person who asked the question* (72c6–d1, trans. Sedley and Long 2011, modified).

κἂν εἰ πολλαὶ καὶ παντοδαπαὶ εἰσιν, ἔν γέ τι εἶδος ταὐτὸν ἅπασαι ἔχουσιν δι’ ὃ εἰσιν ἀρεταί, εἰς ὃ καλῶς που ἔχει ἀποβλέψαντα τὸν ἀποκρινόμενον τῷ ἐρωτήσαντι ἐκεῖνο δηλῶσαι, ὃ τυγχάνει οὕσα ἀρετή.

The underlined parts of the text are interpreted as a demand for an explanatory account of F—e.g., of virtue. This sort of account is said to “give” the essence (*ousia*) or to “pick out” the form of virtue (*eidos*). Let’s call this requirement *Explanation*. This gives us two complementary requirements on an answer to Socrates’ question.

⁸ E.g., Fine 2010, 131

⁹ Dancy distinguishes the requirement for unity from the requirement for necessary and sufficient conditions (he calls it “substitutivity”) (2004, 213). This is not necessary.

The “truth” of Socratic definitions, thus interpreted, lies somewhere between the two requirements. On the one hand, it seems to scholars that one meets *Unity* by saying something true of all F and nothing else. But this truth is usually understood as somewhat cheap.¹⁰ *Explanation* gives a deeper truth, it is believed, by stating the essence of F. Generally speaking, though, scholars have not dealt with definitions as statements that are either true or false about the object at hand. More often we hear about “better” or “worse” answers to the “What is X?” question.¹¹ Instead they are treated as attempts to “get at” the essence that explains all cases of F.

The relative neglect of the truth or falsehood of definitions is striking. Socrates puts great stress on the truth of his first example (75c8, d5); indeed, he seems to reproach Meno for caring about anything else. No less striking is interpreters’ willingness to see Meno’s definitions of virtue as problematic primarily because of their *form*, even though they clash so badly with Socrates’ own beliefs on the matter.¹² Meno’s manly and feminine virtues, for example, which he mentions in his first account, are clearly based on a conventional view of the “nature” of each: the man’s virtue is political competence (71e4–5). This includes “benefiting his friends and harming his enemies,” and making sure that he is not harmed by his enemies and is helped by his friends. Elsewhere Socrates outright rejects the claim that men and women have different virtues, for they have the same nature (*Resp.* 455e–456b; cf. *Men.* 73c1–3). Socrates also doesn’t think that helping friends and harming enemies is virtuous (*Resp.* 335e). Scholars look away, I think, from the content of these definitions, because they have cast Meno in the role of a student in a masterclass on Socrates’ “theory” of definition, which, as they see it, is not especially concerned with giving a true statement

¹⁰ For brief remarks, see, e.g., Allen 1970, 79; Santas 1979, 108–9.

¹¹ E.g., Fine 2010, 131, Allen 1970, 83–4

¹² Dancy 2004: “we may assume both that Meno’s list is correct as far as it goes” (211). Cf. Nehamas 1975, 296–97.

of the topic, but rather focuses on evaluating proposals by indirect means in the hope of hitting upon “essences.”

I want to argue that focusing on the form of the correct answer as a separate issue from its content is a mistake; the form of Socratic definitions derives from prior substantive assumptions, in two related senses. First, they are shaped by Socrates’ views about the nature of qualities. He thinks of them as contributions to the dispositionality of objects. In short, I contend that they are powerful, and Socrates draws attention to their powerfulness. Later I will motivate this textually.¹³ Right now, I am still concerned with the model that is appropriate for such a study. A formal-semantic approach to unity and explanatoriness seems alien to the substantive analysis that Socrates believes can be done for ethical matters, and wants to encourage others to pursue with him. The truth of definitions is marginalized, as a topic, largely because most interpreters adopt a version of this model.

Secondly, as the italicized part of the quote suggests, interlocutors bring their own substantive assumptions about each powerful quality into the conversation. These assumptions are either true or false—not merely sharper or dimmer as scholars sometimes say.¹⁴ Meno, for example, has nowhere to look at except in his own heart and mind for virtue. What conception does he have of this quality? Indeed, when he asks in the beginning of dialogue how virtue is achievable (70a), what is it that he believes needs to be achieved?

Seeing Socratic inquiries as shaped by the interlocutor’s conception of the subject matter will lead us away from the extremities of treating forms either as obscure metaphysical posits, on the

¹³ Cf. chapter 1. Here I will discuss mostly different texts.

¹⁴ E.g., Allen 1970: the aim of dialectic is “to see clearly in a satisfactory account what previously had been seen dimly in an unsatisfactory account. Vision is accomplished by the examination of statements” (104). Statements or accounts do not entail their own truth, however. They need to be checked against reality. Socrates is challenging Meno to give a truthful statement of this quality, virtue, by examining *it* rather than statements about it. The vision, moreover, is prior to the revealing definition, on a straightforward reading of the text.

one hand, or as mere propositions, on the other.¹⁵ Neither option seems attractive since we have no clue what it would mean to attend, look at, either Forms, in the grandiose sense of the term, or propositions, conceived in the grandiose sense of *this* term, namely, as something that isn't essentially linguistic but merely expressed in the language.¹⁶ On my reading, Socratic investigations are about features which are in play in everyday experience and that Socrates is trying to get a good look at, and asking others to do the same.

This is my agenda. I will motivate it by showing that the standard approach makes Socrates' sample definitions seem unprincipled and uninformative. After I introduce the problem, I will go on a detour: first, the *Phaedrus*, and then, the *Laches*, where Socrates defines speed as a power, and asks Laches to define courage in the same way. These texts will reorient us to the definitions in the *Meno*. Before all this, though, I want to contextualize the demand for unity, which is important, in a different logical model. This will sharpen the contrast between my approach to definition and the standard reading, shed more light on the stakes in this debate, and on my ultimate proposal when I get to it.

Picturing something (one, not many) for Socrates

After his first list of virtues, Meno suggests that virtue is an ability (οἶόν τ' εἶναι) to rule people (73c9). He clearly understood Socrates to be asking him for one virtue, not many. But he is quickly forced to admit that he doesn't believe this to be the virtue of children and slaves (73d2–5). He then falls back on another list: courage, temperance, wisdom, magnificence, etc. (74a4–6). On the

¹⁵ Dancy 2004, 2006 and Fine 1992, 2010 represent the propositionalist approach. Wolfsdorf 2003, 2005a, 2005b, and Fronterotta 2007 represent the metaphysical approach.

¹⁶ Fine 1992 helpfully spells out her propositional interpretation of the *Meno*. She offers a more reasonable account of knowledge acquisition in the *Meno* than her critics. See, e.g., Gerson 2009, Gonzalez 1996, Moss 2021. These readers are right to object to Fine's propositionalism, but they have nothing helpful to say about Socratic (or Platonic) inquiry.

standard reading, Meno repeatedly fails to meet *Unity*. He does not mention one feature which holds of all virtues, and nothing else.

This conception of unity assumes that answers to the Socratic question quantify over objects; in the literature, they are often called “sensible instances,” but these items play the role of Fregean objects which “fall under” concepts. The aim of defining, on this reading, is at least partly, or provisionally, to give the extension of the predicate under a unique description.

The extensional approach to unity seems to me misguided. Socratic definitions are generally unquantified, and he rarely says that a given *definiens* holds only of what he says.¹⁷ It has been suggested that he is looking for a form or a property, rather than the extension.¹⁸ But this form-giving is then also interpreted in the formal-semantic sense of offering a unique description. All this is operating under the assumption that an answer to the Socratic question needs to “hit” the target. Here, definitions are shot like arrows at targets that they either hit, or miss: the extension of the predicate, or the property itself conceived as an intentional object.

I believe that this formal-semantic of definition gets the character of the investigation wrong. It may be for lack of attention to Socrates’ request (not “demand,” as is often said). He wants Meno to “look at” something and then show it to him in his own words. This means that Meno needs to have the right thing in view—one, not many (although that one thing “stretches” through many, they are not in focus); and he needs to put this one thing in a statement. This is the most natural way of understanding Socrates’ request, and it just doesn’t sound like a task of sifting through propositions and evaluating them based on formal criteria. Nor is there any ambiguous object or “extension” in this picture, except as that which makes the item available for description.

¹⁷ There are exceptions to both rules, as we shall see, but reading him as quantifying over objects is always optional.

¹⁸ E.g., Moravcsik 1973, Franklin 2001

Why this is important, or explanatory, might depend on what Socrates is asking Meno to reflect on and state, that is, the substance of the investigation, as he understands it, rather than how he goes about it. If virtue, for example, is in the first instance a powerful quality of people, before we “predicate” it of other things, e.g., states, laws, etc., then to state this quality is to indicate what about virtuous agents makes them so, and this seems explanatory.

There’s a related point that I would like to stress before I explain what I mean by “stating” something (one, not many) for Socrates. The *Meno* makes it sufficiently clear that the *oneness* of virtue is not just or even primarily a “demand” on definitions, but the site of a substantive, material disagreement. Meno’s first definition relativizes virtue to social categories; a man needs to be competent at this, a woman at that, a child needs to be like this, and so on (72a3–5). Socrates “reminds” him that he asked for one virtue, not many. Whether his request can be fulfilled, or not, depends entirely on whether virtue is one, or not one. But this is just what the two disagree on. Indeed, Meno didn’t offer his first account because he is not accustomed to defining, or not primarily because of that. He said it because he believes it, and he struggles to define virtue as one thing because he disbelieves Socrates’ claim that virtue is one and people are virtuous only because they possess it (73a4–5). Socrates’ subsequent interventions—which readers interpret as though merely or primarily formal—are supposed to lead to a change of heart. He is trying to get Meno see virtue as a quality that makes one succeed as a human being, rather than as a social player. He pushes this line by analogizing virtue to natural things: first bees, then physiological qualities: health, largeness, and strength (72d–e). If these qualities are shared across social roles (e.g., being a bee), and sexes (e.g., healthy men and women), why not virtue?

I want to suggest a different, non-extensional, interpretation of Socrates' concern with oneness in light of the above considerations.¹⁹ Socrates, I contend, thinks of virtue as a single quality and he's asking Meno *to picture it for him* (cf. *Cra.* 421c ff., esp. 431a–b). That is why he needs to look towards it. Any picture that contains many items fails outright to do the job of showing Socrates what this one quality is, which is known as “virtue.” If Meno thinks that virtue is one of the many items in his lists, he should just leave that one, and probably meet with objections; if these items are parts of a single whole, then his picture should present the whole composed out of them, and this will be virtue, not the parts *qua* parts. As they stand, Meno's lists do not satisfy Socrates' wish to see the one quality which is virtue. Taken as pictures, verbal representations, of this one quality, which is how Socrates arguably sees them, they are unfaithful, false, rather than true, but non-definitional: formally incorrect or nonexplanatory. If there's one thing that Socrates thinks that he knows about virtue is that it must be one, but here Meno says that it is many different things. I emphasize this because I believe that with a proper understanding of qualities (as powerful) and definitions (as pictures), there's only one requirement on an answer to the Socratic question (truth). My present remarks are preparatory.

To sum up, on the standard reading, Meno needs to say something true of all and only virtue; that is, he needs *to unify the extension* of virtue by subsuming it under a unique description which is in some sense *explanatory*. By contrast, I suggest that answers to the Socratic question relate to their objects like portraits to what they depict. This is important for many reasons. Portraits are accurate or not, fine-grained or sketchy, and they are always checked against an original. This means that they are subject to the tribunal of experience, as the saying goes. All of this is irrelevant

¹⁹ When Socrates talks about “all” the virtues (esp. 74a6–b1), he doesn't mean the extension of the term in the modern sense (*pace* Fine).

to Russell-style unique descriptions, the truth of which is a matter of hit or miss.²⁰ That is why truth recedes into the background in most discussions, or a special kind of truth is introduced, namely, about “essences.” But, as I argued, it’s hard to see where these essences are supposed to be and how to look into them. In subsequent sections I will offer an interpretation that fits the picture model of definition.

2.3 Socrates’ examples

Text

So far Socrates has offered vague directives and reiterated his wish to receive virtue in one piece. I suggested that this might not be a “condition” on definitions, but rather that it follows from the Socratic request for a “picture” of the single, unified quality that is virtue. One needs to give what the other wishes to receive, *if* one is able, but Meno says that he cannot grasp one virtue (μίαν ἀρετήν, 74b1) going through all the others (διὰ πάντων, a9). He is talking about the two lists he gave: the first indicating the virtue of a man, woman, etc., the second mentioned traditional virtues: courage, temperance, wisdom, and “many others” (74a4–6). This leads Socrates to draw further analogies. Virtue is no different than shape and color, he says. If someone were to ask Meno about shape, “what is this thing?”, he wouldn’t say that it is roundness (74b5–8), nor that color is whiteness (c7). For there are other [kinds of] shape and color (c1, d1). Socrates asks Meno to try to show him these things, but he refuses (75b1). Socrates agrees to define shape on the condition that Meno will define virtue afterward (b4). This gives us our first example:

²⁰ I.e., (uniquely) satisfying the description, or not. The difference holds even if someone thinks that the form or property is what’s given under a unique mode of presentation—e.g., Moravcsik 1973, 160, Franklin 2001, 433–4. Most readers seem to think (by contrast) that the correct answer identifies (i.e., references) the essential property of the extension: Fine 1993, 49–50; Benson 2011, 197–98; Dancy 2004, 80–82; Irwin 1977, 61–68; Allen 1970, 79–105; Kahn 1996, 170–77; Silverman 2002, 7

Example 1: Shape is “the only thing which always follows color” (ὁ μόνον τῶν ὄντων τυγχάνει χρώματι ἀεὶ ἐπόμενον, 75b10–11).

Socrates says that he’d love to hear Meno respond in the same way (ἀγαπῶν, c1). But Meno is not satisfied at all. He says that this is simpleminded (εὔηθες, c2). Why? Because, Meno explains, the questioner can say that he’s not only ignorant about shape, but also about color (c4–7). Socrates clearly doesn’t care much for this objection; he calls it combative and sophistical (c9–d1). Despite that, and even though he thinks that his answer is true (τάληθῃ, c7, d5), Socrates is willing to try again, for Meno’s sake:

Example 2: “Of every shape, I say this: that wherein the solid comes to an end, this is shape; and, in sum, I would say shape is a limit of a solid.” (κατὰ γὰρ παντὸς σχήματος τοῦτο λέγω, εἰς ὃ τὸ στερεὸν περαίνει, τοῦτ’ εἶναι σχῆμα: ὅπερ ἂν συλλαβὼν εἴποιμι στερεοῦ πέρας σχῆμα εἶναι, 76a5–7).

Meno responds by asking about color, which gives us yet another model:

Example 3: “Color is an effluence of shapes, commensurate with sight and perceptible” (ἔστιν γὰρ χροῖα ἀπορροή σχημάτων ὅψει σύμμετρος καὶ αἰσθητός, 76d4–5).

Socrates elaborates a bit before he gives this example; he explains that according to Empedocles, there are pores into which effluences of various sizes fit and others do not fit, which makes clear that he is talking about a theory of color perception. So, this example is in a sense the least ambiguous of the three. It is also the one that Meno likes best (76d6). Socrates doesn’t reject this example, but he calls it tragic (τραγικὴ, 76e3), something we will need to clarify. He also says that the other one was better (ἐκείνη βελτίων, e7). We’ll have to ask which one and why.

Problems

On the standard reading of the first example, it says that something has a shape just in case it has color.²¹ This means that Socrates merely gives a mark by which someone can identify shape. Even if this meets *Unity*, it doesn't offer a proper *Explanation*. Some scholars conclude that Plato is groping for a conception of definition that he doesn't fully understand. This is harsh criticism to level against him, but some believe it is inescapable.²² There's just no good reason, they think, for Socrates to fail to settle for mere, nonessential unity just as he sets out to illustrate definition for the first time.

One response to this says that Socrates is really not looking for essences, but only to meet the *Unity* requirement. That is, he wants a feature that is coextensive with the term under discussion. There are two versions of this view. On one reading, Socrates doesn't think that essences are assertible. At best we can mention a property that holds of all instances and nothing else. The philosophical significance of this, according to Lloyd Gerson, lies in the recognition that the objects of belief and of real understanding, or knowledge, are different.²³ On the opposite extreme, some maintain that Socrates is looking for helpful synonyms, largely to show his interlocutors that they do not know what "virtue" means even on an ordinary level.²⁴ Thus Michael Forster has argued that Plato's Socrates is just not interested in the nature of virtue at this stage, but instead with linguistic conventions.

I find this implausible. It seems to me that Socrates wants to know what virtue truly is and express it, as do most readers. Thus, it has been argued, in Plato's defense, that he knows exactly

²¹ E.g., Charles 2010, 123; Crombie 1976, 194, 188; Sharples 1985, 131; Klein 1965, 59; Silverman 2002, 47; Scott 2006, 41 n. 28, 45

²² Most recently, Charles 2006, 2010. However, the criticism is as old as the application of an extensionalist semantics to the interpretation of Plato, see esp. Robinson 1953, 53–5; Crombie 1976, 188; Day 1994, 19–21.

²³ Gerson 2006, 21, 38

²⁴ Forster 2006, 23, 27

what he is after, namely, the essence, conceived as that which is revealed by a real definition of the term in question, and so, in my view, unhelpfully. The first definition of shape, on this defense, is not offered as an ultimate model, but as an approximation of one. Gail Fine, for example, contends that Socrates thinks all along that the “the correct answer to that question should explain why all Fs are F,” and yet he offers this example because it is “better than anything Meno has come up with so far.”²⁵

This is not persuasive, however. Indeed, if Socrates had the second definition of shape, which Fine approves of, up his sleeve, and this one is ultimately satisfactory, why didn’t he offer it first? Indeed, what advantage is there to offering an inferior example? Perhaps Fine thinks that it’s easier to define shape as “that which always follows color.” She sees eye to eye with Meno on this, since he too calls it “simpleminded.” The trouble for the standard reading, and Fine’s defense of it in particular, is that Socrates emphatically endorses this definition. He leads to it by saying that he’s going to do his best (75b6). He then calls it true twice (75c8, d5). I already mentioned that this praise is cheap on the standard reading; all it means is that the speaker was able to “hit” the target, but this can be done, they believe, in so many ways, only one of which is truly explanatory, namely, the one that gives the extension of the predicate by stating the “essence.” Others, including some of Plato’s critics, are more impressed by his remarks on the first example. His approbation, as well the familiar contrast between the “simpleminded” first definition and the “tragic” third, has suggested to some that the first example is Socrates’ favorite (76e7).²⁶

By contrast, Fine, with others, maintains that Socrates *means* “limit of a solid” as a definition of shape, because they believe it is superior to his first offering. They do not cite textual evidence

²⁵ Fine 2010, 130–31; cf. Allen 1970, 83–4

²⁶ See: Weiss 2001, 31; Hoerber 1960, 96–7; Klein 1965, 70; Crombie 1994, 188; 2002, 47

in favor of this claim.²⁷ How do we know, however, that the second attempt “gives” the essence of shape, rather than the first? There’s no principled distinction between the two, it seems to me, that guides this choice. Two things stand out, though. The first is that scholars believe that this definition gives the species, “shape,” by citing genus and difference; the second is that they believe it is “geometrical,” while the first is “empirical.”²⁸

I admit that I cannot make sense of the thought that “limit of a solid” is a definition by genus and difference. “Of a solid” is a genitive of possession not quality. But the *differentia* normally gives the species by qualifying the genus, not by mentioning different types of objects to which the genus belongs. Consider a parallel: medicine is the knowledge of a physician. Readers would call this definition nominal, I assume. But what is the difference, in essence, between this one, and that shape is the limit of a solid? My point, to be clear, is not to criticize Socrates for failing to offer a definition by genus and *differentia*, but rather to argue against reading him as doing so.

The problem, as we will see later, is that scholars do not ask what sort of limit we have here. “Geometrical” is not a helpful answer, for it merely references a discipline. This is especially urgent since limit (*peras*) is a fundamental ontological category in later texts.²⁹

One reason for thinking that the limit, and thus the definition, is “geometrical” is that when Socrates introduces the terms, limit and solid, he mentions geometry. However, Socrates also mentions Prodicus, the sophist famous for drawing verbal distinctions, and this suggests that he simply wants to get Meno to agree that he is familiar with these terms, since he rejected the first definition because someone might not know what color is. Referencing geometry could be a way of getting him to agree that he “knows” what Socrates is talking about.³⁰

²⁷ See: Sharples 1985, 137; Kahn 1996, 177; Fine 2014, 54 n. 70; Karasmanis 2006, 139–41

²⁸ Allen 1970, 83, Karasmanis 2006, 139–41

²⁹ Esp. *Phlb.* 23b–27c; cf. *Ti.* 53a–b, 54c. See Gill 2019, and Harte 2002, 182–86 for discussion.

³⁰ As Scott 2006 suggests (p. 42)

The other reason is that this definition of *schema* reminds readers of the definition of surface in Euclid (“στερεοῦ δὲ πέρας ἐπιφάνεια,” *Elements* XI, Def. 2; cf. Aristotle, *Topics*, 141b22). Someone might argue that this gives us a reason not to interpret the definition in light of familiar examples from geometry, since Euclid has a different definition for *schema*, namely, as that which is bounded by a limit or limits (“σχῆμά ἐστι τὸ ὑπὸ τινος ἢ τινων ὅρων περιεχόμενον,” *Elements* I, Def. 14). This forces a choice between ascribing to Socrates a bad geometrical definition of *schema*,³¹ or saying that he uses *schema* in a specialized sense that means a surface, as Jacob Klein does, even though other writers use different terms for that. On Klein’s reading, *schema* occurs as an ordinary concept, meaning roughly visible, shaped surface, in the first example, but in the second definition it is used in a specialized sense of “bounded surface area.”³²

In short, it looks to readers like Socrates is giving three types of answer, rather than three examples of the same type. One seems hardly explanatory. In the best case, the first example marks off the extension of shape by mentioning a feature which all and only shapes have, but even this has been doubted.³³ So it appears to meet at most *Unity*, but not *Explanation*. We don’t want to say, I think, that Socrates’ pursuit of definition is bound to fail, if essences are not assertible, or is unambitious, as some maintain. But the alternative is not good, either. Even if we wanted to dismiss the first example, the two remaining ones are not explanatory in the same way. One is believed to offer the geometrical “essence” of *schema*, while the other offers a substantive theory of vision. Someone might be inclined to junk the third one, because Socrates seems down on it. This would give us the right model by *fiat*, if we also dismiss the first example. But neither is explicitly rejected. On the contrary, the first is warmly endorsed, and Plato offers a similar, but more

³¹ See Lloyd 1992, 175–6

³² See Klein 1965, 65. Cf. Vlastos 1991, 123.

³³ Taylor 1992 argues that shape is not the only thing that follows color, because there is also visibility, extension, size, and luminosity, etc., and so the definition is false (144).

sophisticated, theory of color vision elsewhere.³⁴ Finally, if we think that the second definition is the true model, then we have to reckon with the fact that it does not define *schema* as ordinary speakers *or* technical writers understand it. Instead we have to think that Socrates defines *schema* as the bounded surface area of geometrical solids.

2.4 Definition as power analysis

Socrates as a Natural Scientist

I want to begin to develop my view by going back to something I said earlier. I argued that Meno has a conventional understanding of virtue, but Socrates pushes him to think about virtue as something that has to do with our human nature, not just or primarily with social categories. He says something along these lines, most memorably, at the beginning of the *Phaedrus*. He doesn't have time, he says, to worry about finding scientific explanations for natural phenomena, instead of mythical ones, for he still doesn't know what sort of thing he himself is (229c–e). “I do not consider (σκοπῶ) these things,” says Socrates, “but myself, whether I am actually (ὄν τυγχάνω) a beast more complex and more violent than Typhon, or both a tamer and a simpler animal (ἡμερώτερόν τε καὶ ἀπλούστερον ζῷον), sharing some divine and un-Typhonic portion by nature (φύσει μετέχον)” (230a3–6; tr. Rowe 1986, modified)

That Socrates is interested in self-knowledge, and that this is somehow the same thing for him as ethics, is old news. What's interesting about this quote is that it casts ethics as a natural science. It is thus not entirely surprising that later in this dialogue we hear a rare statement from Socrates about the correct method in science. This text shows that like any serious natural philosopher before and after him, Socrates (or shall we say Plato?) has a self-conscious paradigm of the nature

³⁴ See: *Ti.* 42c–47e, 61c–69a. Brisson 1997 explains the shared core well.

of things in general, which informs the way he studies it. The text is worth quoting in full, especially since it rarely informs readers' understanding of Socrates' pursuit of definition in the early period:

Consider (σκόπει) what Hippocrates and the true account (ὁ ἀληθὴς λόγος) say about nature (περὶ φύσεως). Isn't it necessary (δεῖ) to think (διανοεῖσθαι) about any nature whatsoever (περὶ ὅτουοῦν φύσεως) in this manner: first, [whether] the thing about which we wish to be experts ourselves (αὐτοὶ τεχνικοὶ), and capable of turning someone else into an expert (ἄλλον δυνατοὶ ποιεῖν), is simple or complex (ἁπλοῦν ἢ πολυειδέες); second, if it is simple, to consider its power (σκοπεῖν τὴν δύναμιν αὐτοῦ), what [power] it naturally has for acting on what (ἢ τίνα πρὸς τί πέφυκεν εἰς τὸ δρᾶν ἔχον) or what power it has for being acted on by what (τίνα εἰς τὸ παθεῖν ὑπὸ τοῦ), or if it has many forms (ἐὰν δὲ πλείω εἶδη ἔχῃ), to enumerate them and look (ιδεῖν) for the same thing about each [of its forms] just as in one, [namely] by which [form] it naturally does what (τῷ τί ποιεῖν αὐτὸ πέφυκεν) or by which [form] it suffers what at the hands of what? (ἢ τῷ τί παθεῖν ὑπὸ τοῦ) (270c9-d7; tr. Yunis 2011, modified).

This passage is striking for a number of reasons. First, it has unrestricted scope. Socrates is telling us how to study nature in the most general sense. In this absolutely general context, he draws a distinction between things which are naturally complex and others that are naturally simple. Complexity is illustrated by an organic body, whose different parts are each treated as a form shortly after this text (271a). In addition, the question Socrates poses in the beginning of the dialogue is how complicated he is, and what sort of complexity belongs to him. In the *Palinode*, it was made clear—albeit in a metaphorical way—that the soul has several parts (246a–e).

Despite all this, some readers think that the text is concerned with a plurality of forms in the sense of diversity of types, rather than a plurality of forms which constitute the nature of something.³⁵ That is because Socrates is about to talk about different types of listeners who need different types of persuasion (271d–272a). This gets things precisely in reverse. A scientific taxonomy must be based on a prior study of listeners' shared nature; how else are we going to sort things into kinds? Certainly not by considering their names or superficial appearances. Humans,

³⁵ E.g., Yunis 2011, 213

for instance, need to be sorted into types in a principled way, and this means that we need to understand how their natural parts work separately and together.³⁶ Socrates doesn't give us a clue about simple forms in this passage. I suspect that what he has in mind is the difference between substantial properties and qualities, e.g., being a tree and being large, but I am not going to argue this point here.

The other striking thing, which is my main reason for quoting this text, is that Socrates' methodology features a key ontological assumption. The study of nature turns out to be about the powers that belong to each thing, one or many as the case may be. The job of the scientist is to identify the active and passive powers that belong to each thing by nature. This means, I take it, that if someone were to ask Socrates of the *Phaedrus* "what is virtue?," he would first consider whether virtue has a simple or complex nature, and then consider its power, or powers, if it turns out that it has more than one.

The passage also says that the powers of simple natures are different from each other; indeed, the job of the scientist is to identify the power of each. I say this because the usual way of linking the topic of powers and forms in the dialogues is by saying that forms are powerful only insofar as they are knowable.³⁷ This line is based on an argument by which the Stranger persuades the Friends of the Forms in the *Sophist* to accept his criterion, or definition, of being as *dunamis* (247c). The punchline comes when the friends concede at 248e that the forms are acted upon by intelligence when they become known.³⁸ Clearly, if forms were only powerful in this sense, then we couldn't distinguish one form from another with reference to what it is or has the power to do

³⁶ Socrates makes the transition at 271d1–3. Cf. Rowe 1986, 206

³⁷ E.g., Gonzalez 2011, Leigh 2012, Marmodoro 2022

³⁸ In fact, this is not the Stranger's last word on the topic. He follows up by inspiring life and motion into the forms in a sense that seems to go beyond their "the sacred and solemn" (σεμνὸν καὶ ἅγιον) existence as knowable entities (*Sph.* 248e–249b).

or suffer, as the text suggests we ought, since they would all have the same, single power, namely, knowability.

Notice, finally, that Socrates attributes this robustly ontological passage to Hippocrates and the true *logos*. This is quite shocking considering its scope, ambition, and content. The truth seems to be that science is not only possible, but (Plato's) Socrates knows how to go about it.

Powers in the early period

Someone might object that this has little to do with the *Meno*, which is both earlier and says nothing about powers. Indeed, on a certain chronological picture, Plato becomes interested in natural philosophy only in the late period. Charles Kahn's book on the late period, for example, is called "Plato and the Post-Socratic Dialogue: The Return to the Philosophy of Nature."³⁹ But was there ever a departure from natural philosophy? Or did scholars unwittingly expunge it from the text? The latter unfortunately seems closer to the truth.

Consider, for example, the case of the *Laches*. In this dialogue, Socrates is looking for courage with two army generals. He makes it clear that he is asking about the *dunamis* of courage (192b5–8). Socrates even proposes a simple model, just he does in the *Meno*.

Example 4: "Speed is the power (δύναμιν) to accomplish a lot in little time, whether in speech or in a race or all other things" (*La.* 192b1–3)

Scholars have widely different interpretations of the term "power" in this example. On some readings, the pursuit of definition in the *Laches* and a few other dialogues, is concerned with the virtues as psychological states which explain human behavior, e.g., courage is a psychological

³⁹ Kahn 2004

condition which explains why people behave courageously.⁴⁰ Others have correctly observed that this example doesn't support the interpretation, since no single condition can explain in the relevant sense why this person runs fast, and the other thinks fast.⁴¹ It has thus been argued that *dunamis* is "a purely logical property."⁴² Whatever this means cannot be true about *dunamis* here or anywhere else. This term, as the name suggests, is indeed dynamic, indicating a capacity, potency, or, as I've been calling it, a power.

It seems to me that these scholars have been pushed to opposite extremes, i.e., *dunamis* as "causal force" or as mere "logical property" by the same erroneous assumption. Many philosophers believe that there are two kinds of properties, dispositional and non-dispositional ("categorical"), and that the latter is in some sense more real than the former.⁴³ This deeply influences the way scholars have approached *dunamis* in the dialogues. Those who think that this is a major topic, since forms appear to be causal powers of some kind, are tempted to turn Platonic *dunamis* into intelligible structures in a Platonic Heaven.⁴⁴ This preference is also shaped by the assumption that Plato's forms are not immanent, so their powerfulness cannot be as *mere* properties, let alone dispositional ones. Those who focus on *dunamis* in the early dialogues give them no ontological weight whatsoever. For them they are mere dispositions to exhibit behaviors, where the type of behavior is understood as the effect of some psychological state (as distinct from power and its exercise).⁴⁵

⁴⁰ Penner 1973. Cf. Wolfsdorf 2005a

⁴¹ Vlastos 1981, 414

⁴² Vlastos 1981, 413

⁴³ Armstrong 1986, 1996

⁴⁴ E.g., Marmodoro 2022, Leigh 2012, Wiitala 2022. Cf. Gonzalez 2011

⁴⁵ Cause and effect are distinct events, the former sufficient to produce the latter. Power and exercise are the same thing in two states: unmanifesting or manifesting. This makes a big difference from the outset and down the line on many epistemological questions, as I explained in chapter 1.

There's no textual reason, as far as I can tell, for thinking that Plato bifurcates properties into dispositional and categorical.⁴⁶ Indeed it would be very surprising if he believed such a thing. This distinction is modern, and only starts to make some sense when considered in its proper theoretical context. It makes little sense, in particular, that Plato would see nature as a realm that is governed by necessary "Laws of Nature."⁴⁷ But the motivation to deny the reality of powers as immanent in objects, by contrast with really existing ("categorical") properties, dates roughly to the discovery of such laws. Only then it becomes attractive to see dispositions as mere conditioned behavior due to "truer" properties, namely, those that are sanctioned by mathematical physics.⁴⁸

If Plato doesn't know about this distinction, then we probably shouldn't argue over whether *dunamis* is a "purely logical" property or a stipulated "causal force" that explains behaviors. Let's read him on his own terms. The definition of speed says that it *is* the power to achieve a lot in a short time. If Socrates goes about things here as he instructs us to do in the *Phaedrus*, then he thinks that speed has a uniform nature—for he doesn't enumerate its parts. Then, he looks at what it is in the nature of speedy things conceived just as such to do by virtue of their speed. It seems to him that they get more action done of any kind, e.g., running, talking, thinking, in a short time (cf. *La.* 192a5–6). The simplest reading is one that takes the concept of *dunamis* as ontologically primitive. Plato doesn't tell us otherwise, and in the *Sophist* and *Phaedrus* he certainly comes close to saying that our world consists of powers in certain combinations. This means that the nature of speed is revealed in the exercise of this power, that is, in speedy actions conceived just as such. It's true that every speedy action is always of one kind or another. This doesn't matter, though, if

⁴⁶ The pairing of *ousia* and *dunamis* doesn't justify importing the distinction (*pace* Wolfsdorf 2005a, 334), for these words might have the same referent, considered differently.

⁴⁷ Except in a teleological, often quasi-mythological sense see, e.g., *Phdr.* 248c. Laws in this sense express an "ought" and are as such very different from modern "laws of nature."

⁴⁸ Cf. Martin 1997, Heil 2003

the nature of speed is just what speedy agents as such do when they are actively speedy, and that is, according to the example, getting more work done in less time than others who are engaged in the same activity.⁴⁹

Powers are everywhere in the so-called Socratic dialogues.⁵⁰ In the *Protagoras*, Socrates distinguishes the parts of virtue by arguing that they have different *dunameis* (330a–b; cf. 349b–c, 320d–321c). In *Hippias Minor*, he asks whether justice is a *dunamis* or knowledge, or both? (375d–376b). In *Ion*, Socrates suggests that the power of the rhapsode is not a *techne*, but rather “a divine *dunamis*, which moves you like that in the stone which Euripides named a magnet ... This stone not only attracts iron rings, but also imparts to them a *dunamis* whereby in turn they are able to do the very same thing as the stone and attract other rings” (533d–e; tr. by Lamb 1925). The frequency with which Socrates deploys *dunamis*, and the important role he gives it in fixing the nature of something and distinguishing it from others, suggests to me that it is indeed ontologically basic from the outset for Plato. If this is right, then it is not at all surprising that Plato’s definition or criterion of being in the *Sophist* is as *dunamis* (247e).⁵¹

For our current purposes, though, what matters is that when Socrates asks about some quality, F, he might be oriented by the assumption that the special character of F consists in its powerfulness. In other words, F is what Fs are powerful to do, or to suffer, in virtue of being F. This orientation continues all the way to the *Laws* (e.g., 896a, 964c), but we are currently interested in the *Meno*, as a key text for understanding Socrates’ request for definition: what is he asking for, and how should interlocutors go about answering the “What is F?” question? Scholars think that

⁴⁹ One might wonder whether that’s not logical after all. Of course it is *also* logical. My point is that the contrast that Vlastos is assuming, between the real and the logical, doesn’t apply.

⁵⁰ See Souilh  1919 for a comprehensive list. Keep in mind, however, that what is meant by *dunamis* can also be expressed in many other ways, and is. Cf. Bailey 2020

⁵¹ Cf. Gonzalez 2011, 65

he is asking for a statement of the “essence” of F which explains why all Fs are F. But they are unable to make sense of the three models in the text. I believe it’s because they are unaware of the ontological orientation I have just articulated.

Powers are in play in the *Meno*. After Meno’s first attempt to define virtue, Socrates constantly directs him towards something that’s rooted in the nature of human beings. The example of bees is supposed to bring out the fact that these political animals share a nature even though they play different roles. This is followed by the example of largeness, health, strength. In Plato’s world, these are powerful qualities.⁵² The most interesting thing, though, is that Meno “gets” it. After his list of (alleged) social virtues, he defines virtue as “being able to rule other people (ἄρχειν οἷόν τ’ εἶναι τῶν ἀνθρώπων, 73c9). This definition is followed by mentioning [some] parts of virtue: courage (ἡ ἀνδρεία), temperance (ἡ ἀνδρεία), wisdom (σοφία), magnificence (μεγαλοπρέπεια), and indicating that there are many others (74a4–6). We know especially from the *Protagoras* that Socrates is operating in an environment that is predisposed to treat these as powerful features (see esp. 330a–b). Socrates reminds Meno that he wanted one thing, not a list, so Meno tries this: “being able to procure the beautiful things one desires” (ἐπιθυμοῦντα τῶν καλῶν δυνατόν εἶναι πορίζεσθαι, 77b4–5). This definition is refuted, so Meno strives one more time: “the power to procure goods” (δύναμις τοῦ πορίζεσθαι τὰγαθά, 78c1).

By “goods” Meno includes health, wealth, gold, silver, state honors, and political influence (78c7). Gold and silver presumably represents wealth beyond wealth. He doesn’t even mention beauty, I assume because that’s not the sort of thing that one can procure, but at most maintain. Socrates reapplies his earlier argument that justice, temperance and piety must be added

⁵² For the power of largeness and smallness, see esp. *Prm.* 150d1–2.

(προσεῖναι, 78e1) to the procurement of goods, if it's going to be done virtuously (78d–e). Later, Socrates will identify virtue with the correct *use* of goods, including items that Meno did not even include in his list, such as courage, which is only a virtue if it is deployed with intelligence (ἄνευ νοῦ, 88b5). In context, this serves to show that wisdom is the mother of all goods, so to speak, by directing every action in the best possible way. It follows that, if virtue is that by which humans are doing well, as every Greek believes, including Meno (87e1, 88c3), then it must be wisdom of sorts (τὴν ἀρετὴν φρόνησιν δεῖ τιν' εἶναι, 88d3).

Here we have contrasting views about virtue, conceived as a quality which contributes most to doing-well overall (*eupraxeia*, *eudaimonia*). Meno's final account, which reveals the core of Meno's personality even more than his previous attempts, is that virtue is the *dunamis* to gain material goods. Socrates believes that our ability to better our own condition consists in some intellectual *dunamis*. How did we get such a clear articulation of the two positions? Perhaps because this was Socrates' agenda all along. He wanted Meno to picture the power of virtue, as he finds it. But the result is far from how Socrates sees things.

My suggestion, in light of these considerations, is that the pursuit of definition in the *Meno* is not ontologically neutral as readers have thought. Nor is it metaphysically radical and innovative, as others have argued. Instead, we have an ontological position that emerges organically, without much fanfare, from an existing cultural paradigm (*Weltanschauung*). The gist of it is that the nature of qualities consists in what objects do or suffer inasmuch as they are qualified by them.⁵³ Plato gets the credit for writing the *Phaedrus*, and the *Sophist*, but the ontological position he distills there is at home with ordinary folks, like Meno, who wouldn't dream of asking about the nature of beings, or how it should be represented in thought. Otherwise Socrates wouldn't be able to lead

⁵³ As I argued in chapter 1, where I showed that it is at work in many conversations.

him to express his view about the *dunamis* of virtue with extreme clarity. The view is certainly at home with Hippocratic medicine, which gets the credit for elaborating a science from which Plato could distill “the true *logos*” about nature.⁵⁴

2.5 Rereading Socrates’ examples

Now we are in a position to take a fresh look at Socrates’ examples. The first, as you recall, identified shape as “the only being which always follows color.” Scholars have taken it for granted that “following” (ἐπόμενον) means coextension: everything which has shape has color, and *vice versa*. That is, they’ve taken both terms semantically, i.e., “always” means that the claim holds of every shaped object, and “following” means that the extension of “shape” overlaps with that of “color.”

Intuitive though it may be from a modern perspective, that’s not the only possible reading, nor the best one. Plato frequently uses *hepomai* to talk about an affection (*pathos*) that accompanies another affection. In the *Philebus*, for example, he says that pain and pleasure often follow true and false judgment (ἔπεται μὲν ταύταις, 38b9–10, 51d6–9. Cf. *Hip. mai.*, 302e5–7). Here, he is arguably saying that the perception of color is always joined by the perception of shape.⁵⁵

Does this mean that shape and color are not *real* properties of things, but mere affections which always go together? This question presupposes a conception of the “real” which might be at odds with Plato’s. The “realist” thing about qualities, i.e., their nature, according to the *Phaedrus*, is what objects do or undergo inasmuch as they are qualified by them. If so, colors are at their realist when they are seen, presumably (cf. *Resp.* 597e5–508a6, b9–10).

⁵⁴ See Tracy 1969 for discussion.

⁵⁵ Cf. Hoerber 1960, 96

Plato seems to have something like this in mind when he writes in the *Timaeus* that the motions from visible objects (cf. “effluences” in the third example) inform the intelligent part of the soul about the *dunamis* of the agent (τοῦ ποιήσαντος τὴν δύναμιν, 64b). His point, as I understand it, is that the content of the affections, e.g., *what* we see when we see red, is exactly the exercise of the power of red. In other words, being red is at once the content of seeing red and the exercise of the power to make such content available to a perceiver.⁵⁶ Thus it makes sense to say that the nature of colors in general is to be seen.

This, to be sure, is not what Socrates *says*. He is defining shape, not color. Nevertheless, this definition of color is in my view implied by a correct understanding of what he says. He defines shape, I suggest, as a quality which is always co-visible with color. To be more precise, he says that of all the things that can be seen, including especially all the qualities that objects might possess, shape is the only one that’s necessarily seen with color.⁵⁷ This adds modal force (a much maligned *de re* necessity) to “always following.” The shape of an object is always co-visible with its color because it is in the nature of these qualities, and sight, to be this way. A theory that goes deeper into the unity of these items will further articulate this connection.

If this comes close enough to Socrates’ meaning, and Meno had reflected on his proposal or asked him to clarify it a bit, then he would see that his objection is silly. He said, as you might recall, that Socrates must define color, if he’s going to mention it in the definition of shape. But, if I’m right, Socrates defines shape as a quality which is by nature co-visible with color. Meno cannot seriously maintain that he doesn’t know the *dunamis* of color, for he is not blind.

⁵⁶ See Johansen 2021, 119–21 for a different take on this passage. He associates the *dunamis* of the agent with physical motions, not the content that’s made available through them: “the job of the *phronimon* in perception is to grasp what is affecting your body and how” (121).

⁵⁷ Plato pairs shape and color as objects of sight in many places—e.g., *Resp.* 601a1–2, *Phlb.*, 51b3–d3, *Cra.* 431c6

Now let's turn to the second definition. It seems to scholars that "a limit of solid" is a technical, geometrical definition of shape as bounded surface area, unlike the first example which is of shape as it is ordinarily perceived and understood. This is a misunderstanding. Both accounts define shape as a *dunamis*, relative to two different things. Remember that this is the job of the natural scientist: to consider the powers of what they are investigating. Shape, as it turns out, has at least two. The first, as we just saw, is to be naturally visible to sight. But shape has another, quite interesting and important *dunamis*. To see what it is, we need to ask ourselves what lies on either side of the limit that is shape.

On one side lies a solid. According to Klein's influential reading, the "solid" in the second definition "does not imply any solidity at all," since it is "geometrical," and there's "hardly anything less solid in the world than a geometrical 'solid'."⁵⁸ Socrates doesn't give us any reason to think so. In the *Timaeus*, which is again helpful, geometrical kinds of figure are called *eidōs* (e.g., 54d, 55a), *idea* (57b), *genos* (55d), or *phusis* (55b), while *schema* refers to shape as a property of corporeal beings. God shapes (διασχηματίζει) the elements: fire, earth, etc., by imposing numbers and forms on them (εἶδεσί τε καὶ ἀριθμοῖς, 53b). In this context, we get a phrase like "the form of the shape" (τὴν τοῦ σχήματος ιδέαν, 58d). Here Timaeus says that the *idea* of the shape of some corpuscle (a liquid molecule) is such and such.

Furthermore, the geometrical reading casts *schema* as a two-dimensional figure, which limits a geometrical solid. However, in the *Meno*, Socrates consistently uses *chorion* for plane (two-dimensional) figures, or areas.⁵⁹ It appears, then, that both here and in the *Timaeus*, the term *schema* is used for three dimensional figures, specifically inasmuch as they shape tangible solids. Plane figures are understood as constitutive parts of such complexes (cf., *Ti.* 53c).

⁵⁸ Klein 1965, 65–6

⁵⁹ See Sedley and Long 2011, xiv. n. 3

If tangible solids lie one side of the limit which is shape, and are thus limited by it, then on the other side of the same limit we should expect to find space. Let's reread the second definition with this orientation. This time, I want you to notice the first, more carefully constructed sentence, rather than the brief one which sums it up:

Of **every shape** (κατὰ γὰρ παντὸς σχήματος), I say this: **that wherein** (εἰς ὃ) the solid comes to an end (περαίνει), this is **[its]** shape (τοῦτ' εἶναι σχῆμα); and, in sum, I would say (ὅπερ ἂν συλλαβὼν εἶποιμι) shape is a limit of a solid (στερεοῦ πέρας)" (76a5–7).

I'm going to suggest that Socrates defines shape as the [type of] place (*topos*) occupiable by a solid, but I want to develop this gradually.⁶⁰

Notice, first, that Socrates is stating what "every shape" is. Does this mean that he is about to mention a "feature" that's true of every shape and nothing else, as the dominant reading has it? I don't think so. This assumption, which is drawn from modern, extensionalist semantics, seems to me entirely foreign to his project. Here, he is telling us what every shape is just insofar as it is a shape, irrespective of the kind of shape that it is, or who has it. Earlier I suggested that answers to the "What is X?" question draw pictures of things, in words.

Socrates offers us two pictures of shape: first as the power to be co-seen with color by sight. This means that shape is what's naturally visible in sensible reality, together and in some sense through the perception of color. The second picture of shape is as a boundary of tangible solids. Does this mean that the shape of solids is itself something tangible—a perceptible surface, as some have suggested?⁶¹ I don't think so. Read as a fragment of a nascent natural philosophy in the grand style—as I have urged—the second picture of shape represents this quality as the place (*topos*) taken up by a solid. This shouldn't be understood as some concrete ("tangible") location, but rather

⁶⁰ Mendell 1987, 220 suggests in passing that *Meno* 76 equates shape with *topos*. This points in the right direction, but I think that Socrates defines shape as a quality *of* solids, i.e., the *topos* occupiable by them.

⁶¹ Scott 2006, 42

the determinate type of space that a given solid “fits” into (cf. *Ti* 50b–c). The determination arguably includes the quality of the space, e.g., spherical, as well as quantity (i.e., volume). As I mentioned above, this doesn’t need to cover only two-dimensional figures. Socrates is allowed to think of them as constitutive parts of three-dimensional “places” into which solids “fit.” That is, he is allowed and in fact has good reason to view a square, say, precisely as the side of a cube. If so, *schema* in general is represented here as the type of space occupiable by solids.

Clearly, it is not a *feature* of all shapes and nothing else that they are pure spatial types into which solids fit, neither one that is explanatory, nor one that is not explanatory. Both this and the previous definition say what every shape necessarily is, in its very nature, by attending to its contribution to objects. In the first definition, this was implicit. Socrates simply said that only shape always follows color. The assumption that they are coextensive *features* of objects is true, but that is not the point of the claim, and readers supply it from without. I read the text more literally by suggesting that shape *follows* color as an affection, for this is how the verb is used in similar contexts. I then explained why color and shape are nevertheless objective properties, by arguing that the content of visual images is the exercise of [specific] colors and shapes. There is no gap and no difference between the two as far as Plato is concerned. The second definition sheds light on the first by dealing with shape as a quality of *solids*. On the proposed reading, shape determines the quantity and quality of space into which shaped solids fit. Solids always exercise this *dunamis*, for they always occupy the same kind of *topos*. Unsolid things, by contrast, do not have fixed boundaries to occupy. They are amorphous.

Consider, next, the “tragic” definition of color. This one clearly doesn’t give us a definition of color as quality of objects. Indeed, that is what Meno apparently denies that he knows. Herein lies

the key to Socrates' criticism. He does not object to mechanical explanations of vision, or anything else, categorically. But, as we learn from the *Timaeus*, he subordinates such causes to rational explanations. About vision, in particular, he says that it exists so that we may discover day and night, and through this time, number and, eventually, philosophy (47a–b). If Meno has reached the point of denying that colors make themselves known, and that we know what they are, or alternatively, if he thinks that it's not worth saying that colors are by nature visible, because he already knows this (cf. *Men.* 80d–e), then his enthusiasm for the third definition is indeed tragic. In tragedy, the world is full of chance, and intelligent agents, including the gods, are often malicious (e.g., *Resp.* 379a–380c). The opposite worldview is one on which the world is good and intelligible, where beings do not hide from us their true nature, if we reach out to them in earnest (cf. *Men.* 81d, 86b). Still, if my reading of the definitions of shape is right, the third account fits with them, since all three are statements of natural philosophy.

Finally, Socrates' reference to the “better account” reads like an ambiguous backreference. I suggest that the ambiguity is merely apparent. On the reading I offered, Socrates paints two pictures of shape. These pictures fit together, and they should be combined into a more comprehensive picture, which should, in turn, be elaborated further, if needed.⁶² Socrates, to be clear, never said that the nature of everything is shown only by one account to the exclusion of all others.⁶³ Indeed, this is a perverse reading of the “demand” for unity. On the proposed interpretation, he *wishes* to see the nature of some quality represented in a truthful image, however sketchy and provisional. If shapes are by their very nature the content of visual experiences,

⁶² Meno calls the first account “simpleminded” (εὔηθες, 75c2). On the second account, Socrates says that it is “not complicated” (οὐδὲν ποικίλον, 75e5). Both expressions suggest a contrast with tragedy (e.g., *Resp.* 361b, 399e–400a, 604e, 605b).

⁶³ In particular, Socrates didn't say (at *Phdr.* 270c–d) that simple natures have only one power, but only that complex natures have many—at least one, presumably, for each part.

together with colors, *and* the limits of solids, then the content of visual experiences apparently includes pure spatial *topoi*, for this is what the limitedness of solids amounts to, on my reading. These *topoi* can be handed over to geometers for further analysis. That's good news in my dictionary, and I assume Plato's as well.

2.6 Conclusion

Scholars have interpreted the pursuit of definition in the *Meno* as a dialectical or logical exercise which is not shaped by general ontological assumptions, nor for that matter by ethical ones. I argued that they are wrong to do so. The form of Socratic definitions is shaped by the topic, as Plato's Socrates perceives it. On the reading I proposed, he is looking for qualities, which he perceives as essentially powerful. The aim of inquiry is to examine the natural powers of the subject matter at hand. Contrary to the indirect method of drawing up proposals ("propositions") and testing them, or sketching "conceptual" maps without clear orientation as to how those should be sketched and without real "checks" on our "findings," Socrates has on my reading the conceptual and cognitive resources to make progress in science in general, and especially in ethics. Nature, as he sees it, lends itself to analysis. What we come up with is furthermore expressible in the language by which we thought it out. That is, we can, and should, draw up pictures of specific natures, refine and elaborate each, while all along remaining oriented towards "seeing" what we already know better more sharply than we did, on the one hand. On the other hand, if it turns out that our vision is distorted in certain areas, for example, by seeing that one picture conflicts with another one that we ourselves sketched, and that this blocks our own spiritual and intellectual progress, then we should learn how to undo some of the ways we picture the world, so that we

may see things differently. I suggested that the character of Meno needs to undergo such revision, although it is not at all obvious that he can.⁶⁴

⁶⁴ See Xenophon, *Anabasis*, II.6.21–29 for an unsympathetic portrait of the historical Meno. See Buzzetti's introduction for further discussion (in Ambler 2008, 8–10). However, Brown 1986 offers a more ambivalent portrait of the man.

Chapter Three:

Mathematizing the Recollection Argument in the *Phaedo*

3.1 Introduction

The most famous part of the recollection argument in the *Phaedo* (72e–77a) includes an example, the form of equality, which Simmias allegedly recollected from a previous life by looking at equal sticks, stones, etc. Although the argument is supposed to apply to all the forms, it seems to me that the mathematical example is carefully selected for Socrates' main interlocutors in this dialogue, Simmias and Cebes, who are inspired by Pythagorean teachers and doctrines. I'd like to use this introduction to explain how this assumption influences my reading, and what textual problems it addresses.¹

The main novelty in my interpretation, which I motivate with a close reading of the argument, can be summed up in three points. The first is concerned with Pythagorean influence. Scholars speculate that the Pythagorean belief in metempsychosis inspired the recollection thesis,² but they do not discuss the more relevant assumption that corporeal beings imitate numbers (Aristotle, *Met.* 987b). Aristotle may have given us the wrong idea about the nature of this relation by identifying it with Platonic participation (*methexis*).³ I find a more illuminating proposal in a fragment of Philolaus, which says that all things *signify* (*semainei*) numbers.⁴ Signification suggests a certain noetic or epistemic relation between the sign, the signified, and a mind relating the two. Similarly,

¹ Especially since there is already extensive literature on the subject. I especially benefited from the following studies: Burnet 1911; Gallop 1975; Dancy 2004; Scott 1995, 1999; Ackrill 1973; Penner 1987; Rowe 1993; McCabe 1994; Ebrey 2023; Lee 2013; Nehamas 1999; Sedley 2006, 2007; White 1987, 1992; Franklin 2005; Rowett 2018; Tuozzo 2018; Svavarsson 2009.

² See Sedley 1995, *contra* Huffman 2013

³ Aristotle's interpretation of Pythagorean doctrine also warrants some suspicion: "taking the genuine fragments of Philolaus seriously in fact produces a radically different picture of Pythagoreanism than what we can derive from Aristotle" (Huffman 1993, 38).

⁴ See Huffman 1993, 177–193 for a helpful discussion of the fragment (n. 5 in his edition).

I argue that it is the epistemic nexus that we need to bear in mind when Socrates says that sensible equals strive to be like the form but fall short, rather than a mind-independent relation of participation (as scholars typically construe it). I explain the place of this assumption in the overall proof.⁵

My second intervention concerns the idea of equality.⁶ The speakers in the dialogue say that they know what it is, but Socrates doesn't tell us what they all have in mind (74b). We could take this as a sign that it is unimportant. Bear in mind, however, that Simmias, who knows what equality is, arguably interprets the argument in light of his knowledge. This seems all the more certain since Simmias' knowledge of this idea actually figures in the argument. Socrates asks him whether it, that which he knows, ever appeared to him to be inequality (74c). Simmias says no. But what is he thinking of?

There have been attempts to say more about equality, or even to define it, but they are problematic.⁷ My own proposal, which is new as far I know, is that equality is a ratio of one to one (1:1). I will clarify and motivate this proposal by discussing passages from *Republic* and *Philebus*.

This hypothesis allows me to situate the recollection episode in a recognizable pedagogical context, where sticks and stones function as reminders by which a young Simmias allegedly recollected the equal ratio. These so-called sensible equals (I prefer corporeal equals) are arguably reminiscent of the counting pebbles and measuring sticks used in early mathematical training.⁸ Socrates prompts Simmias to compare them with those mathematical ideas that he learned by observing them, specifically the idea of equality.⁹

⁵ As former students of Philolaus (61d), Simmias and Cebes are arguably aware of the thesis that sensible beings signify numbers.

⁶ I will use "idea" instead of form, for reasons that I discuss in §3.3.

⁷ See Dancy 2004, 266, and Sedley 2006, 318. I take issue with their readings below.

⁸ See Riedweg 2008, 86–7, on Pythagorean pebbles. Cf. Nirenberg and Nirenberg 2018.

⁹ Sedley 2006 also emphasizes the importance of mathematical pedagogy.

I also propose a new interpretation of “the equals themselves” (αὐτὰ τὰ ἴσα, 74c1). The reference puzzles readers, especially since it suggests some sort of plurality, while the idea of equality is presumably singular.¹⁰ On the reading I defend, the equals themselves are ideas of numbers, i.e., ideal multiples of perfect ones, or monads, which always have the equal ratio to themselves. The so-called “sensible equals” are material tools of mathematical education (counting pebbles, etc.) which Socrates contrasts with the equal ratio, on the one hand, and with ideal numbers (see: ἡ τῶν τριῶν ἰδέα, *Phd.* 104d5–6), on the other.

Concretizing the mathematical terms of the argument leads to a new interpretation. When Socrates says that the equals themselves and equality never appeared unequal—or rather, when he poses this as a question to Simmias (74c1–2)—he seeks to deny that someone who has knowledge of equality could have some unequal ratio in mind when he contemplates the ratio of equality. He also denies that “numbers themselves” (αὐτῶν τῶν ἀριθμῶν, *Resp.* 525d6, cf. *Tht.* 198c1–2) could appear unequal to themselves, which I will read, once again, as the claim that it is impossible to have in mind a number which is unequal to itself. By contrast, corporeal numbers (see esp. *Resp.* 525d7–8), i.e., sensible magnitudes in perception, occur in our thoughts, on different occasions or by different people, in the relations that they happen to have or in ones that they do not.¹¹ Socrates uses this to show that corporeal numbers and their ratios are one thing, and intelligible numbers and their ratios are another thing, a premise he needs in order to prove the recollection thesis.

¹⁰ See Sedley 2007, 82–85, for discussion, and below (§3.3)

¹¹ Having in one’s mind (cf. ἐν τῇ διανοίᾳ, 73d7), or occurring in someone’s thoughts, is what φαίνεσθαι means on my reading of the argument. Thus, while I side with those who believe that it refers to what someone thinks, as opposed to something phenomenological (see Ebrey 2023 for the former, Tuozzo 2018 for the latter), I have an unorthodox interpretation of thought in the present context. When Socrates says that equal sticks seem equal, or unequal, he doesn’t mean that we represent the sticks as having equality or inequality, as though we were making an assertion about them. Rather, the sticks themselves occur in someone’s thoughts mixed with these other contents, i.e., equality or inequality, whether or not they are unified in reality. I discuss this in §3.3.

This interpretation partly depends on another intervention, the last one to be mentioned here. In reading Socrates' argument, especially the first part (73c–74a), I notice that entities, sensible or not, are treated as contents of possible states of knowledge (ἐπιστήμη παραγίγνηται, 73c4), i.e., pieces of knowledge (cf., ἐπιστήμαι γίνονται, *Men.* 98a6) that knowers can grasp (λαβεῖν, 73c7, d1, d7, 74b4) and contemplate (ἐννοεῖν, 73c8, 74a6). Thus Socrates talks in the same breath about entities, for example, some man, e.g., Simmias, and about knowledge of this man, e.g., knowledge of Simmias (esp. 73d3–e9). I maintain that the ambiguity is harmless because the content of each piece of knowledge is precisely the object to which it relates, e.g., Simmias, the actual man, is precisely the content of Simmias-knowledge. There is no point therefore in asking what someone knows when they know Simmias.¹² The man himself, Simmias, is the content of Socrates' knowledge of Simmias. Compare a famous remark by Russell: "Mont Blanc itself is a component part of what is actually asserted in the proposition 'Mont Blanc is more than 4000 m high' ... we assert the object of the thought, and this is, to my mind, a certain complex."¹³ What's similar between the two philosophers is the identity of what occurs in thought and the being with which thought is concerned, which exists outside the mind.¹⁴

Scholars fail to appreciate this point, and this creates problems for Plato that he would not have recognized as his own. They especially worry that Socrates might be inferring the difference between sensible equality and the form of the equal by substituting in an opaque context; the fact that sticks *seem* unequal, they argue, doesn't imply that they *are* not identical to the idea of equality, if what we're thinking is false.¹⁵ Some defend Socrates by saying that the appearance of equality

¹² *Contra* Ackrill 1973, 182

¹³ Correspondence with Frege, see Frege 1980, 164, in G. Gabriel, B. McGuinness (eds).

¹⁴ As well as the thought that Mont Blanc's being more than 4000 m high and the sticks' being equal are complex (i.e., "mixed"). There are crucial differences, however, in how Plato conceptualizes the "assertion" Russell mentions here, and that elsewhere he conceives as "judgment," as well as the complexity of what is asserted. See Kimhi 2018 for discussion in a related context, but with difference emphasis than mine (127–34)

¹⁵ See Sedley 2007, 78–82

is an objective property of the form of equality, but not of sensible equals, and so he is entitled to infer the non-identity of the two, since they have different properties.¹⁶ I take issue with this reading below.

My own solution, in light of the previous remarks, is to deny that the context is opaque. Socrates, I contend, wants to show that one piece of knowledge, or known content (i.e., the idea of equality), cannot be the same as another (i.e., a pair of corporeal equals). Although sticks, stones, etc., may have the ratio of equality, the one to the other, this ratio belongs, as content, to a different knowledge.¹⁷ These contents somehow “show up” together (“mixed,” cf. *Resp.* 524c) for the thinker in the perception of the sticks. Socrates shows that they are not essentially unified: the equal ratio is one thing, the sticks are something else. Thus he shows the difference between two pieces of knowledge *within* the boundaries of knowledge, as he conceives it. If so, Socrates doesn’t attempt to transcend or increase knowledge through an illegitimate inference, contrary to the objection.

The recollection argument has four phases, which I will discuss in three sections. Phase 1 (72e–74a) sets the stage for the argument by securing premises that Socrates will need later on, including, most importantly, an account of recollection. I cover the argument in §3.2, where I also discuss the unity of being and being the content of some knowledge. Phase 2 (74a–d) contains the main part of the equals argument. I discuss it in §3.3, where I speculate about the mathematical content of the text by looking at relevant texts in the corpus and show that the speculation pays off. Phase 3 (74d–75e) argues that the recollection Socrates discussed in the previous phase had to be from a previous life, and Phase 4 (76a–77a) proves that we forgot all of our pre-incarnate

¹⁶ See Tuozy 2018, Svavarsson 2009. Cf. White 1992

¹⁷ Plato individuates knowledges by their intentional objects in a few places—see, esp., *Resp.* 438c–4 (cf., 477c–478b), *Chrm.* 168b. Cf. Carone 2001, 119–20

knowledge at birth. Since the latter is straightforward, I deal with the final phases in one section (§3.4). The main focus in this section is on inferiority of the equal sticks, which I interpret in light of Philolaus' claim that beings signify numbers.

3.2 Phase 1: Setting the stage (72e–74a)

Cebes introduces the recollection thesis in support of the main thesis of the dialogue, which is that the soul is immortal. The claim, as Cebes understands it, is “that for us, learning is nothing but recollection” (72e5). “If it’s true,” he says, “we must presumably have learned in some time what we recollect now. And that would be impossible if our soul did not exist somewhere before it was born in this human form” (72e7–73a2). Is this thesis true, and did Plato believe that it was? Most scholars would say no to the first question, and yes to the second.¹⁸ I think that Plato did not believe the thesis, but this suspicion must be cast aside along with its opposite. If we think that Plato believed the recollection thesis, then we might find in the text an argument stronger than the one that is really there. If we think the opposite, then we might find a weaker argument.

So let’s just focus on the text. Socrates opens with a discussion of recollection. His first point is that it presupposes a prior knowing (ἐπίστασθαι, 73c), followed by this account:

T1: “Suppose someone sees or hears or has some other perception of one thing, and is not only cognizant of that thing (μὴ μόνον ἐκεῖνο γινῶ), but also comes to think of something different (ἕτερον ἐννοήσῃ), the knowledge of which is not the same but a different one (οὐ μὴ ἡ αὐτὴ ἐπιστήμη ἀλλ’ ἄλλη). Aren’t we right to say that he recollected this thing of which he had the thought?” (τὴν ἔννοιαν ἔλαβεν, 73c6–d1).

On some readings, Socrates states a sufficient condition on recollection: thinking of one thing by perceiving another, the knowledge of which is different from the first.¹⁹ I agree that if Socrates

¹⁸ Not everyone, however. See, e.g., Ebert 2004, 2007.

¹⁹ See, e.g., Ackrill 1973, 183; Gallop 1975, 115–6; Dancy 2004, 256. David Ebrey calls T1 “the sufficient conditions passage” (2023, 104). He identifies four: (i) that which is recollected needs to be real; (ii) it needs to come

is elaborating conditions, then T1 states a sufficient condition. But is Socrates really stating conditions? Truth-conditional semantics is a modern tool,²⁰ which needs to be applied to an ancient text with caution. In this case, as in chapter 2, I don't find the application helpful.

Maybe we should say, instead, that Socrates explains here what sort of process he has in mind when he says that learning is recollection by describing it. Accordingly, I suggest that we combine Socrates' two remarks in T1 into a single description that would serve as a working definition for his present purposes. In terms of the account that I offered in chapter 2, he is drawing a picture of recollection, in the sense that currently interests him. Other processes might deserve this name, too. But the one that's relevant for us is as follows:

Recollection=_{wdf} Given two pieces of knowledge, A and B, recollection is a process such that upon perceiving and thinking of A, someone comes to think of B, which they previously knew.

Notice that A and B are pieces of knowledge in the first line, but then in the second line they are contents of thought and perception. As I mentioned in the introduction, the ambiguity is harmless. In the recollection argument, knowledge (*episteme*) refers to the content of knowing, rather than a state or a faculty. I will refer to *epistemai* as pieces of knowledge to mark that knowledges are differentiated by what is known in them (what "belongs to" them). When Socrates deploys verbs to talk about being in a state of knowledge (*ennoein*, *gignoskein*, etc.), he seems to be working with a naïve conception of knowing as having in mind something known, a piece of knowledge. I'll appeal to this conception of knowledge later.

from something that the recollector (as I will call her) perceives and recognizes; (iii) the recollector needs to come to have something else in mind; (iv) the knowledge of the second thing is different from the first. All of these seem fine, *if* Socrates takes himself to be setting conditions on recollection. Otherwise they might be distracting.

²⁰ See Wiggins 1992 for discussion

These points are critical for understanding the argument, but they are generally overlooked, perhaps because items like a man or a lyre do not have a propositional structure, and so do not seem, to most readers, like something that could be the content of knowledge. Yet, as we shall see, this is the most straightforward way of reading Socrates' familiar cases of recollection. In these examples, someone has a lyre in mind, say, and is reminded by that very lyre of the owner of a lyre, which she comes to have in mind as well. The owner and the lyre figure in the argument as two entities, and, inasmuch as someone has them in their mind, as co-occurring pieces of knowledge, the thinker has them in mind at the same time.

Some readers who approach T1 as stating conditions on recollection, and overlook the objective use of *episteme* as referring to the things (not propositions) known (as content), distinguish two conditions on recollection in this text. A, from which we recollect B, needs to be different from B, and the knowledge of A needs to be different from knowledge of B.²¹ I reject all three points. First, Socrates is not setting "conditions" on recollection, he just tells us what recollection happens to be for his current purposes. Casting this as truth-conditions is optional, and, in my view, ill-advised. When Socrates says that the recollector "comes to think of something different, the knowledge of which is not the same but a different one," he doesn't mean, on my reading, that two conditions need to be met: first, that A and B need to be different things *and* second, that their knowledge must be different.

Instead, by saying that the recollected object and what we recollect it from constitute different knowledges, Socrates is just clarifying that recollection is not from one thing to the same thing at a different time or in a different respect, but only from a given entity to a different one. If I am seeing a lyre and then I become absorbed in its color, say, or if having fixed the lyre's string, I find

²¹ E.g., Ebrey 2023, 104

myself thinking about how a moment ago it was broken, that's not recollecting, at least not of the relevant sort. Although I am thinking something different (ἕτερον ἐννοήσῃ), my thought refers to the same entity. If, on the other hand, I saw the lyre and then thought about the beloved owner of the lyre, then I have two items in mind. This is recollection.

I believe that this is the point Socrates is driving at when he says that what we recollect is the content of ("belongs to") a different knowledge than what we recollect it from. If so, far from positing two "requirements" on recollection, Socrates clarifies that the recollected object is a separate and distinct entity from what we recollect it from precisely by saying that they belong to different knowledges.²² The latter is simply a gloss on the two objects being different.

Among other advantages, this reading avoids attributing to Socrates a "requirement" that he doesn't bother to meet in the equal sticks portion of his argument. As we shall see, he doesn't show that equal sticks belong to a different knowledge than equality, and that they are different entities, but only that they are different.²³ I will argue that he shows that sticks and equality cannot be the same piece of knowledge, and this indicates that they are different beings.

Socrates illustrates recollection with two sets of examples. I already alluded to the first one, "The knowledge of a person," he says, "is different from the knowledge of a lyre" (ἄλλη που ἐπιστήμη ἀνθρώπου καὶ λύρας, 73d3). Notice that he doesn't add that the two things are different (*qua* beings), as he likely would if this was a separate condition, or if he thought that knowledge was a state or faculty distinct from its cognizable content. He goes on to say that when lovers see a lyre or a cloak that belongs to the boy that they love, then, as they register what they

²² It is sometimes noted that at 97d Socrates says that it is necessary for the same person to know the best and the worse: "for there is the same knowledge about them" (d5). Burnet 1911, 54, Hackforth 1955, 67 n. 4, Gallop 1975, 177. This can be squared with my present remarks, if best and worse are relative to the same content, e.g., the idea of health. In any case, the point has no relevance to the present argument.

²³ To Ebrey, this suggests that the recollection of equality from sticks differs in kind from the one described in T1 (2023, 105). It seems implausible, however, that Socrates would elaborate an account which doesn't cover the main case.

are seeing (ἔγνωσάν), the boy's appearance also occurs in their thoughts (ἐν τῇ διανοίᾳ ἔλαβον τὸ εἶδος τοῦ παιδός); this, he says, is recollection (d5–8). On the proposed reading, one content is made available to the recollector in perception, e.g., a given lyre, and this recalls to his mind another piece of knowledge, namely, the physical appearance of his beloved, who owns this lyre (although having any lyre in mind could have the same result). This example is followed by someone who, “upon seeing Simmias, often recollects Cebes” (73d9–10).²⁴ Socrates classifies the first set of examples as one kind of recollection (ἀνάμνησις τίς, e1).²⁵ How should we understand their unity and “myriad others like them” (μυρία τοιαῦτ’ 73d10)? I suggest that it will come into view in comparison with the next set. The central difference between the two, I will argue, is that the first set describes recollection of an original being from an original being, while the next set involves images.

“Can it happen,” Socrates asks, “that upon seeing a painted horse (ἵππον γεγραμμένον) or a painted lyre (λύραν γεγραμμένην) one recollects a person; and upon seeing a painted Simmias (Σιμμίαν ἰδόντα γεγραμμένον), one recollects Cebes?” (73e5–7). These cases mirror the former, with the difference that now recollection is triggered by images, as opposed to what we can now think of as original beings—even though before, they were just beings. We can call recollection

²⁴ Note that this recollection is of Cebes, not his appearance as it was in the previous case (τὸ εἶδος τοῦ παιδός, 73d8). So we have no reason to think that what we have in mind, in such cases, is something like a visual image. Even if there's always something like a sensible representation, this doesn't mean that what we relate to, in recollection or thought in general, is an image, rather than the very thing we're thinking of.

²⁵ Ebrey argues that this kind of recollection is from dissimilar things, which belong to a different knowledge, while the next few examples are of recollection of similar things, which belong to the same knowledge, like the recollection of equality from equal sticks (2023, 106). Socrates' examples do not divide neatly along these lines, however, as he goes on to mention recollection from dissimilar, and not just similar things. If Ebrey were right, it would also entail that the main elaboration of recollection (T1) doesn't apply to the central case, which is implausible. Rowe suggests that the first kind of recollection is from things that we didn't forget (1993, 166); he says this because after these examples, Socrates remarks that something is “especially” (μάλιστα) recollection (ἀνάμνησις τίς) when the recollector had forgotten (ἐπελήλυστο) what they now recall (73e1). Socrates, however, doesn't mention forgetting (or not forgetting) in the first set of examples (73d), and the use of “especially” in the remark that follows seems to be about the salience or intensity of the experience, i.e., what's felt to be recollection most strongly, rather than a qualitative characterization of a type of recollection.

from original to original “horizontal” because the items belong to the same order of being, while we can call recollection from an image to an original “vertical” because it is from a secondary to a primary order.

It bears emphasizing again that the first few cases of vertical recollection are from images of something dissimilar to what was recollected from them. However, recollection from similar images to their originals is more common, and arguably more relevant. Socrates mentions it right before he turns to the recollection of equality. It happens, he says, that “upon seeing a painted Simmias, one recollects Simmias himself” (ἀπὸ τοῦ Σιμμίου, 73e9–10). Images of originals are in many cases meant to remind us of what they depict, as when we turn to an old photo to remember the man “in” the photo. Socrates seems to take advantage of this fact. For him, the little man we’re holding with our hands is not the one we hold in our thoughts, but a similar image.²⁶ He concludes that recollection happens “from similar things, but also from dissimilar things” (ἀφ’ ὁμοίων, εἶναι δὲ καὶ ἀπὸ ἀνομοίων, 74a).

If so, there are two distinctions which cut across each other: two species of recollection, horizontal and vertical, and a further distinction between similar and dissimilar things. Socrates presents the latter distinction in relation to recollection from images, although it is arguably applicable to originals, too, e.g., recollecting from Socrates to Theaetetus, because one resembles the other.

In the final part of this stage setting, Socrates says that when recollection happens from similar things, the recollector necessarily *has a settled view* about whether the perceived object somehow falls short of the recollected item. In saying so I diverge from a common translation:

T2: “Whenever it is from similar things (ἀπὸ τῶν ὁμοίων) that one recollects something, is it not true that one inevitably has the following experience as well: that of thinking

²⁶ In *Republic* 10 (596e10), a painted bed is a kind of bed in its own right, and that is arguably why it is able to represent or image a real bed, i.e., by sharing certain superficial features with it (as I argue elsewhere).

(ἐννοεῖν) whether or not in its similarity it in some way falls short of the thing one has recollected (εἴτε τι ἐλλείπει τοῦτο κατὰ τὴν ὁμοιότητα εἴτε μὴ ἐκείνου οὗ ἀνεμνήσθη;)?” (Simmiias: “Yes, inevitably,” 74a5–8).

Here, the person entertains the question whether (εἴτε... εἴτε μὴ) the similar thing falls short or not. This puzzles commentators, who rightly believe that the question does not have to arise.²⁷ Some invoke unconscious states which necessarily entail the possibility of raising this question.²⁸ But Socrates says that this necessarily happens to us, not that it is in every case possible to raise the question. If the experience were merely possible, it would be misleading for him to present it as necessary.

Burnet has the right idea, I think. He writes that “an additional thought necessarily presents itself to his mind, the thought of the presence or absence of any deficiency in the likeness.”²⁹ He means, I take it, that the recollector has a settled view on the matter, one way or the other; there is no mention of how she came by her opinion, or whether it is, or was, unconscious. And, on Burnet’s interpretation, the point is plausible. When we notice that something resembles another thing, we must have a settled view about whether it’s inferior or not to that other thing. Someone who knows Simmiias necessarily has a settled view, a thought, about whether a given image is sufficiently similar to him or not. This seems especially obvious when the recollector approaches some image for the sake of being reminded, as we just described. He is looking at the little man in the image

²⁷ See esp. Sedley 2006, 315; Franklin 2005, 298–303

²⁸ E.g., Rowe 1993, 167. According to others, the person might make an unconscious judgment, see, most recently, Ebrey 2023, 107. But Ebrey’s suggestion that we unconsciously judge whether the sticks are inferior according to a standard is hard to conceptualize, since judging in accordance with a standard is normally a conscious act. It’s easier to understand why, on Sean Kelsey’s “constitutive” interpretation, we might have an unconscious understanding of the inferiority of sensibles. He construes the theory of recollection as “a kind of analysis of what it is to see equal sticks and recognize them as equal [e.g.],” and it makes sense that in the first instance we are unconscious of what is involved in such recognitions (2000, 96–7, and n. 11; cf. 110–3). However, if Kelsey is right, recollection has nothing to do with learning or pedagogy, and this makes this sort of interpretation unappealing, see Rowe 1993, 172, Sedley 2006, 314, and Scott 1995, Ch. 2, who helpfully refers to this sort of interpretation as Kantian.

²⁹ Burnet 1911, 55

in order to be reminded of something else, a real person. In such a case, we are satisfied with the way that the picture captures what the man is like (or not); our satisfaction may be in proportion to how badly we long to see the actual person. In some moods, even the best picture would strike us as wholly inadequate, for example, if we love the man pictured very much and he died. It's important to keep in mind the immediacy of the experience and the possible erotic attachment to the recollected object, since it is not irrelevant to the point Socrates is making. In the end we'll see that it goes to the very heart of what he's saying, and constitutes the truest part of an otherwise unbelievable argument. In his stage setting, Socrates draws attention to it by mentioning examples of lovers and their absent beloveds, their pictures, and so on.

3.3 Phase 2: Proving that Simmias recollected the idea of equality (74a–d)

In the second phase, Socrates brings some of the previous distinctions and observations to bear on a piece of mathematical knowledge: the idea of equality, with the aim of showing that the speakers recollected it from corporeal equals. I will reconstruct his argument on the basis of what he says here and in the preliminary discussion, but also by drawing on texts which might bear on the threefold distinction: (1) “the equals themselves,” (2) “equality,” and (3) corporeal equals, i.e., equal pebbles, sticks, etc., and on the alleged recollection episode, i.e., Simmias' recollection of (2) from (3).

Socrates begins:

T3: “We say, I take it, that an equal exists (τι εἶναι ἴσον); I do not mean that a stick [equal] to a stick [exists] (οὐ ξύλον λέγω ξύλῳ), or a stone [equal] to a stone (λίθον λίθῳ), nor anything else of the kind, but something different besides all these (παρὰ ταῦτα πάντα ἕτερόν τι): the very idea of an equal (αὐτὸ τὸ ἴσον). Shall we say that it exists or not? (φῶμέν τι εἶναι ἢ μὴδέν;)” (Simmias: “Indeed we should, most emphatically!” (74a–b, my translation)

I diverged from Long and Sedley's translation in two related respects. First, where they write: "there is an Equal," I made the existence claim more emphatic: "an equal exists." Likewise, where they write: "I do not mean a stick equal to another stick, etc.," I take Socrates' ξύλον [ἴσον] ξύλω as an existing pair of sticks, one equal to the other: "a stick [equal] to a stick *exists*," instead of taking the implied εἶναι predicatively, as their reading suggests. This makes the text more consistent, since εἶναι asserts existence in the first and last sentences. The point is that an existing pair of equal sticks or stones is not what Socrates is talking about when he says that an equal exists.

Second, while Long and Sedley offer a literal translation of αὐτὸ τὸ ἴσον, "the Equal itself," I write: "the very idea of an equal." This imports an interpretation, as I am about to explain. But so does the literal reading, precisely in assuming that Socrates uses technical jargon which shouldn't be translated into familiar language. While this is a common assumption, it wasn't always the norm.³⁰

Rehabilitating the term [Platonic] *idea*, instead of form, will orient us towards treating these items as intelligible contents, which is all they are in the present context.³¹ It then becomes possible to intensify the expression using "very," rather than "itself," to generate an English phrase with all the right connotations. The very idea of *x* is *precisely* what *x* is, rather than something which substitutes or approximates it. It is also *just* this idea, not mixed with anything else.³²

So far it was established that the very idea of an equal exists and that it is not an equal pair of sticks, etc. Socrates follows up by asking whether "*we* also know (ἐπιστάμεθα) what it is." Simmias answers: "certainly" (74b2–3).

³⁰ E.g., Fowler 1914: "equality in the abstract," Jowett 1892: "absolute equality," which then becomes "the idea of equality," and Burnet 1911: "just the equal," "the really equal."

³¹ Later (95 ff.) Socrates reflects on their causal significance. Thus in chapter 4 I will use *idea* and *form* interchangeably.

³² Cf. Tuozzo 2018, 12

Scholars wonder who “we” are, both here and in “we say that an equal exists...” According to Gallop, “it might be taken to mean here ‘not people in general’, but ‘we philosophers’,” which “would limit the scope of the Recollection Argument to the souls of philosophers.” Gallop himself rejects this reading, on the grounds that “the Recollection Argument itself” militates against it.³³ But others, notably Scott, have argued that the “we” singles out a select group of “recollectors,” namely Platonic philosophers, engaged of a form of “higher learning” that Scott identifies as recollection.³⁴

Both sides forget something important. Socrates elaborates an argument which involves several crucial premises. He needs to establish consent regarding them, which is just what he has been doing from the outset: “we agree,” he said in the beginning, “that if someone is going to recollect something ...” “Do we also agree,” he asks, “that whenever knowledge comes in the following sort of way it is recollection?” (ὁμολογοῦμεν, 73c1, c4).

I suggest, accordingly, that “we” indicates *mutual agreement* on the premises between those present throughout the argument, including in T3. The fact that the speakers are philosophers, or currently engaged in philosophy, doesn’t affect the scope of their claims. This removes the tension which, if I’m right, is due to treating an element of the dialectical frame as part of the argument.

Nor is it especially telling that Simmias has knowledge of the equal, as Scott apparently thinks, nor that he affirms its existence. Simmias and Cebes, we are told, were students of the Pythagorean philosopher, Philolaus (61d6–7). It makes sense that Simmias affirms his knowledge of equality emphatically. Still, the point is not that Simmias is exceptional, and knows exceptional things, although he might; instead, it is to indicate that knowledge of equality can be had. Moreover, those

³³ Gallop 1975, 120

³⁴ See Scott 1995, 1999, cf. Rowe 1993

who gained this piece of knowledge typically know the pedagogical circumstances of its acquisition, which is the topic at hand.

A more pressing question is how the interlocutors conceive of this foundational piece of knowledge. Unfortunately, scholars rarely touch on this issue.³⁵ Perhaps the question doesn't seem important; what matters, someone might argue, is the overall shape of Socrates' recollection argument and the conclusions he derives from it, not the content of his example.

I disagree. We cannot tell, from a position of ignorance, whether the example affects the argument or not. Nor can we plead irrelevance on the grounds that Plato would have told us if this was important. It could be that his contemporary readers share the group's understanding of equality; that is to say, this piece of knowledge might be common enough to not be recounted here explicitly.

Equality as neither exceeding nor being exceeded

There is one proposal about equality in the literature, which receives two expressions, although I will criticize it as a single point. Dancy suggests that "the equal (to something y) =_{df} that which is neither larger nor smaller (than y)."³⁶ This account draws on *Prm.* 161d4–7, which characterizes equality as an intermediate between largeness and smallness. Sedley proposes similarly that equality is "the power to neither-exceed-nor-be-exceeded."³⁷ Before moving on, I will briefly present a few related objections.

First, these scholars define equality negatively, which Plato elsewhere seems to reject (*Plt.* 262a–e).

³⁵ Notable exceptions include Dancy 2004, and Sedley 2006. See below for criticism.

³⁶ Dancy 2004, 266

³⁷ Sedley 2006, 322

Second, as formulated, these accounts are true of everything which doesn't exist at all, or does not belong to the category of quantity (e.g., a red patch of color does not exceed nor is exceeded by 10). Of course, we can qualify and say that the definition ranges over all quantities, but this is problematic. The Greeks do not have a unified domain of all quantities or numbers, understood relative to each other, but consider them as like and unlike kinds. Thus, we would need to have equality defined for every kind of quantity separately.

Third, defining equality with reference to (not) exceeding (nor) being exceeded is circular if exceeding consists in having a part which is equal to the whole of that which is being exceeded, which seems both likely and attractive as a definition of "exceeding" (cf. Euclid, *Elements* I, common notions 1–5). It would be circular because "exceeding," then, would be defined with reference to equality.

Finally, given three terms, x , y , z , where $x < y$, and $y < z$, we want to be able to ask whether z exceeds y , and y exceeds x equally (e.g., 1, 3, 5) or not (cf. Proclus, In *Tim.* III. 19.). Thus, two or more things can be *equally* or *unequally* larger or smaller than other things. The definition we are considering doesn't do justice to this use of equal, even though it is quite important (e.g., *Lg.* 6, 757b–c, Aristotle, *Pol.* 1301b29 ff.). Nothing prevents us, in principle, from applying Dancy's negative definition even here (less so, Sedley's it seems), but doing so will only accentuate the problem of negativity.

In short, the characterization of equality as "neither smaller nor larger than" might be used a gloss in some contexts, but it doesn't express the mathematical content of this idea, nor does it elucidate the concept as Plato understood it. Sedley, in particular, deploys the idea of *dunamis* in a strange way: when and how could something *manifest* its power to neither exceed nor be exceeded by something else? If A is *not* exceeding B , *nor* is it exceeded by it, what *is* A actually

doing, however abstractly, relative to B? If the notion of *dunamis* is not used in any dynamic sense whatsoever, as seems to be the case, then Sedley has (at least) the same problems as Dancy’s formal definition.

Equality as a one to one ratio

So, what is “the very idea of an equal” for our interlocutors? A likely answer, and the one that I will defend here, is a ratio that can be written thus:

$$1 : 1$$

Although the suggestion is in some ways intuitive, in other ways it defies modern expectations, so I want to take a moment to clarify it. We are used to thinking about ratios as fractions, and of fractions, in turn, as numbers.

For example:

$$1 : 2 = \frac{1}{2} = 0.5$$

The suggestion that equality is a certain ratio thus seems foreign to our mathematical imagination, because ratios, we think, have values, and so they flank the equality sign, rather than define it.

But the Greeks did not think of ratios as fractions. Instead, a ratio (*logos*, *symmetria*) relates quantities to each other conceived as two “wholes,” i.e., as a fixed number of units (discrete or continuous) of the same sort (and thus comparable). So if q_1 and q_2 have a ratio of 1:1 with each other, this means that q_1 has the same size as q_2 taken once, and q_2 has the same size as q_1 taken

once.³⁸ In short, equality, conceived as a ratio in a Greek way, refers to the relative size of one quantity compared with another, each having the same size as the other, taken once and as a whole.³⁹

The proposal is textually well motivated. In *Republic* VII Socrates says that “the truth (τὴν ἀλήθειαν)” concerning “equals (ἴσων) or doubles (ἢ διπλασίων) or any other ratio (ἢ ἄλλης τινὸς συμμετρίας)” cannot be discovered by gazing at the stars (529e).

The wording might suggest that equals and doubles *are* ratios. That’s not what Socrates says. Rather *the truth* concerning such things are their ratios (συμμετρίας): the truth of equals is the ratio an equal has to what it equals in size (1:1), the truth of doubles is the ratio a double has to what it doubles in size (2:1), etc. Plato often uses “the truth” to refer to the object of thought rather than to qualify a thought, as we usually do.⁴⁰ Socrates’ point, in context, is that it’s ridiculous to pursue a serious study of ratios by gazing at the stars (γελοῖον μὴν ἐπισκοπεῖν αὐτὰ σπουδῇ ὡς τὴν ἀλήθειαν ἐν αὐτοῖς ληψόμενον).

In the *Philebus*, equality belongs to the class of “limit,” i.e., things that order contrary qualities in the right proportion to each other, say, of cold *versus* hot, thus reaching a state of equilibrium, rather than allowing them to increase or decrease indefinitely. Socrates is thinking of mathematical ratios: “first the equal and equality, and after the equal the double, and all that is related as number to number or measure to measure, we would do well if we include all those in the category of limit” (25a7–b3, trans. Frede 1993, modified). Ratios can function as limits because “hot and cold,” etc. are quantifiable, and so we can relate them as “number to number etc.” This and the

³⁸ In other words, q_1 is one q_2 in size, and q_2 is one q_1 in size, where “being ... in size” determines the value of one quantity as a multiple of the other, here q_1 as one-time q_2 , and vice versa. I see this intuitive conception of the ratio of equality borne out by modern studies and ancient texts, but I haven’t found it specifically formulated anywhere. For helpful discussions, see Fowler 1999, Mueller 1981, Ch. 2, and Mendell 2008.

³⁹ Scholars sometimes use spatial metaphors for quantities in comparison. Question: “How many times q_1 goes into q_2 ?” Answer: “Once” (see, e.g., Fowler 1987, 24).

⁴⁰ E.g., *Phaedrus* 249b, where truth (τὴν ἀλήθειαν) clearly refers to the form. Cf. Rowett 2018, 34–49.

previous text make 1:1 a likely candidate for the idea of equality, which exists and which Simmias knows.

Phase 2 continues when Socrates asks how we learned about equality. This brings us to the most controversial passage:

T4: “From what source (πόθεν) did we get the knowledge of it (λαβόντες αὐτοῦ τὴν ἐπιστήμην)? Wasn’t it from the things (ἐξ ὧν) we were just mentioning (νυνδὴ ἐλέγομεν)? Upon seeing equals (ιδόντες ἴσα), either sticks or stones (ἢ ξύλα ἢ λίθους), or all other things of the kind (ἢ ἄλλα ἅπαντα), wasn’t it from them (ἐκ τούτων) that we came to think of it [i.e., the very idea of an equal], different (ἕτερον) as it is from them? Or doesn’t it appear (φαίνεται) different to you? Consider it in this way as well. Don’t equal stones and sticks on some occasions (ἐνίοτε), while being the same (ταῦτα ὄντα), (A) appear at one time equal, at another time not (τότε μὲν ἴσα φαίνεται, τότε δ’ οὐ)? (B) appear to be equal to one, and not to another (τῷ μὲν ἴσα φαίνεται, τῷ δ’ οὐ)?” (Simmias: “Certainly”).

“Well, have the equals themselves ever appeared to you unequal (αὐτὰ τὰ ἴσα ἔστιν ὅτε ἄνισά σοι ἐφάνη), or has equality ever appeared [as] inequality (ἢ ἡ ἰσότης ἀνισότης)?” (Simmias: “Never yet at any time, Socrates”)

“In that case, these equal things (ταῦτά τε τὰ ἴσα) and the very idea of an equal (καὶ αὐτὸ τὸ ἴσον) are not the same thing (οὐ ταὐτὸν ἄρα ἐστίν).” (Simmias: “Never yet, Socrates, at any rate not to me.”)

“But still, it’s from these equal things, though they are different from that equal (ἐκείνου τοῦ ἴσου), that you have nonetheless thought of and got knowledge of it (τὴν ἐπιστήμην ἐννεονόηκάς τε καὶ εἴληφας).” (Simmias: “Very true.”)

“Now it is either similar to them (ἢ ὁμοίου ὄντος τούτοις) or dissimilar (ἢ ἀνομοίου), isn’t it?” (Simmias: “Certainly.”)

“Yes, but it makes no difference. So long as upon seeing one thing you come from this sight to think of something else (ἔως ἂν ἄλλο ἰδὼν ἀπὸ ταύτης τῆς ὄψεως ἄλλο ἐννοήσῃ), whether similar or dissimilar, it must have been recollection (αὐτὸ ἀνάμνησιν γεγονέναι).” (Simmias: “Quite so.”). (74b4–d3).

Socrates’ aim in T4 is to distinguish the idea of an equal from equal sticks and stones, and, by showing that they are not the same thing, to prove that when someone learns the idea of equality by perceiving equals sticks, etc., this somehow meets the working definition of recollection. But agreement in interpretation ends here.

Let me comment on the first part of T4, first. It has two known variants. On one, the sticks appear equal or unequal at different times (B), on the other, they appear different to different individuals (A). Burnet, who preserves reading B, assumes that both variants are concerned with how equal sticks etc. seem: “sometimes [they] seem equal and sometimes unequal to the same persons, and they appear equal to one person, unequal to another.”⁴¹ Later commentators, by contrast, have read (B) as saying that the sticks are manifestly, evidently, equal to one *thing*, but unequal *to another thing*. The point becomes that sticks, etc., *are* both equal [to *x*] and unequal [to *y*], and the fact that they *appear* differently at different times or to different people plays no role, since the appearance is taken in each case as veridical.

The latter reading of B is forcefully criticized by Thomas Tuozzo. Two of his objections are especially worth repeating: first, by mentioning *multiple sticks* etc. Socrates invites us to think of the relation between *them* as being, or seeming, either equal or unequal, and not the relation between these sticks and some unnamed other or others, to which they are equal or not; second, Socrates says that equal sticks appear both equal and unequal *on occasion* (ἐνίοτε, 74b8); but sticks are, presumably, *always* equal to some things and unequal to others, which makes the reading even more implausible.⁴²

The implausible reading is motivated by charity.⁴³ The concern, as Tuozzo explains, is that Socrates would be inferring the difference between equal sticks and equality from an intensional

⁴¹ Burnet 1911, 56

⁴² Tuozzo 2018, 7–8 (cf. Svavarsson 2009, 68–70). David Ebrey has recently argued that the sticks are [objectively] equal or unequal to each other at different times, which avoids these problems (2023, 114). He encounters another difficulty, though. Socrates says that these things appear, or are, equal and unequal, “although they are the same” (ταὐτὰ ὄντα). It is unlikely that they remain substantially the same, i.e., sticks or stones, as Ebrey claims, because the sentence has *equal* stones etc. in the subject position (λίθοι μὲν ἴσοι καὶ ξύλα), not merely sticks and stones. It happens to these equal stones etc. that while they remain the same (ταὐτὰ ὄντα), they appear at one time equal, at another unequal, according to the B reading (cf. Sedley 2007, 81).

⁴³ Tuozzo 2018, 8

context, and so illegitimately. He would be arguing, to put it simply, that because we sometimes have false thoughts about sensible equals, this means that they are different from equality.⁴⁴

Perhaps this can be avoided in some other way. Tuozzo suggests that equality is an experiential concept: “a mode of presentation of the thing thought that intrinsically involves a certain phenomenal character.”⁴⁵ He compares this to “the perceptual experience of red appearing to someone,” which, by being isolated as a concept, “enables a person to think about red in a way that imaginatively recreates the experience of actually seeing a red object.”⁴⁶

I reject this move, for reasons that I shall explain later. My own solution begins by considering the harmless ambiguity I noted earlier. I said that A and B in the working definition I derived from T1 refer to beings, that is, existing individuals, but insofar as they are known they constitute pieces of knowledge. Simmias, for example, is an existing man, but also the content of someone’s knowledge of Simmias. This piece of knowledge differs from every other just by having Simmias as its content.

If Socrates were drawing an inference about something that lies *outside* the bounds of what recollectors know, from their erroneous thoughts about it, as scholars have thought, then he would be committing the aforementioned fallacy. I suggest, by contrast, that he remains *within* the boundaries of knowledge (which is, as we say today, “factive”). On the one hand, recollectors know a given pair of sticks, which happen to be equal.⁴⁷ On the other hand, recollectors have knowledge of equality. If these are different pieces of knowledge, and if we learned one, which we knew at an earlier point, by perceiving the content of the other, then our learning satisfies the

⁴⁴ See: Murphy 1951, 111 n. 1; Mills 1957, 131–3; Vlastos 1981, 66–73; Penner 1987, 150–66; Fine 1993, 331; Nehamas 1999, 188–91; Sedley 2007, 78–82; Ebrey 2023, 112–17.

⁴⁵ Tuozzo 2018, 20

⁴⁶ Tuozzo 2018, 19

⁴⁷ This qualification is conceived as external to their content as pieces of knowledge. Indeed that is a key assumption, as I will explain shortly.

working definition of recollection. Thus, I will absolve Socrates of the above charge by arguing that he operates in an intensional context which is, by his standards, epistemic (“factive”), rather than opaque.

Does this mean that Simmias sometimes knows what is false, namely, that the sticks are unequal even though they are equal, or vice versa? That would be a terrible consequence, but it doesn’t follow from what I’m suggesting. Remember that the unit of knowledge is an entity, not a proposition, and knowing is understood here as having this entity itself in our mind: not *as* something, but simply *it*. I have Simmias in mind, or I do not. As I will read T4, Socrates says that a pair of sticks, which happen to be equal, might occur in our thoughts, and be known in this sense, with inequality, i.e., the two contents are mingled together, although in reality these items are not so mingled. If this happens, we *might* judge that the sticks are unequal, but we might not. Although scholars have focused on such issues, I believe that they are not so important. What matters for Socrates’ argument is that equal sticks can occur in our thoughts mingled with inequality, but other things—above all equality itself—never occur to us in this way.

Let’s start from the top. Simmias has just agreed that he knows the idea of equality. Socrates suggests that he got it from seeing equal sticks and stones, which made him think of equality, although they are different from it. In short, Socrates describes the situation as a case of recollection. I suggested that the lesson is rudimentary. Simmias learned that quantities can stand in a ratio of equality the one to the other, meaning that each has the same size as the other when each is taken as a whole, once (i.e., q_1 is one time q_2 in size and *vice versa*). Socrates needs to show that he recollected this lesson, the idea of equality, by showing that the working definition of recollection applies to this process.

How does he prove this? The first thing we need to observe, despite Socrates' brevity, is that Simmias probably didn't gain knowledge of equality at random, nor alone, chancing upon equal sticks or stones. There was arguably a parent, or a teacher, presenting these examples to him. Plato is well aware of the use of models in education (esp. *Plt.* 277d–278e; cf. *Resp.* 394e ff.; *Prt.* 325c–326e), including in mathematical pedagogy (esp. *Lg.* 817a ff.). By omitting it here, Socrates draws attention away from the realistic aspects of the process, which might interfere with his present agenda. This doesn't mean that we as readers should remain inattentive to the realities of teaching and learning.

Second, while equality can be taught using all sorts of examples, Socrates' choice of sticks and stones is revealing. Pebbles and sticks were used in antiquity as counting and measuring tools, for commercial as well as pedagogical purposes.⁴⁸ From this we get the word *calculus*, which is Latin for a small pebble (on the abacus). I believe Plato wants his readers to be thinking about a specific pedagogical situation: young Simmias is given two pebbles which he is supposed to see as two ones (units), each equal to the other, or two sticks, which he is supposed to see as equal magnitudes. Simmias would need them to seem identical in size, otherwise he wouldn't see them as equal. This is similar to the way small children assume that larger coins are worth more than small ones, e.g., a nickel more than a dime. Depicting things in this way will be especially helpful in the next phase. However, since these points are if anything implicit, the motivation for my reading will have to come from thinking that a mathematicised version of Socrates' argument yields interesting results which harmonize well with the text.

One last thing before we turn to the argument proper. Socrates says that Simmias learned equality from perceiving equal sticks, not equality itself. Simmias clearly agrees, but why? Isn't it

⁴⁸ See note 8 above for recent studies. See also Gow 1884, Ch. 3.

possible that we learned equality from seeing the equality of the sticks? In general, why not say that we learned the idea of F because it is immanent in what we see? That would obviously jeopardize the recollection argument, since the content Simmias observed in the sticks, namely, their equality, might be the same as what he learned from them, contrary to the working definition.

To save the argument, Socrates would need to prove one of two things: (1) immanent forms are in some way observable, but knowledge of them is different from the knowledge of the form itself (so, by the current standard, they differ from the idea of equality); or (2) immanent forms belong to the same knowledge as the form (so, by the current standard, they do not differ), but they are in no way observable (in other words, the form is not observable even when it is instantiated in or by things). It's not clear that Socrates can show this, and in any case he does not try, which suggests to me that the ontology of the recollection argument does not include immanent forms. This fits well with the text, which is entirely focused on the difference between corporeal entities like sticks and stones, and ideas. It also raises questions about the argument's compatibility with the latter part of the dialogue, in which Socrates presents immanent forms, but this will have to wait for the next chapter.⁴⁹

At the moment, Socrates, Simmias, et al., take it for granted that there are things like sticks and stones, that can be classified as corporeal, including, presumably, the originals we've encountered in the previous argument, as well as their images. Then there are ideas. Socrates needs to show that Simmias recollected the latter from the former. He already described Simmias's learning process as getting knowledge of equality from seeing equal sticks. Now he needs to demonstrate what Simmias had already conceded at the start, that the idea of equality is really something different from corporeal equals.

⁴⁹ Where I will argue that the ideas themselves coincide in locations with their participants. If so, their transcendence is compatible with coincidental immanence of the kind I will describe.

He begins by reminding Simmias that a pair of equal sticks can be cognized either mixed with the relation they happen to have, or a different one. This doesn't mean that they possess both equality or inequality as properties, or that the cognizer commits the error of thinking that they do—although he might, as Socrates emphasizes elsewhere (e.g., *Resp.* 602c–e). For Socrates' current purposes, it suffices that someone can know a given pair of sticks—in the sense of having them in mind—not united with equality, but *outside* or *apart from* this ratio, even though in reality they are mixed with it.⁵⁰

Next, Socrates points out two things that never appeared unequal to Simmias: “the equals themselves” and “equality.” This puzzles readers, because there was no previous mention of “equals themselves,” but only the (singular) idea of equality.

Scholars offer four responses: (1) some take “the equals themselves” as a mere variant of “the very idea,” which doesn't affect the content.⁵¹ This seems, perhaps, safe.⁵² However, there is no such variant on the Form or idea of equality in the dialogues (although some find an important parallel in *Prm.* 129b1), and the variation in the present context wouldn't clarify anything; indeed, it is misleading. (2) Others suggest that the Form of equality is a paradigm consisting of a pair or set of ideally equal things. If so, the reference might to the constitutive elements of the form.⁵³ This, too, seems unparalleled; what's worse, it saddles Plato with an unintelligible conception of

⁵⁰ See *Resp.* 524c ff. for the idea that perception delivers contents in a mixed state, which are then distinguished in thought. But I go beyond this discussion in suggesting that the contents of thought are beings which can be mixed in one way in reality, and then again differently in our thoughts, and in suggesting that this sometimes results in error, but not always.

⁵¹ Proponents of this view offer different justifications for the plural reference. E.g., Sedley: “the Form can be referred to as ‘the Equals themselves,’ because the Form of Equal is what it is for things (plural) to be equal (to each other)” (2007, 84); Dancy: “When Socrates asks Simmias in 74a9–11 whether he grants the existence of an equal, he lifts the term ‘equal’ from the context ‘equal stick’ ... [but] when he asks Simmias whether the equals themselves have ever seemed to him unequal, he has just asked again about equal sticks, but here the context is plural (2004, 271; cf. Owen 1968, 114–5). Both represent attempts to explain the reference away. I will try to interpret the text in a way that makes its appearance relevant and helpful.

⁵² E.g. Dancy: “For the argument to come off, the apparent plural must refer to the Form of the equal itself” (2004, 271).

⁵³ See Geach 1956, 76, Bluck 1957, 117–8, Mills 1957, 40–51.

forms: what could an idealized pair of equals *be*?⁵⁴ (3) Still others argue that “the equals themselves” are immanent ideas.⁵⁵ Setting aside my reservations about including these items in the present context, the proposal doesn’t make much sense. Immanent ideas have not been mentioned and they have no relevance here. Besides, the third-person, reflexive pronoun (“themselves”), attached to ideas, calls attention to their separate or separable nature, which would be misleading if Plato wants to draw our attention to immanent forms. Finally, (4) some have argued that the reference is to mathematical objects, in which the form of an equal is perfectly exemplified.⁵⁶

My suggestion draws inspiration from this last proposal, but significantly modifies it. I think that the equals themselves are ideas of numbers, which will be prominent later in the dialogue.⁵⁷ Thus, rather than thinking of this as a reference to perfect instances of the form, the equals themselves are arguably “numbers themselves” (*Th.* 198c1–2; cf. 195e8), i.e., ideas of numbers (cf. *Resp.* 525d5–526a7; *Phlb.* 56d4–e2).⁵⁸ His point might be that, unlike material quantities, ideas of numbers have *known ratios* to themselves and to each other.⁵⁹ By calling them “equals themselves”—on my reading, the very idea of equals—and by affirming that they always appear equal, Socrates would be making the point that ideas of numbers always occur in our thoughts equal to themselves.⁶⁰ On the present proposal this means that for any value of n (as we might say), the following proportion always seems to hold:

⁵⁴ I am highly sympathetic to Terry Penner’s complaint about readers who ascribe to Plato views ‘he couldn’t have in mind’ (1987, 43). I hold myself to the same standard.

⁵⁵ E.g., Wedin 1977, 198–204, Gerson 2004, 309 n. 15.

⁵⁶ Hackforth 1995, 69 n. 2. Cf. Burnet 1911, 56

⁵⁷ Esp. *Phd.* 101b–c; including the idea of one or unit (cf. 105c6; *Resp.* 529d9).

⁵⁸ See Mohr 1981 for further discussion

⁵⁹ This interpretation respects the intuition that equality is inherently relational which reading (2) and some proponents of (1) emphasize: see esp. Sedley 2007, 84.

⁶⁰ So, while proponents of (4) are on the right track, by interpreting “the equals themselves” as ‘perfect instances’ they wrongly draw attention to geometrical figures—e.g. “two angles at the base of an isosceles triangle are an instance of *auta ta isa*” (Burnet 1911, 56)—rather than to arithmetic. The latter is more relevant, especially if we keep in mind

$$n : n :: 1 : 1$$

Summing this up, I suggest that when Socrates asks Simmias whether the equals themselves ever appeared unequal to him, he could intend the following: “did the numbers themselves, I mean, the very idea of each of them, ever appear to you, Simmias, unequal to themselves?” The relevance is obvious: we just saw that corporeal quantities, despite having the same size, appear unequal. Ideal numbers, by contrast, cannot appear unequal to their equals in the intelligible domain for that would mean that they appear unequal to themselves (considered twice: e.g., the very idea of three units at t^1 and t^2).

Now let’s turn to equality. Socrates asks about it in one breath with the equals themselves: “have the equals themselves ever appeared to you unequal or has equality ever appeared inequality?”

If I am right about how to read the first question, it is more readily intelligible than the second. Just as we can make sense of corporeal magnitudes appearing equal, we can also make sense of incorporeal magnitudes appearing equal. The transition is easy because both physical quantities and intelligible quantities stand or do not stand to themselves and to each other in specific relations of size. But when Socrates asks about the relation itself, whether it ever appeared inequality, we do not know what this means.

So, translators add a word: “has equality ever appeared *as* inequality,” which they don’t add to the first question: “have the equals themselves ever appeared to you unequal.” They want to produce an intelligible text, of course. But what if the text is supposed to be impossible?

that Greek mathematicians conceptualize numbers in geometrical terms: point, line, square, etc., so our own intuition that the sticks point to geometrical concerns is probably misleading.

Simmias says that equality never (οὐδέποτε, 74b) appeared inequality to him. One explanation, which I prefer, is that it could not happen: the appearance of equality, in the cognitive sense of appearing I have been assuming, i.e., the cognition of equality, excludes inequality. That is, when someone cognizes equality, they cannot also be cognizing its opposite with it, as a single object: an unequal equality. Accordingly, when Simmias cognizes equality, that is, when he actually contemplates this relation, the opposite relation doesn't figure in his thoughts.

Socrates concludes that “these equal things and the very idea of equality are not the same thing” (74c4–5). How should we understand this inference?

One possibility is that Socrates applies Leibniz's Law. “Since something is true of equal stones that is not true of the equal itself, they are different things” (i.e., Indiscernibility of Identicals).⁶¹ According to some readers, what's true about equal sticks, but not equality, is the property of *being* unequal, as well as equal.⁶² We saw, however, that there are serious textual problems with this reading. The sticks are said to be equal to each other, and only to appear, at times, to be unequal.

Tuozzo's suggestion, in response, is to cast “appearing unequal” as a property of equal sticks, but not equality. “Equal stones,” he says, “have a property, having appeared unequal, that the equal itself lacks.”⁶³ Tuozzo goes on to develop the idea that equality is an experiential concept:

“When stones appear equal to us, we become to some degree acquainted with the actual, objective nature of equality. Stripping from their appearance of equality anything else that co-appears to us at the time, we may form the experiential concept EQUAL.”⁶⁴

⁶¹ E.g., Dancy 2004, 269–73; Tuozzo 2018, 9

⁶² Owen 1965, 298–302, Irwin 1999, 152–56, McCabe 1994, Ch. 3, Nehamas 1999, 185–91

⁶³ Tuozzo 2018, 16

⁶⁴ Tuozzo 2018, 21

I registered my disagreement with his solution earlier, but not my reasons. I have three objections. First, I think it's a mistake to treat "appearing F" as a property in addition to "being F." Tuozzo commits Plato to this view as soon as he counts "having appeared unequal" as a property in addition to "being unequal." This is hard to accept. To use a simpler example, it seems wrong to say that being snub-nosed is one thing, and that there's the property of appearing snub-nosed in addition. Socrates is just snub-nosed, because he has a snub nose, and that's why he appears snub-nosed to the people around him, not because he has the property of appearing snub-nosed always or on occasion.

Of course, equal sticks are visible, and they don't always look equal, just as Socrates' snub nose is visible, and doesn't always look snub (and a nose with another shape could look snub, even though it is not). I am not trying to deny any of this. My point is that (1) appearing unequal, and (2) appearing equal are not properties.⁶⁵ Rather, they both refer to a way that the sticks, or any other pairs or sets of sensible magnitudes, figure in our thoughts: sometimes seeming to have an equal ratio, sometimes an unequal ratio.

It happens, as we saw, that a given content gets "entangled" with a content with which it isn't unified in reality. I put things in this way even though Socrates seems to me uninterested, at this point, in reality independently of how its entities occur in the minds of thinkers, just to make clear that he has the resources to explain falsehood. If we had to interpret content propositionally, then Simmias's thought will only count as epistemic if he takes the sticks to be equal when they are equal, or unequal when they are unequal. But I gave reasons for thinking that here cognizing means having something in mind, and this allows Socrates to think that a pair of corporeal equals are

⁶⁵ "Philosophers sometimes use the term 'property' in such a way that for every predicate F true of a thing there is a property of the thing which is designated by the corresponding expression of the form 'being F'" (Shoemaker 1980, 110). Shoemaker and others rightly object to this (cf. Martin 1996).

known (held in thought) even when we cognize them in the wrong relation (i.e., the corporeal equals occur, but not their real ratio).

Second, Tuozzo is motivated to take “appearing equal” as a property in part because he is persuaded that we need to apply Leibniz’s law to the text. But this law might be irrelevant.⁶⁶ The text doesn’t say that the idea of equality has the property of being or of appearing equal. It says, rather, that equality doesn’t appear inequality. I gave this sentence sense: Socrates means that the cognition of one idea excludes the other. That’s because a relation of equality *and* inequality in size is inconceivable, so it cannot appear (that is, be actually cognized). But then the non-identity of discernibles, which requires thinking of the idea of equality as a propertied object, doesn’t apply.

I avoid Leibniz’s law. I argued that Socrates seeks to demonstrate that corporeal equals are *not* the very idea of equality. First, he reminds Simmias that a pair of corporeal equals can be present in the mind, cognized, in a relation of inequality. Then they agree that the idea of equality cannot become entangled in the cognition of its opposite. This shows that the two are different. If there’s a principle at work here, it is the principle of non-contradiction: if corporeal equals were the very idea of equality, they could and could not be cognized with inequality.⁶⁷ This is impossible, so they must be different.

Consider, finally, the fact that, on Tuozzo’s reading, the form of equality is an appearance that we get *by stripping it* from stones and suchlike. He claims that this account of how we learn about the form is compatible with the recollection thesis.⁶⁸ I agree that it is possible to believe both (1) that the concept of equality is gained by abstracting away anything that isn’t equality from our

⁶⁶ I am unaware of a formulation of this modern law in Plato. Further, philosophers who seek an alternative conception of identity (*contra* Leibniz) draw inspiration from Ancient Greek sources—esp. Aristotle (see Wiggins 2008), although I would argue that Plato’s views are not so different (*contra* Mann 2000).

⁶⁷ Plato formulates his version of PNC in *Republic* 4: “it is obvious that the same thing will never do or suffer opposite things (ταὐτὸν τὰναντία ποιεῖν ἢ πάσχειν), in the same respect (κατὰ ταὐτόν), in relation to the same thing (πρὸς ταὐτόν), and at the same time (ἅμα)” (*Resp.* 436b).

⁶⁸ Tuozzo 2018, 21

intuition of it in sticks and suchlike, and (2) that in order to perform this feat we need to have pre-natal knowledge of that which we now successfully abstract. But we must admit that this is a strange position, first; and second, that Plato has no right to expect his readers to hold in mind (1) in reading the proof of (2).

Thus, while I agree with Tuozzo that the role of *phainesthai* ('appearing') is very important in the argument, we shouldn't locate this verb on the side of the objects of knowledge, sensible or intelligible, but instead on the side of knowers who hold these beings in their thoughts: by themselves (e.g., the equality ratio), or in amalgamation with other ideas (e.g., the equality of three units to themselves, regarded twice or at different times), or with sensible objects (e.g., the equality of sticks, stones, etc.).⁶⁹

Socrates is ready to draw Phase 2 to a close. It was shown that corporeal equals are not the very idea of equality. And yet, "it's from these equal things, though they are different from that equal, that you have nonetheless thought of and got knowledge of it," says Socrates. Before he concludes that this learning process was an instance of recollection (since it satisfies the working definition), Socrates distinguishes two possibilities. The idea of equality, he says, "is similar or dissimilar," i.e., to corporeal equals. It is not obvious what this could mean, but the mathematical interpretation might help.

In some sense, corporeal numbers and relations are like ideas of numbers and relations. This connection will become central in the next phase. It is puzzling, however, since intelligible

⁶⁹ Cf. *Resp.* 476a5–8

numbers seem in some respects very different. For example, they are made of perfectly equal, indivisible units (*Resp.* 526a, *Phlb.* 56d–e). But pebbles and sticks are visible. This could raise all sorts of questions for Simmias and Cebes, which Socrates arguably wants to set aside: “it makes no difference,” he says, whether the idea is similar or not; “so long as upon seeing one thing you come from this sight to think of something else it must have been recollection” (74c11–d2).

3.4 Phases 3 and 4: Proving that the recollection of equality is from a previous life; but humans forget everything at birth (74d–75e, 75e–77a)

In the previous phase, Socrates demonstrated the difference between Simmias’ knowledge of equal sticks, etc., and of the idea of equality, and this allowed him to apply the definition of recollection to the learning of equality from seeing equal sticks. If this is right, Simmias had knowledge of equality at an earlier point, before someone showed him examples. Phase 3 is supposed to show that Simmias’ prior knowledge of equality, which he recollected by looking at corporeal equals, could not have come from this life, and Phase 4 makes the case that all of our preincarnate knowledge is forgotten at birth.

Phase 4 is straightforward. I’ll deal with it briefly near the end of this section. Phase 3, which invokes the inferiority of sensible reality to the forms, is more complicated than it seems. Scholars interpret it in light of the previous discussion, namely, as the claim that sticks, e.g., have or manifest contraries, e.g., equality and inequality; hence they are inferior.⁷⁰ However, I will argue that the inferiority of corporeal equals is endemic to their role as images of mathematical ideas, and makes no sense outside of this epistemological function. Socrates calls attention to the fact that the

⁷⁰ E.g., White 1992, 284. Or because of the manner by which particulars possess equality, which is relative to other things, see, e.g., Nehamas 1999, 190–1. Thus, I distinguish more sharply Phase 2 of the argument, where the apparent inequality of sticks is discussed, from Phase 3, where the known inferiority of sensible equals implies that we recollected them from a previous life.

material tools deployed in early mathematical educations, and that are still being used in order to visualize mathematical structures, are not the proper objects of mathematical knowledge. I will connect this thought to Philolaus' idea that sensible reality *signifies* numbers, which gives a concrete and interesting version of Aristotle's testimony that according to the Pythagoreans sensible objects *imitate* numbers.

Let's resume our reading. After he made his point about the corporeal equals, that they are different from equality, such that Simmias' learning was recollection, Socrates continues as follows:

T5: "Well then, do we experience something like the following as regards what happens in the case of sticks and, more generally, the equal things we just mentioned? Do they seem to us to be equal in the same manner as the very idea of it (αὐτὸ τὸ ὅ ἐστιν)? Alternatively, do they in some way fall short of it when it comes to being like the equal, or not? (ἢ ἐνδεῖ τι ἐκείνου τῷ τοιοῦτον εἶναι ὅσον τὸ ἴσον, ἢ οὐδέν;)" (Simmias: "They fall far short.")

"Now do we agree that whenever someone, upon seeing something, thinks 'What I am now seeing wishes (βούλεται) to be like some other thing, but falls short and can't be like it (ἐνδεῖ δὲ καὶ οὐ δύναται τοιοῦτον εἶναι ἴσον ὅσον ἐκεῖνο), and instead is inferior (φauλότερον)'—the person who thinks this must presumably have actually known beforehand (προειδότα) the thing he says it resembles (προσεοικέναι) but falls short of?" (Simmias: "Yes, he must.")

"Very well. Have we too experienced something like that, or not, concerning equal things and the very idea of an equal?" (Simmias: "Definitely")

"In that case, we must have known the idea of equality before the time when we first, upon seeing equal things, came to think: "All these are seeking to be like the equal, but fall short of it." (Simmias: "That's true.") (74d–75a)

Here Socrates establishes the first point of Phase 3: when someone recollects equality from seeing corporeal equals, such a person has settled in their mind the question of inferiority. This is an application of the rule he stated in Phase 1. The point, as you might recall, was that when we recollect from similars, we cannot help but settle the question whether they are inferior. We

determine whether what reminded us of x by being similar to it falls short of x , or not. Socrates is going to argue, first, that Simmias' knowledge of the inferiority of corporeal equals implies that he knew equality at a prior time, and second, that Simmias could not have gained knowledge of equality in this life, before he recollected it in his early mathematical training, since humans come to have equality in mind only by seeing equal corporeals. So the knowledge he recollected from equal sticks was from a time before birth, rather than a previous moment in his human life.

The main challenge is to explain in what way the sticks fall short of the idea. Moreover, we want this to be something that Simmias knew at the very moment that he recollected the idea of equality from seeing equal sticks. This seems necessary, since registering the inferiority between similars is a feature of the recollection process, rather than a later reflection, and Socrates does not mention any recollection besides what Simmias recollected from sticks, presumably when he was young and people showed him such examples.

Recall that today, most readers assume that the sticks fall short because they are unequal as well as equal, or appear so. However, Socrates' language suggests that sensible things fall short of the idea in the respect in which they are similar, not because the former are different in addition to being similar. He asks Simmias whether the sticks fall short "when it comes to being like the equal" (τῷ τοιοῦτον εἶναι οἷον τὸ ἴσον, 74d7). In a context where the sticks are *not* equal, they are not similar to the idea of equality at all. If one of the sticks is or appears to be larger than the other, than they presumably "try" to be or appear unequal: one smaller, the other larger, than the other.

Nor does it make sense to suppose that little Simmias was aware, at the very moment that he recollected equality from equal sticks, that they are equal and also, in some way, unequal, or that they appear both this way and that way. In order to recollect equality, Simmias would have to focus on the way that the sticks are equal, rather than their inequality; but then he's not likely to think

that they are inferior because they are also unequal. Rather, in seeing that they are equal, he somehow needs to think that they are inferior to the idea.

On the traditional reading, the text doesn't refer back to Phase 2. Instead, the language of "wishing" to be like the idea (cf. ὀρέγεται, 75a2), but "falling short," suggested to readers that corporeal sticks are never exactly equal; they only approximate equality, but there's always some deficiency involved in their "striving."⁷¹ This reading is no longer popular, but it is much more natural. What makes it less compelling is that it denies that sensible objects can be absolutely equal. Surely sticks can be exactly equal; why shouldn't they be? If it's hard to imagine that sticks are exactly equal, imagine two lines drawn with a ruler. Why can't those be exactly equal in length?

I want to remind you that we are working with a determinate conception of equality here, taken from Platonic texts, namely, as a ratio of one to one. To deny that the drawn lines are equal is to say that they cannot stand in this ratio. Let's say that our lines were drawn imprecisely—as they inevitably do, on this reading—so that one of them exceeds the other by a tiny amount. Is the slightly shorter line equal to a part of the line which exceeds it? If so, we have two equal sensibles. In general, the suggestion that things *can* be smaller or larger than one another, indeed that they *must* be so, but that nothing is perfectly equal in size to anything else is not serious because of what I just said: part of the larger thing has to be equal to the smaller one.

I want to propose a reading that preserves what's intuitive about the approximation view, but without this unwelcome consequence. My reading is inspired by a fragment which is attributed to Philolaus, a fifth century Pythagorean mathematician and a philosopher, mentioned earlier in the dialogue as a teacher of Simmias and Cebes (61d). Philolaus is recorded saying that things signify numbers (Stobaeus, *Eclogae* I. 21. 7c; fragment n. 5 in Huffman 1993):

⁷¹ E.g., Taylor 1966, 187, Burnet 1911, 55, Ross 1951, 25, Shorey 1933, 172–2. Cf. Olympiodorus, *In Phaedonem*, 11 §7 (in Westerink 2009)

T6: “Number, indeed has two proper kinds, odd and even, and a third from both mixed together, the even-odd. Of each of the two kinds (τῷ εἶδεος) there are many forms (μορφαί), which each thing itself (ἑκάστων αὐτὸ) signifies (σημαίνει)” (trans., Huffman 1993, slightly modified).

In the second sentence, Philolaus says that things signify the many forms of number that there are. On a plausible interpretation, “each thing” refers to sensible reality in general: each sensible object points to some form of number.⁷² I want to connect the idea that sensible reality signifies numbers with Plato’s distinction between corporeal and intelligible numbers, and I want to suggest an interpretation of the inferiority of the sticks in light of both. According to Socrates, corporeal numbers and ratios remind us of superior, intelligible numbers and ratios, or so I’ve argued. This seems similar to the idea that sensible reality signifies the realm of number that we find in Philolaus, and the comparison can give us what we want: an approximation view without the implication that one stick cannot be perfectly equal to another, for example.

Notice that we do not predicate the signified of the signifier—being a dog of the word “dog,” for example. If the relation that holds between the sticks and equality is signification, then this points away from the traditional interpretation of the sticks as being not exactly equal, as well as the modern one, which says that they are both equal and unequal. These readings assume that there is something defective or incomplete in the way sensible objects exemplify the predicate.

I suggest, by contrast, that the sticks’ efforts to be like equality should be understood in light of their function as signifiers. On the one hand, they are themselves numbers, conceived as multitudes of homogenous units, and this explains how they are natural signifiers (cf. *Cra.* 422e–424a). On the other hand, they are inferior to the ideas that the mathematician studies, for reasons

⁷² See Burkert 1972, 262, and Barnes 1982, 389. Huffman suggests that “each thing” refers to everything that is known, but adds that the things that are known may be coextensive, according to Philolaus, with the individual things in the sensible world (1993, 193).

that Plato elaborates elsewhere. He emphasizes that they are made out of divisible units (*Resp.* 526a), which are located outside the mind, in space (*Tht.* 198c, cf. *Resp.* 529a–530a), mixed with many other things. This makes “numbers with visible and tangible bodies” (ἀπὸ σώματα ἔχοντα ἀριθμοὺς, 525d7–8, cf. 530b) unwieldy: not always clear and not always available for thought. This might lead to local mistakes. However, that is but one expression of what is arguably a broader and deeper defect, which is that corporeal multitudes of homogenous (e.g., a stick) or discrete units (e.g., an army), are not as clear and not as available for thought as the abstract numbers and relations that mathematicians study; it is not possible therefore to make much progress in mathematics or geometry by contemplating them, and so they are disparaged by aspiring mathematicians.⁷³

On this reading, the sticks are not inferior because they are equal and unequal, or appear so, as the contemporary reading has it, nor are they imperfectly equal to each other, as the traditional reading has it. Socrates’ point, instead, is that while corporeal numbers “strive” and often succeed at signifying mathematical ideas by being themselves a certain kind of number, and so similar, the physical nature of sticks and stones means that they are not the sort of numbers that really set the mind at ease. Their essence, from a mathematician’s point of view, is to be images from which we recollect mathematical ideas—from the earliest point at which Simmias began his training, and at every subsequent stage, whenever he observes and manipulates these corporeal images with the aim of contemplating and increasing his mathematical knowledge.

⁷³ In *Phlb.* 56d–57d, Socrates distinguishes “the art of calculating and measuring as builders and merchants use them and the geometry and calculations practiced by philosophers.” Both, he says, “are far superior to other arts,” but the parts of arithmetic and geometry “that are animated by the philosophical spirit (ὁρμήν) infinitely exceed [the other parts] in accuracy and truth” (57d). Both arts, however, are distinguished from “the arithmetic of the many” “who compute sums of unequal units (μονάδας ἀνίσους), such as two armies or two herds of cattle, regardless whether they are very small or exceedingly large” (56e, tr. Frede 1993, modified).

Even the heavenly bodies “fall far short” (πολὸν ἐνδεῖν) of true mathematical content or things (τῶν δὲ ἀληθινῶν), according to Socrates in the *Republic* (529d). They should be used as paradigms (παραδείγμασι χρηστέον) toward the study of motion “in every true number and figure” (ἐν τῷ ἀληθινῷ ἀριθμῷ καὶ πᾶσι τοῖς ἀληθέσι σχήμασι). In that respect, they are no better than the sticks or pebbles, despite their seeming majesty.

Simmias has always known about the inferiority of sticks and stones. Although he probably didn’t say to himself, when he was young, the thought that Socrates attributes to the recollector (‘what I am now seeing wishes to be like some other thing, but falls short and can’t be like it’), by relating to the sticks as images he evinces this commitment, an attitude which was necessary for him even when he learned what equality was for the first time. He had to think that these corporeal equals are not the very idea that his teachers were trying to communicate to him, but something else which they are capable of imaging. The pedagogical situation Socrates depicts presupposes this settled view, and it is what enables learning. Thus, we have an interpretation which ascribes unformulated but real knowledge of the inferiority of sticks in the relevant learning experience, rather than in later reflections.

The sticks’ evident inferiority in the eyes of the recollector furnishes further proof that he had previous knowledge of the idea of equality (in addition to Phase 2). Socrates’ main aim, however, is to prove that our prior knowledge of equality, is from a previous life, and not just from a time before we received some formal training. His argument rests on the observation that humans “can’t come to think of [equality] from anywhere other than from seeing or touching or from some other sense” (75a5–8). However, that is also the context in which, according T5, the question of inferiority appears settled: “from the senses [i.e., seeing corporeal equals], one comes to think that everything in the reach of the senses both seek the idea and falls short of it” (75a11–b2). The

crucial point is that humans cannot think of equality for the first time except by seeing corporeal equals, at which point they are already aware of their inferiority. On my reading this means that the experience is always accompanied by an assumption (unformulated) that equality is better than the sensible things from which we recollect it.

It follows for Socrates that our knowledge of the superior thing must be from a previous life: “before we started to see and hear and use the other senses, presumably we must in fact have got knowledge of the idea” (75b4–6). And because we use the senses “from the moment we were born,” he concludes that our knowledge of equality came before that (75b10–c5). And he adds, in an inductive step, that this must be true of our knowledge of “larger and smaller” and everything else of this sort (καὶ σύμπαντα τὰ τοιαῦτα, c9–10). He seems to be talking about mathematics as a whole. He then further enlarges the scope of recollected knowledge to include the idea of beauty, good, just, holy — “in short, everything to which we attach this label, ‘the very idea of’ (τὸ αὐτὸ ὃ ἔστι), both when asking our questions and when giving our answers” (75c11–d3).

We arrive, finally, at Phase 4. This part is trivial by comparison with the others. It consists in a brief interrogation of Simmias, the point of which is to show that at the moment of birth people forget all the knowledge they gained before. The crucial premise here is that someone who knows A needs to be able to give an account of A. Simmias implies that only Socrates can do this (76b10–13). The point is more powerful after the inductive step, from mathematical knowledge to ethics, for it is presumably about these topics especially that Simmias thinks that only Socrates knows how to speak adequately. The upshot, at any rate, is that if we knew everything at birth, then we would be able to give an account of all these things as soon as we learned our first language. But of course, we cannot, and on many topics, arguably the most important, we cannot at any point in

our lives. Thus, it is concluded, after some wavering on Simmias' part, that we forgot all of our prenatal knowledge at birth, such that our learning of it in this life is really recollection (76c4–d6).

3.5 Conclusion

I offered a new reading of the recollection argument which distances it, in some ways, from philosophical as well as mathematical expectations of our own era. On my reading, Socrates operates with a naïve conception of knowledge as having in one's thought some being or other, which exists, and he is not especially concerned with falsehood and error in this context. Insofar as these beings are available for thought, they are conceived as pieces of knowledge, that is, thinkable content. Cognizing a pair of sticks, on this picture, is having both of them in mind. Similarly, cognizing equality is having this idea in mind. I offered an interpretation of this idea as a ratio of one to one. The sticks have this ratio to each other if the extension of one is exactly the same the other when both are taken once and as a whole.

The crux of Socrates' argument, and the most controversial part of it, seems, on my reading, quite simple. Socrates claims, first, that pure numbers, that is, the very idea of a one, a two, a three, etc., never occur to anyone who knows each of them to be unequal to themselves, but always equal. This is a novel way of understanding the otherwise strange and unhelpful invocation of "the equals themselves." Then he turns to equality itself, rather than the quantities it relates. On the proposed interpretation, this item cannot be cognized in a unity with its opposite. Corporeal quantities, by contrast, can commingle with an unequal ratio in our thoughts, even when they are equal to each other. It follows for Socrates that they are not the same as the idea of equality. This conclusion doesn't involve an inference from the way things happen to appear to reality, as scholars have worried, since the context, as the interlocutors conceive of it, is epistemic. Socrates merely shows

that any pair of corporeal things which is taken up by thought is different from the ratio of equality, even if it happens to stand in this ratio, since equality never occurs unified with inequality.

This suffices to show that when Simmias learned about equality from looking at sticks, this was a case of recollection, for they are different from the content they have occasioned in him. Socrates could have stopped here, in principle. That is, he could have said, what he says shortly after, namely, that there's no other way of gaining knowledge of equality except the one he has focused on: by looking at corporeal equals. Instead he wants to strengthen, and in my view, contextualize, the argument by insisting that the corporeal magnitudes are no match—that they fall badly short—of the idea of the equal, and arguably the entire domain of pure numbers. This point shouldn't be read closely with the previous one. Unlike the previous part of the argument (i.e., Phase 2), this one is normatively charged. Socrates' point, I argued, is that abstract ("pure") ratios and numbers are better than corporeal ones; indeed, real mathematicians refer to the latter only because they wish to contemplate the former. They are not interested in sticks, then, but in the pure science of mathematics. If we only dealt with magnitudes like sticks and suchlike, instead of abstract ones, expressible in mathematical language, then we would never be able to think clearly and precisely about numbers and measures.

I associated the idea of "striving" for equality with Philolaus' claim that all things signify numbers. This reflects an orientation to sensible reality as mirroring, but falling short, of something superior. Here we are touching on an issue that I alluded to earlier, in passing. I said that there's an erotic thread that runs through the argument, starting with Socrates' example of recollecting, and culminating in emphatic assertions about the deficiency of corporeal quantities by comparison with mathematical ideas, first, and then by extension all the rest. This dimension is usually repressed in other readings, so I would like to end by adding that the pathos and content of "the

falling short” part of the argument (Phase 3) and the recollection thesis itself, as it is presented in this dialogue, echoes a familiar poetic trope. Both epic and lyric abound with cases of mortals who are “equal to” the divine, while at the same time, by this very comparative gesture, they are acknowledged to be inferior. An especially beautiful example is Sappho’s wedding poem, whose famous first stanza runs: “he appears to me (φαίνεται), that one, equal to the gods (ἴσος θεοῖσιν), | that man who, facing you | is seated and, up close, that sweet voice of yours | he hears ...” (F 31, trans. Nagy 2007, 29).⁷⁴ According to Gregory Nagy, such moments reflect and invite the audience to share in a sacred epiphany: the mirroring of the divine in something tangible.⁷⁵ In the recollection argument, Socrates forcibly pulls the epiphanic moment away from the sacred in the mundane, which is suggested by the discovery of equality passing through tangible sticks, and stresses instead the inherent deficiency of the sign by comparison with what it signifies. Eros is directed exclusively to the ideas. I believe that this zeal reflects a moment in the text: being enamored with the ideas as something separate and sublime. What we have here, I suspect, is the seduction of young Pythagoreans, Simmias and Cebes, into a broader realm of ideas. However, as we shall see, this isn’t Plato’s final word on the matter in the *Phaedo*. In the final act, Socrates is going to reconcile the two worlds of the early part, the corporeal and the ideal, natural and mathematical.

⁷⁴ Cf. “Here comes the bridegroom, equal to Ares, | bigger than a big man, much bigger” (Sappho F 111.5–6, Nagy 2010, 158).

⁷⁵ See Nagy 2007 (esp. 28–9) for examples and discussion

Chapter Four: Plato's Forms as Empowering Causes

“Not empiricism and yet realism in philosophy, that is the hardest thing.”¹

4.1 Introduction

In the final part of the *Phaedo*, Socrates reflects on the cause (*aitia*) of being, becoming, and perishing in general (ὅλως γὰρ δεῖ περὶ γενέσεως καὶ φθορᾶς τὴν αἰτίαν διαπραγματεύεσθαι, 95e9–96a1; cf. 96a8–10). Before this discussion, forms were primarily invoked in their role as intelligible items, by contrast with sensible objects, and as the topic and aim of philosophical inquiries (see 65d4–e1, 75c11–d3, 78d1–79a9). But now it emerges that the form of beauty (e.g.) is not only what the real definition of beauty picks out or expresses, but also the cause of beautiful things, because they share in it. In general, things are thus and so by sharing in the corresponding form (100b ff). How can something like a form, which so far appeared to be merely an intelligible entity—i.e., the very idea of each thing, as I argued in the previous chapter—*cause* anything to become, and be, and ultimately to perish?² Matters are further exacerbated by the fact that on most accounts Platonic forms are unlocated.³ What sort of causal influence could they have on located particulars?

Some scholars believe these questions are confused: the overall topic of Socrates' autobiography, they maintain, is explanation, not causation. Although the original meaning of *aitia* is rooted in human (and divine) agency, denoting causal responsibility (initially in the negative

¹ Ludwig Wittgenstein 1978, 325.

² Ebrey 2023 notes that the word “form” (εἶδος) is avoided until 102b1 (71). I will mainly use this term in this chapter, instead of idea, as one that carries causal significance.

³ This is a common interpretation of the separation (*chorismos*) of forms (see esp. *Prm.* 129d). Others have argued that separation means that forms exist uninstantiated, e.g., Fine 2003b. My view is closer to Fine's, but I will suggest a novel way of accounting for the difference between instantiated and instantiated forms that derives from my interpretation of forms as empowering causes.

sense of culpability, see Vegetti 1999, Glucker 2011), Socrates applies it to items that cannot be conceived as active agents, or even as things (e.g., Vlastos 1969, 291–96, Frede 1980, 129).⁴ These readers propose to translate *aitia* in a way that captures all the cases Socrates discusses in the autobiography. Since they seem to include what Aristotle would later classify as material, final, and formal *aitiai* (maybe also efficient), as well as sufficient conditions, many have adopted a measure that has also long been popular in writings of Aristotle, of translating *aitia* as “explanation,” or “reason” (as observed by Sedley 1998, 121 n. 7). The alternative, they argue, is too misleading, since the word ‘cause’ as “we” understand it denotes something active. Thus, David Gallop maintains that “the hallowed mistranslation” (i.e., cause) is simply too misleading in the present context, since Socrates mentions too many *aitiai* which “are not, and could not, be subsumed under causal laws, or related to sets of antecedent conditions sufficient for them to come about” (1975, 169).

The explanation reading splits into two main streams. Some think of the forms as essences that explain things by pointing to the most salient or “constitutive” property shared by all instances, which could figure as a premise in further arguments about the kind under discussion. According to this line, Plato’s forms are harbingers of Aristotle’s formal *aitiai*.⁵ Other interpreters argue that Plato’s forms are more like metaphysical grounds (“truthmakers”), or ontological norms, which secure the objectivity of simple subject-predicate statements, e.g., “Simmias is tall,” through the metaphysical relation of participation.⁶

⁴ Unlike in previous chapters, I dedicate the footnotes mainly for comment and elaboration, and put many citations of secondary literature in-text. This better suits the nature of these interventions and the quantity of interlocutors.

⁵ E.g., Annas 1982, Fine 2003a, Politis 2010. But others associate the forms with something approaching the idea of a final explanation—see e.g. Wiggins 1986: “their role in explanation depends on their being potential objects of thought, thoughts of the Good and its relation through the realization of its specifications” (18); Bedu-Addo 1979, Gerson 2020, 53–4, Kelsey 2004.

⁶ E.g., Vlastos 1969, Sharma 2009, Wiitala 2022. Bailey 2014 deemphasizes the metaphysical dimension of the proposal; on his view, the forms provide “adequacy conditions for being F or coming to be F in the sensible realm” (20).

These interpretations still dominate the field, but the translation of *aitia* as explanation, or reason, is often abandoned in favor of the old term, “cause.” David Sedley’s influential paper on the subject contributed much to the change. On his reading of the autobiography, Socrates uses the term *aitia* and synonyms: i.e., *dia* + accusative, causal datives, the verb *poiein*, and *aition* for entities which bear causal responsibility for results.⁷

Bringing Plato’s *aitia* back to its conceptual “home” in the domain of agency seems like a step in the right direction. It certainly doesn’t seem right to confine the concept of a cause to its (so-called) post-Humean usage. This poses a unique challenge, though. It seems that forms, being what they are, namely, abstract, and according to most readers, unlocated, could hardly be responsible for anything that happens in the sensible world. David Sedley believes that this question is of secondary importance: “the essence of a causal statement lies in its nominating the item which functions as the cause ... and any further statement about how the item achieves its effect is secondary” (1998, 116).

Sedley is justified from a textual point of view, since Socrates doesn’t say much about the relation of forms and sensible reality, but it is philosophically disappointing, for it dismisses, rather than solves, the main motivation for treating the forms as explanations. For the readers he criticizes, the issue was never really about a specific theory of causation (I suspect), but the overwhelming implausibility that Plato would think that abstract items exercise causal agency from their proverbial Heaven. Sedley doesn’t shy away from this position, for he says that forms are transcendent causes of their own instantiations, e.g., the form of largeness is the cause of cases

⁷ See Sedley 1998, 115, *contra* Frede 1980, who argues that Plato uses *aitia* for propositional items, and so non-causally, as distinct from *aition*. Ledbetter 1999 counters Frede’s observation. Cf. Glucker 2011. Ebrey 2023 tries to revive the distinction between the noun, *aitia* and the adjectives *aitios/-a/-on*: “the *aitia* involves describing detail – sometimes great detail – how the *aition* [i.e., responsible] thing is *aition*” (211). In the case of forms, he argues that the form of each thing is *aition*, but sharing in the form is *aitia*. I agree, in a sense, that sharing describes how the form is a cause, but only by being a metaphor that requires an interpretation.

of largeness (i.e., unit properties) in things (1998, 132). But, while he motivates the position for Plato, the reasons he offers are arguably too dogmatic to warrant the unlikely conclusion from them, that things are qualified by the agency of unlocated abstractions.⁸

I agree that the topic of Socrates' autobiography is causation, not explanation, so that forms are probably causes in a sense that is sufficiently at home with the original meaning of *aitia*. In that sense, Sedley's contribution, and of others who follow in his footsteps, are welcome. But there is a textual commitment which these readers especially are unable to meet. If forms are causally responsible for their instances in things, then Socrates' proposal is the very opposite of "simple," "artless" and even "simpleminded," as he claims it is (101d1–2; cf. 100d3–4; 105c1). It is always possible to say that Socrates is merely coy, especially since other readings are also highly nuanced (as Sharma 2009 claims in his defence, see p. 185). I maintain, by contrast, that Socrates truly believes that everyone should accept his proposal, and would if they were not blinded by other circumstances (as he was briefly in his youth). This rules out much of what has been proposed, but especially the suggestion that forms are transcendent causes.⁹

In what follows, I offer a new interpretation of Platonic, formal causation, which respects its simplemindedness. Proponents of the causal view usually assume that the forms somehow produce instances of themselves (so-called form-copies) in things by acting on them, somehow, from a

⁸ Sedley's argument, put concisely, is that Plato subscribed to a principle of like-by-like causation: effects are like their causes, and so the forms become natural candidates for causing their instantiations in things, since the former always possess the feature by which the latter is defined; but causes are not the same as their effects; so they must also be separate; but they cannot be thoughts, which are subjective, so they must exist in a second realm (1998, 116–19, 127–32).

⁹ Sedley evades the question of transcendental causal causation, but have made suggestions. According to Leigh 2012, "the forms act on their participants *via* participation" (256 n. 26; cf. Fronterotta 2007, 53–4). For Leigh, this seems to mean that objects conform to the structure that these forms encode (257), but it is not clear from her account why and in what sense the forms are active in this relation of conformity (which is presumably Leigh's gloss on participation). Marmodoro 2022 objects to Leigh's underdeveloped view (71–2), but her own reading moves in the direction of hyper-speculation. She argues that Plato's forms have constitutional efficacy (as distinct from efficient causation): "partaking of a Form is (pre-*Timaeus*) overlapping *constitutionally* with that Form, which qualifies the partaker with the property the Form stands for. On this model, parts of the Form are parts/constituents of the object" (204). Socrates would have to be excessively ironic to call this model "simpleminded."

position outside space. By contrast, I will argue that forms are immanent causes by being shareable powers of sensible beings, coincidentally locatable to each participant. As shareable powers, forms *are* properties (i.e., powerful qualities), not causes or explanations of them.¹⁰

My interpretation is made available by seeing the autobiography as seriously qualifying the two-world perspective of the earlier part of the discussion. Before, sensible objects were seen as “striving” (75a1) to be like the forms, but inevitably falling short of them. Now, it turns out that the forms are not inherently beyond the reach of sensible particulars; instead, they empower things to be thus and such: e.g., the form of largeness empowers things to be large by comparison with something smaller. If I am right, Socrates is not offering a metaphysical *mechanism* for unifying individuals and powers, but simply affirms that they are so unified, a unity he elucidates by the metaphor of participation, which has a surprisingly helpful political usage in rhetorical contexts.

I start in §4.2 with Socrates’ criticism of his predecessors. Scholars argue that he criticizes material theories of the world as partial or wholly unworkable, but this doesn’t get to the core issue. On my reading, Socrates identifies an implicit ontological assumption: things have whatever nature or character they have (i.e., are thus and so), owing to the parts out of which they are made, where the notion of the part is material.¹¹ This assumption resonates, in some sense, with experience, and yet Socrates shows that in its primitive form, as he gleaned it from the work of natural philosophers, it breeds nonsense. He demonstrates this with reference to mathematical cases, e.g., being two, large, etc., the causes of which couldn’t possibly be parts of such beings.

¹⁰ Others have argued that the forms themselves are present in each of their instances—notably, Fine 2003b, but they do not give them proper causal significance. See also: Burnet 1911, 116; Shorey 1903 n. 283; Verdenius 1958, 232–3.

¹¹ Sharma’s suggestion that Socrates is “attacking the materialistic ideal of a reductive explanation... as if all ‘ordinary’ statements of fact could be translated into the vocabulary of the materialist theory” (2009, 161–2) seems anachronistic to me. Socrates’ predecessors are probably ignorant of their own fundamental assumptions, rather than proffering a competing theoretical ideal.

In §4.3, I turn to Socrates' alternative proposal that things are thus, e.g., beautiful, because of the form in which they participate, e.g., the form of beauty. This is traditionally interpreted as a metaphysical bond which ties sensible objects to unlocated forms, or even as a causal nexus, as we just saw. I suggest, by contrast, that Plato offers a metaphysical interpretation, an analysis, of qualified beings as powerful agents. On the reading I defend, Plato's forms are powerful qualities of objects which empower them to manifest those very qualities, taking manifestation primarily in an ontological sense, as exercise or activation. This means that participants are in or ready to go into the relevant active state, as specified by the definition of this powerful quality, e.g., the form of beauty (i.e., a powerful quality) empowers participants to manifest whatever the definition of beauty says that beautiful things manifest. On this reading, forms are locatable to things without having physical extension in themselves, which allows us to think of them as coincidentally immanent, and so as shareable, without altering their status as unchangeable intelligibles — i.e., those “very ideas of” that we encountered in chapter 3.

Socrates' proposal allows him to return, in the final part of his presentation, to the idea that parts are somehow causally responsible for qualities with an improved outlook. For each form, there is always one or more things which are natural carriers of it. Fire, for example, carries the form of heat, so that by having fire as a part of one's physical constitution, things are empowered to manifest heat. I discuss these carrier-agents in §4.4.

Finally, in §4.5, I draw attention to the ontological difference between the discussion of forms in the recollection argument and the autobiography, and consider its epistemological significance. If I am right, Socrates quietly, but radically, qualifies his earlier position that corporeal objects imitate, but inevitably fall short of the ideas. This qualification invalidates the recollection argument, and so casts doubt on Plato's ultimate commitment to the thesis.

4.2 Earlier theories of causation by parts

Socrates begins his intellectual biography by recounting his early enthusiasm and subsequent disenchantment with earlier theories of nature (96a–99c). According to a widespread reading, this part aims to show that “materialistic” theories of nature fail to meet Socrates’ ideal of explanation. I believe this is a misinterpretation. On my alternative, he targets an unsound ontological assumption: his predecessors look for the cause of being (and becoming, and perishing) in parts of beings, e.g., the cause of organic unities in a putative life-giving portion of living things. Socrates will show that this assumption is self-refuting in some cases, so it needs to either be seriously revised or junked.

The problematic assumption concerning the causal function of parts is not formulated explicitly. Instead, it is borne out by examples which culminate in a crisis. First, Socrates says that in his youth he was animated by the following types of questions:

Ex. 1 “Is it when the hot and the cold start to decompose ... that living things grow into a unity?” (96b2–3)

Ex. 2 “Is it the blood, or air, or fire by which we think (ὃ φρονοῦμεν)?” (96b3–4)

Ex. 3 “Or is it rather the brain that affords (παρέχων) the senses of hearing, seeing and smelling, and do memory and opinion come to be from them, and when memory and opinion become stable, does knowledge come from them along these same lines?” (96b5–8)

These examples give us a taste of the topic and how Socrates’ predecessors have approached it. It appears that the theme is natural beings, especially animals. Seeing that some things are alive, Socrates first asks for the cause of this. The theory he considers attributes the origin of life to “the hot and the cold,” whose decomposition is somehow supposed to result in living things.

On the traditional reading of this example, it references a theory by Archelaus, a student of Anaxagoras who thought that “the warm and the cold gave rise by putrefaction to a milky slime by which the first animals were nourished” (Burnet 1911, 100). However, as Christopher Rowe notes, the question is about how animals come to be in general, “not how they originally did” (1993, 230). Maybe the milky slime which gave rise to the first animals remains operative in all future life cycles, on the theory that Socrates entertains. If so, the slime generated by the hot and the cold functions as a putative, life-bearing substance internal to all animals, at least at the point of inception (although it could conceivably “morph” into different material substance, concentrated or diffused through the body).

In Ex. 2, Socrates applies the same type of question to thinking. Seeing that there is such a thing as thought, Socrates wears his newly gained natural philosopher’s hat and asks how this sort of thing comes about. Here he deploys instrumental language: maybe we think with ($\tilde{\psi}$) our blood? Or perhaps we do so with fire or with air? Scholars associate these speculations with Empedocles, Anaximenes, and Diogenes (Hackforth 1955, 123). These putative causes are certainly material, but these thinkers are clearly looking for a material *part* of the body of thinking beings that could serve as an instrument or vehicle of thought. Socrates suggests blood, air, and fire—maybe because these things could permeate the entire body. He then replaces these simple causes with an elaborate developmental story. The brain—he suggests in Ex. 3—might bring thought about by “affording” the senses of hearing, seeing, and smelling, which give rise to memory, opinion, and ultimately to knowledge. This might be a reference to Alcmaeon (see DK 24 A 5). Socrates doesn’t say how the brain “affords” perception. Perhaps someone imagined it as a unifying “container” of different sensations. The important thing, again, is that the theory assigns causal responsibility to a part of the thinking animal: its brain.

Socrates is about to give more examples. On most readings, they further illustrate the “materialism” of Socrates’ predecessors, *before* he rejects it—on their interpretation, by showing that it violates general requirements on explanation. In my view, this forces a unity on the text that isn’t there. Socrates’ aim at this juncture (96c–99e) is to criticize earlier thinkers by showing that their theories clash with pretheoretical commitments that he has and wishes to keep—because of their destructive ontology, as we shall see, rather than by the standards of some ideal theory of explanation.

The transition to the critical section is quite noticeable. The theories of Socrates’ predecessor have “blinded” (ἐτυφλώθην) him to “the very things that, at least as I and others supposed, I had previously known clearly” (96c3–6). On the most natural reading, Socrates has in mind “familiar truths,” as Vlastos calls them.¹² These are the things that Socrates “unlearned” (ἀπέμαθον, c6) from his experience with philosophers who identify the causes of being with parts of beings, e.g., thought with an organ of thinkers.

Socrates’ first example of a “familiar truth” seems at first quite compatible with a theory of causality by parts. Socrates used to think that “it was plain to everyone (παντὶ δῆλον) that a person grows (αὐξάνεται) by eating and drinking (διὰ τὸ ἐσθίειν καὶ πίνειν)” (96c6–8). So, when he learned—presumably from Anaxagoras’ book—that a small person “becomes large” (γίγνεσθαι μέγαν, 96d5), “whenever portions of flesh have been added from food to other portions of flesh, and portions of bone to portions of bone, and so to by the same principle stuff of their own kind has been added to each of the other stuffs” (96d1–3; cf. Anaxagoras DK 24 A 5), the theory probably made sense. The trouble begins for Socrates, I suggest, when, under the influence of

¹² Vlastos also identifies a break from the previous cases (1969, 95 n. 50). Gallop thinks that “this destroys what looks like a continuous sequence of thought running from 96c2 to 96e7” (1975, 170). But while the first examples draw on familiar theories, Socrates is about to propose strange cases, so the continuity is arguably forced.

earlier thinkers, he assumes that things not only become greater than they were before parts have been added to them (see: τὸν ὀλίγον ὄγκον ὄντα ὕστερον πολλὸν γεγονέναι, 96d4), but that this is also what makes things large in general relative to other things of the same kind. Socrates will demonstrate the absurdity of thinking so with more examples.

*Socrates' absurd examples*¹³

Ex. 4 “A large person standing by a small one is larger by the head itself (αὐτῇ τῇ κεφαλῇ), and similarly a horse relative to another horse” (96d9–e1)¹⁴

Normally, being taller “by a head” expresses the margin of difference between two individuals, when one reaches the chin or shoulders, say, of the other. Now Socrates suggests that when someone is taller by a head, they are taller as a result of them having the exceeding head, that is, because of the actual organ which is attached to the taller person’s neck. The context for this ludicrous proposal is provided by the former example. If things are large owing to the parts which contributed to their growth, then, by the same token, the head of someone who is larger than another “by a head” deserves all the credit. Socrates’ next example is more abstract, but what it says is ultimately no less absurd:

Ex. 5 “Ten [units] are more numerous than eight by the two that have been added to them (διὰ τὸ δύο αὐτοῖς προσεῖναι), and two-cubits is longer than one cubit by the half which exceeds it (διὰ τὸ ἡμίσει αὐτοῦ ὑπερέχειν)” (96e2–4).

Notice that in the first case, he mentions what sounds like a mathematical operation, addition, while in the second case, he doesn’t. This makes it unclear whether our focus should be on the

¹³ Later (101a–b) Socrates will refer to these proposals as “monstrous” (τέρας, b1; cf. φοβούμενος, a5, b2, b5, b7)—but also, really, as laughable (see: ὁ Κέβητος γέλασας, b2), but scholars dismiss these remarks (e.g., Ebrey 2023, 214 n. 23).

¹⁴ Here in the next example, the original narrative uses the past tense. I modified it for clarity.

mathematical operation, or just on the difference between the two quantities in each case. I suggest that we focus on what the two have in common, and what the second sentence especially emphasizes. The “half” which is responsible for the relative largeness of two cubits by comparison with one, has to refer to half of the two-cubit quantity, since this is the only “half” that could be the cause of two cubits exceeding one-cubit by the right amount.

We think that ten exceeds eight by two units (if we think about numbers like Greeks), just as someone might think that Simmias is larger than Socrates by a head. In my view, these are some of the “familiar truths” that Socrates is anxious not to lose, but doesn’t yet see a way forward. His “unlearning” happens when, inspired by natural scientists, he asks for the causes of these truths. Having been taught to look for the causes of things in their parts, he tries to do the same thing in the mathematical cases. Here, he assumes that ten is larger than eight by a part that has been added to it, or that two cubits is larger than one by the half of the double length exceeding the other one.

This has a blinding effect on him. Socrates describes how he could no longer understand even the simplest things: “I don’t allow myself to say even that, when somebody adds one to one, either the one it was added to has become two, or the one that was added and the one it was added to became two, on account of the addition of the first to the second” (96e6–97a1). His next remarks, by which he elaborates the problem, suggest that his *ones* are material units, since he asks how they could become two by coming to be “near each other” (ἐπλησίασαν ἀλλήλοις, 97a4). Socrates doesn’t understand how the bringing together of two ones into closer proximity with each other could turn them into two (97a4–5). This is absurd because the two ones have not even coalesced into a unity as happens in the case of continuous extensions, like flesh or bone. They are merely next to each other. How could this be the cause of them becoming two? Nor can Socrates persuade

himself “that if someone divides one (ἐν διασχίσει) ... the division is now a cause (αἰτία) of its coming to be two (97a5–7).

What is wrong with this proposal? Someone might argue that two is more numerous than one, and so, if one has turned into two by division, one has become more numerous than itself! This fits the spirit of the argument, I think. But that is not what Socrates says. Instead, he calls attention to the fact that division and addition are contrary operations: “back then ... it was because they were brought together into proximity with each other, and one was added to the other, but now it is because they are brought apart, and one is separated from the other” (97b1–3). Many have thought that this remark points to a principle of explanation, namely, that the same [sort of] thing does not admit of contrary explanations. Socrates, however, doesn’t offer it as an epistemological principle or norm.¹⁵ Perhaps he simply finds it *strange* that contrary actions lead to the same outcome, since they are generally thought to aim at and accomplish contrary results: heating makes things hot, cooling cold, etc. Here, by contrast, contrary actions—adding and dividing—have led to the same thing, namely, two. Thus, on a reading of this text which emphasizes causality (as distinct from explanatoriness), and that sees Socrates as grappling with pretheoretical commitments that he has (rather than dogmatizing, as someone might reasonably worry), the implication that contrary processes produce the same outcome is merely an absurd consequence of the commitment to causation by parts.

Socrates concludes that the study of natural causes requires a different approach (ἄλλον τρόπον) than the one that resulted in these absurdities (97b5–7). I read this as a promissory note for formal causation (99d ff). Before he gets there, though, he goes into a digression on

¹⁵ I further criticize this assumption in §4.3.

Anaxagoras' theory that intelligence, conceived as a cosmological principle, "arranges and is the cause of everything" (νοῦς ἐστὶν ὁ διακοσμῶν τε καὶ πάντων αἴτιος, 97c1–2). It's worth going over this part of the text, even though it is not central to my argument, for relative exhaustiveness, and because it I want to show that this digression, too, is about a type of cause, rather than a form of explanation.

Anaxagoras' cosmic *nous* suggests to Socrates a world which is the product of intelligent design. This part of the narrative is often described as being about teleological *explanations*, but this seems to me misleading. Socrates is talking about a cosmic intelligence, "ruling" (ἡγησάμενη), "doing the ordering of all things" (κοσμοῦντα πάντα κοσμεῖν), and "assigning each thing in whatever way is best" (ἕκαστον τιθέναι ταύτη ὅπῃ ἂν βέλτιστα ἔχῃ) (97c4–6). It's hard to think of language more "agential" (and so more causal) than this.

And it is against this assumption (ἐκ δὲ δὴ τοῦ λόγου, 97d1) that Socrates envisions the possibility of a teleological *science* (not a "form" of explanation): "a human being should investigate (σκοπεῖν) nothing other than what is optimal or best, concerning both that thing itself [i.e., the topic of investigation] and everything else" (97d2–3). Causation—here the productive thought, presumably, of a cosmic mind—seems to be prior to explanation, which is made intelligible and objective by the lights of the former; if everything in the universe is as it is because a cosmic *nous* intended it to be so, then the rational motive for arranging nature as a whole to be this way is the cause sought by the teleological scientist (cf. *Ti.* 46d–47b). Perhaps there is a teleological vision that does not resort to an original cause of this kind, but it's not clear what would make such a science objective (just ask Kant), and, at any rate, that is not the proposal on the table.¹⁶

¹⁶ Cf. Ebrey 2023: "Socrates thinks that if intelligence is responsible (*aitios*) ... it would arrange each thing in the way that is actually best (97c). Thus, if we determine what is in fact best, we know how intelligence arranged things"

Socrates is excited about the possibility of a teleological science, and especially “about the sun, the moon, and the other celestial bodies ... how it is better (ἄμεινόν) that each of them should both act and be acted upon as it is (ποιεῖν καὶ πάσχειν ἅ πάσχει)” (98a2–6). Unfortunately, he doesn’t find answers to this sort of reflections in Anaxagoras’ book: “I saw the man making no use of his *nous*”—he puns — “not giving it causal responsibilities (αἰτίας ἐπαιτιώμενον) for ordering things, but assigning it (αἰτιώμενον) instead to air, aether, water and many other absurdities (καὶ ἄλλα πολλὰ καὶ ἄτοπα)” (98b8–c2). Socrates compares this to someone who thinks that he, Socrates, “does whatever he does by means of intelligence” (πάντα ὅσα πράττει νῶν πράττει, 98c4), without mentioning it when it comes to specific actions, saying, for example, that

Ex 6. “The cause of my now sitting here is because my body is composed of bones and sinews, and whereas the bones are rigid and have joints separating them from each other, the sinews can tauten and relax, and they surround the bones, together with the bits of flesh and the skin that keeps them together. Now while the bones are supported in their sockets, the sinews loosen and tauten and so, presumably, enable me to bend my limbs now (κάμπεσθαι που ποιεῖ οἷόν τ’ εἶναι ἐμὲ νῦν τὰ μέλη), and on account of that cause (καὶ διὰ ταύτην τὴν αἰτίαν) I’m bent here in the sitting position. Next he’d give other such causes with regard to my conversing with you, assigning the causality to voices, airs and ears, and to countless other such things, and would have neglected to give the real causes (τὰς ὡς ἀληθῶς αἰτίας), namely that, since the Athenians have decided that it was better to condemn me, on account of that I too have also decided that it is better to sit here, and more just to stay put and suffer whatever punishment they decree. For by the Dog, I think these sinews and bones would long have been in Megara or Boeotia, transported by an opinion as to what is best (ὑπὸ δόξης φερόμενα τοῦ βελτίστου), if I didn’t think it more just and honourable to suffer whatever punishment the city imposes, rather than to escape and run away” (98c5–99a4).

(211, my emphasis). This suggests that there is a fact of the matter about what is best for each thing, *and* we can determine what it is, even without the existence of a divine *nous*, whose job, on the proposed reading, is to bring about all these good states of affairs. It seems to me, by contrast, that a teleological *science* is possible, according to Socrates, only if the world is the product of rational design *and* we are able to understand god’s masterplan. Presumably this is important for understanding why he gives up the project.

This text is usually read, misleadingly, as drawing a distinction between material and teleological explanations. First, as I said, the topic is causation; the character of the investigation (material, teleological, etc.) depends on the sort of cause the investigator is dealing with. Second, the passage is about the principal cause of motion and rest: who is in charge of that, and who merely serves that primary cause (cf. *Ti* 46d–e). So, while bones, sinews, etc., are physical elements, and thus the topic of “materialistic” explanations, they figure here specifically as putative movers: Socrates’ legs would have taken him to Megara, or elsewhere, a long time ago, he says, but his mind told him (and still does) to stay and suffer the punishment that the Athenians deemed right for him to receive.

The point, which resonates with the previous discussion, seems to be that the parts out of which our bodies are composed, and the parts of these parts, etc., all the way down to the elements (air, aether, etc.) do not cause us to move or stay put. Indeed, for all their relaxing and contracting (by contrast with bones)—these are presumably the “deeds” attributable to the sinews—Socrates didn’t go to jail because of his legs (or specific parts of his legs), but because he thinks (with his mind) that this is a better course of action than running away. Equivalently, if the thesis about cosmic *nous* is true, Anaxagoras shouldn’t say that the elements and stuff made out of them are causally responsible for everything.

4.3 Platonic causes (i.e., powerful qualities)

So far, I have argued that Socrates’ criticism of his predecessors targets a problematic assumption about causation, namely, that things come to be this or that sort of thing, and are, and perish due to their parts. The assumption is borne out by seemingly probable examples (Ex. 1–3), and then criticized by a series of improbable cases (Ex. 4–5). Socrates briefly entertains the notion

that the world is governed by a rational moving cause, akin to his own intelligence (Ex. 6). This appeals to him, but Anaxagoras doesn't make good on the proposal because he is wedded to the problematic assumption, and Socrates doesn't pursue this project himself.¹⁷

This gives us what Socrates calls his “second voyage in search of the cause” (τὸν δεύτερον πλοῦν ἐπὶ τὴν τῆς αἰτίας ζήτησιν, 99c9–d1). The hallmark of the second voyage, and the topic of the present discussion, is a thesis that Socrates characterizes as “safe” (ἀσφαλές, 100e1), “straightforward, artless, and perhaps simpleminded” (τοῦτο δὲ ἀπλῶς καὶ ἀτέχνως καὶ ἴσως εὐήθως, 100d3–4). The suggestion is that things are such as they happen to be by sharing in the corresponding idea. So, “if anything is beautiful [e.g.] besides the beautiful itself (αὐτὸ τὸ καλόν), it is beautiful by means of nothing other (οὐδὲ δι' ἑν ἄλλο) than participating in (μετέχει) the idea (ἐκείνου τοῦ καλοῦ)” (100c4–6). Here we are transitioning to a new phase in the dialogue, where forms are not merely intelligible, i.e., the very idea of each thing, but causes of becoming, being, and perishing.

Socrates' proposal is vague as much as it is influential. On most accounts, Socrates advances a new kind of explanation, namely, formal, by contrast with materialistic or teleological explanations.¹⁸ However, as I argued before, the topic seems to be causation. Faced with diverse phenomena, the natural scientist, as Socrates depicts him, asks what causes each thing to become, and be, and perish. Nevertheless, many scholars think that it would be misleading to characterize the

¹⁷ In the *Timaeus*, which carries out the project of a teleological cosmology (probabilistically, as Plato suggests, 29c–d), he takes a backseat. Moreover, as saw in chapter 2, he doesn't have the leisure to investigate anything but his own human nature.

¹⁸ Proponent of this reading include Vlastos 1969, Gallop 1975, Annas 1982, Fine 2003a, Politis 2010. Some use the notion of explanation more or less interchangeably with cause, which they sometimes motivate with reference to the use of ‘explains’ in causal contexts. E.g., “the air in the radiator explains the loud noise you are hearing” (Ebrey 2023, 213 n. 20; cf. Sharma 2009, 137 n. 1). In my view all this shows is that human language is rarely used for the sake of attaining philosophical clarity. Strictly speaking, the air in the radiator *produces* noise, and the speaker *explains* the noise to someone by citing the cause. I allow my reading of Plato to be informed by this distinction (*contra* Stough 1976).

topic as causation, because causes are presumably active. In contemporary literatures, a cause is often characterized as an event sufficient to bring about another event, or more likely, the constituents of an event that might produce another state of affairs through some form of contact (cf. Bailey 2014, 18–9).¹⁹ Forms, it is assumed, cannot be that sort of thing, and we have independent textual reasons to think that they are not, because they seem to be unlocated and everlasting, while things that might be constituents of events are usually thought to be located and perishable (see esp. Deveraux 1999). It would be uncharitable to treat Socrates’ proposal as an answer to a different question than he posed initially. So, these readers interpret the entire discussion as concerned with forms of explanation, inspired by an Aristotelian account of the four causes, or “because,” which are also considered as forms of explanation. They read the examples I treated in the last section, as we saw, as intended to show that earlier philosophers fell short of an ideal of explanation.

I read the critical part of Socrates’ biography as invoking an implicit ontological assumption that parts of beings are causally responsible for their becoming, being and perishing, because of what they are made of, how they are positioned, etc. My motivation in approaching Socrates’ constructive proposal is thus to find in it a substantive ontological assumption that would be a more promising guide to this investigation. By doing so, we will be able to see the tight unity of the entire discussion, from the criticism of materialism, all the way to the discussion of “subtle causes” later.

The notion of cause that I will be attributing to Socrates here is different from other causal readers; I believe that Plato’s forms *are* powerful qualities, not that they produce copies of themselves (so-called unit-properties) in the sensible world through transcendent acts. Proponents

¹⁹ For theoretical background, see: Mackie 1965. This Humean legacy has been criticized by many, especially by proponents of dispositionalism, see e.g. Anjum and Mumford 2018.

of the “transcendent causes” reading are unable to take Socrates’ promise to offer a safe and simpleminded account (100d3–4; cf. 105c1). This reading seems inevitable, if forms themselves cannot be present, in any way, in the sensible world, but I will argue that they can; indeed, the central upshot of the autobiography is that ideas are not mere intelligibles, but also, essentially, causal powers which are locatable to things. As causal powers, ideas really share a space with us (i.e., they are immanent), even though they are immaterial; for they have coincidental locations with what they empower.

Let’s return to the “safe” proposal. Put schematically, Socrates says that things are thus qualified, e.g., F, by the sharing in the corresponding quality, e.g., F-ness. You might think that, according to this proposal, F-ness is not itself the cause of Fs—for it is not sufficient to bring them about without the added metaphysical relation of participation. Then participation in the form would be the *aitia* (e.g. Ebrey 2023, 211; Fine 2003a, 385; Bailey 2014, 20). Socrates seems to deny this, though, when he says, just a few sentences later, that it doesn’t matter what we call the unity of the idea and that which participates in it: “nothing makes [something] beautiful other than that beautiful’s presence (παρουσία), or association (κοινωνία), or in whatever way it has become attached (ὅπῃ δὴ καὶ ὅπως προσγενομένη)” (100d6–7).

Some read this as a confession that Plato has not worked the metaphysics of participation (e.g., Vlastos 1969, 301). But it looks instead like he’s directing attention to the idea as the cause (cf. Sedley 1998, 116 n. 3), for he says that the only thing that matters is that “it is by means of the beautiful (τῷ καλῷ) that all beautiful things are beautiful” (100d7–8). Here, the idea itself is the cause, not participation in it.

I suggest that participation, association, etc., are different metaphors for the special union of qualified objects with the qualities they possess—each illuminating in different contexts, for

different reasons.²⁰ I will focus on “sharing in,” first, and later on the sense in which ideas are “present” in things. “Association” (κοινωνία) doesn’t play an important role in the argument. It does suggest, however, that the form and its possessor enter into a union (in my view, a powerful one), rather than the former being related to the latter as a cause to its effect.

What, then, is the significance of “sharing in”? In recent years, scholars have sought to explain it relative to competing metaphysical models.²¹ I also think that the metaphor is deployed for metaphysical purposes, although I prefer the term “ontological,” as suggesting something less speculative. If I’m right, Socrates has identified an ontological commitment of his predecessors, i.e., causation by parts (in amalgamation). Eventually, he will do justice to the intuition that the parts of things play a causal role. But first, he needs to put forward an alternative theory of causation, based on a different ontological outlook. One thing to keep in mind, then, is that what is participated or shared in, is not a corporeal part of the participants.

Another crucial point, which others have not appreciated (as far as I am aware), has to do with political significance of the verb *metechein*. The Athenians thought of themselves as sharing in the affairs of the *polis*: in festivals, political offices, etc. Phrases such as “having a share in the *polis*” (μετέχειν τῆς πόλεως), or “sharing in the affairs of the *polis*” (μετέχειν τῶν τῆς πόλεως) were used from the classical period onward in rhetorical and legal contexts. Jakub Filonik has recently argued that they were used as metaphors “to describe an enfranchised status in the city-state” (2022, 257). In such contexts, a “share” in the *polis* usually refers to the right to engage in certain activities or enjoy certain privileges. The “share” in the *polis* of a citizen, for example, “included

²⁰ This speaks in favor of Wyttenbach’s suggestion at 100d7—προσαγορευομένη instead of προσγενομένη, but doesn’t require it. Burnet endorses the proposal: “[ὅπη δὲ καὶ ὅπως] is an echo of the formula used in the public prayers ... the whole question is one of names; Socrates has no doubt as to the fact. Plato elsewhere represents him as making use of the formula [e.g. *Prt.* 358a7, *Phlb.* 12c3, *Ti.* 28b2, *Lg.* 872d7]” (1903, 100).

²¹ Especially of Anaxagoras—see: Hermann 2008, Ch. 10; Marmodoro 2022, esp. Ch. 4, Ebrey 2023, 257–59.

being able to take part in certain political activities, such as meeting at the assembly, holding magistracies, and serving as a *dikast*, as well as the prerogative to own land in Athens (by purchase or inheritance) and to enter into formal marriage with an Athenian (by ἐγγύη)” (2022, 261). Non-citizens also “share” in the *polis*, but their privileges are more restricted, within religious and legal domains. Notice that a “share” in the *polis* enables one to have, be, or do various things.

I suggest that the political usages of *metechein* illuminate Socrates’ ontological use of the verb, and appeal to it to motivate the proposal that Plato’s forms are powerful qualities (immanent, as I am about to explain). Socrates criticizes the assumption that things are such as they happen to be due to their parts. Nonetheless, I believe that he has not given up the idea that there’s something *about* or *in* them which makes them so, contrary to the standard reading that he appeals to forms as a separate “metaphysical” explanations. Overlooked by other scholars, the political *metechein* reorients Socrates towards seeing corporeal wholes as bearers of qualities, which they have in a way that is analogous to political rights and privileges. I want to highlight the main theoretical contributions of the political model.

First, political privileges are distributed without being divided, unlike any material substance. While a right, say, belongs to a person, it cannot be identified with any material part of them. Rather, it qualifies the person as a whole. This is the sense in which a political privilege is “sharable”: each citizen has the same right (the whole thing) collectively. Plato understands qualities, too, as unlike material parts due to these features. We can already see this pointing to the proposal that qualities just are ideas, whether or not they are participated in.

The political lens also draws our attention to the *actionable* character of Platonic qualities, i.e., as I read it, forms. A right is for doing things and is nothing other than that which entitles a person to do whatever they have the right to do—e.g., the right to vote permits one to vote and is exercised

by voting. The dynamic and intentional character of civic and social rights is especially prominent in an Athenian context where an enfranchised status allows residents to fully share in the life of the city. I suggest that, like rights, powerful qualities are directed towards their own manifestations. When someone has a political privilege, they are enfranchised—*empowered*—to do something. Platonic qualities likewise are empowering causes: sharing in a quality (i.e., form) empowers participants to manifest it. This means, to draw on the metaphor, that they are in or ready to go into the relevant active state (as specified by the definition)—however “restful” it may be (e.g., being round, tall, beautiful, etc.). Those things, by contrast, which do not share in the powerful quality are disempowered, which means that they do not get to manifest it.

What makes this claim “safe” (and relatively simple) is that Plato’s readers presumably share the assumption that things can be some ways, but not others, and it is intuitive to think that in each case, there is something about the being that allows it to be that way. As we saw, his predecessors are also drawn to this way of thinking, and sought to point to the parts of a thing as that which enables it to be as it is, e.g., the sinews let Socrates sit; blood, fire, etc., arguably let us think, etc. What is radical about Socrates’ proposal, I suggest, is that he affirms the existence of powerful qualities, in and alongside empowered agents. That is, he analyzes agents in terms of their powers, without seeking to identify those powers with parts of that agent.

Armed with his safe hypothesis that ideas—on my reading, powerful qualities—make things thus and so, Socrates applies it to the absurd cases from before. In his youth, he was led to believe that people are taller because of the actual organs by which they surpass others; if, for example, someone is taller by a head, he believed this was caused by her actual head. Now Socrates is ready to interpret this case differently, arguing, in line with his new proposal, that large things are larger because of largeness, and small things because of smallness (100e5–7).

It is important to understand that this type of answer in individual inquiries, e.g., about largeness, is a starting point, not the final answer. First of all, the cause needs to be defined.²² Secondly, Socrates is going to explain that ideas are shared or unshared by the mediation of subtle causes, as we shall see. The value of the current proposal, then, lies in the alternative framework it offers for thinking about the cause of qualified beings in general: what makes things thus and so? Instead of causation by parts, Socrates posits powerful qualities.

Socrates drives home the point by identifying two consequences from the suggestion that someone is larger by a head because of their actual head, which his own suggestion avoids. This example played an important role in my interpretation because it was the one that was most obviously ludicrous. Socrates revisits the proposal, and now he explicitly describes it as having “monstrous”²³ implications: “first that it is because of the same thing that the larger is larger and the smaller is smaller (τῷ αὐτῷ τὸ μείζον μείζον εἶναι καὶ τὸ ἔλαττον ἔλαττον), and secondly that even though the head is small (τῇ κεφαλῇ συμικρᾷ οὕσῃ), the larger person is larger because of it, and that this would be monstrous, somebody’s being larger owing to something small (τὸ συμικρῷ τινὶ μέγαν τινὰ εἶναι)” (101a7–b2).

According to a widespread reading of these remarks, they articulate two principles, or norms, of explanation: first, the same sort of thing cannot explain contraries, e.g., a head cannot explain being large and being small; secondly, contraries cannot explain contraries, e.g., since a head is small thing, it cannot explain why someone is large (e.g., Annas 1982, 314–18, Fine 2003a, 369–74, Ebrey 2023, 214; cf. Politis 2010, 70–1).²⁴

²² That is how I read Socrates’ remarks at 101d3–e1

²³ The Greek word is τέρας (101b1), Sedley and Long translate as “absurd” for τέρας. This fits nicely with my interpretation, but Socrates says that the consequences are terrifying (a5, b2, b5, b7)—probably in jest (see b2); still, “monstrous” seems stylistically more apt.

²⁴ Sedley interprets these as “causal principles”: opposites do not cause their own opposites, and the same cause does not cause opposite effects (2021, 59; cf. Sedley 1998, 121). I do not think Plato is working with causal principles, either.

We touched on this in our reading of 97a: Socrates' observation that, if two is produced by adding one to one, as well as by dividing one into two, the same thing would be produced by contraries. Back then, I argued that this is just a strange consequence, because contrary processes generally aim at contrary results. But those who think that Socrates subscribes to the aforementioned principles believe it points to the second explanatory norm, i.e., that contraries do not explain the same thing, and this suggests to them that Plato's new *aitiai*—the forms—are brought forth as an ideal mode of explanation.

I already stressed that the entire discussion seems to be about causation; the main reason for thinking otherwise is the difficulty of making sense of the proposal that forms are causes. More to the point, I believe that the widespread reading misinterprets the function of Socrates' remarks. He offers them as *refutations* (ἐναντίος λόγος, 101a6) of being larger by an actual head, and more abstract cases of the same kind; see 101b4–7, where he makes clear that the other absurd examples are vulnerable to the same criticism. Thinking that Plato's aim in putting forward these refutations is to elucidate and motivate the theory of forms, indeed that his novel causes are safe because they avoid these objections, goes well beyond anything Socrates says.

The “explanatory principle” of this text belongs to a dominant hermeneutic tradition, according to which our best chance at understanding Plato's theories of definition and form is by reconstructing them from Socrates' refutations. We see this commitment at work more often than we read it formulated (but see, e.g., Dancy 2004, 80). It seems to me, in sharp contrast, that Socrates' refutations are not reliable for telling the motivations, let alone the essence, of Plato's theories.²⁵ Socrates is a dialectician. A noble one, to be sure. Nevertheless, he refutes on the basis of common assumptions, some more basic than others; some might even be false. Burnet, for

²⁵ Cf. my criticism of Dancy's approach to Socratic definition in chapter 2.

example, thinks that Socrates' objections in the present text are akin to the ones made by the eristic brothers in the *Euthydemus* (1903, 112). Even if Socrates' arguments are not sophistical, they are arguably similar in that they do not rely on technical principles, but rather exploit common assumptions.

I will read Socrates' two objections, i.e., that the same thing, a head, cannot be the cause of both being large and being small, and that it cannot be the cause of being large, for it is small, as refutations which draw on shared common assumptions (as distinct from explanatory principles). It is not obvious to me, as it is to Burnet, that the arguments are sophistical, but this matters less. My aim is to put forward an alternative to the widely held view that Socrates' refutations at 101a7–b2 indicate explanatory principles.

Socrates' first objection requires a little imagination; we need to see the head of the person who is larger by a head as the agency, simultaneously, behind his own largeness and the other one's smallness. Before, as you might recall, it seemed contrary to commonsense that contrary processes should result in the same thing, e.g., adding one and dividing one both resulting in two. Here, Socrates is arguably taking it for granted that the same agent cannot produce contrary results *at the same time* (cf. *Resp.* 436b). The qualification is important; against what some have argued, Plato allows the same cause to be responsible for contraries at least in some cases. E.g., a physician is the most reliable cause of health and sickness in virtue of his medical art (see *Resp* 332d–e; cf. *Hp. mi.* 373c–375c). Even if the good case takes priority, the same skill can absolutely produce contrary results.

I do not know why scholars have ignored the fact that skills are for contraries (although normatively, the positive *telos* dominates). In any case, my reading avoids this problem. If a physician deploys his skill towards healing, then she is not in this very act the producer of a sick

man *and* a healthy one, but only of the latter, and *vice versa*. By analogy, if the head produces a tall man by being attached to his neck, then he is producing just a tall man, not also a small one. Causation by parts is in fact open to this objection; what else could explain the smallness of someone who is shorter by a head? (It cannot be that the man is short because he lacks the other person's head; for, besides being silly, this answer contradicts the assumption that things are qualified by *their* parts.)

Socrates' second objection says that the head, being small, cannot possibly be the cause of something large. Small relative to what? Scholars do not press the question; from their perspective, what matters is that the form of large *is* large, which makes it the ideal candidate to explain largeness, unlike the head which in some way small.²⁶ On my reading, by contrast, Socrates' concern from the outset is with the head *as an organ*. And in fact, the head is a relatively small part of the tall man's body; his legs certainly contribute more to his height.²⁷ Thus the argument might simply be that "a man is tall because of his head" flies in the face of the common assumption that the whole is larger than any of its parts, let alone a part that is quite small! (Cf. Euclid's *Elements* I, Common Notion #5). If this is what Socrates is saying, then Cebes' laughter is indeed a fitting response (101b2).

On the proposed reading, Socrates' refutations are just refutations; they do not hold the key for Plato's ideal theory of explanation, for he may not be interested in that. Socrates' aim, if I understand it, is to show that causation by parts is not only ridiculous, but that it also runs against some of our most strongly held (perhaps unshakeable) beliefs about the world: that the whole is

²⁶ This is known as the "self-predication" of forms.

²⁷ This also hints at the arbitrariness of thinking that the *head* is the cause of a person's being large, of all of the material parts of the person.

equal to the totality of its parts, larger than any one of them, and that agents do not produce contrary results simultaneously.

Socrates' safe hypothesis respects these common assumptions, as we will see, but it is not tailored for them, nor do they shed special light on it. I want to return to it now, without the unnecessary baggage of his earlier refutations. The following text contains a canonical example which illustrates and elucidates the proposal. The text is long, but it is too important to leave out any parts. The numbers in brackets are mine, for easier reference:

Phaedo: [1] When these points of his were accepted and it was agreed that each of the Forms exists and that other things receive a share of and are named after the Forms themselves, [2] I think that he next asked: 'So if that's what you are saying, whenever you say that Simmias is larger than Socrates, but smaller than Phaedo, don't you mean that at that time both of these, both largeness and smallness (καὶ μέγεθος καὶ μικρότητα), are in Simmias (ἐν τῷ Σιμμίᾳ)?' (Cebes: 'Yes, I do.')

'However,' he said, [3] 'do you agree that the truth about "Simmias exceeds (ὑπερέχειν) Socrates" is not as expressed in these words? For presumably it isn't in Simmias' nature to exceed (οὐ γὰρ που πεφυκέναι Σιμμίαν ὑπερέχειν τούτῳ), by being Simmias (τῷ Σιμμίαν εἶναι), but rather because of the largeness that he happens to have. And do you agree that, again, he does not exceed Socrates because Socrates is Socrates, but because Socrates has smallness (μικρότητα ἔχει) relative to his largeness (πρὸς τὸ ἐκείνου μέγεθος)? (Cebes: 'True.')

'Right, and again that he is not exceeded by Phaedo because Phaedo is Phaedo, but because Phaedo has largeness (μέγεθος ἔχει) relative to Simmias' smallness? (πρὸς τὴν Σιμμίου μικρότητα)' (Cebes: 'That's so.')

'In that case, [4] this is how Simmias is labelled (ἐπωνυμίαν ἔχει) both small and large (μικρὸς τε καὶ μέγας), by being in between (ἐν μέσῳ ὄν) the pair of them, offering his smallness to Phaedo's largeness to be exceeded (τοῦ μὲν τῷ μεγέθει ὑπερέχειν τὴν μικρότητα ὑπέχων), but providing to Socrates his largeness, which exceeds Socrates' smallness (τῷ δὲ τὸ μέγεθος τῆς μικρότητος παρέχων ὑπερέχων).' He smiled as he said this, and then added: 'I seem to be on the point of talking just like a textbook, but anyway the reality is presumably as I say.' (Cebes agreed.)

[5] 'Now the reason why I say this is that I want you to come to think as I do. For it seems to me not only that Largeness itself is never willing to be large and small at the same time (οὐ μόνον αὐτὸ τὸ μέγεθος οὐδέποτε ἐθέλειν ἅμα μέγα καὶ μικρὸν εἶναι), but also that the

largeness in us never admits the small, and is not willing to be exceeded (ὁ ἐν ἡμῖν μέγεθος οὐδέποτε προσδέχεται τὸ μικρὸν οὐδ' ἐθέλειν ὑπερέχουσαι), but must do one of two things, either flee and retreat (ἢ φεύγειν καὶ ὑπεκχωρεῖν) when its opposite, the small, is approaching it (αὐτῷ προσίη), or perish (ἀπολωλέναι) when that opposite has approached. It is not willing to stand its ground (ὑπομένον) by admitting smallness and so be different from what it was (εἶναι ἕτερον ἢ ὅπερ ἦν). I myself, for example, do admit and withstand smallness and, while still being this same man who I am, am small; but that thing (ἐκεῖνο) is large and does not have the nerve to be small. In the same way, the small in us (τὸ μικρὸν τὸ ἐν ἡμῖν) is never willing to come to be, or be, large, nor can any other opposite still be what it was and at the same time come to be, and be, its opposite, but it either departs or perishes (ἢτοι ἀπέρχεται ἢ ἀπόλλυται) when this happens' (102a10–103a2).

Socrates starts [1] by reiterating the commitment to the existence of ideas, in addition to things which share in them and are named after them. He has not, so far, drawn attention to the linguistic relevance of his proposal. It is here [2] that he begins to integrate acts of labeling or naming with the ontological analysis he offered in the safe hypothesis. At this point, all of those present have accepted his general proposal. As I read it, [2] describes a translation of a sentence, “Simmias is larger than Socrates and smaller than Phaedo” into the terms of his ontological analysis of qualified beings: “Simmias now has both largeness and smallness in him.”²⁸

Socrates does not stop with this translation. He adds [3] that it is not right to say that Simmias exceeds Socrates, because it is not his nature to do so, but rather the nature of the largeness that he has relative to Socrates. It's worth noticing two things about this point. He switches from talking about “largeness” to talking about “exceeding”, and he considers whether it is in Simmias' nature to exceed. How should we understand the relation between largeness and exceeding? I suggest that

²⁸ By contrast with a family of views that think that Socrates' proposal sets adequacy conditions, or characterizes the truthmakers of predications—see: Vlastos 1969; Sharma 2009; Bailey 2014; Wiitala 2022) It is implied by my view that the presence of largeness and smallness in Simmias at the same time will make it true that “Simmias is larger than Socrates and smaller than Phaedo.” But Socrates is not here asking what would make the sentence true, but rather aims to elucidate its ontological significance. The contrast will become clearer, I hope, as we proceed.

we think of it as the relation between a power and its manifestation, in the ontological sense of exercise, activation (as distinct from appearing).²⁹

Sedley helpfully observes that in the *Parmenides*, largeness and smallness are correlative powers to exceed and be exceeded (150d1–2). But Sedley doesn't make good on this insight. On his reading, largeness and smallness are *concepts* which Plato defines as “the capacity to exceed” and “the capacity to be exceeded” (1998, 128). This leads him to a reading that is on the one hand hard to distinguish from other accounts of formal “causation,” for he argues that the largeness in Simmias instantiates the definition of largeness, i.e., that it is an instance of the capacity to exceed (130). On the other hand, he urges us to think about the concept as a transcendent form which causes its own instances—that is, the form defined as the capacity to exceed produces the capacity to exceed in Simmias (132). This makes too little sense.

By contrast, I suggest that “largeness” and “smallness” name the power to exceed and be exceeded, respectively, whether something happens to have them, or not; exceeding and being exceeded is what these powerful qualities are when they are at work, manifesting. So, unlike Sedley, the causality of forms on my account is immanent (i.e., dispositionality).³⁰

The nature of largeness is to exceed smallness, and, conversely, the nature of smallness is to be exceeded by largeness. Simmias has the ability to do either, only because he shares in these powerful qualities, even though he does not manifest both relative to the same objects, as we will see shortly. Considered just by himself, as Simmias, he is powerless to exceed or be exceeded. Thus [4] when Simmias is labeled large and small, he “provides” his largeness to Socrates, to exceed Socrates' smallness, and his smallness to Phaedo to be exceeded by Phaedo's largeness. If

²⁹ Keep in mind that the manifestation of a power is not a further property, but rather the power “at work,” as I explained in chapter 1.

³⁰ I should add that from a mathematical point of view, these formulas are too vague to be helpful, and yet they illuminate the ontological situation.

I am right, “offering” someone largeness means exercising one’s power to exceed someone on comparison. This always involves co-manifesting with smallness in the one to which largeness is “offered.”

This makes good sense of Socrates’ figurative language in the text. It also respects the terms by which Socrates presents the example. He positions Simmias in the middle, between Phaedo and himself (ἐν μέσῳ ὧν ἀμφοτέρων). This reads as an echo of the earlier example of someone who seems (φαίνοιτο) to be taller than another man by a head when he stands (παραστὰς) next to him (96d9–e1). Of course, we have no reason to think that Simmias is actually standing between his two friends. But Simmias is certainly being compared with both in thought, as Socrates elaborates the case, and this results in an ordering of the three by height. If I’m right, the comparison provides the occasion for the powers of largeness and smallness in him to manifest: the former relative to Socrates, the latter relative to Phaedo.

Someone might object that largeness and smallness are not the sort of qualities that can be exercised. People are just taller than some, larger than others. But Plato apparently finds it natural to analyze mathematical relations like the one in the example in terms of correlative *dunameis* (esp. *Charmides* 168b–d). Some have sought to abstract this notion from any relation to power, potency, capacity, or any other dynamic notion (see e.g. Vlastos 1981, 413). There is no need for this. It makes sense that Socrates, Simmias, and Phaedo manifest largeness and smallness when they are being compared, and are otherwise *able* to exceed each other and be exceeded without actually doing so. The alternative, that every magnitude in the world is always already related to every other is at least equally controversial. It’s not clear that the view that mathematical properties are powers bears the burden of proof.

The dynamic framework sheds light on Socrates' puzzlement earlier in the autobiography. He asked, for example, how units can become two just by being placed one next to the other. It didn't make sense to him that this change in position could be the cause of the change in number. Positioning items relative to each other is a feature of comparing, rather than the cause of being large and small. It creates the conditions for quantities to "give" largeness and smallness to each other, that is, to exceed and be exceeded, or to match one to one, that is, to manifest equality.³¹ The position of a pair of units relative to each other is likewise not the cause of being two, but rather what enables them to "join forces" with each other: each contributing its own oneness to a total of two. The duo they make together, we could say, manifests the power of two units to be collectively two. Thus, they share in this form.

Causation by powers respects the two common assumptions that I attributed to Socrates and his interlocutors. The power of largeness belongs to Simmias taken as a whole, for he is measured as a whole against the other two men. In addition, Simmias' largeness does not cause Socrates to be small, and so is not the cause of contrary effects, as seemed to follow from the proposal that the head of someone who is larger by head is the cause of him being larger, and of the other one being smaller, thus producing contrary results simultaneously. Rather, Socrates' smallness and Simmias' largeness co-manifest, each causing one member of the pair to be large or small as the case may be.³²

I am now finally getting to [5]. Socrates says that opposites in things either "flee" or "perish" when their opposite "approaches," unlike bearers of opposites. Unfortunately, while earlier parts of the quote are not taken literally enough, this remark is read quite literally. Thus, it is sometimes

³¹ Construed as a ratio, as I argued in chapter 3.

³² Thus they are akin to dispositional partners in contemporary metaphysics, see Martin 2008, 48–51. On Martin's theory, powers "collaborate" to produce effects, e.g., two triangles jointly form a square, and nothing can manifest alone.

argued that the contraries in us are by nature perishable; if so, they are unlike the forms themselves, which are “everlasting (ἀεὶ ὄν) and immortal (ἀθάνατον) and unchanging (ὡσαύτως ἔχον)” (79d2; cf. 81a5), but are rather inferior copies (e.g., Deveraux 1999, 195; cf. Silverman 2002, 95–100; Ebrey 2023, 256–58).

I argued that this isn’t so: forms in things are just forms, and insofar as they are in things, partaken in. This claim is not new in itself (e.g., cf. Fine 2003b, 306), and there’s even evidence that we ought to take contraries in themselves as identical with the forms. At 103b4–5, Socrates says that “the opposite itself could never come to be its own opposite, neither the one in us, nor the one in nature (αὐτὸ τὸ ἐναντίον ἑαυτῷ ἐναντίον οὐκ ἂν ποτε γένοιτο, οὔτε τὸ ἐν ἡμῖν οὔτε τὸ ἐν τῇ φύσει)” (103b4–5; cf. 103b7–c1). Here, the form seems to have two ways of being, one in nature, the other in us (thus Verdenius 1958, 232–3; cf. Rowe 1993, 249).³³ What is novel about my account is that the immanence of forms is unified with causality: forms are causes only when they empower things, which is on my account what it means for them to be “in” them.

What about the objection that the forms in nature are imperishable? One way of answering it is to deny that immanent forms perish at the approach of their contrary. Thus, Gail Fine argues that “the form of hot retreats from something when that thing ceases to have or exemplify it”; the change that befalls the form, she explains, is not intrinsic to it, but a Cambridge change of sorts (2003b, 307).

This seems to me inadequate. First, it looks like at least some forms might “perish,” according to Socrates (106a–c; esp. c3). Second, notice that Fine doesn’t take “withdrawing” literally, but rather as the cessation of exemplification. I believe she is right to do so, for Socrates is clearly

³³ Ebrey takes the sheer fact that Socrates uses two locutions, the form itself and the form in us (102d) as evidence that they are “distinct” (2023, 256). But, as we just saw, Socrates also says that the contrary itself can be in things or in nature (103b). His later statement is arguably more authoritative.

using *uninterpreted metaphors* for ontological matters.³⁴ But, if Fine is going to give a philosophical gloss on “withdrawing” then she owes us one for “perishing” as well. This she doesn’t provide; instead, she takes the second disjunct quite literally, as though the aim of the immanent reader should be to “save” Plato’s forms from the death that threatens them in a state of immanence.

I do not think that Fine *can* make good on both disjuncts, however—nor, for that matter, Deveraux, who claims that immanent forms are perishable form-copies. On Fine’s reading (and I suspect according to Deveraux, too), forms are “in” something in the sense that they are exemplified by it, and they cease to be “in” it when they “withdraw” (i.e., are no longer exemplified by it) and that is how forms can be in things without perishing. This seems unwarranted to Deveraux, who objects that immanent forms are perishable, and so different in kind from the forms themselves. The trouble is that neither side *explains* both figures of speech.

I believe that Socrates entertains two genuine possibilities. Notice that powers might be lost, or just unmanifesting. In the former case they are no longer empowering the thing, but in the latter, they are merely inactive. Let me take a few steps back, though, before I explain this. I strongly agree with Fine that one form can be, “as a whole... in many places at once” (2003b, 306). It seems to me, though, that this too requires further elaboration—not only because Plato elsewhere says the forms do not enter space (*Ti* 51e–52d), and it would be good to be able to meet this challenge, but also because it is quite unclear what it means for a form to be even in one place, let alone many at once.

I can make sense of this. I argued that forms are causes by being powerful qualities which are manifestable by their havens, and are not identical to any material part of them, nor to the totality

³⁴ Military metaphors, according to Burnet (1911, 116), which fits nicely with my interpretation of the contraries as powers, the dominant presence of the one manifesting excluding that of the other.

of those parts. Nonetheless, they are positioned in space *coincidentally* by “belonging” to corporeal beings. What this means, I suggest, is just that objects are empowered to manifest certain qualities, e.g., largeness, beauty, etc. Thus, forms are *locatable* to things, for they are manifestable by them, so that they always go with them. But forms do not have their own extension, for they are in themselves, by nature, immaterial and unlocated. Furthermore, if a powerful quality happens to be *unlocatable* (“nowhere”), then all this means is that it does not empower any sensible objects, and this remains the case until it does. Still, the logical character of it remains, in my view, whatever it would empower things to manifest, where the content in each case is given by the definition. Finally, this way of thinking about the locatedness and unlocatedness of forms explains how they can be *in many locations*, since multiple things can certainly be empowered to manifest the same sort of quality.³⁵

Taking immanent forms as a distinct category is unappealing because then Forms have to be either metaphysically obscure causes, and so, very far from simpleminded; indeed, we cannot understand the nature of this causative relation. Or, if the forms are not causes, then they are not needed. Everything in the world would be exactly the same even without them.³⁶ My reading doesn’t have these problems. The unlocated power is just the idea of what it would be to be thus empowered. But if the power is locatable to an agent, then it is not for that reason *different* from the very idea of it. Instead, the power, as it were, came to life somewhere, such that it now exists both “in nature”—that is to say, as the mere idea of its manifestability—*and* in the actual world, where something is able to manifest it.³⁷

³⁵ It wouldn’t make sense to object that they merely have *similar* qualities. If two things manifest redness they manifest the same species of red or a different one. Either way, they manifest the same sort of quality, namely, red.

³⁶ Leigh 2012 and Marmodoro 2002 have the first problem, Ebrey 2023 and Silverman 2002 have the second.

³⁷ If we feel like this can’t be right this might be because we think that only corporeal things come to life in our “sensible” world, or that Plato thought so. It might also be because Aristotle has taught all of us to think of ideas as abstractions from reality, rather than of reality as actualizing ideas. The second point is a gesture, the first I will say more about in the final section.

I now want to return to “withdrawing” and “perishing.” If Plato’s forms are empowering causes, as I suggest, “withdrawal” might be a metaphor for when a power is present but cannot manifest because its contrary is active. Largeness in Simmias cannot manifest in the same comparative frame with Phaedo, for Simmias is exceeded by him. But Simmias is still able to manifest largeness relative to Socrates, so he clearly didn’t lose his power of largeness with the “advent” of smallness. Instead, largeness “withdraws” its manifestation, “refuses” to be active, relative to the same object, at the same time, together with its contrary smallness. Other powers might not be able to remain in the same place with their contrary even in an unmanifesting state. The presence of coldness, for example, might exclude heat completely, so that coldness “perishes”—that is, the object cannot manifest it and doesn’t—by the time the power of heat has “arrived” (see 106a).³⁸ In this case, coldness would have to be regained (or, as we might say, “resurrected”), rather than simply come once again to manifest as though it never had to die.

Someone might object that when the soul “withdraws” from the body it literally escapes and is not merely unmanifesting. This is certainly the conclusion of the final proof: “the immortal part departs intact and undestroyed, and is gone, having retreated from death” so that “our souls really will exist in Hades” (106e5–107a1). But he also says, just a few lines below, that “even if you all find the first hypotheses [i.e., formal causation] trustworthy, nonetheless you should consider [his arguments for immortality] more clearly” (107b5–6). Here Socrates makes it quite clear that the theory he presented is more credible than the arguments for immortality. So, we should presumably evaluate his arguments by the lights of the best interpretation of his theory, rather than ruling out readings which might cast doubt on his arguments.

³⁸ *Timaetus* 57b might shed light on how Plato thinks of this and similar phenomena, especially if read alongside Socrates’ discussion of subtle causes.

On my reading, then, the perishing of immanent forms is not a consequence that needs to be avoided, as it is for Fine, nor does it entail that these items are different in kind from the Forms, i.e., that they are form-copies, as Devereaux maintains. Plato uses uninterpreted metaphors to describe the situation with forms insofar as they are immanent. This wasn't relevant earlier in the conversation, when forms were mere intelligibles, but thoughts may evolve. I interpreted "perishing" and "withdrawing" against my proposal that forms are empowering causes, as two failures of manifestation. Things that used to be empowered might become disempowered. This means that the power is lost (i.e., "dead and gone") and must be regained (i.e., "resurrected"). But there are also cases of temporary cessation: the power is not lost, but it cannot become active, either. For instance, when Simmias is exceeded by Phaedo, his largeness "withdraws" but is not lost to him. While this goes beyond the text, it offers a full and ontologically meaningful interpretation of more aspects of it than other readers can.

4.4 Socrates' "subtler" answer: power-carriers

In the previous section, I offered a model for thinking about ideas as powerful qualities, locatable to one or many sensible objects (if they can manifest them), or to none (if nothing can). I compared them to rights which permit people to do whatever they have the right to do and that are in principle shareable by many or no one, in which case we might still be able to dream about having such rights, strive to promote them, etc. The same is true, I believe, about Plato's ideas.³⁹

But, like any analogy, there's also an important difference. Rights are bestowed and denied by human institutions (leaving aside "natural rights"); not so with ideas. In the last part of his lecture (103c–105c), Socrates makes an interesting proposal about the way forms become attached to

³⁹ That is arguably why passages which celebrate them as everlasting and divine only include good ones.

things: powerful qualities are “carried” into sensible reality by structured items which necessarily manifest them—because of their structure, I will suggest. Thus, by getting a hold of some carrier, different things become and are in an empowered state (i.e., analogous to an enfranchised status in the city-state).⁴⁰

Socrates starts by mentioning a pair of contraries: “hot” and “cold” which are taken from a naturalistic context (103c10–11). This signals a strong continuity in the discussion.⁴¹ Recall that the thinkers he recounted in the critical part sought the cause of life in the decomposition of these parts (see Ex. 1, §4.2). Socrates thinks of them, by analogy with largeness and smallness, as contraries—on my reading, powerful qualities. The relevant fact about these contraries, in context, is that they are essentially linked with, but not the same thing as “fire” with “frost,” respectively (103d2–3).

There seems to be a certain ambiguity about these items.⁴² This example suggests something material, but Socrates is going to mention others which play the same causal role as fire and frost, which seem immaterial—most notably, the soul, which was said earlier to be invisible. I think that we will be able to explain the text better—more exhaustively and more in harmony with the theory of forms—by thinking that these items are the sort of forms that can “take” a body, that is to say, become materialized.⁴³

Socrates observes that fire and frost never admit coldness and heat, respectively: “when the hot is approaching [frost], it will either retreat from the hot or perish” and when the cold approaches

⁴⁰ The argumentative context is the final proof of immortality (105c–107a), but I am interested in the systematic contribution of this section to the other parts of Socrates’ lecture.

⁴¹ As Fine 2003a argues, *contra* Vlastos 1969; cf. Sharma 2009.

⁴² See Frede 1978 for discussion.

⁴³ Someone might object that the soul is not a form, but only similar to the forms (79b). This objection is weak, because the soul might turn out to be like the forms by being a special kind of form (cf. Aristotle, DA 431b20–432a9). This move is clearly available to Plato as well, if his view of forms is as I say (namely, powers). See chapter 1 for the soul’s power of knowledge (“eye of the soul”).

fire, it either withdraws or perishes, “but it will not continue to be just what it was, fire, as well as cold” (103d5–12). He infers that there are certain things which always “go” with some form, to the exclusion of its opposite. In such cases, he says, “not only does the form itself (αὐτὸ τὸ εἶδος) merit its own name for all time, but there is something else that merits it, which is not the same as the form, but which, whenever it exists (ὅτανπερ ᾗ), always has its quality (ἔχει δὲ τὴν ἐκείνου μορφοῦν ἀεὶ)” (103e2–5). The things Socrates is talking about, which are always accompanied by the idea but are not the same as it, are sometimes called “subtle causes” (soon we will understand why).

Socrates’ subtle causes include items that do not normally go together: e.g., the number three, fire, fever, the soul. The first always has the quality of the odd, the second of the hot, the third sickness, the fourth brings life. In context, the latter example is going to receive the most attention, since Socrates utilizes it in his last argument for the immortality of the soul (105c–107a). But my interest lies in the systematic point. If I’m right, mathematical qualities serve Socrates from the outset as a kind of barometer for a theory of nature. A theory which falsifies these matters might falter in other areas too, but less obviously, and in any case, rests on faulty foundations (i.e., collapsing qualities and corporeal parts).

No wonder, then, that in the final part of the discussion he talks in one breath about being hot, alive, and about being three, five, ten and two (see also: double, one-and-a-half, half, 105a–b). He is looking for an approach to causation that makes sense of all these things together. Starting with powerful qualities, he now focuses on the link between such qualities and sensible reality. They do not “arrive” into things, i.e., coincide with their location, by their own agency. Rather, they are carried (see ἐπιφέρει, 104e10) into them by things whose nature is to be so qualified.

The discussion of carriers is made with an eye to the proof of immortality, which obscures somewhat their contribution to theory. Eventually he will argue that the soul does not accept the contrary of life, namely, death, on the same model as fire, etc. (105c–e). But it cannot perish either, he suggests, since that would entail that something undying has perished (106a–e). It follows that the soul—as much of it as is immortal, at least—escapes death fully real and unscathed and living, as Socrates says, in Hades (106e–107a).

Here, Socrates leans into the literal meaning of his metaphors. As I said earlier, we can choose to adopt these literal meanings throughout, that is, in the case of forms, as well as the soul. Or we can see the very literalness of the argument as a sign that it is not offered seriously, but more in the spirit of beneficial sophistry.⁴⁴ At any rate, the final argument offers no guidance for understanding the nature of carriers and their role in the theory. His remarks before the final proof, which conclude his lecture on causation, are more suggestive:

Besides that safe answer I gave at first, I see another kind of safety (ἄλλην ὁρῶν ἀσφάλειαν), thanks to what we’re saying now. For if you ask me what makes a body in which it comes to be present to be hot (ὅ ἂν τί ἐν τῷ σώματι ἐγγένηται θερμὸν ἔσται), **I will not give the safe, ignorant answer**—namely, that it is hotness—but, thanks to what we now say, a subtler one (κομψοτέραν): that it is fire. And if you ask what it is that, when it comes to be present in any body, makes the body ill, I will not say that it is illness, but that it is fever. And if asked what it is that, when it comes to be present in any number, makes the number odd, **I will not say that it is oddness, but that it is a unit (μονάς)**, and so on for the rest (105b6–c6)

On the most natural reading of this text, the subtler answer in terms of carriers takes over the earlier, safe hypothesis. Socrates substitutes the first for the second. He says so twice in this text (in bold). Instead of saying that things are hot by sharing in the form of heat, Socrates now says that things become and are hot because there is fire in their bodies, for example.

⁴⁴ Socrates makes it quite clear what the benefit would be when he says that “if the soul is immortal, then it needs to be cared for... for the sake of all time” (107c1–4).

Other readers do not take the substitution seriously enough. It is believed that carriers offer a different kind of explanation, or causality, than forms. According to some, they describe conditions that are merely sufficient for exemplifying the form (e.g., Gallop 1975 209–11; cf. Fine 2003a, 386). But, if the subtle causes are merely sufficient for the consequence, Socrates is not entitled to mention them instead of the form as the safe and simpleminded answer. Partaking in the form, at any rate, is a condition that is both necessary and sufficient for having the character of the form, according to these readers.

Others argue that they are species of the forms that they carry, e.g., fever is a species of illness (e.g., Sharma 2009, 150; cf. Vlastos 1969, 327). This suggestion is problematic because it doesn't generalize well to the other examples. E.g., fire is not a species of heat, and the unit is not a species of oddness, for it is not a number (for the Greeks). Besides, it seems extremely unlikely that the topic of this discussion is logical, or metaphysical *aitiai*, as these readers claim. It is quite obvious that fire causes things to be hot in a natural, rather than a logical or metaphysical way, and similarly, that fever is a bodily condition that make people sick.

My reading does better on these scores. The safe hypothesis, I suggested, offers an ontological analysis of qualified beings as complexes of agents and powers which are manifestable by them. It doesn't tell us how participants become and remain thus empowered, e.g., how hot things gain, preserve, or lose, the power of heat. Socrates' subtler response fills the gap by affirming the existence of things which are naturally empowered by it. Other things become and are empowered when the powers of carrier-agents coincide with theirs. Socrates can make the substitution between fire and the form of heat, for instance, because the latter is a kind of power and fire possesses this power by its very nature. So, fire is what we need if we want to make something hot, and, things are hot because of the fiery portion of their body.

Moreover, the possibility of multiple power-carriers doesn't undermine Socrates' reasoning. If it turns out that there are many carriers—as seems to be the case with fever, for instance—then, an exhaustive account will arguably need to include all of them. Besides, they might have something in common, as I am about to suggest. At any rate, this seems to fall in the province of the special sciences, e.g., medicine, rather than philosophy. Socrates merely offers a paradigm for such inquiries that would harmonize with our pretheoretical commitments, instead of destroying them; starting with immaterial powers, and working down from them to their carriers secures this result.

I want to elaborate this point further by taking a closer look at two examples. The subtle cause of being odd, according to Socrates' final statement of the case, is a unit. This is intriguing, because earlier he mentioned odd numbers, e.g., three, five, etc., as carriers.

The apparent discrepancy can be explained by taking the unit as a structural feature of odd numbers, which makes all of them odd. I will explain what this means in a moment. But first, let's take a closer look at another example: fire, the carrier of heat. Socrates doesn't say what about fire makes it essentially hot in the present discussion, but he does in the *Timaeus*. On the theory offered there, "hot" is the name we assign to the sharp feeling we get when fire cuts through our bodies, an effect it has owing to the structure of this element, i.e., a tetrahedron (61d–62a; cf. 53a–b). The text is clear that the agent, i.e., fire, is named after the sharp sensation it gives us (ὀξύ τι τὸ πάθος, 61e1), and that this, in turn, is caused by the sharpness of fire's angles (γωνιῶν ὀξύτητα, 61e2–3).

I want to suggest, by analogy, that three, five, etc. are natural carriers (πέφυκε 104a7) of the form "odd" because they all have, what we might call a " $2n + 1$ " structure. Remember that a number, conceived in the Greek way, is always a number *of units*, tangible or abstract.⁴⁵ So, by suggesting that odd numbers have a $2n + 1$ structure, what I mean is that every odd number contains

⁴⁵ See Klein 1968 for a classic study.

one unit that *cannot* form a pair with any of the others. Or, conversely, every unit *can* be paired with some other unit except one. Thus, odd numbers are constitutionally unable to divide evenly into two sets. If someone tries to divide an odd number of units in two, by ordering them into two columns, say, they will get uneven sets: $\{n\}$, $\{n+1\}$.⁴⁶

This interpretation solves the textual problem of the “unit,” as distinct from the class of odd numbers. For they all have the same “uneven” structure. It also unifies what have looked to others like categorically different cases of causation. Gail Fine, for example, interprets the “bringing on relation,” as she calls it, between subtle and formal causes as “the generic relation of sufficiency.” “Sometimes the sufficiency to hand is causal sufficiency”—here she quotes the example of fire, which she rightly realizes acts on bodies, but sometimes the sufficiency is not causal: “The form of three ... does not causally make anything odd” (2003a, 386).

Why not? If Plato’s theory of causation is a form of dispositionalism, so that things have powers which they manifest by coming together with other powers, and if powers are rooted in structures, then the form of three *does* make sensible trios of units odd by having an unpairable unit. If we can trust the *Timaeus*, Plato applies the same principle to fire: it carries heat because of the tetrahedronic structure of its elements, which gives us a cutting sensation. Things are accordingly hot in proportion to the quality and number of their fiery elements.

I offer this mainly as a gesture that explains the mysterious shift from species of odd to the unit. However, since I mentioned structures, and those are often construed as purely “categorical” properties in contemporary literature, I want to flag that this isn’t required;⁴⁷ indeed the elements

⁴⁶ Cf. Pritchard 1995: “The process of dividing an *arithmos*, say, of pebbles, is the pairing of units until these are exhausted. In the case of an odd *arithmos* the process is interrupted by the final, unpairable unit” (76). Unfortunately, Pritchard thinks of the presence of an extra unit as a condition which is both sufficient and necessary for being odd, while the other examples, on his reading, identify sufficient conditions. Socrates is not identifying conditions, though. He is concerned with powers and the structures in which they are rooted.

⁴⁷ Cf. Martin 1996, 86

of structures, and the structures themselves, as a result, are arguably powerful as well for Plato. Or so my reading of the two units, largeness, etc., suggests (p. 30).

Notice, finally, that the subtler answer gives Plato the resources to rehabilitate what was plausible about the assumption that things are thus and so because of their parts. He could say that things share in powerful qualities by being structured wholes with parts that carry various powers. He doesn't say this, of course. But the link he draws in the last part of his lecture suggests this response. It may be that in a different conversation, one that is not geared towards proving the immortality of the soul, elaboration would have been more forthcoming. As it stands, we have to make a lot of very little. I tried to give Plato's Socrates the best theory of formal causes and their carriers that I could think of, with the materials he left for us.

4.5 The epistemological significance of the episode

Participation, construed as empowerment along the lines I suggested, seriously qualifies the ontology of forms in earlier parts of the dialogue. As others have noted, there are two models in the dialogues for the connection that holds between forms and material objects: imitation and participation (see, e.g., Fujisawa 1974; Imaizumi 1996; Ebert 2004, 372 f.). In the *Phaedo*, the first model dominates the recollection argument and surrounding texts. There, material objects strove to be like the forms (74d–75b), and are named after them (78e), but they did not share in them, nor was there any other metaphor to indicate unity. The two kinds of being (79a) were contrasted without giving the slightest sign that there could be, really, a third thing out of the two, namely, qualified beings. This is left for the last part, where forms play the role of empowering causes. Could such a shift occur without any consequences for Socrates' epistemology? In this section I will argue that the new ontology undermines the recollection argument, and that this is not a great

loss for Socrates, but quite possibly one of the intended results of this major (if quiet) shift in perspective that has taken place.

Recall what the argument was. Socrates defined recollection as a process in which someone perceives A and as a result of that, thinks about B, which she previously knew (73c–d). The two items are distinct, and one reminds the person of the other. Now, the crux of the recollection argument is the suggestion that when someone learns about equality by seeing corporeal equals, they do not gain new knowledge, but recover it from prenatal experience. Socrates wants to redescribe this familiar experience as a case of recollection. So, it needs to be shown that what we learned equality from, by perceiving it, is different from what equality is. This is the aim of the most famous part of the recollection argument, in which it is argued that corporeal equals, like sticks and stones, are different from the idea of the equal because they show up as unequal, but equality never appears unequal (74b–d).⁴⁸ Socrates concludes that the idea of equality is not the same as corporeal equals, from which he immediately infers that learning about equality from looking at corporeal equals, is a case of recollection.

Is this inference legitimate? It has been argued that Socrates might be inferring the difference between sensible equality and the form of the equal by substituting in an opaque context; the fact that sticks *seem* unequal, they argue, doesn't imply that they *are* not identical to the idea of equality, if what we're thinking is false.⁴⁹ This is not the kind of worry I have in mind. However, if Plato's forms are as I say, then it is clear to me that the argument is not valid.

To see why, consider, once again, the definition of recollection. According to Socrates, someone recollects B when they think about it as a result of seeing something else, A, which is not

⁴⁸ On the reading I offered, he argues that the thought of equality excludes inequality, but corporeal equal occur in our thoughts both equal and unequal (chapter 3). The present argument doesn't presuppose this reading.

⁴⁹ E.g., Sedley 2007, 78–82. I defended Socrates against this accusation in chapter 3

the same as B. If someone thinks about B because she sees it in A, either as a part or as a manifest quality, that is not recollection, but a kind of perception. So, if equality itself (as distinct from a form-copy) can be in sticks (manifested by them), as I argued, it is either observable by us or it is not. If it is observable—as the example of largeness, for example, suggested—Socrates needs an argument for why we cannot learn what equality is by observing it, but instead have to recollect it from a prenatal experience. But if it is not in any way observable, Socrates needs to explain how we even notice it in things. Clearly, such arguments are missing from the text.

Why didn't the possibility I proposed arise in the recollection argument? After all, it seems like an obvious objection. It may be because the earlier ontology has made it impossible. On the imitation model, there are two kinds of beings, corporeal and incorporeal forms; the former can be, at most, like the forms, but they never coincide (i.e., share a location), with any of them. Notice that there is a certain affinity between this assumption, and the "materialism" of the first part of the autobiography. Both views deny that "our" world, the world of things that come into being, and are, and perish, contains forms.

Some would insist that this is Plato's view as well, at least in the middle period. Indeed, a large part of the motivation to introduce a third category of form-copies in the final part of the dialogue is to ensure this traditional interpretation. But, if I am right, this isn't his ultimate view—at least not in the *Phaedo*. And, as I have just shown, the mixed ontology which Socrates puts forward in the end doesn't sit so well with the worldview that gave us the recollection thesis. It may be, then, that in the final act of the dialogue, Socrates not only modifies the ontology of the earlier acts, but also silently abandons the thesis that our knowledge of the forms is innate and needs to be recollected.

A more widespread exegetical tradition, under the influence of Gilbert Ryle, maintains that Plato of the middle period subscribes to the two-world ontology we see in the recollection argument, among other places, but then later on moved in the direction of immanence.⁵⁰ This assumption helps to explain some discrepancies across different dialogues; it also had the inevitable effect of regimenting readers' expectations about dialogues which fall in one or the other category. Plato might be more deceptive than they think. His characters, at any rate, are awake to dialectical tensions in the *Phaedo*. I will demonstrate this by looking at a text which might seem insignificant, but in my view says a lot.

When Socrates introduces forms in the role of immanent causes, an unnamed interlocutor all of a sudden intrudes. This fellow notices a possible conflict between Socrates' earlier claim that contrary things come to be from contrary things, from which he inferred that the souls of the living must come from the dead, so that the latter must exist in Hades after we die, and his current assertion that contraries do not admit contraries (103a4–10).

Plato uses this device to insert the following clarification: “back then,” Socrates explains, “we were talking about the things that have the contraries, naming them after those contraries, whereas now we’re talking about those contraries themselves, from whose presence inside them the things that are named get their labels” (103b2–c1). This shows that there is no contradiction in saying that things become tall from not being tall, say, and that the contraries themselves, e.g., the power of largeness, does not turn into their contraries.⁵¹ But Plato lets his Socrates dwell a little longer on the matter. He asks Cebes whether he, too, is disturbed (ἐτάραξεν) by what the other guy just said (103c2–4). Cebes says, “No”—BUT— “I don’t for a moment say that there aren’t many things

⁵⁰ See Rowett 2018 for a recent critical review and literature (12–14)

⁵¹ Note that the argument from contraries might still conflict with the present discussion: here, the man, Socrates, becomes short from being tall, but there the souls of dead people come to life from being dead, and are subsequently returned to Hades, i.e., become dead from being previously alive (71c–72a).

(πολλά) that do disturb me” (103c5–6). Socrates acts as if he didn’t hear this: “so, we’ve all agreed straightforwardly that the contrary will never be its own contrary” (103c7–8).

What is going on? Who is this unnamed interlocutor? Why not give this objection to one of the known participants? Finally, what is disturbing Cebes? A wild guess—and yet one is that is not entirely implausible, would be that by not giving the speaker a name, Plato finds a proxy for himself: the only noted absentee (Πλάτων δὲ οἶμαι ἡσθένει, 59b10). Even if this isn’t true, the ontological development in the dialogue is duly noted; the different perspective is not merely registered, but even raises many concerns for Cebes.

Must this mean that Plato believed in immanence and learning about forms from seeing them manifesting in our world? Of course not. The cliché about Plato, that he is not only a great philosopher, but a master of a complicated genre of writing is true. His philosophical dramas lend themselves to diverse and often opposing interpretations, like any great art. This, as they say, is a feature, not a bug. We do right by him in thoughtful disagreement. We betray his spirit by believing anyone’s opinion about what he had to have thought. If Plato had thought that philosophy needed to be sanctioned by authorities and “testimonies”—like that of his most famous student, for example—then he would not have offered us the gift of his enigmatic dialogues. (Or so I think.)

4.6 Conclusion

I reconstructed the dialectic of Socrates’ autobiography, and its main upshot in a new way. Scholars group together two sets of examples in the first part, the critique of early natural philosophers, which do very different work. Socrates begins his lecture by telling the interlocutors about his early enthusiasm for natural philosophy. He presents a pattern of questions and answers that needs to be understood before we approach his own contribution. As he interprets natural

philosophers, they are people who ask, about each natural thing, what makes it be the way it is, and then look into material constituents or organs for an answer. Their approach is predicated on an ontological thesis, namely, that the causes of being, becoming, perishing, are physical parts. Putting things in this way, rather than a blanket “materialism” charge, is crucial for understanding the kind of critique that Socrates is leveling against them, and on this basis, his positive intervention. In particular, scholars have completely missed the fact that the mathematical cases, starting with “being larger by a head because of a head” are introduced as a *reductio*. They read them as further examples of explanations, or causes, which violate Socrates’ “principles” of explanation or causation, while the forms satisfy them.

I contended that Socrates doesn’t philosophize towards or from dogmatic principles. His arguments against his predecessors are more interesting (certainly funnier), if we read him as philosophizing from shared “ordinary” assumptions, however general those notions are. What matters is that he is not laying down the law about what explanations or the world “ought” to be like. Instead he attends to what it is as best as he can. Herein lies what’s radical, and deep, about Plato’s dialogues in general, but only if we can ignore the tradition which tells us that, in one way or another, he is a dogmatic, speculative philosopher, who thinks that our world—the only one we’ve got—is inherently unintelligible and deficient. This isn’t the core of his philosophy, but a dialectical moment in it, which, at least in the *Phaedo*, is eventually tamed.

On the reading I defended, Socrates takes his predecessor to task for the neglect, and its subsequent blinding effect, of the most self-evident things that there are. Just as we all know that people grow in bulk by eating, we know with even greater certainty that this is not what makes them larger than other people, on average or relative to someone in particular. His predecessors privilege the first truth at the expense of the latter, and they end up arguably falsifying both. That

is because the science they pursue rests on unsure foundations, and without holding itself accountable to the tribunal of pretheoretical thought. Socrates' deployment of forms in a causal role needs to be understood against this background as a measure of sanity, sobriety, artlessness, the plight of a simple mind. On my reading, he means what he says. The participation of things in forms is not a "discovery" of metaphysical speculation. Instead, it is a penetrating analysis, an interpretation, of how ordinary folks (all of us when we are not engaged in philosophy) see the world, which vindicates and protects their way of seeing it. We all think that things are qualified and that this determines the range of active states that they can be in or enter into, both internally and relative to other things outside them. The forms are these powerful qualifications. By bringing them down to earth, where they are at home no less than in abstract thought, Socrates teaches Simmias, Cebes, and the other interlocutors, who seem like true friends of the forms (to adopt a later characterization of their type, *Sph.* 248a), that philosophical thinking is neither what Socrates' naturalist predecessors believe about it, on one extreme, nor what mathematical zealots think, at the opposite extreme. The forms belong in our world, where the philosopher protects and reflects on all of them, like a judge who ensures that rights are understood and respected.

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