# **Plato's Divided Line**

## Nicholas D. Smith

From 509d6 to 511e5 of the *Republic*, Plato offers his readers an image that is both edifying and compressed.<sup>1</sup> Scholars seem generally to agree that what Plato is doing here is extremely important; but they cannot seem to agree about exactly what Plato means to be doing. Commentaries and translations often explicitly recognize the difficulty of this passage by attempting actually to draw Plato's divided line, seeking thus to make clear for their readers what scholars themselves recognize as obscure.<sup>2</sup> I shall argue in this article, however, that the assistance they offer their readers has always been mistaken in some way or ways. By providing a careful look at the passage in question, allowing the text itself to show how the line should be drawn and how we are supposed to understand Plato's difficult image, I propose to identify the errors that scholars and translators have made in their analyses of the line.

### I. Constructing the Divided Line

The basic construction of the divided line begins at 509d6, immediately following a lame pun.<sup>3</sup> We are told to represent the intelligible and visible realms by a line which is divided into two unequal segments (AC and CE, respectively<sup>4</sup>); each realm is to correspond to one of the two segments. These segments, then, are to be subdivided (AC into AB and BC, and CE into CD and DE) according to the same ratio. (So, AC:CE = AB:BC = CD:DE. For the sake of clarity, I shall refer to the two parts of the original division as the line's 'segments', and each of the parts resulting from the division of these segments as the line's 'subsections'.) It follows from Plato's original construction of the line, of course, that the

<sup>1</sup> Raven 1965, 144: 'One of Plato's more baffling tendencies is to condense his writing in proportion as his thought becomes more profound. This particular tendency is especially pronounced throughout the whole of the Divided Line'.

<sup>2</sup> See, e.g., Adam 1963, 2: 65, 156, 171; Adamson 1903, 236; Balashov 1994, 283; Benardete 1989, 176; Bloom 1968, 464; Brumbaugh 1989, 82; Cornford 1945, 222; Cross and Woozley 1966, 230; Des Jardins 1976, 491 and 492; Dreher 1990, 165; Grube 1974, 164; Larson 1979, 172; Lee 1974, 310; Reeve 1988, frontispiece; Richards 1966, 119; Ringbom 1968, 91; E.H. Warmington and P.G. Rouse, in Rouse 1956, 309 (see Editors' note in frontispiece for authorship); Sterling and Scott 1985, 204; Wu 1969, 269.

<sup>3</sup> A play on the words ὑρατός and οὑρανός (509d3).

<sup>4</sup> The appendix to this article offers a version of what I take the line to be. Readers may find it helpful occasionally to glance at that version as they read my various arguments. Some scholars have gone so far as to doubt that the divided line should be represented by a line at all. See, e.g., Rose 1963-64.

largest subsection of the divided line must be at one end or the other.5

But what is the orientation of the line—horizontal, vertical, or diagonal? And which end of the line should be the longest one? To these questions, scholars and translators have given a remarkable variety of answers. James Adam, Seth Benardete, Sixten Ringbom, A.S. Ferguson, Robert Fogelin, W.D. Rouse's translation, and Anders Wedberg, all depict the line horizonally,<sup>6</sup> whereas others seem to agree that the line should be drawn vertically. If Plato had a horizontal orientation in mind, we should expect some signal that one or more subsections were to the right or to the left of some other subsection; if a vertical orientation is in order, we should expect some sign that one or more subsections are above or below some other or others. For a diagonal orientation, some subsections would have to be both above and to the side of others. In fact, Plato only makes it clear that some subsections are above others: at 511a6-7, we learn that the objects pertinent to one section of the line are below ( $\upsilon\pi \sigma - 511a6$ ) those belonging at another subsection; and at 511d6-8, we find that one of the four states of the soul ( $\upsilon \sigma \sigma \varsigma$ ) is to be represented by the highest ( $d \nu \omega \tau d \tau \omega - 511d8$ ) subsection (AB).

<sup>5</sup> Plainly, therefore, Allan Bloom's rendering of the line (in 1968, 464), in which the two middle sections are equal, and longer than the two outside sections, which are also represented as equal in length, must be mistaken. A similar representation may be found in Benardete 1989, 176, who makes the middle subsections equal, and shorter than both of the outside subsections; in Benardete's presentation, however, the section for vóŋ $\sigma_{12}$  is longer than the subsection for είκασία. Robert Hahn's representation (in 1983, 236) also fails to provide the proper proportions, though he may not have made any attempt to do so. Murphy 1958, 158 goes so far as to contest the text's requirement that the divisions are unequal in length: 'the words ἄνισα τμήματα only introduce confusion and should probably be deleted as a gloss that has crept into the text' (see also Fine 1990, 98n26, who cannot decide how the text should read on this point). Wu 1969, 269 represents the subsections in a way that makes them all equal in length, perhaps following Murphy. But given Plato's persistent references to the proportions between the segments and subsections, Murphy and his followers must assume that there are a great number of glosses that have 'crept into the text' (see Adam's sober assessment of this issue in 1963, 2: 63-64, n. 27). Klosko 1986, 87 may share Murphy's view. I can think of no other reason why he would refer to the 'top half' and 'bottom half' of the line. Adamson 1903, 236 represents the lower subsections of each segment (BC and DE) as equal in length, but the highest subsection longer than any of the others and the second lowest subsection (corresponding to  $\pi i \sigma \tau \iota_{C}$ --CD) as the second longest-longer than each of the subsections next to it (longer, that is, than those corresponding to διάνοια or είκασία-BC and DE, respectively). Strang 1986, 19 seems to think that the line has increasingly longer subsections (with none equal to any other in length). Brumbaugh 1989, 43, too, describes the line as having increasingly longer subsections from top to bottom, though he actually pictures the line (82) in a way very much like Adamson did. In Brumbaugh's picture, the longest subsection is at the top (though he earlier claimed it should be at the bottom); the next longest subsection corresponds to  $\pi i \sigma \tau \iota \varsigma$ ; the third longest corresponds to  $\delta \iota \alpha \nu \iota \iota \varsigma$ ; and the shortest corresponds to είκασία (though he earlier claimed this should be the longest subsection). Brumbaugh also claims that the segments of the line are incommensurable (1989, 44). Rose 1963-64 argues that it should not even be understood as a line at all, but, rather, a rectangle divided into unequal sections. Plainly, all of the above constructions are explicitly ruled out by the text.

<sup>6</sup> Adam 1963, 2: 65, 156; but cp. 171; Benardete 1989, 176, 375; Ringbom 1968, 91; Ferguson 1921, 137; Fogelin 1971, Rouse 1956, 309; Wedberg 1955, 99 (but Wedberg also talks about the 'upper' and the 'lower' parts of the line). Des Jardins 1976 represents it horizontally on 491, but then vertically on 492; he never states a preference or argues for either orientation, however.

There is no hint, in this passage, that Plato conceives of one subsection as being to the side of any other subsection. The language Plato uses to orient the line, therefore, would appear to rule out both horizontal and diagonal representations.

Scholars have also disagreed as to whether the shortest segment should be placed at the top or at the bottom of the line. G.M.A. Grube drew the line with the shortest segment on top, but never offered any explanation of why this seemed to him to be the right way to do things.<sup>7</sup> Bedu-Addo 1979, 108, Brumbaugh 1989, 42-43, and Des Jardins 1976, 491-492 also picture the line with the shortest segment on top, and offer various arguments for their decisions. Others have generally represented the line with the largest segment on top.<sup>8</sup> In order to judge which representation is correct, we must ask precisely what the lengths of the line's segments and subsections are supposed to represent. At 509d9, we are told that the ratios set up represent comparative clarity and obscurity (σαφήνεια καί  $\dot{\alpha}$ σάφεια); at 510a9, the comparisons seem to be between truth and untruth (αλήθεια τε καὶ μή). If that were all we were ever told, Larson would be right in claiming that 'it is impossible to tell which segment Plato intended to be the larger'.<sup>9</sup> After all, we could understand Plato's remark at 510a9 to require that the proportion was a representation of greater and lesser degrees of the positive aspects (clarity and truth), which would require the larger segment to appear on top; or the proportion could represent greater and lesser degrees of the negative aspects (obscurity and untruth), which would require the smaller segment to appear on top. Either version would adequately represent comparative 'clarity and obscurity', 'truth and untruth'.

But Plato returns to these comparisons in his concluding remarks (at the very end of book 6), where he makes it plain that clarity and truth are what he regards himself as representing. Moreover, we are told in this passage that clarity is the measure of the relevant mental states, and truth is the measure of the relevant objects ( $igmap e \phi$ ) oic  $eotiv a \lambda \eta \theta e i a control to trait a control to the relevant <math>fightarrow fightarrow fi$ 

<sup>7</sup> Grube 1974, 164. Fogelin 1971, 375 claims that it does not matter how we do it: 'Nothing, however, forces us to decide which of these unequal lengths should be made longer beyond a feeling that it is more suitable to assign a greater length to the region of greater dignity. As the analogy unfolds, we shall see, however, that nothing crucial depends upon this decision concerning lengths'. Fine 1990, 98n26 also is indecisive: 'Plato may tell us to divide the line into two unequal parts; but the text is uncertain. If the inequality claim is made, the two likeliest explanations seem to be that (a) the belief part is bigger, because more people have belief; or (b) the knowledge part is bigger, because knowledge is more valuable'. LaFrance 1977, too, claims that we cannot know which segment is the longer one.

<sup>8</sup> Other exceptions to this rule (in addition to Grube 1974) are Bloom 1968, Klosko 1986, Murphy 1951, and Wu 1969; see notes 5 and 7, above.

<sup>9</sup> Larson 1979, 172. The same claim is made by LaFrance 1977. Larson seems to think that the lengths of the line's segments and subsections are supposed to represent the number of objects pertinent to each segment, but Plato clearly does not employ this standard.

<sup>10</sup> At 511a7, it seems that some objects have greater clarity (ἐνάργεια) than others, as well. And at 533d5-6, mental states are said to be clearer (ἐναργεστέρου) or more obscure (ἀμυδροτέρου). In what follows, I shall assume that there is no significant difference of reference between σαφήνεια

of 511e, then, we should assume that the line must be represented with the larger (clearer and truer) segment at the top, and the smaller (less clear and less true) segment at the bottom.<sup>11</sup> It may or may not be significant that this aspect can be seen in the parable of the cave, as well: perhaps we are also intended to notice that the domain of the cave is much smaller than the world outside, in addition to being darker and filled with poorer images of the truth, relatively speaking. Plato never explicitly calls our attention to this spacial comparison between his two similes, however.

#### II. The Lower Segment

Having now determined the basic construction of the line,<sup>12</sup> we must now decide what each of the specific subsections of the line are supposed to show us. If we return to the passage at 511d-e, we find a great deal of our work explicitly done for us. Each subsection represents a different mental state: vóŋouç (understanding) for the highest (AB); διάνοια (thinking) for the second highest (BC); πίστις (commonsense) for the third highest (CD); and εἰκασία (imagining or illusion) for the lowest (DE) (511d6-e4). In the same passage, we are told that relative clarity of each of these mental states corresponds to the relative degree of their objects at each level (511e2-4). So all that is left for us is to determine what the objects at each level are supposed to be. This has turned out to be a source of extreme difficulty for scholars, however, because little agreement can be found

<sup>12</sup> One issue I have not addressed is whether the proportions Plato intended were those of the socalled 'mean and extreme ratio', or 'golden ratio'. If it were the golden ratio, it would have to be added to our proportions that the length of the top segment is in the same proportion to the whole line as the lower segment is to the upper segment. Those who argue that Plato intended to use a mean and extreme ration include Des Jardins 1976 and Dreher 1990; opposing arguments are offered by Sayre 1983, and especially Balashov 1994, whose arguments I find convincing.

and  $\dot{\epsilon}v\dot{\alpha}\rho\gamma\epsilon_{1}\alpha$ , on the one hand, and  $\dot{\alpha}\sigma\dot{\alpha}\phi\epsilon_{1}\alpha$  and  $\dot{\alpha}\mu\nu\delta\rho\dot{\sigma}\tau_{1}\varsigma$ , on the other.

<sup>&</sup>lt;sup>11</sup> Despite his claim that it is impossible to tell which segment is the larger, Larson 1979, 172 goes on to say 'it should be the intelligible, since it contains everything in the visible segment as well as concepts (such as numbers) that do not exist in the visible segment'. This argument is a confusion, though it reaches the correct conclusion (that the intelligible segment of the line is larger than the visible segment). If we were to reason this way, the conclusion, it seems to me, should be the opposite of the one Larson reaches-after all, there is only one Form for all of the many images of it, just as there can be many different shadows and reflections of a single visible original. If it were the numerousness of relevant objects that Plato were seeking to represent, one should expect the line to be shortest at the top, where we find only Forms, each of which would have innumerably many images and reflections in the subsections below. See, e.g., Bedu-Addo 1979, 108, who gets the line wrong, but at least sees clearly the consequence of assuming that numerousness of objects is what the lengths of the segments and subsections stand for: 'as there are fewer Forms than physical objects, whilst there are far more images of physical objects than there are physical objects themselves, we should expect that the smallest subsection is meant for the Forms, whilst the largest subsection is meant for the images of physical objects'. That this is not what Plato sought to represent, however, is clear from what he says at the passages cited (509d, 510a, and 511e), where degrees of clarity and truth-and not numerousness of objects-are identified as what the lengths of the line's segments represent. Accordingly, the longest subsection must correspond to the clearest and truest level, where the objects are the least numerous.

about what the second highest subsection (BC) is supposed to represent. But I think that sufficient attention to the lower segment and its two subsections will provide excellent guidance in the thicket of difficulties the upper segment presents. So let us begin by looking carefully at the lower segment, and its subsections.

It is clear enough to everyone that the first division is intended to separate the intelligible realm from the visible realm (509d4, 509d8). Then, after subdividing each of these segments, Plato also makes it clear that the lowest subsection (DE) is intended to represent visible images of visible things, that is, shadows and reflections: 'By images, I mean, first, shadows, and then reflections in water and in things that are constructed in a continuous, smooth and bright way, and every-thing of that sort' (509e1-510a3). The subsection above this (CD) is to represent the visible originals of these visible images (510a5-6). Plato then wishes us to consider part of the proportion he has thus created: 'Would you be willing to say that the division in terms of truth and untruth is thus: as is the opinable to the knowable, so is the likeness to what it is a likeness of?' (510a8-10). With this, Plato concludes his discussion of the lowest two subsections.

A number of things are worth noting in how he makes his initial representations, however, so before we turn to his discussion of the upper subsections, it would be wise to pay careful attention to what we have learned about the lower subsections. First, we should notice that Plato takes the relationship between visible images of visible things and the visible things themselves to be proportional to the relationship between the opinable and the knowable. Opinion and knowledge had not been mentioned in the divided line simile until this passage, but each had been prominently featured in the simile of the sun (which immediately precedes the divided line simile). Indeed, the comparisons and contrasts between these two epistemic powers (δυνάμεις) had begun all the way back in book 5, where Socrates and Glaucon had sought to distinguish between the philosopher and the lover of sights and sounds, the lover of opinion (see 475c6-480a13). We might assume, then, that the proportion Plato identifies here at 510a, between the opinable and the knowable, is none other than his original division of the line, between the visible (CE) and intelligible orders (AC). If this is what Plato had in mind here, then the comparison of proportions at 510a is between the subsections of the lower segment (DE and CD), on the one hand, and the original two segments of the line (CE and AC), on the other. Since we were told from the outset that the original division of the line was supposed to be followed by subdivisions of each original segment, which were to be performed according to the same proportion as the original division, Plato would thus only be reiterating this proportion at 510a. Now, however, he substitutes 'knowable' for 'intelligible' and 'opinable' for 'visible', to remind us of the fact that he has all along been assuming these identifications.<sup>13</sup>

This is a natural enough understanding of Plato's meaning, but we should notice that now we are to recognize that there are two classes of opinables: visible images of visible things and also the visible originals of these visible images. Visible images of visible things are themselves counted among the opinables, just as they were included among the visibles in the first division of the line. This is important, because it would then follow from the simile that we should expect two classes of knowables or intelligibles, and one class will consist in images of the other class. Moreover, since this is all that Plato tells us about the subsections of the lower segment, whatever Plato tells us about upper segment and its subsections cannot require us to represent the upper subsections any differently than a proportion of image to original—otherwise, the source of the similarity we are supposed to notice will be entirely lost.

I think that some scholars have been seriously troubled by the notion that images of any kind could be included among the knowables, and this may be why many scholars do not include anything that can be taken as an image in either of the subsections of the upper (intelligible/knowable) segment.<sup>14</sup> But if we are to identify the intelligible with the knowable, I see no way to avoid this consequence, since the simile explicitly requires the intelligible realm to be subdivided in the same proportion as the visible realm, and the proportion of the visible realm is achieved only by distinguishing images from originals.

Now, someone might seek to resist this consequence by refusing to identify 'intelligible' with 'knowable' and 'visible' with 'opinable', and insisting that 'knowable' and 'opinable' refer only to the upper subsections of the intelligible and visible segments (AB and CD), respectively. The only knowables, then, would be the objects identified in the highest subdivision (AB) of the intelligible realm (the intelligible originals),<sup>15</sup> and the only opinables, correspondingly, would be the visible originals (CD). In this view, whatever the intelligible images

<sup>13</sup> Strang 1986, 20, 23-24 finds these identifications untenable, and argues that two additional subsections must be added to the line (between AC and CE) to represent the opinable. Because I find this suggestion patently contrary to the explicit claims of the text, I see no need to attempt a detailed refutation of his interpretation here.

<sup>14</sup> Ferguson 1921, 151: 'I doubt whether Plato at this stage explicitly recognized that there were νόητα other than forms'. See also Cross and Woozley 1966, 230; Hall 1981, 71; and Lee 1974, 310. Murphy 1951, 163 and Robinson 1953, 192 reject the idea that Plato could be serious about having two levels of δόξα, despite what Plato explicitly says at 511d4 and at 533e7-534a8.

<sup>15</sup> Reeve 1988, frontispiece, e.g., applies the epistemic power of knowledge only to the highest subsection of the line (AB in my lettering, BE in his). But this is puzzling, because the same reasoning ought to restrict the application of opinion to the second lowest subsection (CD in my lettering and in his), whereas he applies opinion to the entire lower segment (CE in my lettering; AC in his) and 'true opinion' to the second highest level (BC in my lettering; CE in his). Morrison 1977, 222 understands 510a8-10 in such a way as to make knowledge apply to the upper subsections of both of the original segments (that is, to both AB and CD), and to make opinion apply to the lower subsections of both original segments (i.e., to both BC and DE). Bedu-Addo 1976, 297, 299 and 1978, 114, too, regards the level of διάνοια as reflecting the work of δόξα to the line.

of intelligible originals turn out (at BC) to be, they will not be knowables—only the intelligible originals themselves will be knowables. Similarly, visible images of visible originals (at DE) will not be opinables—only the visible originals themselves will be proper objects of opinion. This is all we were told in book 5, after all: the objects of knowledge are intelligible originals and the objects of opinion are the visible things—the sights (and sounds) to which the lover of opinion exclusively attends. In book 5, anyway, we were not told that each of these classes was subdivided into images and originals; all we were told was that the objects of opinion are images of the objects of knowledge (see 476c5-d6).

If we refuse to read 510a in such a way as to add a layer of images to the knowables and opinables, then, we must understand the proportions Plato gives at 510a rather differently than we did, above. Now, we must assume that at 510a Plato is comparing the proportion between the lowest subsection of the line (DE) and the one immediately above it (CD) to the proportion we would find between that subsection (CD) and the highest subsection (AB). A number of scholars have noticed that it is a geometrical consequence of Plato's construction that the two middle subsections-the higher subsection of the lower original segment and the lower subsection of the higher original segment (BC and CD)-must be equal in length. Some scholars, indeed, have claimed the reflection of this consequence in their interpretations as an advantage for their views (see, e.g., Bedu-Addo 1979, 89-90, 105-108; Fogelin 1971, 381-382; Morrison 1978, 220-227; Ringbom 1968). We shall evaluate this claim later on, but for now, it is worth noticing that the understanding of Plato's proportions at 510a we are considering requires us to assume both that Plato intended the middle subsections to be equal, and that he relied on this fact (and our recognizing that it was a fact) in order to make the proportion at 510a. Otherwise, what we are now making of this proportion (as DE is to CD so CD is to AB) would not hold, since what we are now making of this proportion substitutes one of the middle subsections for the other (CD replacing BC), from the original proportion at 509d (as CE is to AC, so DE is to CD, and BC is to AB). It seems implausible, however, that Plato would require such a substitution to be made, in the blink of an eye and with no explicit coaching from him, in order to understand his point.

Moreover, the recapitulation of the line at 533e7-534a8 makes clear that opinion and the opinables *are* to be subdivided into two sets of objects, corresponding to the two lowest subsections (DE and CD), though he declines at that point to go into the specifics of what these sets are (see 534a5-8). It would seem to be beyond dispute, then, that Plato takes opinion and the opinables to be represented by both subsections of the lower segment of the original division. Accordingly, there must also be two sorts of knowables, one sort of which is the image of the other sort. It follows by the simile, then, that there are knowable images, and these are the images we should find in the lower subsection (BC) of the intelligible segment of the line (AC).

#### III. The Upper Segment

Thus armed with the clear requirements of the simile Plato sets up in the lower segment, we can now expect to find intelligible images of intelligible originals in the lower subsection of the upper segment of the line (BC), and the intelligible originals of these images in the highest subsection (AB). Everyone agrees that Plato's Forms belong in the highest subsection, and this is what we would expect-they are, after all, on Plato's view, the intelligible originals of everything. Moreover, the text also plainly supports this identification, by claiming that in the highest subsection (AB) the soul employs only Forms in its contemplations (see 510b8, 511c1-2). But what, then, are the images of Forms we should now expect to find in the next subsection down (BC)? Here, scholars have created a chaos of possibilities. In Mohr 1984, Tanner 1970, and Rouse 1956, 309 we find mental images of Forms. Bloom 1968, 464, Cornford 1945, Des Jardins 1976, 490, Hall 1981, 71, Klosko 1986, 87, Larson 1979, 172, and Sterling and Scott 1985, 204 find 'mathematical objects'.<sup>16</sup> Grube 1974, 164 sees 'mathematical realities, sciences',<sup>17</sup> Cross and Woozley 1966, 230, Hackforth 1942, Hamlyn 1958, 16, Lee 1974, 310, Murphy 1951, 167, Nettleship 1901, 249-253, Robinson 1953, 195, 197, and Ross 1953, 63 see only Forms here.<sup>18</sup> Adam 1902, appendix to book 7, Crombie 1962-63, 1: 126 and 2: 76, Davies 1967, Findlay 1974, 182-196, Hardie 1936, Klein 1965, 124, Raven 1965, Sayre 1983, 196-197, Sidgwick 1869, Souilhé 1919, 76-92, Stocks 1911, and Wedberg 1955, 99-111 all suppose these objects are mathematical intermediates, between visibles and Forms. Boyle 1973 and 1974, Ferguson 1963, Gallop 1965 and 1971, and Jackson 1882 think they are propositional, like the axioms of geometry.<sup>19</sup> Reeve 1988, frontispiece thinks it is 'figures' that Plato had in mind.<sup>20</sup> Bedu-Addo 1976, 1978, and 1979, Fogelin 1971, Morrison 1977, and Ringbom 1968 argue for visible originals, repeated from the subsection (CD) beneath this one (BC).<sup>21</sup> Annas 1981, 247-252 simply despairs finding an answer to this ques-

<sup>16</sup> None of these scholars make clear exactly what they take the nature of these objects to be.

<sup>17</sup> Grube does not tell us what sorts of objects (if any) these are.

<sup>18</sup> Some commentators see different levels of Forms required; see, e.g. De Strycker 1957 and Carrive 1975.

<sup>19</sup> Possibly Brumbaugh 1989, 59 also had this theory in mind.

<sup>20</sup> Reeve does not specify what the ontological status of these objects are. Reeve's picture is especially bewildering, for though he quite plausibly also lists 'Forms' as the correlates for the the highest subsection of the line (AB in my lettering; BE in his), he also gives 'modes' for the second lowest subsection (CD in my lettering; AD in his), where I find visible originals, and 'qualities' at the lowest subsection (DE in my lettering; AD in his), where I find visible images of visible originals. Reeve also seems to think there is a difference between the epistemic  $\delta \dot{\nu} \alpha \mu \mu$  of opinion and that of true opinion, relating the former to both of the lowest subsection. Morrison 1977, 222n14 claims that knowledge is applied both at the level of  $\nu \dot{\alpha} \eta \sigma \eta$  and at the level of  $\pi i \sigma \tau \eta$  and that 'the objects of the lower part of the intelligible are comprehended by a sort of  $\delta \delta \xi \alpha'$ . A similar claim is made by Bedu-Addo 1976 and 1978. This is surely wrong. (See n15, above.)

<sup>21</sup> In their brief summaries of this passage, Grote 1875, 3: 91, White 1979, 181, and Rowe 1984,

tion.

But before we give up, we should look carefully at the text, to see if we can discern what Plato had in mind here. Plato says all he has to say about this segment of the line at 510b3-511d5. In this passage, the geometer and other mathematicians are contrasted with the dialectician, who belongs at the highest segment of the line (AB), on two grounds: (i) Although both the mathematician and dialectician use hypotheses, the mathematician cannot account for these hypotheses or reason upwards in such a way as to link his hypotheses to a first principle, but can, instead, only reason downward from them to his conclusions. The dialectician reasons upward to a first principle, and only then goes on to deduce conclusions. (ii) The mathematician uses images in his studies, whereas the dialectician reasons using only Forms. Let us consider each of these differences in order.

Exactly what sorts of things are the hypotheses the mathematicians use? One might suppose that they are propositions about mathematical entities, such as the axioms of geometry.<sup>22</sup> But that this is not what Plato has in mind is clear from those things he identifies as being among the mathematicians' hypotheses:

I suppose you are aware that geometers and arithmeticians and those who pursue similar subjects hypothesize the odd (τὸ περιττόν) and the even (τὸ ἄρτιον) and the shapes (τὰ σχήματα) and the three Forms of angles (γωνιῶν τριττὰ εἴδη) and other things like these in each mode of inquiry (μέθοδον), treat them as known (ὡς εἰδότες), and, deeming them hypotheses simply (ὑποθέσεις αὐτά), do not offer any other account of them to themselves or others, assuming they are obvious to everyone. (510c2-d1)

[They] are thinking, not about these [the images they employ], but of the things of which they are a likeness: the square itself ( $\tau o \hat{\nu} \tau \epsilon \tau \rho \alpha \gamma \omega \nu o \hat{\nu} \tau o \hat{\nu}$ ) and the diagonal itself ( $\delta \iota \alpha \mu \epsilon \tau \rho o \nu \alpha \dot{\nu} \tau \eta \varsigma$ ). (510d6-8)

It seems, then, that the geometer hypothesizes mathematical Forms, such as the odd, the even, the 'three Forms of angles', the square, and the diagonal. Can these be the objects Plato sees at the second highest segment (BC)?

Plainly, they cannot, for the simple reason that the geometer's Forms are not images. If the proportions between the lower subsections (DE and BC, respectively) and the upper subsections (CD and AB, respectively) are going to tell us anything at all, it has to be that Plato regards the lower subsections of each segment (DE and BC) as representing less clear mental states than the upper subsec-

<sup>22</sup> See Boyle 1973 and 1974, Ferguson 1963, Gallop 1965 and 1971, and Jackson 1882, for examples of scholars who have argued for this view.

<sup>64-65</sup> write as if they might also share this view. None provide enough interpretive argument to make their view plain, however. Sidgwick 1869, 99 says that this was Grote's view. Cooper 1966 also held a view close to this one.

tions of each segment (CD and AB) precisely because each of the lower subsections (DE and BC) involves the use of images, whereas in the upper subsections (CD and AB) only the originals of these images are employed. It is true that the Forms the geometer hypothesizes are not seen in the light of the first principle (the Good), and this could be seen as explaining why  $\delta \iota \dot{\alpha} v \circ \iota \alpha$  is less clear than  $v \dot{\alpha} \eta \sigma \iota \varsigma$ . But if this were the way Plato intended his simile to work, Plato would have to have made the lowest subsection of the line represent visible objects seen without sunlight (which is something he plainly can conceive, given the cave analogy<sup>23</sup>); but this is not the way he constructed his divided line. We must insist, then, that the terms of Plato's simile require the objects of the lower subsections of each segment to be the images of the objects of the upper subsections of each segment. And Plato plainly does identify a certain group of objects as images in the subsection corresponding to  $\delta \iota \dot{\alpha} v \circ \iota \alpha$ . Let us turn, then, to these objects.

In the short passage in which the two highest subsections are discussed, Plato finds as many as *seven* occasions to tell his readers that one significant point of contrast is that the mathematician employs visibles as images in his reasoning (510b4-5, 510b7-9, 510d5-6, 510e1-511a1, 511a6-7, 511c1, 511c7-8). This, plainly, is where Plato intends us to find the images that are supposed to correspond to the second highest subsection of the line (BC). Moreover, we can make good sense of Plato's proportions this way: in recognizing the originals of the visible realm (CD) as the images in the intelligible realm (BC), we see one of the most famous features of Plato's philosophy: sensible participants are really only images of Forms. Since completing our picture of the line this way seems so plainly compatible with what we know of Plato's metaphysics, and also so well supported by the text, why is it that so many scholars have offered other interpretations here? Let us now consider some objections to this view.

### IV. Intelligible Images

One fairly popular view of the line agrees with my insistence that the objects in the second highest subsection (BC) must be images of Forms, but rejects the selection of the visibles employed by the geometer as the appropriate images on the ground that placing such objects here on the line violates the explicit rationale for the first division. Recall that the original division of the line into two unequal segments was supposed to represent the division between the intelligible and the visible realms. If the placement of objects I have been urging were right, such scholars argue, then we would have visibles where there should be intelligibles.<sup>24</sup>

<sup>23</sup> Indeed, the cave analogy provides yet another embarassment for this view, if the stage of that parable we are supposed to parallel to this subsection of the line is the one in which the ex-prisoner looks at shadows and reflections outside the cave; for these shadows and reflections, after all, are plainly images of the visible originals the ex-prisoner sees in the next phase of his experience outside the cave. Reeve 1988, frontispiece and Hahn 1983, 237 have doubted that this is the stage of the cave story we should parallel to the second highest subsection of the line.

<sup>24</sup> For expressions of this sort of argument, see Boyle 1973, 3, 6; Cross and Woozley 1966, 233; Klosko 1986, 89: 'Plato divorces knowledge from sense perception and the sensible world'. Fine 1978 and 1990 has rightly disputed the notion that knowledge cannot be applied to sensibles and that

Since the terms of the original division rules this out, they claim, the relevant images must be intelligibles, and not visibles. Accordingly, we have reason to identify a set of objects that are intermediates between those appropriate to the level of  $\pi i \sigma \tau \iota \varsigma$  (CD) and those appropriate to the level of  $\nu \circ \eta \sigma \iota \varsigma$  (AB), objects which are intelligible images of the objects appropriate to the level of  $\nu \circ \eta \sigma \iota \varsigma$  (AB), and regard these intermediates as the ones appropriate to the level of  $\delta \iota \alpha \nu \sigma \iota \varsigma$  (BC).

Different sorts of objects have been posited as the relevant images here. A number of scholars have argued that Plato has in mind mathematical intermediates, such as those Aristotle claims he recognized within his philosophy (at *Meta.* i 987b15-18).<sup>25</sup> Others have supposed that the relevant intermediates are some sorts of 'general notions', or propositional images of (or  $\lambda \dot{\alpha} \gamma \sigma_1$  about) Forms.<sup>26</sup> Still others find mental images of some kind or other (see Mohr 1984, Tanner 1970, Rouse 1956, 309). The most obvious problem with such views is shared equally by all of them—all posit objects at this critical subsection of the line (BC) which Plato neglects to identify anywhere in the divided line passage, or, for that matter, anywhere else in the *Republic*.<sup>27</sup> It is surely strange to think that Plato would go to such care to make his proportions follow the contrasts of image and original, and then neglect ever to identify what one of the two relevant sets of images are. It is not as if it is just obvious that the relevant images are mathematical intermediates, or  $\lambda \dot{\alpha} \gamma \sigma_1$ , or 'thought-images', or at least all those finding

opinion cannot be applied to intelligibles. I do not accept Fine's view that the line cannot be understood in such a way as to identify objects appropriate to each level, however, though I share her conviction that there can be knowledge of sensibles (and opinions about Forms). Fine seems to think that rejection of what she calls 'TW' (the 'Two Worlds Theory', according to which the objects of knowledge and opinion cannot overlap) requires a rejection of what she calls an 'objects analysis' of the divided line. I think this is a mistake. If my argument is right, there can be an 'objects analysis' of the divided line without positing non-overlapping objects for knowledge and opinion. Indeed, I argued for just such a view in my earlier work on this topic (1975 and 1981). Bedu-Addo 1976, 1978, 1979, Fogelin 1971, Morrison 1977, and Ringbom 1968, have all argued for what I regard as the correct view that the appropriate objects here are the same as those appropriate to the level of πίστις (CD), only at the level of διάνοτα they are treated as images of Forms. But none of these scholars has, to my satisfaction, at least, satisfactorily considered or rebutted the objection to their view that I am here considering.

<sup>25</sup> See those mentioned in the previous section who accept mathematical intermediates.

<sup>26</sup> See n22, above, for references. Although Bedu-Addo is convinced that these are not the objects Plato sought to represent here on the line, he accepts that the hypotheses of the mathematicians are such  $\lambda \delta \gamma o_1$ . I cannot accept this view, for the reasons I gave above. It seems plain to me that these hypotheses are Forms.

<sup>27</sup> Raven 1953, 31 and 1965, 152 misreads the text in such a way as to posit objects at this level (BC) which are images of the objects at the level of νόησις (AB) and imaged by the objects at the level of πίστις (CD). Boyle 1973, 2, Dreher 1990, 161, and Ross 1953, 47 also make this mistake. Adam 1963, 2: 115 cites 526A as support for his view, but it is not at all clear to me that the intelligible units Plato has in mind here are mathematical intermediates. (See Murphy 1951, 167-168 and Ross 1953, 58-65 for what I regard as effective rebuttals to Adam's argument.) Hahn 1983, 236 also posits a fourfold division of objects in the line, including mathematical objects that are atemporal but spatial. Hahn offers no textual support for this claim, however.

intelligible intermediates here could agree on what they were! Certainly the very claim that the relevant objects must be intelligible intermediates has seemed anything but obvious to the hosts of interpreters who have posited other sorts of objects here. To represent Plato's divided line in such a way as to include such intermediates, therefore, is to accuse Plato of a very serious lapse in the exposition of his ideas, a lapse that persists through the entire relevant passage, as well as throughout his later use of the notions introduced in this passage in book 7. I find this both implausible and uncharitable.

Indeed, the problem is really a good deal worse than this, for it is not just the case that Plato failed to mention the right images, after all; it is also the case that Plato does mention the use of images at this level *seven times* in this passage, always referring, according to the views I am now considering, to objects that he did not intend us to identify as the relevant images. One would think that Plato would be more careful to distinguish the right sorts of images from these wrong ones, if those who find intermediates here were right.

Moreover, the image/original contrast Plato uses in the *Republic* and other middle-period dialogues is always explicitly a feature of the participation of particulars in Forms. If, for Plato, the image/original relationship typically corresponds to the participation relation, how are the intermediates supposed to fit this scheme? If the intermediates image the Forms in the typical way it is because they participate in the Forms. But to participate in the Forms is to be a participant. On the other hand, if the participants image the intermediates in the typical way, it is because they participate in the intermediates—a highly dubious view. If the image/original relationships in the line are atypical, why, again, did Plato tell us nothing about their deviations from his normal pattern? Of course, the image/original metaphor is itself less than perfectly clear—after all, surely Plato was not suggesting that the visible images of visible originals *participated* in their originals. None the less, we are owed an account of exactly what the imaging relationship is supposed to consist in here, by scholars who posit intermediates at this level of the line.

Finally, if we tie the line to the cave parable, as most scholars assume we should, we will see that the objects usually associated in the cave parable to this subsection of the line (the shadows and reflections at which the ex-prisoner must first look, as he habituates his sight to the brightness of the outer world [see n23 above]) are, indeed, images of the next set of objects the ex-prisoner will consider. But these shadows and reflections are not intermediates between the originals they image and the relevant objects of the stage immediately prior to this one. Scholars paralleling the line and cave generally agree that the appropriate parallel in the cave story to the level of  $\pi i \sigma \tau i \varsigma$  on the line is when the recently freed prisoner is spun around to look at the puppets and the fire within the cave. But surely we should not see the puppets as images of the shadows and reflections the prisoner will see in the first stage of his experience outside the cave. And even if the fire in the cave is an image of something outside the cave (presumably, the sun), surely it is not an image of an image of something outside the

cave (for example, an image of some *reflection* of the sun in water). Instead, the puppets and fire in the cave are (to borrow Plato's language from his condemnation of poets and painters in book 10) at three removes from the reality of Forms—they are one remove from (i.e., images of) the visible originals outside the cave, which are themselves one remove from (i.e., images of) the Forms. The shadows and reflections outside the cave occupy no higher place in this hierarchy of originals and images, whatever other advantages they might provide in the education of the ex-prisoner. If Plato's cave story had intermediates in it, the puppets and fire would have to be a further remove away from highest reality than the shadows and reflections outside the cave. Either we must abandon the idea that the line and cave are paralleled in the appropriate way, therefore, or we must give up the idea that there are intermediates to be found at the second highest subsection of the line (BC).<sup>28</sup>

As I said at the beginning of this section, I believe the principal reason why scholars have pursued the idea that there should be intermediates at this level (BC) is that the images Plato does discuss here are visibles, but the original division of the line into two segments served to distinguish the visible from the intelligible. The assumption behind this argument seems to be that Plato could not recognize any overlap between the visible and intelligible realms, that is, scholars have assumed that, for Plato, visibles are in no way intelligible.<sup>29</sup>

But as soon as we put the argument this way, we must see that the claim that drives the search for intermediates is highly dubious. After all, it is an essential feature of Plato's metaphysical and epistemological project, and, hence, his political project, to argue that the sensibles can in some way or to some degree be made intelligible. If this were not true, Plato's philosopher-rulers would gain no political advantage from their acquisition and development of knowledge, which Plato tells us is knowledge of intelligibles. Plato's argument that his philosopherrulers will be superior to ordinary rulers cannot be based upon the fact that they have access to intelligibles unless this access gives them some plain and reliable advantage in making judgments in the grubby empirical world of politics-after all, they will not rule over Forms, they will rule in the realm of empirical images. Plato's argument is that only those who understand that the political world is a world of images-only those who have the knowledge of originals and know how to apply that knowledge in judging images-will be qualified to create and sustain a truly noble state. The intelligence of the philosopher-rulers, then, consists at least in part in their recognition that what inferior rulers regard as originals are in fact only images of the really real. This interpretation is given no little support by Plato's explicit claim (at 520c2-6) that the returning philosopher-ruler will know ( $\gamma v \omega \sigma \varepsilon \sigma \theta \varepsilon$ ) the things in the cave better than those who have never escaped the place.

<sup>28</sup> See also Bedu-Addo 1977 and 1979, 103-105, who offers an account similar to mine here.

 $^{29}$  It is odd that Bedu-Addo 1979, 99 who rightly identifies particulars as the appropriate objects at the level of διάνοια, nonetheless seems committed to the view that these objects are not among the intelligibles.

It follows that the same objects can be regarded as empirical originals and as images of intelligibles, and the difference in viewpoint between these two ways of dealing with such objects is absolutely critical to Plato's defense of his 'third wave of paradox' that philosophers should rule the state. It should be no surprise to find this point represented in the divided line passage, which falls within the lengthy discussion of how such philosopher-rulers are to be educated. If I am right, Plato insists on showing how these objects have a rightful place in both worlds—as the originals of vision and as the images of intellection.

Further confirmation of this view comes from Plato's cave analogy and from the discussion of the mathematical education following that analogy. In the story of the cave, Plato once again offers four stages, starting with the prisoner looking at shadows and reflections (images) in the cave, and then being spun around to look at the originals of these images in the puppets and fire. These two stages, we are told at 517b1-4, correspond to the visible world (CE). The ascent that follows is supposed to represent 'the soul's ascent to the intelligible realm' (517b4-5), where the ex-prisoner first must look at shadows and reflections (images) in order to habituate his eyes to the brighter light in the sunlit world (516a5-7), and only later is able to turn his vision to the originals of these shadows and reflections, turning his vision steadily upward until he can see the first principle of the outer world, the sun (516a7-b7). So, here again we begin with images, become aware of the originals of these images, then turn again to images and finally are able to treat the originals in such a way as to move upward to the first principle and only then draw conclusions (see 516d9-c2).

It might be supposed that the cave parable actually provides evidence against the view I am advancing, on the ground that there is a fourfold distinction of objects in this story. If my view were right, it might be argued, the objects at the stage of the cave parable corresponding to the level of  $\delta\iota\dot{\alpha}vo\iota\alpha$  (BC) would have to be the same as the objects at the stage corresponding to  $\pi\iota\sigma\tau\iota\varsigma$  (CD). But I have argued that the objects at the stage corresponding to  $\delta\iota\dot{\alpha}vo\iota\alpha$  on the line (BC) are shadows and reflections in the sunlit world, whereas the objects at the stage corresponding to  $\pi\iota\sigma\tau\iota\varsigma$  on the line (CD) are the puppets and fire within the cave. Plainly, it might be argued, these are not the same objects—one can hardly carry shadows and reflections around in the cave, and the reflection of the sun will not burn one the way a fire will.

This objection misunderstands my interpretation. I do not wish to claim that the objects at the level of  $\delta\iota\dot{\alpha}vo\iota\alpha$  (BC) must be numerically identical to the objects at the level of  $\pi\iota\dot{\alpha}\tau\iota\varsigma$  (CD); my argument requires only that the two levels contain the same sorts of objects, where what sorts the objects is their place within the image-original hierarchies in Plato's metaphysics. In the line passage, Plato does say that the images the geometer uses are the originals of the subsection below (CD) (see 510b4-5 and 510e1-3). But I do not suppose that Plato must insist that the mathematicians use each and every original object of sight in their reasonings; rather, they use those samples of such objects which suit their purposes. It is true that shadows and reflections in water could not be carried about in the cave, but this does not necessarily put such objects at a different level of reality from the puppets in the cave. My argument requires only that these objects are at the same 'remove' from the reality of Forms. In other words, they are images of the same originals and neither is more or less directly an image of those originals than the other. The fact that some of these images are solid objects (the puppets) makes their use in the cave possible, but that fact does not of itself put such objects at a significantly different place in Plato's metaphysics or epistemology. The puppets and fire, then, are indeed the same sorts of objects as the shadows and reflections outside the cave, when we sort objects in the way that Plato regards as relevant to his hierarchies. The disanalogy between the objects at the relevant levels of the line and cave does not count against my interpretation, therefore.<sup>30</sup>

If we go on to look at the way Plato treats visible things in his discussion of the higher mathematical education of future rulers of his 'noble state', we shall see once again the same employment of visibles as providing the appropriate images of the intelligible originals (the Forms). In arithmetic, fingers are used (523c4-524c13); as we have seen, geometry employs visible shapes and diagrams (see also 529d8-530a1); solid geometry will employ cubes and other solid objects (528a9-b3); and astronomy will take the heavenly bodies as its images (529c7-530b4). In each case, the mathematical study will employ objects that might be regarded as the originals of the sensible realm, but when used by the mathematician, these objects will be seen as images of higher realities. As we would expect, given the line passage, such visibles are not the proper objects of mathematical study, but only the images such study requires-as Plato says of the mathematicians, '[They] are thinking, not about these [the images they employ], but of the things of which they are a likeness' (510d6-7).<sup>31</sup> And as we would also expect, given my understanding of the line passage, no other images of intelligible originals are ever identified in Plato's discussion of any of the curricula of the mathematical education of the future rulers. The same pattern may be found in the final study of the mathematical curriculum, harmony: 'Just as the eyes are appropriately designed ( $\pi \epsilon \pi \eta \gamma \epsilon \nu$ ) for astronomy, so the ears are appropriately designed  $(\pi\alpha\gamma\hat{\eta}\nu\alpha)$  for the movements ( $\varphi\circ\rho\dot{\alpha}\nu$ ) of harmony' (530d6-7). In harmony, too, the sensibles will be used as images of intelligibles, in this case, as images of the beautiful and the good (531c6-7).32

<sup>30</sup> Morrison 1977, 228-229 also defends the view I have argued here. See also Bedu-Addo 1979, 97-98, 105.

<sup>31</sup> This is an important feature of this interpretation: by 'objects at the level of  $\delta_i \dot{\alpha} voi\alpha'$ , I do not mean anything like 'objects of study', but instead identify as the 'objects' at each level those things with which the thinkers at that level are most aptly associated, in virtue of their epistemological approach. The mathematician's approach is clearly associated with the use of particulars as images a point that, as I have said, Plato is willing to make seven times in the space of about one and one-half Stephanus pages of text. It is not difficult to imagine that other interpreters have rejected particulars as the appropriate objects at this level of the line, precisely because they took 'objects' as capable of meaning only 'objects of study'.

<sup>32</sup> Even Wedberg 1955, 110, who is inclined to see mathematical intermediates as the appropri-

We began this section with the objection that the interpretation I favor violates the sense of the first division of the line, which was supposed to distinguish the visible from the intelligible. I hope I have now shown how my view is, in fact, compatible with the original division of the line. In my view, the first division of the line does separate the visible realm from the intelligible realm; but we must not suppose that this separation requires wholly different objects to appear on each side of the division. Instead, what we find is that the objects that do straddle the division are conceived wholly differently on each side of it. And because the mathematician (at BC) regards these objects so differently from the way they are regarded in the subsection below (CD), the mathematician can be said to be in a state of thinking ( $\delta_i \dot{\alpha} v \circ i \alpha$ ), rather than one of mere commonsense ( $\pi i \sigma \tau_i \varsigma$ ).

### V. The Equality of the Middle Subsections

To my knowledge, only a few other scholars have agreed that the objects Plato had in mind as appropriate to his representation of the line's second-highest segment (BC) are visible things, taken as images.<sup>33</sup> One advantage that is often claimed for this view is that it allows us to see significance in an obvious geometrical consequence of Plato's construction, namely, that the two middle segments must be equal in length. This feature, we are told, is exploited by Plato, who uses the same sorts of objects in each of the equal subsections.<sup>34</sup>

But this 'advantage' comes with very serious problems. First, since Plato explicitly says that the lengths of the segments signify varying degrees of clarity ( $\sigma\alpha\phi\eta\nu\epsilon\iota\alpha$ —509d9, 511e3), if Plato had really intended us to notice the fact that the middle segments of the line were equal, he must have considered  $\delta\iota\alpha\nuo\iota\alpha$  to be no clearer than  $\pi\iota\sigma\tau\iota\varsigma$ . This, however, is not only patently implausible, it seems to be explicitly rejected at 533d5, where  $\delta\iota\alpha\nuo\iota\alpha$  is said to be clearer than opinion ( $\epsilon\nu\alpha\rho\gamma\epsilon\sigma\tau\epsilon\rhoov$   $\eta$   $\delta\delta\xi\eta\varsigma$ ), which is said (at 534a1-2) to include both  $\pi\iota\sigma\tau\iota\varsigma$  and  $\epsilon\iota\kappa\alpha\sigma\iota\alpha$ . Obviously, if  $\delta\iota\alpha\nuo\iota\alpha$  must be clearer than  $\pi\iota\sigma\tau\iota\varsigma$ . So if clarity is what the lengths of the line's subsections is supposed to represent, Plato must not have intended us to make anything of the equality of the middle subsections.<sup>35</sup> Perhaps this is why Plato nowhere calls explicit attention to this feature

ate objects at the level of  $\delta i \dot{\alpha} voi\alpha$  (BC), admits that 'Undoubtedly, Plato did not postulate intermediate objects of astronomy and of musical theory. Such postulation would have been too absurd, and there is not the slightest trace of it in anything that Plato says'.

<sup>33</sup> See the authors mentioned in the text referred to by n21, above. Wu 1969, 271-272, agreed at least that the relevant objects had to be both empirical and intelligible, but argues that the relevant objects must be the geometers' (and others') hypotheses that have this character. For reasons I stated above, when discussing the nature of the hypotheses, I find this identification untenable.

<sup>34</sup> See, e.g., Bedu-Addo 1978, 116n15; 1979, 89-90, 105-108; Fogelin 1971, 381-382; Morrison 1977, 220-227; Ringbom 1968, 91-94. In fact, I believe I am alone among those who accept this account of the relevant objects who thinks that this equality is none the less problematic.

<sup>35</sup> Ross 1953, 45 calls the equality of the middle subsections 'an unintended, and perhaps by Plato unnoticed, consequence of what he does wish to emphasize, that the subsections of each section, and the sections themselves, stand for objects unequal in reality'. Raven 1965, 145 agrees with Ross

of his line.

Moreover, Plato also insists that the lengths of the line's segments represent various degrees of truth ( $\dot{\alpha}\lambda\eta\theta\epsilon\alpha$ —see 510a8-9, 511e2-3), and the measure of truth is explicitly said to follow the same proportions as the measure of clarity (see 511e2-4). It seems to follow, then, that if Plato does not believe that  $\pi i\sigma\tau\iota\varsigma$ is as clear as  $\delta\iota\alpha\nu\alpha\alpha$ , then he must also believe that the objects at the level of  $\pi i\sigma\tau\iota\varsigma$  are less true than the objects at the level of  $\delta\iota\alpha\nu\alpha\alpha$ . It is hard to see how this could be, if the objects at the level of  $\pi i\sigma\tau\iota\varsigma$  are the same sorts of objects as those at the level of  $\delta\iota\alpha\nu\alpha\alpha$ . Scholars who have sought to exploit the equality of the middle subsections in their interpretations would perhaps be happy to regard the two middle subsections as representing equal degrees of truth;<sup>36</sup> but they have nothing to say about the evidence that *because* these subsections represent unequal degrees of clarity, they *must also* be conceived as representing unequal degrees of truth. In fact, this particular unhappy consequence of their interpretation is never addressed in their articles.

In Smith 1981, 132-135 I tried to show how Plato might regard the visibles at the level of  $\pi i \sigma \tau i \varsigma$  and these same objects, taken as images, at the level of διάνοια as actually meriting different assessments in their degrees of truth. In essence, my argument there was that the objects at each level were given by Plato (and were taken by their consumers) under different descriptions. So, one at the level of  $\pi i \sigma \tau \iota \varsigma$  would be associated with the visibles *qua* visible; one at the level of  $\delta_1$  i  $\alpha$  would be associated with the visibles *qua* intelligible images. Their different attitudes towards such objects would produce different mental states, of different degrees of clarity. But their differing attitudes would also produce a substantial difference in their perception of the truth of these objects. One whose mental state is  $\pi i \sigma \tau \iota c$  would be wholly unaware of the fact that such objects were mere images of Forms; one whose mental state was διάνοια would attend to these objects only insofar as he or she saw them as images of Forms. In a certain sense, then, there could not be two more different views of these objects-the one feature of these objects regarded as significant to  $\delta_1 \alpha_{100} \alpha_{100}$  would in no way be taken into account at the level of  $\pi i \sigma \tau \iota \varsigma$ . Put this way, it is almost as if there are two different sorts of objects at these levels, since the objects are employed under completely different, and incompatible descriptions. As I put the point back in 1981, 133, ' $\pi$ iotic does not deal with images of Forms, as such, and

in calling the equality of the middle subsections 'an unfortunate and irrelevant accident'. (See also Wedberg 1955, 102-103.) See Morrison's response to such claims (1977 221-222). I think Ross and Raven overstate the case, and miss what Bedu-Addo, Fogelin, Morrison, and Ringbom rightly notice about the contents of the middle subsections; but I agree at least that Plato cannot have meant us to take account of this consequence of his construction.

<sup>36</sup> See, e.g., Ringbom 1968, 92-94. Bedu-Addo 1979, 98-99, 103 and 103n37 does attempt to show why the same objects could be counted as more or less *clear*; he does not, however, attempt to apply his reasoning to the problem that they must also be more or less *true*. Bedu-Addo is not sufficiently troubled by this problem, moreover, because he does not recognize that the lengths of the line's subsections measure relative degrees of clarity and truth; instead he wrongly supposes that they measure numerousness of objects (see n11, above).

διάνοια does not employ visibles, as such. Images of Forms, as such, are not equal to visible originals, as such, in truth or reality, and the states of mind achieved by treating these objects in such different ways are not equal in clarity'. What is relevant, then, is not the *ontological identity* of these objects, as some have argued,<sup>37</sup> but, rather, the way in which such objects are *conceived* at each of the relevant subsections.<sup>38</sup>

I continue to think that this interpretation is required by the many texts which make it very plain that Plato's mathematicians use visibles as images of the intelligible originals (the Forms), and Plato's simile (in the divided line) which requires us to associate the mathematician's mental states with objects that are images of intelligible originals. I also still think that, if we are to understand Plato's insistence that  $\delta i \alpha voi\alpha$  is clearer than  $\delta \delta \xi \alpha$  (533d5) in a way that is compatible with what he says in the divided line passage, we are forced to ignore the equality of the middle segments in favor of the sort of analysis I have provided.

But in fairness to those who have insisted upon the significance of the middle segments' equality, I must also admit (my earlier efforts notwithstanding) that there does not seem to be any tidy solution to this issue. On the one hand, in the divided line Plato employs a proportion which requires that the middle subsections must be equal, and presumably any modestly trained Greek mathematician could have recognized this fact in a moment.<sup>39</sup> On the other hand, he never calls our attention to this fact. On the one hand, he offers us proportions at 509d6-8 and 510a8-10, then recapitulates these proportions at 533e7-534a5 in such a way as to exchange the two middle subsections within the proportion, which he could not do if they are not equal. On the other hand, the proportions at 533e7-534a5 begin only nine lines after his insistence that  $\delta_1 \alpha_0 \alpha \alpha$  is clearer than all of  $\delta \delta \xi \alpha$  (at 533d5), which could not be true if the middle subsections are equal. Something has gone wrong here in Plato's complex image.

#### VI. Summary and Conclusion

Plato's divided line is a vertical line, divided unequally with the largest seg-

<sup>37</sup> See the authors mentioned in the text referred to by n21, above.

<sup>38</sup> Dreher 1990, 171n7 takes Klein 1965 to be reasoning in this way, and it is quite tempting to interpret Klein's argument on 118-119 to be making this point. However, Klein goes on to identify the objects at the level of διάνοια to be numbers (124). Nettleship 1901, 239 also seems to accept the general point I am making here: 'when we speak of the objects of the mind's thought in its different stages, we should divest ourselves of the notion that they represent four different classes of real objects; they only represent four different views of the world, or different aspects of the same objects. For what we call the same object has very different aspects to different people; for example, the scientific botanist and the person who knows no botany may see the same flower as far as the eyes go, but they understand it in totally different ways'. Robinson 1953, 195 also argues for the same understanding: 'The objects are defined primarily in terms of our attitudes towards them'. (See also Ross 1953, 63; Wu 1969, 271-272.) Indeed, this seems to be how Nettleship, Robinson, and Ross would differentiate between the Forms they find at both levels of the intelligible (AB and BC). Instead, I believe it makes better sense of the simile if we apply this reasoning to how the visibles can be assigned to the middle subsections (BC and CD).

<sup>39</sup> Klein 1965, 119n27, gives the proof 'in the Greek manner'.

ment on top. These two segments represent the intelligible realm (at the top) and the visible realm (at the bottom). The two segments are divided again into subsections which represent proportions between images and originals; the lower subsections of each segment represent some involvement with images, whereas the upper subsections of each segment represent direct cognitive contact with the originals of each realm. A significant feature of Plato's philosophy, which has its place in the representations of the line, is that the originals of the visible world are, in reality, nothing but images of the intelligible originals, the Forms. Accordingly, the divided line features these objects as both the originals of the visible world and as the images of the intelligible world.

The way that Plato makes his construction requires the middle subsections to be equal, and one might take this equality to be a significant feature of Plato's image, especially given the appearance of Plato's 'participants' as the objects at the two pertinent subsections of the line. But Plato never explicitly calls our attention to this equality, and if we do attend to it we are led to problems in our understanding of the relative merits of the two subsections and to conflicts with what Plato does explicitly say about them. If I am right, there is a great deal we can learn from Plato's simile, and there have been a great number of mistakes scholars have made in trying to tell us exactly what it means. But there also seems to be one problem in his image that cannot be made to go away. Given the incredible richness and substance of this very complex image. I am tempted to think that Plato might have purposefully woven this subtle flaw into the intricate fabric of his own image, because he wished to avoid the sin of perfection.<sup>40</sup> According to his own philosophy, images can never be perfect, and Plato's divided line is, after all, only an image. Plato's line is certainly good enough to be a model of the excellence we can expect in the products of a philosophical craftsman. Perhaps it is also just bad enough to remind us, by contrast, of a perfection no image can equal.

Department of Philosophy Michigan State University East Lansing MI 48824-1032

#### BIBLIOGRAPHY

Adam, J. 1963. The Republic of Plato. 2nd edn. 2 vols. Cambridge: Cambridge University Press. Adamson, John E. 1903. The Theory of Education in Plato's Republic. New York and London: S. Sonnenschein.

Annas, Julia. 1981. An Introduction to Plato's Republic. Oxford: Clarendon Press.

Balashov, Yuri. 1994. 'Should Plato's Line Be Divided in the Mean and Extreme Ratio?' Ancient Philosophy 14: 283-295.

<sup>40</sup> See Bosly 1982 46-47: 'Many of the Moslem faith believe that only Allah makes things perfectly; therefore, to weave a perfectly designed rug would be to risk offending Him... The original Deliberate Mistake is usually made in the execution of the *pattern*, not in the preparation of the dyes or in the knitting of the rug' (my emphasis). Klein 1965, 125 makes a somewhat similar suggestion; Dreher 1990, 159-161 gives a very different reason, but agrees that 'the instructions and the line itself are open-ended in a delightful way'. Balashov 1994, 285n7 is more despairing.

- Bedu-Addo, J.T. 1976. 'A Theory of Mental Development: Plato's Republic V-VII. Part I' Platon 28: 288-301.
- Bedu-Addo, J.T. 1977. 'A Theory of Mental Development: Plato's *Republic* V-VII. Part II: The Allegory of the Cave' *Platon* 29: 212-224.
- Bedu-Addo, J.T. 1978. 'Mathematics, Dialectic and the Good in the *Republic VI-VII' Platon* 30: 111-127.
- Bedu-Addo, J.T. 1979. 'Διάνοια and the Images of Forms in Plato's Republic VI-VII' Platon 31: 89-110.
- Benardete, Seth. 1989. Plato's Second Sailing. Chicago: University of Chicago Press.
- Bloom, Allen. 1968. The Republic of Plato. New York: Basic Books.
- Bosly, Caroline. 1982. Rugs to Riches: An Insider's Guide to Oriental Rugs. London.
- Boyle, A.J. 1973. 'Plato's Divided Line: Essay 1: The Problem of διάνοια' Apeiron 7: 1-11.
- Boyle, A.J. 1974. 'Plato's Divided Line: Essay II: Mathematics and Dialectic' Apeiron 8: 7-21.
- Brentlinger, J.A. 1963. 'The Divided Line and Plato's "Theory of Intermediates" Phronesis 8: 146-166.
- Brumbaugh, Robert S. 1989. Platonic Studies of Greek Philosophy. Albany: SUNY Press.
- Carrive, P. 1975 'Encore la caverne, ou 4 = 8' Les Études philosophiques 30: 387-397.
- Cooper, M. 1966. 'The Importance of διάνοια in Plato's Theory of Forms' Classical Quarterly N.S. 16: 65-69.
- Cornford, F.M. 1945. The Republic of Plato. Oxford: Clarendon Press.
- Crombie, I.M. 1962-63. An Examination of Plato's Doctrines, 2 vols.: vol. 1 (1962) and vol. 2 (1963). London: Routledge.
- Cross, R.C. and Woozley, A.D. 1966. Plato's Republic: A Philosophical Commentary. New York and London: St. Martin's Press.
- Davies, J.C. 1967. 'Plato's Dialectic: Some Thoughts on the Line' Orpheus 14: 3-11.
- Des Jardins, Gregory. 1976. 'How to Divide the Divided Line' Review of Metaphysics 23: 483-496.
- De Strycker, E. 1957. 'La distinction entre l'entendement (διάνοια) et l'intellect (νοῦς) dans la Republique de Platon' in Estudios de historia de la filosofia en hominaje al Professor R. Mondalfo. Madrid.
- Dreher, John Paul. 1990. 'The Driving Ratio in Plato's Divided Line' Ancient Philosophy 10: 159-172.
- Ferguson, A.S. 1921. 'Plato's Similes of Light (Part 1)' Classical Quarterly 15: 131-152.
- Ferguson, A.S. 1922. 'Plato's Similes of Light (Part 2)' Classical Quarterly 16: 15-28.
- Ferguson, A.S. 1934. 'Plato's Similes of Light Again' Classical Quarterly 28: 211-213.
- Ferguson, J. 1963 'Sun, Line and Cave Again' Classical Quarterly N.S. 13: 188-193.
- Findlay, J.N. 1974. Plato: The Written and Unwritten Doctrines. London and New York: Humanities Press.
- Fine, Gail. 1978. 'Knowledge and Belief in Republic V' Archiv für Geschichte der Philosophie 60: 121-139.
- Fine, Gail. 1990. 'Knowledge and Belief in Republic V-VII' 85-115 in S. Everson ed. *Epistemology*. Cambridge: Cambridge University Press.
- Fogelin, Robert J. 1971. 'Three Platonic Analogies' Philosophical Review 80: 371-382.
- Gallop, David. 1965. 'Image and Reality in Plato's *Republic' Archiv für Geschichte der Philosophie* 47: 113-131.
- Gallop, David. 1971. 'Dreaming and Waking in Plato' in J.P. Anton and G.L. Kustas edd. Essays in Ancient Greek Philosophy. Albany: SUNY Press.
- Grote, George. 1865. Plato and the Other Companions of Sokrates. 3rd edition. London.
- Grube, G.M.A. trans. 1974. Plato's Republic. Indianapolis: Hackett.
- Hackforth, R. 1942. 'Plato's Divided Line and Dialectic' Classical Quarterly 36: 1-9.
- Hahn, Robert. 1983. 'A Note on Plato's Divided Line' Journal of the History of Philosophy 21: 235-237.
- Hall, Robert. 1981. Plato. (Political Thinkers 9) London, Boston, and Sydney: G. Allen & Unwin.
- Hamlyn, D.W. 1958. 'Eixaoia in Plato's Republic' Philosophical Quarterly 8: 14-23.

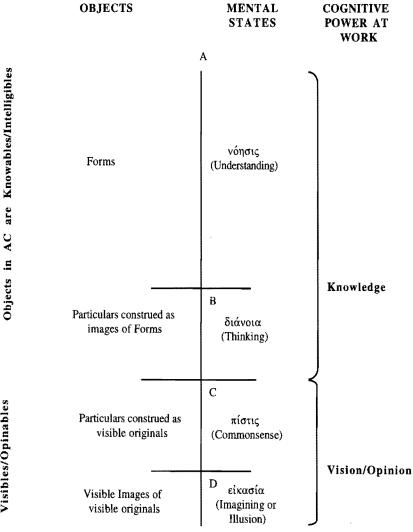
Hardie, W.F. 1936. A Study in Plato. Oxford: Oxford University Press.

- Jackson, H. 1882. 'On Plato's Republic VI.509d sqq' Journal of Philology 10: 132-150.
- Klein, Jacob. 1965. A Commentary on Plato's Meno. Chapel Hill NC: University of North Carolina Press.
- Klosko, George. 1986. The Development of Plato's Political Theory. New York and London: Methuen.
- LaFrance, Yvon. 1977. 'Platon et la géométrie: la construction de la ligne en République, 509d-511e' Dialogue 16: 425-450.
- LaFrance, Yvon. 1986. Pour interpréter Platon. La Ligne en République VI, 509d-511e. Bilan analytique des études (1804-1984). Montréal and Paris.
- Larson, R. 1979. The Republic. Arlington Heights IL: AHM Publishing.
- Lee, H.D.P. 1974. Plato, The Republic. 2nd edn. Baltimore.
- Mansion, S. 1969. 'L'objet des mathématiques et l'objet de la dialectique selon Platon' Revue Philosophique de Louvain 67: 365-388.
- Mohr, Richard. 1984. 'The Divided Line and the Doctrine of Recollection in Plato' Apeiron 8: 34-41.
- Morrison, J.S. 1977. 'Two Unresolved Difficulties in the Line and Cave' Phronesis 22: 212-231.
- Murphy, N.R. 1951. An Interpretation of Plato's Republic. Oxford: Oxford University Press.
- Nettleship, R.L. 1901. Lectures on the Republic of Plato. 2nd edn. New York and London. Reprinted 1962.
- Raven, J.E. 1953. 'Sun, Divided Line, and Cave' Classical Quarterly NS 3: 22-32.
- Raven, J.E. 1965. Plato's Thought in the Making. Cambridge: Cambridge University Press.
- Reeve, C.D.C. 1988. Philosopher-Kings: The Arguments of Plato's Republic. Princeton: Princeton University Press.
- Richards, I.A. 1966. Plato's Republic. Cambridge: Cambridge University Press.
- Ringborn, S. 1965. 'Plato on Images' Theoria 31: 86-109.
- Robinson, Richard. 1953. Plato's Earlier Dialectic. 2nd edn. Oxford: Clarendon Press.
- Rose, L.E. 1963-64 'Plato's Divided Line' Review of Metaphysics 17: 425-435.
- Ross, William D. 1953. Plato's Theory of Ideas. Oxford: Oxford University Press.
- Rouse, W.H.D. 1956. The Great Dialogues of Plato. New York: Mentor.
- Rowe, C.J. 1984. Plato. Brighton, Sussex: Harvester Press.

Sayre, Kenneth. 1983. Plato's Late Ontology. Princeton: Princeton University Press.

- Sidgwick, H. 1869. 'On a Passage in Plato, Republic B.VI' Journal of Philology 2: 96-103.
- Smith, Nicholas D. 1975. Plato's Similes of Light in the Republic: A Reinterpretation. Diss. Stanford University.
- Smith, Nicholas D. 1981 'The Objects of διάνοια in Plato's Divided Line' Apeiron 15: 129-137.
- Souilhé, J. 1919. La notion platonicienne d'intermédiare dans la philosophie des dialogues. Paris. (rpt. 1987 New York: Garland).
- Sterling, R.W. and Scott, W.C. 1985. Plato, The Republic. New York.
- Stocks, J.L. 1911. 'The Divided Line of Plato, Rep., VI' Classical Quarterly 5: 73-88.
- Strang, Colin. 1986. 'Plato's Analogy of the Cave' Oxford Studies in Ancient Philosophy 4: 19-34.
- Tanner, R.G. 1970. 'Διάνοια and Plato's Cave' Classical Quarterly N.S. 20: 81-91.
- Van Houtte, M. 1956. La Méthode ontologique de Platon. Louvain and Paris.
- Wedberg, Anders. 1955. Plato's Philosophy of Mathematics. Stockholm: Almqvist & Wiksell.
- White, N. 1979. A Companion to Plato's Republic, Indianapolis: Hackett.
- Wu, Joseph S. 1969. 'A Note on the Third Section of the Divided Line' New Scholasticism 43.

### APPENDIX



Objects in CE are Visibles/Opinables

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