
MITCHELL MILLER

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I don't know yet. But we have set sail, and wherever the argument, like the wind, should bear us, there we must go.¹

Republic 394d

At 435c–d and again at 504b ff., Socrates indicates that there is a “longer and fuller way” that one must take in order to get “the best possible view” of the soul and its virtues. But in neither passage does Socrates take this “longer way.” At 435c–d he accepts Glaucon’s plea to continue with the “methods” they have used so far, giving arguments “at that level.” In the text that follows his reminder at 504b ff. he restricts himself to an indirect indication of its goals by his images of sun, line, and cave and to a programmatic outline of its first phase, the five mathematical studies. If we stay within the dramatic context of the dialogue, we can see why Socrates offers such a partial and incomplete characterization. As keen and receptive as they are on political and ethical matters, Glaucon and Adeimantus are limited interlocutors on metaphysical issues; they have not undergone the mathematical education Socrates prescribes, and they are not in a position to raise critical questions about the Forms or the structure the Forms imply for city and soul. Accordingly, in his initial willingness to forgo the “longer way” (435d) and in his later very introductory account of it, Socrates measures his words to what Glaucon and Adeimantus are prepared to understand.

¹ The translations in this essay are my own, but I have benefited from comparisons with the translations of Tom Griffith, Alan Bloom, and G. M. A. Grube and C. D. C. Reeve.

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But should we be content to stay within the dramatic context of the dialogue? By the way he frames Socrates’ conversation with Glaucon and Adeimantus, Plato seems to invite us to step back and take a more critical perspective. By presenting the *Republic* as Socrates’ narrative report the next day and by leaving Socrates’ auditor unidentified, he makes it natural for us to take on that role and hear ourselves directly addressed. And if we do, we will find ourselves in a two-fold relationship to Socrates and what he tells us. On the one hand, his repeated narrative cues – every “I said, ‘O Glaucon,’” and “he said, ‘O Socrates,’” that punctuates the text – remind us that we are not the audience of the words that Socrates reports himself to have spoken; rather, he spoke those words *to Glaucon and Adeimantus*. On the other hand, we *are* the audience of Socrates’ present report; we sit together with this present Socrates, aware that there is a distinction between the position from which he spoke to the brothers and the position from which he now speaks to us. Thus Plato puts us in an optimal position to recognize the limits that Glaucon and Adeimantus, in their very eagerness to hear him out, impose on Socrates and to feel the potential difference between what he said to them and what, if we could somehow interrupt him now with well-aimed questions, he might say to us.

The catalyzing idea of this chapter is that *Plato* intends the shortfall of Socrates’ presentation of the “longer way” as a pointed provocation *to us*, aimed at moving us to speak up and ask Socrates for a deeper introduction. Of course, it will be up to us, mining the text as responsibly as possible, to discover this deeper Socratic position for ourselves. Our project, accordingly, is to take up this challenge, marking and drawing on the best resources Socrates gives us – above all but not only his provisional account of the five mathematical studies – in order to identify and begin to travel the “longer way.”

I. CLIMAX AND ANTICLIMAX – ACHIEVEMENTS
AND PROVOCATIONS

As Socrates presents it at 504c ff. the “longer way” is the educational process that will perfect the guardian of the city, raising him to the status of a philosopher-king. In its external phases it divides into ten years of mathematics, five years of dialectic, and fifteen years of practical-political experience, all consummated at about age fifty

by the “vision” of the Good and the subsequent turn to the work of ruling. Socrates’ presentation of this “longer way” is at once the philosophical climax and anticlimax of the *Republic* as a whole. This ambiguity is, I suggest, the key to the text’s own deepest educational work. To begin to see how and why this might be so, consider each aspect in turn.

The presentation of the “longer way” promises to complete the two-fold project of constructing the just city so as to bring to view justice in the soul. The just city, Socrates has argued, requires the most perfect harmony of its parts, and this requires that the deliberations of the rulers be based on the most radical identification of their interests with the well-being of the city as a whole. The anticonventional depth of this identification is brought home by the first two “waves” of paradox (457b–c, 472a with 473c): the equality of women and men as guardians and, with the abolition of private families, the extension throughout the guardian class of the unity of feeling that binds parents with children and siblings with one another require of the rulers a detachment from the customary prestige of being male and well-born. Thus the third “wave” of paradox, an absurdity in any actual Greek city, makes good sense in Callipolis. Who in his or her self-understanding is freer from the narrowing concerns of the body and of social status – and, so, more genuinely capable of ruling on the basis of a care for the city as a whole – than the philosopher? In now showing Glaucon and Adeimantus the education that will make him a philosopher in the first place, moreover, Socrates offers his deepest exhibition of the justice of the soul. At the end of Book 4, psychic justice was both clarified and obscured by its relations to wisdom and moderation. For “each of the [parts] within [the soul] to do its own work” (443b) implies, for “the reasoning [part],” that it will cultivate wisdom; but moderation, as the “agreement” among the three that “the reasoning [part] should rule” (442c–d), focuses attention on its policy-making in coordinating the soul as a whole, and this leaves unfocused what its “ownmost work” – the work of reasoning, as such, that makes it wise – consists in. Now, by introducing the “longer way,” Socrates begins to open this up for Glaucon and Adeimantus.

This “ownmost work” necessarily transcends – but also, as we’ll observe, reappropriates and completes – the “music” and gymnastic of the prerational young guardians. Whereas the latter is an external

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"shaping" that "imprints" the "malleable" young soul with "opinions" that it would otherwise lack (377b–c), philosophical education is the quickening of a "capacity" for insight that is "in the soul" (518c) from the beginning. Again, whereas the goal of "music" and gymnastic is the formation of good character (518e, 522a), the goal of philosophical education is direct "understanding" of the Good *itself*. Socrates describes the spiritual transformation this involves by three memorable metaphors: the philosopher-to-be seeks to *awaken to reality* (476c–d), distinguishing for the first time Beauty itself from the many "beautiful things" at hand as the unique original of which they are "likenesses" (476c–d). Again, the philosopher-to-be *ascends from the cave* of sense perception and authoritative cultural heritage, the whole of which he at first presumes to be all there is, *into "the light"* of "the intelligible place" and to the intellectual recognition of "things themselves," that is, of the Forms and the Good (515e–516c, 517b–c). And still again, the intellect and, with it, "the whole soul" undergoes a "conversion from a day that is like night to a true day" (521c), that is, from "that which becomes" to "that which is and [to] the brightest [part] of that which is, . . . [namely,] the Good" (518c).

In at least two ways the philosopher's education also preserves the "music" and gymnastic that it transcends. The formation of character and disposition that these accomplish turns out to be a "trimming" of the soul's ties to becoming (519a) – one thinks especially of Socrates' aims to diminish the terror of death (386a–387e) and to achieve inward rule over the appetites (389d–390d) – and, as such, key preparation for its rise to "understanding" of the Forms. And this "understanding," since Forms are the originals of which particulars are "images" (520c), enables the philosopher to raise the keen perceptual awareness (401e) cultivated by "music" to the level, now, of the "know[ledge] of each image for what it is" (520c); it is this at once heightened and refounded grasp of all that becomes that particularly qualifies the philosopher to rule.²

In what way, then, is Socrates' presentation of the philosopher's education *anticlimactic*? We have noted Glaucon's willingness – even eagerness – to forgo the "longer way" when Socrates first alludes to it at 435c–d. Though they have great good will toward

² See section I of David Sedley's chapter 10 in this volume.

Socrates and are as eager as any interlocutors in the dialogues to hear him out, Glaucon and Adeimantus have not made the “conversion” Socrates calls for, and as a consequence – as he indicates at several key places – Socrates must limit what he says and how he speaks to them. The result is that his presentation of philosophical education leaves its substance and character and, indeed, the character of the philosopher-king pointedly obscure. I count at least four basic places or ways in which Plato has Socrates say much less than, listening to his report the next day, we might wish.

1. *The obscurity of “the Good.”* Understanding the Form of the Good is the key goal for the philosopher-king-to-be. But, Socrates tells Glaucon at 506e, “it appears to me beyond our present thrust to reach the views I now hold about it.” Accordingly, he keeps these to himself and offers instead what he deems Glaucon and Adeimantus ready to receive, the simile of the sun. To state its two claims, epistemic and ontological, respectively: first, as the sun is the source of light and thereby enables the eye to see and enables visible “things”³ to be seen, so the Good is the source of “truth” (*tēn alētheian*, 508e) and thereby enables the soul to know and enables knowable “things” to be known; and second, as the sun is the cause of the “coming-to-be, growth, and nourishment” of visible “things,” so the Good is the cause of “the to-be and the being” (*to einai te kai tēn ousian*, of the “things” known; 509b). Alas, for all the precision with which, by his careful correlations, Socrates makes use of what is familiar to introduce Glaucon and Adeimantus to what is strange, the effect of the simile is to leave deeply obscure the Good as it is in and of itself. Socrates offers the simile as a means of first coming to think the Good – but if we try to turn from thinking of it in terms of the sun to thinking of it in terms proper to its own prior intelligibility, we find ourselves facing very difficult questions. What belongs to the category of “knowable things”? How are we to understand “the to-be and the being” of these “knowables”? What is the sense Socrates intends for *alētheia*, “truth,” and how is it that truth in this sense

³ There is no word in the Greek that corresponds to my word “things.” Plato uses the definite article with the plural adjective, e.g., *ta horōmena*, “the seen” or, to convey the plural at the cost of the article, “what are seen” (508a, c, cf. 509b), and *ta noumena*, literally, “the intellecteds” (508c). The sole function of my insertion of “things” is to convey the plural.

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enables the soul to know and the "knowables" to be known? And at the heart of these obscurities, what is the sense Socrates intends for *agathon*, "good," and how is it that it belongs to the Good in this sense to be the ultimate cause both of the soul's knowing and of the very "to-be" and "being" of the "knowables" themselves?

2. *Socrates' reticence with regard to dialectic.* The highest stage of intellectual work short of the understanding of the Good is the dialectical study of Forms. What little Socrates reveals of it, he offers by way of two distinctions in his closing reflections on the divided line, at 510b–511c: whereas in the mathematical disciplines of "geometry, calculation, and the like" the mathematician uses sensibles as images in order to think not about these but rather about the nonsensibles of which they are images (510d–e), the dialectician "avails himself of nothing sensible but only of Forms, going by way of Forms to Forms and ending in Forms" (511c); and, second, whereas the mathematician begins from "hypotheses," that is, from claims about his subject matter that he presumes to be "manifest to all" (510d), and reasons from them to conclusions, the dialectician subjects his "hypotheses" to inquiry, seeking thereby to first discover what stands prior to them and, so, can serve as a genuine basis for them and for his subsequent reasoning from them (510b, 511b). Needless to say, these are difficult lines, as elusive as they are rich, and so we welcome Glaucon's request at 532d–e that Socrates "tell the character of the power of dialectic and what sorts of modes it divides into and, again, what its paths are." Socrates, however, refuses to say more, telling Glaucon that he has not achieved the freedom from sense perception and sensible imagery that understanding dialectic requires: "'You would no longer be able to follow,' I said, 'even though there is no lack of desire on my part [to explain]; but you would no longer be seeing an image of what we are speaking of but rather the true itself'" (533a).

3. *Sensible simile, intelligible content.* These points of obscurity reflect a pervasive substantive limitation – and, as I suggest at the close of this section, a pedagogical strength – of Platonic/Socratic discourse in the *Republic*. It is a requirement of the conversation as Socrates reports it that he construct sensible similes like the sun and the cave; to lead Glaucon and Adeimantus, since they have not undertaken anything equivalent to the ten years of mathematics needed for the "conversion" from becoming to being, Socrates

must find language that keys from the senses. But what he seeks to convey is the experience of that which precedes sensibles and, indeed, is itself the basis for whatever intelligibility and being sensibles have. This paradox reaches a paradigmatic intensity in Socrates' handling of the pivotal moment of the divided line passage: "as the opinable," he proposes, "is to the knowable, so the likeness is to that which it is like" (510a). By "the likeness" and "that which it is like," Socrates refers Glaucon to the relation between the sorts of things that belong to the two sections of the visible, the relation of, for example, shadows or reflections in water to the individual things of which they are shadows, and so on. Thus he conveys the thought that "the knowable" – most obviously, the Forms (recall 475e–480a) – are the originals of which "the opinable" – most obviously, sensible individuals – are "likenesses." This brilliant communication of *the* fundamental ontological relationship in Platonic thought risks, at the same time, betraying it. It is a pedagogical master stroke to find among sensibles an analogue to that relation by which the Forms stand as different in kind from and prior to sensibles; Socrates allows Glaucon and Adeimantus to proceed to the strange by way of the familiar. But precisely this is also the danger: the analogy tempts one to rely on the familiar, to let the relation of sensible model and likeness stand in for that of Form to sensible. This is at once an error of commission and an error of omission. One inadvertently thinks the Forms on the model of sensible things, missing their difference in kind, and so fails to take up the essential task of seeking new concepts by which to do justice to the Forms in their own distinct and prior kind of being. This problem should complicate our reception of the sun, the line, and the cave. Even as we appreciate the deftness with which Socrates constructs pictures for that which, according to the meaning the pictures convey, defies picturing, we must part from Glaucon and Adeimantus, who accept the limits Socrates draws, and, in *our* reception of Socrates' report, object. We will not really have received Socrates' content until we liberate it – and liberate ourselves for a genuine understanding of it – from its form.⁴

⁴ Recall Aristotle's complaint that to invoke the notion of "models" (*paradeigmata*) is to rely on "empty discourse and poetical metaphors," *Metaphysics* A.9, 991a21–22. But Plato himself, through the dramatic *persona* of "Parmenides," was the first to expose the danger, in the *Parmenides*, esp. 132c12–133a6. For a powerful defense of the model/likeness analogy, see Patterson 1985. For an account of the hypotheses

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4. *The philosopher's reluctance to "descend," Socrates' zest.* We turn, finally, to the notorious question of the philosopher's disinclination to break off from the theoretical life of studying the Forms and the Good to take up the political responsibility of ruling the city. Socrates' very act of explaining this to Glaucon and Adeimantus constitutes a striking performative tension. *On the one hand*, Socrates makes very understandable the philosopher's reluctance to abandon the satisfactions of contemplation (516c, 519c) for the difficult "drudgery" (540b) of politics; he shows why the philosopher, knowing that the esteem that his fellow citizens exchange is based on a fundamental misunderstanding of reality, finds no value in it (516c-d); he explains that the philosopher's lack of interest in ruling is actually a benefit for the city (520d, 521b), and he lays out the argument by which the philosopher must and will be persuaded of the "necessity" (519c, 520a, 540a) that he rule, namely, that by contrast with the situation in "other cities," in which a philosopher comes into being "against the will of the constitution," in Callipolis he owes his very education into philosophy to the city (520a-b). *On the other hand*, it is Socrates who presents all this, Socrates who has himself come to philosophy in spite of rather than with the support of Athens and who has himself willingly "descended" (327a)⁵ into the Piraeus to spend this long dialogical night leading Glaucon and Adeimantus as close to the opening of the cave as they are able to go – and always, his "characteristic irony" (337a) notwithstanding, with an inexhaustible generosity and zest. His very presence in the Piraeus – doubled "now," a fictional day later, by his indefatigable narration of the night's events to us – stands strikingly at odds with his account of the philosopher's reluctance to "descend." Is this tension significant? If we take Plato to be serious about the performative dimension of the text, we must think that it is. And this should lead us to wonder whether there is something internal

in the *Parmenides* as a systematic rethinking of the forms in their own proper being, see Miller 1986.

⁵ On the playful banter about the use of force at the very beginning of the dialogue, see Miller 1985, n. 9. I take this episode to be but the first of many moments in which Socrates plays hard to get in order to motivate others to pursue him. The point cannot be that Socrates wants to avoid teaching and return to contemplation; after all, he is returning with Glaucon to Athens proper. For more on Socrates' descent into the Piraeus, see David O'Connor's chapter 3 in this volume.

to Socrates' own philosophical experience, as Plato understands it, that, because not yet comprehensible to Glaucon and Adeimantus, he leaves pointedly unspoken. Does the dramatic fact of Socrates' own comportment itself express, behind the external "necessity" of which he speaks, an internal necessity of which he does not speak?

In these ways, Socrates falls away from the very height that he seems to be reaching, leaving us discontent and eager to pursue a new round of questions. Our situation is oddly reminiscent of Glaucon's and Adeimantus' at the end of Book I: as the insufficiency of Socrates' response to Thrasymachus moved them to ask that he do deeper justice to justice itself, so the insufficiency of his response to them moves us to ask that he speak more truly of the Forms and Good.

II. THE FIVE MATHEMATICAL STUDIES: THE "CONVERSION" OF THE SOUL

We turn now to the five mathematical disciplines: calculation and arithmetic,⁶ plane geometry, solid geometry, astronomy, and harmonic theory. Socrates credits these with the "power" to "release [the cave dweller's soul] from its bonds and turn it around from the shadows to the statues and the firelight and lead it up from the cave into the sunlight" (532b); hence he sets aside ten full years for the philosopher-king-to-be to study the five disciplines, and he characterizes this work as the "prelude" (531d) to the dialectical study of the Forms.

If mathematical study has the power to alert the soul to the statues borne along the wall, that is, to the culturally authoritative interpretations by poets, law givers, and other opinion makers that inform our understanding of experience, this is presumably because, in sharp contrast, it does not itself depend on such authority⁷ and, so, sets it in relief.

⁶ *Logistikē te kai arithmētikē*, 525a. Cf. *arithmon te kai logismon*, 522c. In the *Gorgias*, Socrates distinguishes "calculation" and "arithmetic" as, respectively, computation and number theory. But in the *Republic* he pairs them and "refers [to them] indifferently." The phrase is Ian Robins', in his excellent article Robins 1995, p. 363.

⁷ I readily acknowledge that in our postmodern context this is controversial. For the kind of analysis of the historical specificity of Greek mathematics that pursuing the question of the presence and absence of authority in it requires, see Klein 1968; Lachterman 1989.

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That, further, mathematics has the power to lead the soul out of the cave lies in the way in which, in each of the five studies, the soul is required to turn its attention from sensibles to purely intelligible objects. These are not themselves Forms⁸ (though, as we'll consider in section III below, Forms are close at hand, present not as objects but as functions constitutive of objects). Socrates indicates this limitation when he characterizes the soul as mathematics first brings it out of the cave as "still unable to look at animals and plants and the light of the sun – [it is able to look only] at divine appearances in water and shadows of that which *is*" (532b–c). The objects of mathematics are not "things themselves" (516a), that is, Forms; but they are also not mere "appearances," to be included among the "shadows" and "statues" within the cave. Rather, as intelligible, not sensible, they exist in the sunlight, and as disclosive of Forms with a truth that surpasses anything available inside the cave, they are "divine" and images "of that which *is*." Here are the specific turns from the sensible to the intelligible that, "making use of visibles . . . but thinking not about them but about those others that these are like" (510d), the five disciplines occasion. In calculation and arithmetic, thought turns from figured "arrangements" (522d, 525b) of pebbles to *the triangular, square, and oblong arrays of homogeneous and partless units* (526a) by which the series of integers, of odds, and of evens, respectively, are ordered.⁹ In plane and solid geometry and in that part of astronomy that focuses on the trajectories of the celestial bodies, thought turns from imprecise (529d) and "deviant" (530b) sensible figures, "drawn and molded" (510e) or found in the sky (529b–e), to *the perfect figures*, impossible to achieve in anything "that has body and is visible" (530b), that these sensibles represent. And in that part of astronomy that focuses on relative velocities and in harmonic theory, thought turns from the visible motions we see in the sky (again 529b–e) and from the audible motions (530d) we hear as musical tones, motions that are "imperfect and [that, in their different media,] fail to arrive at the point where they ought to"

⁸ This distinction, made already in his commentary on the ambiguous language at 510d7–8 by James Adam (Adam 1963 [1902], vol. 2, p. 68), was forcefully argued by M. F. Burnyeat in Burnyeat 1987, and again in Burnyeat 2001; see also Miller 1999, and David Sedley's chapter 10 and Nicholas Denyer's chapter 11 in this volume.

⁹ See, e.g., Knorr 1975, pp. 142–61.

(530e), to *the pure ratios*, concords of number with number (531c), that these sensible motions fall short of.

To see how *each* of the five disciplines contributes to the ascent from the sensible, however, is not yet to see how they collaborate. Socrates stresses the importance of this, going so far as to conclude by declaring that mathematical study will be “profitless labor” (531d) unless the philosopher-to-be reaches an understanding of “the community and kinship” of the five. Thus he leaves Glaucon – and, now, the next day, us – with a major reflection to make. In the limited space at hand, let me make a start by offering four closely related (and, I hope, seminal) remarks.

1. *The sequence.* Our point of departure should be the sequence of the five studies. Socrates stresses this by numbering them (see “second,” 527c, “third,” 527d, “fourth,” 528e) and, in correcting his initial omission of solid geometry, by making a point of explaining that they stand in a definite serial order (see 528a, d). If we look to this order as the expression of a motion, we find ourselves confronted with two contrary aspects. Thus Socrates provides in the series as a whole a philosophical analogue to the “thought”-“summoning” (523b–525a) mixtures of contraries by which he first introduces the study of numbers. Responding accordingly, let me first distinguish each of the contrary aspects, then consider their fit.

2. *First aspect: the purgative ascent to the threshold of the Forms.* On the one hand, the five studies, taken as a sequence, lead us gradually from experience oriented by the sensible to experience oriented by the intelligible. First, as we have already noted, by “calculation and arithmetic” Socrates has in mind¹⁰ the study of number as figured arrays of units, with the use of pebbles and the like to signify the nonempirical arrays of units that are the study’s true intentional objects. Second, plane and solid geometry stand together as the study of pure figure; number is now represented, and thought to be, not aggregates of discrete units but as the relative lengths and areas and volumes, all continuous quantities, that belong to figures. Third, what Socrates calls “astronomy” – but which, when he explains its nonempirical cast, is better understood as the general study of solids in motion or pure kinematics – is transitional

¹⁰ On the way Socrates’ language implies this, see Miller 1999, pp. 79–80.

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between plane and solid geometry, on the one hand, and harmonic theory, on the other. For while it works with figures (above all, the homocentric circles and spheres by which Eudoxus interpreted the motions of the planets¹¹), it focuses on the correlations of spatial and temporal relations, expressing these as ratios of distance and velocity. Thus it prepares the way for the exclusive focus on ratio in harmonic theory.

These observations position us to recognize the overall trajectory of the five disciplines: they constitute a series of purgations by which, bringing out in each later phase what is essential but inconspicuous in the earlier, thought leaves the visible and the spatial behind and arrives at the most purely intelligible referent short of the Forms themselves. In calculation and arithmetic, the pebbles in our sensible models and the pure units they represent are conspicuous, but it is by means of their spatial arrangements – in expanding triangles, squares, and oblongs – that their defining kinds, the series of integers and of odds and of evens, are collected and distinguished for thought. In the turn to plane and solid geometry, we drop the pebbles and the units they represent in order to let the figures that they compose emerge in their own right and come to stand as our proper objects. And next, in the turn by way of astronomy to harmonics, we make a second, precisely analogous purgation: now we drop these figures in order to let the ratios that they express emerge in *their* own right and come to stand as our proper objects. But ratios, in and for themselves, are neither visible nor spatial. Thus we move step by step to a mode of thought that, in taking what transcends spatiality as its object, readies us to make the turn to dialectic, that pure thinking that “avails [it]self of nothing sensible but only of Forms, going by way of Forms to Forms and ending in Forms” (511C).

3. *Second aspect: the reconstitution, within the intelligible, of the sensible. On the other hand*, even as the sequence of the five leads thought toward the Forms, it also turns back – but within the medium of pure intelligibility – to the sensible. We position ourselves to see this contrary motion if we focus on Socrates’ reordering of the middle three disciplines. Correcting his own mistake, Socrates tells Glaucon,

¹¹ Mourelatos 1981 makes this connection and cites *Laws* 893c–d for a supportive exhibition.

After [the study of the] planar, . . . we went right on to [the] solid in circular motion, before taking it up in and for itself. But the right way is to take up the third dimension [as] next in order after the second. (528a–b)

Thus the sequence proceeds from the two-dimensional to the three-dimensional to the three-dimensional in motion, hence in time. And this is to recover, albeit in its pure intelligibility, the full dimensional structure of the corporeal. Nor is this all. The further turn to harmonic theory leads us on to the very core of this structure and in the process extends the reach of thought beyond the specifically corporeal to all that is subject to becoming. Ratio, as we noted in (2), is expressed in space as figure; but as defining for musical pitch, it is also the inner structure of that which exists only in time, not in space. With the turn from the geometrical disciplines to harmonics, then, we recover in its pure intelligibility the innermost structure of all that becomes, both the corporeal *and* the incorporeal.

4. *The fit of purgation and reconstitution: the “conversion from becoming to being.”* As brief and initial as these thoughts may be, they prompt a key insight into the idea of the “conversion from becoming to being” (518c). Just insofar as the purgative ascent via the five disciplines is the first phase of the conversion, the point of the latter will not be to abandon the sensible for the intelligible, exchanging one one-sidedness for another; on the contrary, the abstraction from the sensible that thought achieves in harmonic theory is at once, as well, thought’s recovery of the sensible in its intelligible structure. Philosophical education, thus conceived, is moved by a love of the whole. The point of the conversion is to free ourselves from dependence on sense perception and its presumption that the spatio-temporally determinate is all there is – but the point, in turn, of this liberation is that we become able, by grasping the purely intelligible, to understand the world in its totality. Hence, even as the five studies expand our sense of reality to include the intelligible in its difference in kind from and priority to the sensible, they also bring us to understand the intelligible as the very *structure* of the sensible. Or, in Socrates’ ontological terms, even as we come to understand “being” in its irreducible difference from and priority to “becoming,” we also come to understand it as the very *being of* that which becomes. Accordingly, the “conversion” should be understood as a process not just of departure but, rather, of departure that is also return; in bringing the soul to the pure “understanding” of

being, philosophical education will bring it to the "understanding" of becoming as well, in its dependence on being.¹²

III. POINTS OF DEPARTURE: ON THE GOOD, DIALECTIC, SOCRATES

If these last reflections are well taken, they show how the philosopher-to-be's study of the five mathematical disciplines brings him to the very threshold of the Forms. This brings *us*, in turn, a long way toward an adequate response to the third of the four problems (as we listed them in section I) that Socrates leaves us with: just insofar as the study of figure and ratio shows us, now in purely mathematical terms, the relation of mathematical to sensibles, it frees us from reliance on the sensible for an understanding of this relation. This is an important advance in the level of our understanding. But we are still only at the threshold of the Forms. How do we now "ascend" beyond mathematical to their "models," to "that of which," as "divine appearances in water and shadows of what *is*" (532c), they are "likenesses"? That is, how do we now reach the Forms and the Good *in their own terms* – and, so, free ourselves from dependence on these very notions of "appearances in water" and "shadows"? Can we find concepts at the level of the Forms themselves by which to make properly intelligible the nature of the Forms and the Good and their priority to sensibles and mathematical alike? With this task, we come back to the first and second of our four problems, the obscurity of Socrates' characterization of the Good and his silence on dialectic. While Socrates says nothing explicit, his remarks about geometry and harmonic theory, respectively, give us interesting points of departure for responding to these problems. These responses, in turn, provide an interesting point of departure for responding to the fourth problem, the tension between the reluctance to "descend" that Socrates imputes to the philosopher and the zest that he himself shows. Let me offer the following three sets of exploratory reflections.

1. *The obscurity of the Good reconsidered: the practice of geometry and the functions of perfection.* If we pause to examine the geometer's use of "visible forms" (510d), we may glimpse a way in which

¹² For discussion of this notion of the "conversion," see Lee 1972, esp. p. 276 n. 14, and Miller 1986, *passim*.

the practice of geometry provides occasion for “catching sight of the Form of the Good” (526e). “A man experienced in geometry” (529c), Socrates says, would not confuse even the “most beautiful and most exact” of sensibles, the motions of the stars (529d–e), much less the figures he “draws” and the three-dimensional models he “molds” (510d–e), with the intelligible structures that are his true intentional objects. If we ask for the basis of this implicit knowledge, Socrates will reply in the geometer’s behalf that anything “that has body and is visible” must “deviate from” (530b) the symmetry and regularity of the purely intelligible and, so, “fall far short” of it (529d) and be “something imperfect” (530e). But this presupposes that the geometer already has before him both some “visible form” – for instance, this ∇ that he “draws” – and the purely intelligible triangle that this ∇ represents. Suppose we ask how he is able to bring the purely intelligible triangle to mind in the first place. Now, strikingly, we’ll find four distinct terms – only two of which are explicit objects, as we’ll see – in a complex interplay. Consider: The geometer begins with (1) this sensible ∇ that he draws. But even as he considers it, he turns away from it, looking to (2) the perfection that it lacks; and in the context of pure intelligibility that the consideration of perfection opens up, he “sees,” that is, conceives, (3) the perfectly triangular triangle that this ∇ only approaches or, as Socrates says, “falls short of.” Nor is this all: even as the perfectly triangular triangle presents itself in thought, he knows of it that it is – and that the visible ∇ is not – a perfect triangle; hence there is also in play, though not as an object but as the tacit standard by reference to which he identifies and assesses the two triangles that *are* objects, (4) the Form that these instantiate, triangularity as such.

There is no doubt that Socrates distinguishes (1) the sensible ∇ that one draws from (4) the Form triangularity that it imperfectly instantiates. But what of the further distinctions we have marked? Is it right to distinguish (2) perfection from (3) the perfect exemplar, that is, the intelligible triangle? Is it right, further, to distinguish (3) that perfect exemplar from (4) the Form that it exemplifies?¹³ And,

¹³ With this distinction, the particular textual basis for which is 532c1–2 (recall n. 8), we break step both with the main line of scholarly commentary on the so-called middle period Forms, which has taken its bearings from Vlastos 1954, and in particular with Santas 1980. Vlastos argued that Plato treated the Forms as self-predicative, and Santas, taking Plato to conceive them as “ideal exemplars”

finally, if we are indeed right to draw these distinctions, how do (2) perfection and (4) the Form relate?

A Form and its perfect exemplar. That Plato has Socrates require us to distinguish (3) the perfectly triangular triangle, the perfect exemplar, from (4) the Form that it instantiates, triangularity, is implied by his characterization of the class of mathematical objects as – in the scheme of the cave – “divine appearances in water and shadows of what *is*” (532c). We have marked this distinction earlier; what remains to be added here is the observation that one cannot identify reflections and shadows for what they are without also in some sense knowing, along with them, what they are reflections and shadows *of*.¹⁴ Socrates’ metaphor implies not only the distinction of mathematical objects from Forms but also, in the mathematician’s explicit recognition of what each mathematical object is, an implicit or tacit knowledge of the Form that this object instantiates. That this knowledge is only tacit is implied by Socrates’ characterization of those just emerging from the cave as “still unable to look at” (*pros . . . blepein*) things themselves in the sunlit world (532b–c); it belongs to the further passage from mathematics to dialectic to look from the “divine appearances and shadows” to the things reflected, from, for example, perfect figures to the Forms they instantiate. But a perfect triangle can be recognized *as* a perfect triangle only insofar as it exemplifies the form triangularity and this exemplarity guides the recognition. Hence the Forms are present for the mathematician, albeit not as objects in their own right but as defining for his objects

(p. 255ff. of the 1999 reprint), took this as a key assumption in his interpretation of the Good. If, however, Plato has Socrates *distinguish* the Forms from the perfect figures – that is, “ideal exemplars” – that instantiate them, this assumption becomes problematic. (For an interpretation of the numerous self-predicative statements in the dialogues that is substantively compatible with this distinction, see Nehamas 1979.) Our reflections to come will differ from Santas’ interpretation of the Good in two further, equally important respects as well: we will find in the understanding of the Good as perfection as such the key to understanding Socrates’ claim that the Good is the source of “truth,” a point that Santas only mentions and then leaves unaddressed; and, as will become clear in what follows, we will find in Socrates’ turn from the perfect figures of geometry to the pure ratios of harmonics a Platonic provocation to complicate our interpretation of goodness in terms of perfection by the distinct interpretation of it in terms of unity.

¹⁴ See, for thoughtful development of this idea, Jacob Klein’s discussion of “dianoetic *eikasia*” in Klein 1965, pp. 112–25, and Eva Brann’s fascinating practice of it in the title essay of Brann 2004.

and, so, as orienting for his knowledge of them. It is these constitutive activities of defining and orienting, ontological and epistemic, respectively, that I meant to indicate earlier when I said that Forms are present in mathematical knowledge not as objects but as functions constitutive of them.¹⁵

Perfection as such, sensible particulars, and perfect exemplars: Does not (2), perfection, have a similar status? For the geometer to look to the perfection that (1) the visible particular lacks is not, or not yet, for him to bring an object to mind; rather, it is for him to orient himself toward the sensible particular in a way that first allows (3) the perfect figure that the sensible particular “falls short of” to present itself. Perfection, accordingly, is like the Forms in having the character of a function, not an object – now, however, it is the function of *providing the context in which* the purely intelligible perfect figure can first come to mind. Of course, once one notices this function, one can go on to reflect explicitly on it and, so, objectify it; indeed, that is just what we are now doing. But this is dangerous. If, when we reflect on perfection, we mistake for its own way of being a character – that of being a determinate object – that it first acquires only as a result of this very reflection, we lose rather than gain access to it. In its own way of being, perfection differs in kind from both the visible figure that it points beyond and the intelligible figure that it lets come to mind instead.

We may mark this difference in kind by three more pointed observations. First, it is only by considering the perfection the drawn ∇ lacks that the mathematician *first comes to* the perfect figure; hence it must be distinguished from the latter. Conflating perfection as such with, for example, the perfectly triangular triangle would leave us begging the question of how the geometer turns from the sensible to the mathematical. Second, in this bridging role, perfection is not determinate – it is an open question for the mathematician what specific perfection he will bring to mind when he first looks beyond this drawn ∇ . (Keeping this in mind allows us – indeed, requires us – to think of it not as an object but rather as the provider of the context for objects.) And third, a distinct but related point, perfection as such transcends, and so is differently manifest in, the various specifically different exemplars, both imperfect and perfect, that the geometer

¹⁵ For a kindred approach, see Wieland 1982, esp. ch. 2, sec 8.

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may consider: this ∇ and this \circ and this \diamond all lack it, even as the perfect triangle that this ∇ "falls short of" and the perfect circle that this \circ "falls short of" and the perfect diamond that this \diamond "falls short of" each, but in each case with its own distinctive specificity, puts it on display for the mind's eye.

Perfection as such, Forms, and perfect exemplars. This indeterminateness of (2) perfection as such is the key, finally, to what is otherwise the most elusive of the distinctions that the practice of geometry gives us occasion to draw. Perfection as such and the Forms are alike in the inexplicitness of their presence to the geometer just emerging from the cave: each in its own way defers to the perfect exemplars, the purely intelligible figures, that the geometer brings to mind; perfection as such provides the context that first enables this thinking, while the Forms both define the figures he thinks and orient his identifying recognitions of them. In this collaboration, note, perfection as such and the Forms differ in kind from one another. Each Form is *an itself determinate way of determining* perfection as such; triangularity, for instance, and circularity have as their intelligible instantiations equally perfect but, of course, specifically different exemplars. Perfection as such, on the other hand, is *in and of itself indeterminate*; hence it both transcends and lends itself to the host of ways of determining it that the Forms just *are* and that their intelligible instantiations exemplify.

Implications for understanding the Good. If these distinctions are well taken, then the practice of geometry seems to offer resources for a first reply to our question about the sense of "good" in the notion of "the Good." And this provides a point of departure for rethinking the simile of the sun. If we understand the Good as perfection as such, then Socrates' two claims in its behalf gain a conceptual transparency that, at least in the context of geometry, frees us from depending on the perceptual content of the simile.

Consider first the epistemic causality Socrates claims for the Good. As perfection as such, the Good is the source of "the truth" (*tēn alētheian*, 508e ff.) that enables the soul to know and "knowable things" to be known in the sense that it provides the context in which the perfect figures of geometry first present themselves for thought. It is when the soul considers visible figures with respect to perfection that these perfect figures, purely intelligible, first "emerge

from concealment,"¹⁶ presenting themselves as the normative structures the visibles "fall short of." "Truth" just *is* this emergence from concealment, this disclosure, that occurs when we consider a visible figure with respect to perfection. The "knowables," in turn, are in the first instance these perfect structures. But these bring along with themselves, so to speak, the Forms they instantiate, making these implicitly present and, so, available for the explicit knowledge that the dialectician will seek.

Understanding the goodness of the Good as perfection as such also provides a starting point for seeing why Socrates claims ontological causality for it. The Good, he claims, is responsible for "the to-be and the being" (*to einai te kai tēn ousian*, 509b) of the "knowables." If there were no perfection as such, neither would there "be" a plurality of specifically different ways of determining it – that is, there would *exist* no Forms – nor would the Forms have their "being," that is, their basic nature, as these different ways of determining it. And since, to state the obvious, there could be no perfect instantiations of Forms if there were no Forms, the Good's responsibility for Forms implies its ultimate responsibility as well for their perfect instantiations, the purely intelligible objects of mathematics. Accordingly, as perfection as such, the Good is responsible for both the existence and the basic nature of Forms and mathematics, the whole class of "knowables."

2. *Socrates' reticence with regard to dialectic – and, again, the obscurity of the Good – reconsidered: proleptic implications of the study of harmonic theory.* Socrates' remarks on harmonic theory are even more terse and compressed than those on geometry. Nonetheless, read in the larger context of our reflections on the five studies, they may provide a starting point for thinking about dialectic and, in that connection, for opening a second perspective on the Good. As with astronomy, so with harmonics; Socrates stresses that the appropriation of it for philosophical education requires setting aside the empirical interest that guides its usual practice. Even

¹⁶ This phrase plays on the etymology of *alētheia* made a philosophical theme by Heidegger. (See, e.g., Heidegger 1998 [1931/32, 1940]. For a discussion that both appreciates Heidegger's insight and criticizes his failure to read Plato in light of it, see Hyland 1995, ch. 6). "Concealment" renders the stem *-lēth-*; "from" renders the negative force of the privative *a-*; and "emerge" renders the verbal force, suggesting an event or activity, of the *-e-*, vestige of the *-eu-* in the verb *alētheuein*.

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the Pythagoreans, Socrates explains, “seek the numbers in heard concords and do not rise to problems, investigating [as, by contrast, the philosopher-to-be must do] which numbers are concordant [with each other] and which are not and in each case why” (531C1–4). Such study, he adds, will be “valuable for the search for the beautiful and good but without value if pursued for any other purpose” (531C).

Evidently, Plato has Socrates “predict [the] birth”¹⁷ of Archytas’ theory of means and proportions. In the years after the dramatic date¹⁸ of the *Republic* but before its composition, Archytas had distinguished on purely mathematical grounds the geometric, arithmetic, and harmonic means, and he had shown how their combination yields the basic mathematical structure of the musical modes.¹⁹ Briefly, the simplest case of the geometric mean and proportion is 1:2:4, and its key ratio, 1:2, defines the span of an octave. Between the extremes of the octave (1 and 2, raised to 6 and 12), the arithmetic and harmonic means are 9 and 8, respectively; the arithmetic mean divides the octave into the intervals of a fifth (6:9, i.e., 2:3) and a fourth (9:12, i.e., 3:4), and the harmonic mean divides it into the intervals of a fourth (6:8, i.e., 3:4) and a fifth (8:12, i.e., 2:3). Taken together, the three means yield the complex proportion 6:8:9:12, and thus pick out the fixed boundary notes, outer and inner, of each musical mode, articulating it as an octave differentiated into a fourth, the

¹⁷ Barker 1989, p. 52. This is the second major anachronism in Socrates’ presentation of the five studies; the first was his inclusion of solid geometry, which, as Plato, referring to seminal work with regular solids done by Theaetetus and others, has Glaucon point out, “doesn’t seem to have been discovered yet” (528b). (On the difficulties with the conventional dating of Theaetetus’ death and, so, the crediting to him of the discovery of the five regular solids, see Nails 2002, pp. 274–78.)

¹⁸ On the obscurity of the dramatic date, see Nails 2002, pp. 324–26.

¹⁹ “Modes,” *harmoniai*, were the sets of notes, roughly analogous to our scales, that were heard as harmonious with one another and, so, as fit to provide the tones in a melody; musical instruments were tuned accordingly. Pythagorean musical theorists studied modes systematically and with special interest in the ratios that determined the intervals that defined their member notes – see esp. Barker 1989, pp. 46–52. The following is key background information for a first appreciation of the context Socrates presumes: each mode spanned an octave and consisted of two four-note subsets or “tetrachords.” These, each spanning the interval of a fourth, were divided from one another by the interval of a whole tone. Only the two outer notes of each tetrachord were fixed; there were a host of locations possible for the two inner notes of each tetrachord, yielding different “genera” and “colorings” of the modes. For a general exegesis, see West 1992, esp. chs. 6–8.

interval of a whole tone, and a fourth:

geometric mean and proportion	----- --- ----- -----
arithmetic mean and proportion	1 : 3 : 4
harmonic mean and proportion	2 : 4 : 6
	6 : 8 : 9 : 12

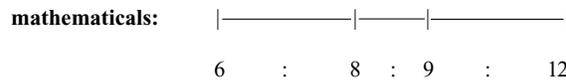
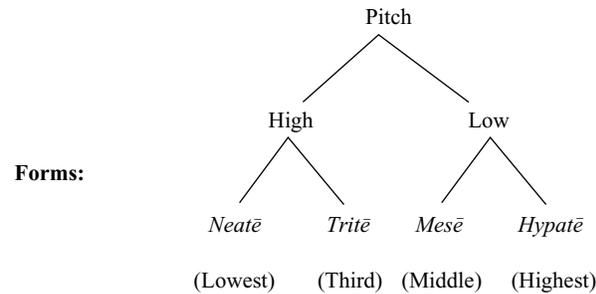
What does this have to do with dialectic? To see this requires bringing together two distinct reflections. First, we have already observed that even while the five mathematical studies turn thought from the sensible to purely intelligible structure, the sequence of the five reveals this as the intelligible structure of *the sensible*. To this we can now add, keying from Socrates' remark at 531c, that it is the *normative* structure of the sensible. If, in the case of music, sound is to be "beautiful and good,"²⁰ it must conform to the ratios by which Archytas' means structure the octave. Second, this normative order is the mathematical expression of a complex set of *relations between forms*. Though it is the work of the philosopher, not the harmonic theorist, to recognize and make this explicit, it is nonetheless implicit all along that the normative ratios that structure musical "modes" answer to the requirements of the Form of pitch. We get a first glimpse of these requirements if we ask: what are the conditions a musical sound must meet if it is to be on pitch? Minimally, each note must be some proportion of high to low; hence the Form pitch implies the Forms high and low and their instantiation as the tone continuum, which, since the notions of high and low are internally related as reciprocal relatives, ranges from some extreme predominance of high over low to a correspondingly extreme preponderance of low over high. Beyond this, no musical sound is ever "on pitch" in isolation; rather, it must belong to a set of pitches that stand at the right intervals to one another to be harmonious. Hence the Form pitch also implies, in addition to high and low, a set of Forms of notes that, in turn, pick out that definite set of proportions of high to low that stand at appropriate intervals to one another on the tone continuum. And these, now to invoke the first reflection, are

²⁰ Note that Socrates says *tou kalou te kai agathou*, not *tou kalou te kai tou agathou*. The latter would have referred to a conjunction of the two forms, "the Beautiful" and "the Good"; the lack of the second article implies, by contrast, reference to the combination of beauty and goodness and, so, a reference to the immanent characters that make for excellence, not to the forms of these characters.

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precisely the intervals determined by Archytas’ three means. The eidetic-mathematical structure – that is, the definite ensemble of Forms and mathematical – thus constituted might be represented, using the technical Greek names of musical notes, roughly thus:



Is it right to project a field of eidetic-mathematical structure of this sort as what awaits the philosopher-to-be when he turns from mathematics to dialectic? Or have we read too much into Socrates’ brief comments on harmonic theory? Mathematics, we have stressed, stops at the threshold of the Forms, and these reflections certainly lead us across that threshold. I would offer two closing reflections that in different ways should encourage us to take this risk.

First, Socrates pointedly leaves the journey along the “longer way” as a task for the future. For the philosopher-to-be who will go on to attempt it, he projects not only the practice of dialectic and the attainment of understanding of the Good but also a “precise grasp” (435d, also 504b, e) of the structure and virtues of the individual soul. He says nothing of the structure and virtues of the city, but if the analogy of city and soul holds, a “precise grasp” of the city would also, somehow, be in the offing. Given these anticipations, it is more than striking that when, much later, Plato in the *Philebus* has Socrates again take up the question of the Good, he has Socrates offer as a paradigm of dialectical analysis just the sort of account of the eidetic-mathematical structure of music that we have just laid out. What is more – and of course this claim requires its own exegesis

and defense – in the second part of the *Philebus* Socrates provides the resources for an application of this mode of dialectic to the embodied soul.²¹ And, still more, in the penultimate section of the *Statesman* Plato has the Eleatic visitor apply this same mode of dialectic to the city.²² These contents of the *Philebus* and the *Statesman* appear to bring into the open what we have found to be implicit in Socrates' comments on harmonic theory and to put it to work in order finally to reach "the best possible view" (504b) of the soul and the city.

Second, the thought that the Form pitch implies normative requirements for actual musical sound – requirements for what is to be "beautiful and good" – both fits well with and expands our tentative reflections on the Good. It is no surprise that the perfect instantiations of the Forms, precisely as exemplifications of specific ways of determining perfection as such, should have normative status. But whereas the study of geometry, focused on intelligible figures, makes the perfection of these the most conspicuous aspect of that status, the study of harmonics brings to the fore the complex unity that makes for wholeness and harmony. This is striking both at each level and in the structural integrity by which the levels themselves are related. To see this, consider our preceding diagram. At the purely mathematical level, Archytas' means interlock and articulate the continuum of possible proportions of high and low as a repeating series of bounded intervals. At the eidetic level, each of the Forms of notes that make up a "mode" calls for each of the others, and this manifold complementarity makes the mode a harmonious whole. And in the way these levels themselves fit together, with the Archytan means giving mathematical expression to the Forms of notes by marking the select proportions of high and low that these Forms pick out on the continuum, there is a transparent fit of the mathematical with the eidetic. Prior to this whole structure, in turn, stands pitch,

²¹ For the use of the account of the Form structure of musical modes to exhibit dialectical method, see 17c–e with reference to 16c–17a. The key concepts, first introduced in the third hypothesis of the *Parmenides* and then explicated at *Philebus* 23c–27c (with reference back to 16c), are *peras* and *apeiron*, "limit" and "unlimited." For the resources for the application of dialectic to the question of the right order of the embodied soul, see 31b–55c and 55c–59d, noting esp. 64b6–8. For exegesis, see Miller forthcoming.

²² See esp. 287b–291a, 303d–305e. For explication, see my "Dialectical Education and Unwritten Teachings in Plato's *Statesman*," now included in Miller 2004.

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the Form whose instantiation first calls for these coordinated ensembles of Forms of notes and of proportions, and prior to pitch, which, of course, is only one specific determination of it, stands the Good. Thus the Good emerges, by way of its exemplary determination by the Form pitch, as the source of the complex unity of Forms and of proportions that sets the preconditions for “beautiful and good” musical sound.

In the context of the *Republic* as a whole, the theme of the normative status of complex unity has deep and manifold resonance. As Socrates indicates in a host of ways, for both the city and the soul the decisive criterion of goodness is the proper distinction and harmonious fit of their parts; for both, it is the breakdown of this unity that is the mark of the decline from goodness. More particularly, the inward mark of the “gracefulness” that “music” instills in the young guardians is a critical eye for “what is lacking” and “what is not beautifully made” (401e), that is, to inflect from the negative to the positive, a keen appreciation for what is whole and harmonious. And in considering the turn from mathematics to dialectic Socrates sets as “the greatest test for [whether a young guardian has] a dialectical nature or not” whether he can raise that keen appreciation to the higher level of a “synoptic understanding of the kinship of the [five] mathematical studies with one another and with the nature of what *is*” (537c).

At the same time, this expansion of our sense of the Good opens up a still deeper task of synoptic understanding for one pursuing the “longer way”: how do perfection as such and the requiring of appropriate unity – that is, the requiring of the fits that make for wholeness and harmony – *themselves fit together at the eidetic level?* At issue is nothing less than the nature of “the source of the whole” (*tēn tou pantos archēn*, 511b). Are perfection and unity two aspects of a single Form (and, if so, of the Good or of the One or of some higher third), or are they two distinct Forms (the Good and the One) in a harmonious relation of their own, or are they themselves, in some sense that is prior to the distinction our terms presuppose, identical?²³

²³ One thinks here of Aristoxenus’ ever-riddling report in the *Harmonics* of the crux of Plato’s lecture(s?) on the Good, which might be translated as follows: “in the final analysis good is one” (*kai to peras hoti agathon esti hen*, 122.13–14). For

3. *The philosopher's reluctance to rule, Socrates' zest, reconsidered: assimilating oneself to the Good?* We should begin with a qualification: the tension between the Callipolitan philosopher's disinclination to "go down into the common dwelling place of the others" (520c) and Socrates' unconstrained and zestful will to "go down" to the Piraeus (327a) lacks the precise focus of a contradiction, for whereas the former descends to *rule*, Socrates descends to *teach*. But this is to distinguish terms that converge. On the one side, the crux of the philosophers' ruling activity, Socrates says at 540a, is "using the Good as a paradigm, to order city, [the] individuals within it, and themselves," and a core part²⁴ of this "order[ing]," he goes on to say, is "teaching":

when [his] turn comes, each [philosopher] labors in service of the citizens and rules for the sake of the city, doing this not as something impressive but, rather, as necessary; and thus always educating²⁵ others of his sort and leaving them behind in his place as guardians of the city, [he] departs to dwell in the Isles of the Blessed.



On the other side, a primary goal of Socrates' pedagogy is to bring his fellow Athenians to the deepest possible recognition of the normative order of the soul, in order that they might structure their public and private lives accordingly. This is the task he pursues with Glaucon, culminating in their shared affirmation of the status of Callipolis as "a paradigm laid up in heaven" (592b), and we see

other translations, see chapter 10, note 21, and chapter 11, note 2, in this volume. For seminal discussion, see Sayre 1983; also Miller 1995.

²⁴ Indeed, Socrates leaves unspecified what part of the philosophers' rule is *not* teaching. Although there are passing allusions to law making at 484d and 501a, in the *Statesman* and the *Laws* that will itself be interpreted as an educational activity. On the true statesman's special focus on education, see *Statesman* 308d–311c.

²⁵ Does the *aei* ("always") in *aei paideusantas* at 540b5 accentuate the aorist significance of the participle or characterize the activity signified by its stem? That is, is it Socrates' point that the philosophers always make sure to have educated someone to take their place when they depart (that is Griffith's reading, accomplished by treating *paideusantas* and *antikatalipontas* as a conjunct and then taking *aei* with *antikatalipontas*, hence "after educating a continuous succession")? Or is the point that the philosophers are, as ruling, "always educating" (Bloom's reading and translation)? In helpful correspondence, John Ferrari, who as editor of Griffith's translation (recall n. 1) supports his reading, notes that the difference between Griffith and Bloom at the level of grammar need not imply a significant substantive difference; on both readings "educating future rulers is indeed a constant task for the philosopher kings, year in year out."

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Socrates pursuing it in a variety of ways and with varying degrees of success in many other dialogues as well. It is the closest approximation to genuine "rule" that he can achieve in the corrupt culture of commercial and imperialistic Athenian democracy. Hence his famous claim in the *Gorgias* to be "one of a very few Athenians – and among those now living, the sole one – to attempt the true art and practice of politics" (521d).

Accordingly, what Socrates says of the Callipolitan philosopher's disinclination to rule and what he reveals of himself by his actions, his inexhaustible will to teach, stand in striking tension. We should not ignore this tension any more than we should fail to wonder at his reticence and self-constraint on the topics of the Good and dialectic. On the contrary, his silence on his own desire to "go down" and what accounts for it should be felt and met as, like that reticence, a Platonic-Socratic provocation to us, an invitation to seek out for ourselves what Socrates feels it is inappropriate to say to Glaucon and Adeimantus. And his reason for reticence – that Glaucon and Adeimantus have not yet undertaken the "longer way" – should focus our inquiry. Does the "longer way" lead to an experience that could explain Socrates' zest for descent?

In fact, another famous passage, if read in the light of our preceding reflections, gives us a promising point of departure for considering this. In this passage Socrates asserts a surprising continuity between "musical" and philosophical education. Recall first that throughout his presentation of "musical" education Socrates stressed the way the young soul "assimilates itself to" (377b)²⁶ the models it is presented with; this, he warned, is both potentially beneficial and potentially subversive, depending on the models, for "such imitations . . . [can] establish themselves as habits and [second] nature in body, speech, and thought" (395d). Now, at 500c–d Socrates claims that the philosopher too is subject to this sort of formative power. At this point he has not yet singled out the Good or introduced the issue of philosophical education; he speaks of the Forms generally,

²⁶ This verb, *enduetai*, is followed by the construction, *tupon . . . ensēmēnasthai*, signifying the act of making an impression in soft material with a stamp or seal. The whole expression might be translated more literally as "[the young soul] takes into itself" or "lets sink into itself whatever impression someone might want to press into it."

envisaging them as a plurality in timeless good order, and he reflects on the effect the philosopher's study of them has on the development of his character.



"[B]ecause he sees and contemplates entities that are set in a regular array and are always in the same condition, that neither do wrong to nor are wronged by one another but remain all in order according to reason, he imitates them and as much as possible makes himself like them [*mimēisthai to kai hoti malista aphomoiousthai*]. Or do you think there is any way of keeping someone from imitating that which he admires and so keeps company with?"

"It's not possible," [Adeimantus] said.

"Then the philosopher at least, keeping company with what is divine and in good order, will become as orderly and divine as it is possible for a man to be – though there is plenty of slander about."

"By all means, yes."

"Well then, if some necessity were to arise, requiring him to try to realize what he sees there in the characters of men, both in individuals and in the community, rather than just forming himself, do you suppose he'd turn out to be a poor craftsman of moderation and justice and the whole of popular virtue?"

"Least of all," he said. (500c–d)

On its face, this passage is consistent with what Socrates says of the philosopher's disinclination to "descend." The philosopher's "imitation" and "making himself like" the forms moves him to become "orderly," to "form *himself*" – but it seems that he will not be moved to try to produce the same order in others. "Some necessity," Socrates implies, will be required to move him to do that. But what might such a "necessity" be?²⁷ It is precisely in connection with this question that it is important that Socrates has not yet

²⁷ For one answer, true to the level of what Socrates says to Glaucon, see Sedley's chapter 10 in this volume. For an approach akin to Sedley's, see Brown 2000. (See also Brown 2004, in which he argues that the impact of Callipolitan education suffices to predispose the philosopher to heed the arguments of the founders that he take up the responsibility to rule.) Neither Sedley nor Brown discusses the performative tension of what Socrates does with what he says. Both do discuss 500c–d and the philosopher's experience of the Good, but neither they nor the major commentators they rebut in their arguments against the relevance of this experience (see, e.g. Kraut 1991) bring together a recognition of the Good's "imitation"-provoking power with a conceptual articulation of its character. I have also learned from an early version of Singpurwalla 2006.

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singled out the Good. As he will make emphatically clear, it is the Good above all that is the ultimate aim of philosophical education, hence the Good above all that the philosopher "admires" and seeks to "keep company with." And we have begun to articulate conceptually the aspects the Good will present to him as he works through the first phases of philosophical education, the study of geometry and harmonic theory. Hence we are now in position to distinguish what Socrates says about the formative power of the object of the philosopher's study and bring it together with what we have discerned about the Good. And this opens up a new path of reflection into Socrates' striking zest for teaching. Do we not find in Socrates' treatments of geometry and harmonic theory an indication of his own – that is, of what Plato dramatically projects as Socrates' own – "keeping company with" and "admiring of" the Good? And "is there any way" that he can have had this experience without being moved to "imitate" and "make himself like" the Good? But, then, should we understand his pedagogical generosity with others as a "habit" and "[second] nature" – and, so, an *internal* necessity – that he has acquired from this "imitation"?

With these thoughts in mind, let me gather the main elements of the newly conceptual understanding of the Good that our reflections on geometry and harmonic theory have begun to yield. The objects of geometry, first of all, give us occasion to think the goodness of the Good as perfection. Even as he "draws" and "molds" sensible figures, the geometer's thought is turned from these to perfection, and to his turning attention, so to speak, perfection makes a three-fold epistemic gift: it provides the enabling context – "truth" as the "coming out of concealment" – within which there first become present for thought both the perfect figures the sensibles fall short of and, with the same inexplicitness as that of the context itself, the Forms that these figures instantiate. What is more, perfection also makes the ontological gift that lets there first *be* Forms to be instantiated and known. Perfection as such, we saw, is indeterminate; in and of itself, it transcends any specific way of being determined. But what is indeterminate requires, for its own being, that it be determined. Hence, in its very transcendence perfection as such invites and lends itself to – or, more precisely put, implicates as its possible complements – all of the specific ways it might be determined. But this, the manifold of different ways of determining perfection, is just what the Forms are. Thus, perfection as such – the Good – is responsible for

the existence and basic character of the Forms. Harmonic theory, in turn, redirects our attention from figures to the ratios they express, now, however, letting these stand as objects in their own right. But the ratios it first brings to view, the three means of Archytas' theory of proportions, occupy an intermediate status between, on the one hand, the Form of pitch and the subordinate Forms it implies and, on the other hand, the sensible sounds of actual music. Thus harmonic theory introduces us to a second aspect of the Good: as expressed in its determination as pitch and in the instantiation, in turn, of pitch as the eidetic-mathematical structure of the musical "modes," the Good now emerges as the source of the normative order – or, again, as the requiring of the harmonious fit of each balance of high and low with each of the others in a "mode" – that makes for the beauty and goodness of musical tones.

Even without resolving the perplexing questions we articulated earlier regarding the eidetic relations between goodness and unity, we can see the promise of bringing Socrates' comments at 500c–d into relation with these first conceptualizing reflections on the Good. In each of its three metaphysical functions, the Good is at work as a *giving* – and, in that it reemerges under some determinate aspect in what it gives, it is at work as a giving *of itself*.²⁸ If we now turn back to Socrates, his comportment as a teacher seems in key ways to constitute, at the level of human action and motivation, a "likeness" or analogue to the Good. Here, at least, are three points of *prima facie* correspondence to ponder. Whereas it is perfection as such that provides the epistemic context – the "truth" – within which the Forms first become accessible to thought, doesn't Socrates by his questions and provocations provide the pedagogical context within which his conversation partner can first "catch sight of" (526e) perfection as such and the Forms? Again, whereas it is perfection as such that, by requiring the being of the various specific ways it may be determined, is responsible both for the being of the Forms and for the setting of the normative conditions of their instantiation, doesn't Socrates, by providing his partner that pedagogical context, come as close as one person can to being responsible for another's existential achievement, within his limits, of the normative order for his

²⁸ For some initial reflections on the semantic connection between goodness and self-giving, see Miller 1985, esp. pp. 189–191.

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own flourishing? Finally, doesn't Socrates' will to teach in its freedom from external necessity and ulterior motives seem similar to the Good in the root character – the *giving of itself* – of its causal functioning? By his own argument (520b), Socrates is under no obligation to Athens to "go down" into the "cave" of Athenian culture, nor does he seem in any discernible way to need or be selfishly desirous of anything that Glaucon and Adeimantus, much less Cephalus or Polemarchus or Thrasymachus, might offer him. (This unforced initiative and generosity is of course even more simply displayed by Socrates' relation to us, the unnamed recipients of his narration.) Accordingly, as the Good expresses its own nature in its giving of itself, doesn't Socrates express *his* own "nature," "doing" (to invoke his formula for justice) the "work" that he finds most truly "his own" (433d ff., 443c ff.), in his "descent" into Athens to teach?

Whence comes this extraordinary "nature"? Isn't this precisely that sort of "[second] nature" that "imitation" of the Good will "establish in body, speech, and thought"? Accordingly, don't we now have occasion to recognize a deep connection between the two kinds of education that Socrates prescribes for Callipolis, the external "shaping" of character by models and the quickening of the soul's internal "capacity" for insight? It is in the culminating experience of the latter, the "understanding" of the Good, that the philosophical soul receives its ultimate model; and it is through its "assimilating itself" to this model, in turn, that the philosopher is moved to "rule," that is, "to educate others like himself." If this is well attuned, then there is indeed an internal necessity that moves Socrates to give of himself by his descent into the Piraeus – and, too, that moves Plato to imitate Socrates' narration of this descent in the first place. And a crucial part of what Plato and his Socrates give us consists in their putting us in position to recognize this very giving as the human-existential "likeness" of the Good, a "likeness" that we too are challenged to let take form by "keeping company" with the Good along the "longer way."

IV. POSTSCRIPT: PROJECTED TASKS ON THE
"LONGER WAY"

In its projected trajectory, the "longer and fuller way" stretches well beyond (to borrow Socrates' language for our own purposes) "the

reach of our present thrust." This we recognize by the pointed incompleteness of what we have suggested, which yields not conclusions but further tasks. It seems appropriate to close by marking the most important of these. Together they make up a kind of philosophical agenda that, happily, anticipates and fits with much of what Plato gives us in the great successors to the *Republic*²⁹ – above all, the *Parmenides*, the *Sophist* and *Statesman*, the *Timaeus*, and the *Philebus*. The following are six proleptic titles.³⁰

1. *Conceiving the Forms in their proper being as Forms*. In drawing on geometry and harmonic theory to gain a conceptual grasp of the Forms, we have been keying from what is implied about them by the kinds of purely intelligible intermediates – namely, perfect figures and normative proportions – that perfectly instantiate them. Forms, we have seen, are specific ways of determining perfection as such. To complete this ascent from mathematical to Forms, we need to press further in our effort to grasp the being of the Forms *as* Forms. By what concepts may we understand what kind of entity it is that is a way of determining perfection? How may we conceptualize what it is, in the very being of this kind of entity, that lets it be the source of the normative proportions of its instantiations?

2. *Understanding the interrelations of the Forms*. In beginning to reflect on harmonic theory, we have seen a specimen case of the intricate interrelations of Forms, both the vertical relations (to invoke our diagrammatic schematization) by which a single Form implicates a plurality of Forms and the horizontal relations by which these many Forms relate to one another. Just insofar as Forms are different in kind from both their sensible and intelligible instantiations, these relations are different in kind from relations among sensibles and relations among mathematical. But we have not yet found distinctive concepts for identifying and distinguishing these eidetic relations in their own proper character.

3. *Identifying the modes and processes of dialectic*. Nor, for all our reflection on Forms as its objects, have we identified and

²⁹ These dialogues are "successors" in the sense that each is given a dramatic context that invites the reader to hear it as (among other things) a revisiting of issues in the *Republic*.

³⁰ These titles correlate only very roughly with the five dialogues and with the issue of the so-called unwritten teachings that Aristotle credits to Plato in *Metaphysics* A6. For a synoptic sketch of the itinerary, see Miller 2003, esp. pp. 23–25.

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distinguished the various ways in which dialectic moves among them. We have not yet begun to answer Glaucon’s question at 532e: “what sorts of modes does dialectic divide into and . . . what are its paths?”

4. *Figures, ratios, Forms.* The turn from geometry to harmonics showed us, in retrospect, how spatial figures can be understood as the expression of ratios, and our reflections on the status of Archytas’ means as intermediates between Forms and actual musical sounds showed us that ratios can be understood as the expression of Forms. This brings us to a daunting set of challenges. These might be formulated as three interrelated questions. First, in speaking of the way in which one sort of being is the expression of another, our understanding of the causal powers of Forms takes its bearings from their effects. Can we articulate the character of these causal powers at the level of the Forms themselves? Second, can we actually give the sort of full and determinate account of the intelligible structure of the sensible world that the sequence of the five mathematical studies implies? And, third, can we base this latter account on the former? That is, can we ground a mathematical physics on a fully and adequately articulated metaphysics of Forms as causes?

5. *The breadth of the “longer way.”* Socrates introduces the five mathematical studies as a help in turning the soul to *all* of being – not just to those Forms that lend themselves to mathematical expression but also to the many others that would seem to resist it. The more deeply our path is illuminated by mathematics, the more urgently we want to understand whether we can extend our insight to, for example, the spheres of the ethical, the political, and the religious. To cite the most obvious case, can Socrates – or, on the basis of what Plato gives us, can we – make good on Socrates’ claim that by traveling the “longer way” we will come to the “best possible view” of the soul and its virtues?³¹

6. *The Good.* Socrates tells Glaucon *both* that “every soul pursues the Good . . . and divines that it is something” (505d–e) *and* that in the ascent from the cave into the sunlight – that is, in the journey along the “longer way” – the Good will be “the last thing to

³¹ See Miller forthcoming. For initial exegeses of analogous eidetic-mathematical order in the city, see my “Dialectical Education in the *Statesman*” in Miller 2004, and in cosmology and (in the broadest sense) zoology, see Miller 2003.

be seen, and with great difficulty" (517b). This implies that whatever glimpses we may now have must be held open for rethinking as we proceed. This should be welcome, for our reflections on geometry and harmonic theory have left us with an incomplete understanding, divided between the notions of perfection and unity and lacking the focus that, we may hope, a fully dialectical grasp of the Forms, still ahead of us, will provide. But this acknowledgment may not be open enough. Socrates' words at 394d, quoted at the very beginning of this chapter, should continue to resonate. Might crossing the eidetic threshold and taking up the work of dialectic, rather than merely providing integration and focus for what we have achieved so far, instead expand and further decenter our understanding, requiring yet another reorientation, one as radical in its own way as that which our reflections on geometry and harmonic theory have already occasioned?³²

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