THE DISSECTION OF UNITY IN PLATO'S *PARMENIDES*

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At the beginning of the second deduction in part two of the *Parmenides*, Parmenides argues that his premise, "one is," implies that the one consists of two elements, one (or unity) and being (142B5–D9). He goes on to offer a proof that the whole they constitute must contain infinitely many elements of this sort (142D9–143A3). From this he passes to a long proof that not only this complex whole, but also the element one or unity which forms a part of it is infinitely many, inasmuch as it is distributed and divided up among the infinitely many parts of being (143A4–144E7). Here is his argument, in barest outline: If unity is, unity, being, and difference (that in virtue of which unity and being are different things) must be (143A4–B8). But to speak of these things naturally involves one in treating them each severally as one, and together as two or three (143C1–D7); and if there are these numbers, there must be all numbers (143D7–144A5). So all the numbers exist. Now each number (or alternatively, each unit in every number) is part of being, and so one part of being. But the only way that unity can be distributed among all these parts of being is by being divided into parts itself, into infinitely many parts (144A5–E7).

Cornford saw this whole proof at 143A–144E as a restoration of "the Pythagorean evolution of numbers from the One"[1]—and, as such, forming the first part of a more extensive rehabilitation of Pythagoreanism in this deduction, in which "the whole course of the Pythagorean evolution of a manifold world from the One, through numbers and geometrical magnitudes, to physical body in space" is vindicated, although it serves as a logical analysis of what is basic and what is secondary in our conception of such a world, not as "an account of how a sensible world could actually come into existence."[2] In particular, he read the preliminary part of the proof (143A4–144A5) as a demonstration of how the number series is generated (or rather, can be generated) from the one. He says:[3]

> From the simple consideration of "One Entity," with its two parts and the difference between them, we have derived the unlimited plurality of numbers. Each of the three terms is "one entity" and can thus be treated as a unit; and by adding and multiplying these units we can reach any number (plurality of units), however great.

Professor Allen, however, has demonstrated that this reading of 143A–144A is unlikely to be right, since it makes Parmenides overlook a quite obvious flaw which vitiates his argument so construed:[4]

> If a given number is a plurality of units, then to derive that number is to prove that there are as many units as the number. The multiplication involved in "twice two" will require an existence assumption, namely that four is a number, that is, that there are four units. . . . Parmenides, then, working with only three units—unity, being, and difference—cannot produce pluralities greater than three by multiplication.

I follow Allen in taking Parmenides' argument to be not a generation or a

1. F. M. Cornford, *Plato and Parmenides* (London, 1939), p. 138.
2. *Ibid.*, pp. 135, 153–54, 203–4.
3. *Ibid.*, p. 141.
4. R. E. Allen, "The Generation of Numbers in Plato's *Parmenides*," *CP*, LXV (1970), 30–31.

derivation of the numbers, but a proof that if we allow that something exists (e.g., unity), we will naturally speak in such a way as to presuppose the notions one, two, three. But (the proof continues) these in turn imply the notions of twice and thrice. And if all these notions are presupposed, then—on a very natural realist view of the matter—there will be products of two and twice, three and thrice, etc. (for if one can think of thrice one, how could one not be able to think of thrice three?); and that is to say, products of the form equal-times equal, odd-times odd, etc.—in short, all of the different sorts of number. In general, then, if there is unity, there must be number.[5]

Is there reason to think that 143A–144E has anything at all to do with Pythagoreanism, once we abandon Cornford's view that there is a generation of numbers at 143A–144A? I want to argue that, although the preliminary part of Parmenides' argument (i.e., 143A–144A) has no connection worth speaking of with anything in Pythagoreanism,[6] the main part of it (i.e., 144A–E) contains features (unaccountably overlooked by scholars) which do indeed invite comparison with Pythagorean doctrine.

The preliminary part of the argument has culminated in an idea, that if there is unity, there must be number, which in turn furnishes Parmenides with the premise crucial for his demonstration that unity is divided into infinitely many bits. We take up the argument at this point. If there is number, Parmenides proposes (144A5–6), there will be many beings (ὄντα)—indeed, an unlimited plurality (πλῆθος ἄπειρον). This constitutes a move from the ontologically unselfconscious concern with number at 143D1–144A5 to the assertion of the pluralist ontology which is to be the subject of much of the rest of the passage. There now follows an argument for this proposition (144A6–C2): first for the claim that there are many beings (144A6–B4), then for the claim that there are infinitely many (144B4–C2). It is this argument which, to my mind, has been generally misread.

Consider first the proof of the claim that there are many beings. Parmenides starts (144A6–7) by reminding us that number (the class of number) is unlimited in plurality and shares in being (μετέχων οὐσίας γίγνεται). His procedure thereafter is perhaps surprising. It would have been natural for him, it might seem, to take this as permitting the speedy conclusion that there are not merely many, but infinitely many beings, viz., the numbers—whether directly, or via the intermediate observation that number is the unlimited plurality of numbers (which must equally therefore share in being), or at least that its existence is dependent on theirs.[7] From

5. See Allen, *op. cit.*, pp. 32–33, whose account I have elaborated somewhat in expounding what Parmenides says about numbers other than one, two, and three. He points out (p. 32, n. 15) that it is not clear whether Parmenides' classification of sorts of number is exhaustive (as he himself claims it is, 144A2–4), since it is uncertain whether it caters for the primes. If the primes are not accounted for, this must be just a slip in an otherwise elegant and powerful argument. But perhaps they are: Allen conjectures that "since Plato supposed that 1 is odd (see *Hip. maj.* 302A [I should prefer to refer to *Phaed.* 105C, following the interpretation of D. O'Brien, "The Last Argument of Plato's *Phaedo* (Pt. I)," *CQ*, N.S. XVII (1967), 223–25]), the primes may have been classified as odd-times odd numbers." The one objection of any strength to this is that Parmenides perhaps gives the impression that he thinks of three as the first odd number (143D7).

6. It is much more obviously connected with certain ideas of Plato's own: for the proof that unity, being, and difference are distinct (143B1–8), cf. *Soph.* 254D–257A (esp. 255E3–6); for the argument that this distinction involves thinking of these terms as one, two, and three (143C1–D7), cf. *Rep.* 522E–525A, *Theaet.* 184B–186A (and with doubts about authenticity *Hip. maj.* 299D–303C); for the treatment of numbers as distinctively even and odd (143D7–144A2), cf. e.g., *Prot.* 356E–357A, *Gorg.* 451A–B, *Phaed.* 104A–B.

7. A view which implies one or other of these positions is ascribed by Aristotle to the Platonists, *EN* 1, 1096a17–19 (on which see J. Cook Wilson, "On the Platonist Doctrine of the ἀσύμβλητοι ἀριθμοί," *CR*, XVIII [1904], 247–48, 255–56;

this point it would surely have been easy for him to argue that unity, distributed among the numbers, is infinitely many. But in fact he takes a different route, dictated, it appears, by the Eleatic requirement that if unity is to be proven many, it must be actually divided into many bits.[8] He sets out to show that being must be actually divided into many bits on the way to this result for unity, and accordingly in the sentences which presently concern us (144A7–B4) speaks not of numbers, but of "portions" (μόρια) of number. Here is his argument:

> Now if all number shares in being, each portion of number would share in it, too?—Yes.—Being, then, has been distributed over all [the portions], which are many, and it stands aloof from none of those which are, neither the smallest nor the greatest? Or is it absurd even to ask this? For how could being stand aloof from any of the things which are [something, i.e., in this context, many]? —It could not possibly.

The strategy of Parmenides' introduction of portions of number, then, is clear: since number shares in being, its portions (this concept of portions of number is one which lends itself to the identification about to be mentioned more easily, perhaps, than the concept of numbers) will be the bits of being whose existence he wants to establish. Is it necessary or possible, however, to understand what precisely these portions are? It is certainly necessary, for Parmenides in the next section of argument (144B4–C2) asks us to accept some highly specific claims about them, e.g., that the being in which they share has been chopped up as small and as large as possible, and indeed in every conceivable way. So it is to be hoped that it is possible. There seem to be three alternatives with some claim to plausibility: (1) talk of portions of number might just be a queer way of referring to individual numbers; (2) a portion might be a group or series of numbers; (3) Parmenides might have in mind units (in this case "part" would be a better translation of μόριον, as perhaps in case [1], too)—accepting, that is, that individual numbers are composed of units.[9] (1) Since Parmenides has just remarked (144A6–7) that number is unlimited in plurality, obviously because the series of natural numbers is infinite, and since he is interested in showing that there are infinitely many beings, one would expect him to go on to talk of the infinitely many members of the number series. Plainly, however, "portion (or part) of number" is not a very natural expression to use in introducing the individual numbers. (2) Here the situation is reversed. If Parmenides wanted to introduce groups or series of numbers, "portions of number" would be the sort of expression one would

H. Cherniss, *Aristotle's Criticism of Plato and the Academy*, I [Baltimore, 1944], App. VI). Cf. *Metaph.* 3, 999a6–12, where the same Platonist view should perhaps be ascribed to Xenocrates in particular (see S. Pines, "A New Fragment of Xenocrates and its Implications," *TAPhS*, LI. 2 [1961], 10–14).

8. In Melissus' view, if something had bulk, it would have parts, and so fail to be one (Frag. 9); but being is one and yet possesses size (Frags. 3, 5, 6, etc.). So it seems that he would allow that something can be extended and indivisible so long as it does not have bulk (so e.g., G. E. L. Owen, "Eleatic Questions," *CQ*, N.S. X [1960], 100–101; D. J. Furley, *Two Studies in the Greek Atomists* [Princeton, 1967], pp. 60–61). This plainly implies the idea that a thing is only divisible if it can be broken into separate bits (not just spatially distinct segments). Parmenides may have relied on this position in denying that being is divisible (Frag. 8. 22; cf. Owen, *op. cit.*, p. 96); and it seems to have been held by Zeno, too (see particularly Frag. 1 *ad init.*, with Furley, *op. cit.*, pp. 67–68).

9. It is worth pointing out that by translating 144A7–9 differently, we could ensure this interpretation without more ado: "If every number shares in being, each portion of the number would share in it, too?" (So, apparently, E. Walbe, *Syntaxis Platonicae Specimen* [Diss., Bonn, 1888], p. 26; cf. W. Waddell, *The Parmenides of Plato* [Glasgow, 1894], *ad loc.*) But I think τοῦ ἀριθμοῦ difficult with this rendering; and (*pace* Walbe, *loc. cit.*) I am inclined to think that all other instances of πᾶς (σύμπας, ἅπας) ἀριθμός in the genuine works of Plato are to be taken as "all number": *Rep.* 525A, 546C, *Theaet.* 196B, 198C, 199A. For πᾶς (etc.) + noun in Plato, see Walbe, *op. cit.*, pp. 19–24.

not be surprised to find him using. But one would expect to find some more specific account given of the sorts of group he had in mind (which is not forthcoming in this context); and one would hope to find an exposition of the reason for saying that number is divided into every conceivable sort of group or series (since that is a mathematical doctrine a good deal more sophisticated than the notion that there are infinitely many numbers or units in numbers), but this, too, is lacking. (3) "Part" would be a natural word to pick if units were being introduced.[10] Moreover, Parmenides would need no further argument to persuade us that there is an infinite plurality of units beyond his reminder that number is unlimited in plurality. Units, then, look the safest bet.[11] But our discussion has been conducted at a rather lofty level. It remains to be seen whether an interpretation of *μόριον* as "unit" will square with the detail of the text.

One obstacle seems to present itself in the very part of the argument we are examining. At 144B2–3, Parmenides implies that the *μόρια* of number possess a smallest and a largest member. But surely anyone who held the view that numbers are composed of units would be likely to hold that all such units are equal to each other (cf. *Rep.* 526A1–5, *Phil.* 56E1–3).[12] Two points must be made in reply, and in making them we shall be noticing those crucial features of the text which have apparently escaped the attention of most interpreters of the dialogue. First, if this objection against (3) were successful, we would have to allow the success of a somewhat similar objection which would be apposite to either (1) or (2). For the implication that the *μόρια* of number possess a largest member is incompatible with the idea that these *μόρια* increase in size without limit: there is no largest number, and presumably no largest group of numbers (although so imprecise is the notion of "group" which Parmenides introduces according to [2] that it is not easy to be absolutely confident). So it looks as though Parmenides will be saying something mathematically obnoxious at 144B2–3 whichever interpretation of *μόριον* we adopt. Second, there is in Plato's work

10. Notice that Parmenides could not refer to units as such without anticipating the argument at 144C2 ff.

11. It was Cornford's choice: perhaps this influenced (and in turn derived support from) his reading of 143C1–144A5, criticized above.

12. Aristotle gives us to understand that some Platonists—among whom he seems to wish to include Plato himself—treated the units in two as of a different sort from those in three (see *Metaph.* 13, 1080b4–9, with 13, 1080a23–35, 1083a31–35). If anyone came close to holding this doctrine explicitly, it was probably Xenocrates (see W. D. Ross, ed., *Aristotle's Metaphysics* [Oxford, 1924], I, lxxiv–lxxv). In Plato's case, Aristotle probably just assumed that those Ideas of number which Plato held ἀσύμβλητοι were composed of units (*Metaph.* 13, 1083a32–35: a doctrine best understood in the light of *Phaed.* 101B–C—which may indeed have been Aristotle's own proof text—where it is argued that numbers should not be explained in terms of addition or division of other numbers [so W. D. Ross, *Plato's Theory of Ideas* (Oxford, 1951), pp. 180–81]). I think that he was right and that *Rep.* 526A, *Phil.* 56E, *Theaet.* 195E ff. prove the point, although Aristotle himself seems to have used them as support for his view—I believe erroneous—that Plato παρὰ τὰ αἰσθητὰ καὶ τὰ εἴδη τὰ μαθηματικὰ τῶν πραγμάτων εἶναί φησι μεταξύ (*Metaph.* 1, 987b14–16 [cf. A. Wedberg, *Plato's Philosophy of Mathematics* (Stockholm, 1955), pp. 123–30]). Whether Plato was therefore logically committed to the bizarre view that the units in different numbers were of different sorts depends on how much *Phaed.* 101B–C is taken to imply: I should say not nearly enough for him to be liable to Aristotle's criticism.

Objection: There is nothing surprising if Plato makes his Parmenides hold that numbers are composed of what are called "unequal units" at *Phil.* 56D10 (for which see below) in the present passage (144A–E). For at 143C–D Parmenides treats unity, being, and difference as the units of two and three. Yet these will surely be "unequal" units, according to the criterion implied in the *Philebus* passage. Reply: If my reading of 143A–144E is correct, 143C–D and 144A–E have to do with units in number in quite different ways, corresponding to the interests of "popular" and "philosophical" arithmetic (to adopt the nomenclature of *Phil.* 56D). At 143C–D Parmenides is showing that there must be number concepts (2 and 3) if there is unity, being, and difference, because we can apply these concepts to such units. At 144A–E he is suggesting—incidentally—that numbers are to be thought of as consisting of units in themselves, quite regardless of whether there is anything to which they apply. Why should we expect him to think these units unequal?

a persistent emphasis on the theme that numbers should not be treated as though they were physical objects, which on one occasion is expressed in the idea that the units studied by arithmetic of a philosophical sort are to be distinguished from those with which the majority of people are concerned as being indistinguishable from one another (*Phil.* 56C–E; cf. *Phaed.* 101B–C, *Rep.* 523A–526A). Most people are interested just in the unequal units constituted by physical things—two armies, two oxen, two of this or that: οἷον στρατόπεδα δύο καὶ βοῦς δύο καὶ δύο τὰ σμικρότατα ἢ καὶ τὰ πάντων μέγιστα (*Phil.* 56D10–E1). Now this description of unequal, physical units is surely very similar to the language employed of μόρια in our passage: οὔτε τοῦ σμικροτάτου οὔτε τοῦ μεγίστου (144B2–3). So rather than suppose that this language counts against the proposal to understand μόρια as "units," we should conclude that Parmenides confuses the units of the natural numbers with units constituted by physical things. He makes just the sort of mistake which Plato elsewhere castigates.

It is time to turn to Parmenides' working out of the claim that there are infinitely many beings (144B4–C2):

> Then it [*sc.* being] has been chopped up as small as possible and as large as possible and in every possible way; and it has been divided into bits the most of all things; and there are countless bits of being.—That is so.—The bits of being, then, are the most numerous.—Certainly the most numerous.

Who would guess from this passage by itself that the beings to which Parmenides here refers are numbers (or, as I urge, units in numbers)? What place can the expression "as large as possible" have in a description of units? How could a division of being into pieces as numerous as the units ever be completed, as the division envisaged here is apparently taken to be completed?[13] It looks as though Parmenides is distorting the grammar of "number." The use of ἀπέραντον, "countless," rather than the word usually applied to number (as at 144A6), ἄπειρον, gives some support to this view. It is not, I think, that ἀπέραντον does not imply that these beings are infinitely many, but rather that it is a more informal word, and, in particular, a word not annexed to the idea of a series containing no term such that there is no further term which can be generated by the same formula: its use perhaps dulls our sense that it is predicated of units of number.[14] And of course, much

13. It is true that Zeno seems to have exploited the idea that an infinite division can be completed in such a way as to imply that it must have a smallest term: so in the argument of Frag. 1 (cf. G. Vlastos, *s.v.* "Zeno," *The Encyclopedia of Philosophy*, ed. P. Edwards [New York and London, 1967], VIII, 369–71). But despite the general approval of this notion in antiquity (documented by Vlastos), I see no reason to ascribe it to Plato. Not only does he seem absolutely clear elsewhere in the *Parmenides* that there can be no last term to an infinite series (132A1–B2, 132C12–133A3 [esp. A1–3], 142D9–143A3, 165A5–B7); but in the context where he has Zeno Frag. 1 most clearly in mind (164C–165B), so far from recognizing absolutely small products of infinite division, he specifically points out that "large," "small," and "smallest" are unstable descriptions (164C8–D4, 164E3–165A1). These passages are put in the mouth of Parmenides, as is the present one. Is Parmenides just inconsistent? I think we should say that in the present passage he has to ignore the insight he is represented as having about infinity in order to sustain the view that a plurality presupposes an actual, completed division; and that at 164C–165B he can accept the possibility of a necessarily infinite division only because he holds that at no stage in the division does one reach the real units of a proper division—those in question are merely apparent. Thus we might say that for him the expression "infinite plurality" is not in the end coherent, so that at 144A–E, the infinity of a genuine plurality is tacitly denied, at 164C–165B the status of the pluralities involved in an infinite division is dubious.

14. It is obvious that ἄπειρον is opposed by Plato to πέρας and πεπερασμένον and is taken to mean "without limit." But ἀπέραντον is quite different. An etymology is suggested at *Soph.* 241B–C. There Plato implies that ἀπορία, εὔπορος and ἀπέραντος are all associated with the idea of being able to get through something, and presumably with the words πόρος and περαίνω. Cf. *Soph.* 245D12. The meaning "inexhaustible" that this etymology suggests is confirmed by *Phil.* 27E7–28A4. Philebus, asked whether pleasure and pain possess limit or not, replies enthusiastically that they do not, for pleasure, if not something ἄπειρον, would fail to be all good: he mistakes ἄπειρος for "inexhaustible," missing the true sense, "indefinite." Socrates rejects the argument, but allows that pleasures may

of the language of the passage seems more appropriate to extended reality than to number. It might be suggested that this is a misleading clue: one recalls passages where Plato uses the same crudely physical terms ("chopping up," etc.) in discussing εἴδη (e.g., *Phaedr.* 265E–266A, *Soph.* 257C and 258E). But these terms are used by him in one other context which is concerned with numbers, and there they are associated with mistaken tendencies to treat numbers as more or less physical. In Book 7 of the *Republic*, in the passage advocating arithmetic as a study propaedeutic to philosophy, Socrates points out that the arithmetician will not tolerate anyone who "discourses putting forward numbers which have visible or tangible bodies," nor will he accept the attempt to "cut up unity in the argument," to "chop it up" into "many portions." His units are "all equal to each other" (525D5–526A5).

I submit that Parmenides' conception of number and its units is pretty systematically warped. And I suggest further that his talk of a smallest and a largest possible unit is only to be understood as the consequence of thinking about the units in number in the same way as one might think about physical things as units. It seems thoroughly muddled. The everyday description of things which could be treated as units for counting, as "smallest" (e.g., grains of sand) and as "largest" (e.g., mountains), have been taken up into a theoretical context in which each of an infinite set of units is thought of (in what is itself a very physical way of regarding the parts of a thing) as somehow individually present in a complete tally of the whole set. The result is the hybrid notion of a smallest possible and a largest possible unit, supported by no mathematical theory, but only by a hotchpotch of philosophical mistakes.

Could Plato have had Parmenides treat the units in numbers as parts of reality without fathering on him this extraordinary and unpalatable conception of units? I remarked earlier that Parmenides seems to accept the Eleatic requirement that if something is to be shown to be many, it must be actually divided into many bits. This Eleatic notion that division is a prerequisite of plurality is obviously only tempting if one is disposed to think of being as being extended, as the Eleatics were disposed. I suggest that Plato is in our passage bringing out the absurdities to which this assumption about being necessarily leads. He makes Parmenides employ characteristically Eleatic reasoning in handling the concept of number: if the being in which number shares has to be actually divided into many bits for there to be units, the division will of course be conceived of as complete, with a total outcome; and the resultant bits will of course be conceived of as each possessing extension and—since extended beings characteristically vary in size—as being larger or smaller. This treatment of number is grotesque. But it is the consequence merely of taking "numerical units" as the value of Zeno's "many" and of supposing that the Eleatic requirement of a plurality which we have just mentioned must be satisfied by them.[15]

Some conclusions are now in order.

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be counted as τῶν ἀπεράντων γε γένους if Philebus likes. The passage is misunderstood by R. Hackforth, *Plato's Examination of Pleasure* (Cambridge, 1945), p. 52, n. 3.

15. One might say that Plato is here just spelling out the crucial but hidden assumption which underlies Zeno's argument in Frag. 1. At any rate, his acceptance of the notion that a division must be actual and so result in a complete set of identifiable end products, besides being very Eleatic, would certainly be sufficient to explain how Zeno could have supposed that an infinite division (even though he recognized that it could have no last term) must result in a set of parts which is infinitely large (and so is bound to have a smallest part). For if a division is actual, the concept of a total outcome is in place, and so equally is the idea that all the products of the division can be individually listed as having some size and so summed like a finite set by simple

First, when Parmenides goes on to argue (144C2–E7) that, since each of the beings of which he has been speaking is one being, unity must be distributed to all of them by the only possible means, i.e., division into an infinite number of bits, we should be doubly suspicious of this second dissection. Not only is Parmenides' argument for its being the only possible means of distribution (that unity could not be in many places at once as a whole, 144C8–D2) obviously and intentionally reminiscent of what is generally felt to be a purposely crude argument against the Ideas in the first part of the dialogue (131A–E), but it is introduced in order to complete an account of the units of number which is demonstrably both confused and unplatonic. It is a mistake to suppose with Cornford that Plato means us to take the dissection of unity as a sound proof that "we must not . . . be afraid (as Socrates was, 131C) to say that a Form can be portioned out among things and still be one."[16]

Second, we can now see that Parmenides' treatment of number is all of a piece with the movement of his thought in this whole area of the second deduction. Very soon after this present section he begins to apply predicates—"possesses extremities," "shares in some shape," etc.—which incontrovertibly imply extension to the one, on the basis of an equivocation on *πεπερασμένον*, "limited" (145A4–B5, cf. 144E8–145A2); and he goes on to treat the purely metaphysical elements of the one (the *μόρια* of 142D1 ff.) as extended bits of it occupying places (145B6–E6, where *μέρη* is used rather than *μόρια*, just as in our passage it is used—"bits of being"—instead of *μόριον*, 144A8).[17] Both these moves, like his treatment of number, proclaim a specifically Eleatic provenance. In Fragment 8 of his poem, the historical Parmenides proceeds from the idea that what is is limited, inasmuch as it is complete,[18] to the idea that it is limited by a spatial boundary.[19] And the assumption that parts must be not merely extended but dense is made clearly enough by Melissus, and less emphatically by Parmenides and (in the surviving fragments) by Zeno, as we have already observed.

So Plato is at 144A–E concerned with the specifically Eleatic tendency to treat reality as necessarily extended. But—and here I come to my final point—his interest in this Eleatic characteristic was no doubt developed partly because he saw it as a philosophically sophisticated elaboration of a very common mode of thinking among ordinary people. This is borne out by his concern (which we have already noticed) about the way we are apt to speak of splitting up one to make two, for example,

addition. Cf. G. E. L. Owen, "Zeno and the Mathematicians," *Proc. Arist. Soc.*, N.S. LVIII (1957–58), 201–3. I do not think we should suppose that Zeno's error was a failure "to understand the principle of the infinite convergent series [i.e., converging on zero, presumably]" (Furley, *op. cit.*, p. 69; cf. Vlastos, *op. cit.*, pp. 370–71): one might understand that principle (at one level, at any rate), and still be inclined to demand that an infinite division be completed in Zeno's sense (hence the power of the Achilles).

16. *Plato and Parmenides*, p. 143. He adds that we should not take the proof in Parmenides' sense, "that the Form is cut up into pieces, each of which would be smaller than the whole." Cf. G. E. M. Anscombe, "The New Theory of Forms," *The Monist*, L (1966), 415–16.

17. I do not want to make any very strong claim about the significance of the substitution of *μέρος* for *μόριον*: clearly the two terms are often exact synonyms (e.g., *Euthphr.* 12C–E, *Soph.* 257C–D). But there is sometimes an intended difference of force between them, in my view (e.g., *Parm.* 153C), and it may be that some such difference is tacitly exploited here.

18. Frag. 8. 29–33: this description of Parmenides' position holds good, I think, whether *οὕνεκεν οὐκ ἀτελεύτητον τὸ ἐὸν θέμις εἶναι* (32) is taken as justifying the claim that reality lies within bonds (*πείρατος ἐν δεσμοῖσιν*, 30–31—so e.g., Owen, *CQ*, N.S. X [1960], 98, esp. n. 2) or as a consequence of it (so, rightly in my view, A. P. D. Mourelatos, *The Route of Parmenides* [New Haven and London, 1970], pp. 121–22).

19. Frag. 8. 42–49, according to Plato's reading of the lines: *Soph.* 244E2–7. I incline to follow Owen, *op. cit.*, pp. 95–99 and Mourelatos, *op. cit.*, pp. 115–35, 247–53, in thinking the ascription to Parmenides of a spatial boundary mistaken (*pace* C. H. Kahn, *Gnomon*, XL [1968], 129–32).

and again, about the way in which the mental activity of many people is confined to the sort of units that are constituted by the visible and tangible bodies one can count. I am accordingly inclined to suppose that Plato is absorbed here in something he took to be a very widespread form of mistake about numbers. It was a mistake on which notoriously the Pythagoreans built a whole philosophy, at least on Aristotle's account,[20] and it may be that Plato had them in mind when he wrote this passage.

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20. See e.g., *Metaph.* 1, 985b32–986a3, 986a15–21, 987b27–28; 13, 1083b8–13 (with e.g., W. Burkert, *Weisheit und Wissenschaft* [Nuremberg, 1962], pp. 28–37).