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EDITOR: VICTOR CASTON

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# ZENONIAN STRATEGIES

DAVID SEDLEY

How far did presuppositions about Zeno of Elea's overall philosophical position shape the ways in which his individual paradoxes were understood in antiquity? I shall address this question by focusing in particular on one deviant interpreter, Aristotle's pupil Eudemus, and on the two specific paradoxes to whose interpretation he can be shown to have contributed. These are the small/large paradox, and the less well-known place paradox. Eudemus, it will emerge, sought to impose a consistently nihilist interpretation on the paradoxes. In all probability he was historically mistaken to attempt this.

Nevertheless, a careful reconstruction of the methods by which he extracted the nihilist reading from Zeno's text can help us towards rediscovering details of that text. This in turn, as I shall argue in my final two sections, enables us to appreciate the place paradox as an excellent specimen of Zeno's dialectical method.

## 1. Zeno's philosophical purpose

In a celebrated encounter that takes place near the beginning of Plato's *Parmenides*, dramatically dated to 462/1 BC,<sup>1</sup> Zeno of Elea is found in conversation with a very young Socrates. Zeno, said to be aged around 40 at the time, tells Socrates how in his own

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<sup>1</sup> For the date see J. Mansfeld, 'Aristotle, Plato and the Preplatonic Doxography and Chronography', in G. Cambiano (ed.), *Storiografia e dossografia nella filosofia antica* (Turin, 1986), 1–59; repr. in Mansfeld, *Studies in the Historiography of Greek Philosophy* (Assen and Maastricht, 1990), 22–83.

youth—presumably around 480 BC—he wrote a book of antinomies. Someone, he goes on, in defiance of Zeno’s own intentions, purloined the manuscript and published a pirate edition. The book contained a series of arguments, each with the form ‘If there are many things, they are both *F* and un-*F*’, where ‘*F*’ and ‘un-*F*’ represent some pair of opposites. In some cases these appear to be polar contraries, in others simple contradictories, and sometimes it is hard to tell. According to Zeno’s book the uncontroversial-sounding belief that there is a plurality of things leads over and over again to self-contradiction—whether in the semi-formal sense that pluralism inevitably entails pairs of propositions each of which entails the contradictory of the other, or in the historically perhaps more apposite sense that the multitude of things assumed by pluralists would, whether collectively or individually, have to bear pairs of predicates which are in direct conflict with each other.

For example, we learn that the book’s opening antinomy purported to show that if there are many things they are both alike and unlike. To judge from a report in Proclus,<sup>2</sup> the gist of this argument was first to show that the many things, as a disunited plurality, must be entirely unlike, and then to point out that they must on the contrary be alike in at least one respect, namely in being unlike. Two other antinomies which we know to have been present in the book, and which have survived more or less verbatim, concluded that if there are many things they are both finitely many and infinitely many (Zeno B 3 DK = D 11 LM),<sup>3</sup> and at the extremes of both smallness and largeness (B 1–2 DK < D 5–10 LM). Other, less reliably reported antinomies included the pairs odd and even, stationary and moving, equal and unequal, and possible and impossible. According to Proclus, whose reliability on the point is uncertain,<sup>4</sup> there were forty such antinomies in all.

What was the purpose of this book? Zeno was a compatriot, disciple, and intimate of the revered philosopher poet Parmenides of Elea, in whose company he appears in Plato’s dialogue. The young Socrates, represented here as interrogating Zeno, suggests to Zeno that the latter’s purpose had been to argue for Parmenidean mo-

<sup>2</sup> Proclus, *In Parm.* 760. 25–761. 3 Cousin; see further J. Dillon, ‘Proclus and the Forty Logoi of Zeno’ [‘Logoi’], *Illinois Classical Studies*, 11 (1986), 35–41.

<sup>3</sup> LM refers to the new Loeb edition: A. Laks and G. Most, *Early Greek Philosophy*, 9 vols. (Cambridge, Mass., 2016).

<sup>4</sup> See the respective views of Dillon (‘Logoi’) and H. Tarrant, ‘More on Zeno’s Forty Logoi’, *Illinois Classical Studies*, 15 (1990), 23–37.

nism. After all, Socrates remarks, Parmenides in his poem maintains that all is one; so Zeno, in arguing against the alternative option that there are many things, can be understood as defending, by a different route, that very same monistic thesis. Zeno, however, replies that Socrates' conjecture is inaccurate, and that the book had no such lofty aim (128 B 7-E 6 Burnet):

ναί, φάναι τὸν Ζήνωνα, ὦ Σώκρατες. σὺ δ' οὖν τὴν ἀλήθειαν τοῦ γράμματος οὐ πανταχοῦ ἤσθησαι. καίτοι ὥσπερ γε αἱ Λάκαιναι σκύλακες εἰς μεταθεῖς τε καὶ ἰχνεύεις τὰ λεχθέντα· ἀλλὰ πρῶτον μὲν σε τοῦτο λανθάνει, ὅτι οὐ παντάπασιν οὕτω σεμνύνεται τὸ γράμμα ὥστε ἅπερ σὺ λέγεις διανοηθὲν γραφῆναι, τοὺς ἀνθρώπους δὲ ἐπικρυπτόμενον ὥς τι μέγα διαπραττόμενον· ἀλλὰ σὺ μὲν εἶπες τῶν συμβεβηκότων τι, ἔστι δὲ τό γε ἀληθὲς βοήθειά τις ταῦτα τὰ γράμματα τῷ Παρμενίδου λόγῳ πρὸς τοὺς ἐπιχειροῦντας αὐτὸν κωμωδεῖν ὥς εἰ ἓν ἔστι, πολλὰ καὶ γελοῖα συμβαίνειν πάσχειν τῷ λόγῳ καὶ ἐναντία αὐτῷ. ἀντιλέγει δὴ οὖν τοῦτο τὸ γράμμα πρὸς τοὺς τὰ πολλὰ λέγοντας, καὶ ἀνταποδίδωσι ταῦτά καὶ πλείω, τοῦτο βουλόμενον δηλοῦν, ὥς ἔτι γελοιώτερα πάσχοι ἂν αὐτῶν ἢ ὑπόθεσις, εἰ πολλὰ ἔστιν, ἢ ἡ τοῦ ἓν εἶναι, εἴ τις ἰκανῶς ἐπεξίῃ. διὰ τοιαύτην δὴ φιλονικίαν ὑπὸ νέου ὄντος ἐμοῦ ἐγράφη, καὶ τις αὐτὸ ἔκλεψε γραφέν, ὥστε οὐδὲ βουλευσασθαι ἐξεγένετο εἴτ' ἐξοιστέον αὐτὸ εἰς τὸ φῶς εἶτε μή. ταύτη οὖν σε λανθάνει, ὦ Σώκρατες, ὅτι οὐχ ὑπὸ νέου φιλονικίας οἶε αὐτὸ γεγράφθαι, ἀλλ' ὑπὸ πρεσβυτέρου φιλοτιμίας· ἐπεὶ, ὅπερ γ' εἶπον, οὐ κακῶς ἀπήκασας.

ἀλλ' ἀποδέχομαι, φάναι τὸν Σωκράτη, καὶ ἡγοῦμαι ὥς λέγεις ἔχειν.

'Yes, Socrates,' said Zeno. 'Actually you haven't entirely perceived the truth about the treatise, even though like Spartan hounds you're doing well at chasing the scent of what is said in it. The first thing to escape your notice is that the treatise is not altogether so puffed up as to have been written with the intention you speak of, while hiding it from people as if that were some great achievement. What you remark on is an accidental feature, whereas the reality is that these writings are a way of supporting Parmenides' thesis against those who tried to make fun of him by saying that if there is one thing many ridiculous and self-contradictory consequences befall the thesis. This book argues against those who speak of plurality, and repays them with extra to spare, its aim being to show that their own hypothesis would suffer even more ridiculous consequences, if there are many things, than the hypothesis that there is one thing, were one to conduct a thorough prosecution. That is the sort of competitiveness that led me to write it in my youth, and someone stole my draft, with the result that I did not even get to decide whether or not it should be published. This is the aspect that is escaping you, Socrates, in your belief that it was the product

not of a young man's competitiveness but of a mature adult's desire for respect. Because, as I said, you haven't done badly in representing it.'

'I accept and believe what you say,' said Socrates.<sup>5</sup>

The book does support Parmenides, Zeno seems to be saying, but being the work of his youth, and not of his maturity as Socrates seems to assume, it was written in a correspondingly youthful spirit. Parmenides had been mocked by his critics for the absurd consequences of his thesis that all is one, and Zeno's retort, articulated in his book in a spirit of youthful competitiveness, was of the 'Tu quoque' variety: to show that the consequences of pluralism, the innocent-sounding thesis that there is more than one thing, are in fact even more ridiculous.

It is hard to know precisely how to interpret Zeno's correction of Socrates regarding the aim of the former's book. It appears that three rival interpretations emerged in antiquity.<sup>6</sup>

Commentators ancient and modern alike generally take the passage as remaining, despite Zeno's correction, broadly corroborative evidence that Zeno was himself by allegiance a Parmenidean monist. On such a reading, Zeno is presumably correcting Socrates with regard only to his original motivation in writing the book, and not to its philosophical meaning. And the hypothesis of Zeno the Parmenidean does seem to make excellent sense. As well as this early book of arguments against plurality, Zeno at some point also propounded his celebrated four paradoxes of motion. (I say 'at some point' because it seems to me unlikely that the motion paradoxes were already included in his early book, for reasons I will return to later.) Significantly, plurality and motion, Zeno's targets in these two groups of arguments, are also two primary targets of Parmenides' arguments in his enigmatic poem: Parmenides' Being is a single, undivided, and motionless entity. Moreover, pluralist philosophers of Zeno's generation, such as Anaxagoras and Empedocles, strongly resisted Parmenides on both points, on the one hand accepting his contention that what exists neither becomes nor perishes, but on the other insisting that there exists a *plurality* of *moving* entities—eternal elemental stuffs which, by mixing and separating,

<sup>5</sup> All translations are my own.

<sup>6</sup> I am not even attempting to include additional interpretations of the *Parmenides* passage advanced in the modern scholarship, notable among which is J. Palmer, *Plato's Reception of Parmenides* (Oxford, 1999), 95–105. The most important materials on Zeno's reception in antiquity are now readily accessible in Zeno R 1–16 LM.

can account for the world as we experience it. Hence an attack, reactive or pre-emptive, by Zeno regarding the twin issues of plurality and motion could well have been intended as a defence of Parmenides focused on precisely those of his contentions that remained most in need of defence, and would fit neatly with the hypothesis that Zeno was a committed Parmenidean. That then was the first interpretation, and it seems to have remained the dominant one in antiquity, as it still does today.<sup>7</sup>

On the other hand, Zeno's apparent denial that his book was motivated by the desire to defend Parmenides' monism opened up a second possibility, that he was a more independent thinker than so far indicated. Aristotle, in a lost work, called Zeno 'the founder of dialectic',<sup>8</sup> and that might, for example, fit with the idea of Zeno as a roaming critic, free of all ideological commitments. This is the perspective captured by the pseudo-Plutarchan *Miscellanies*,<sup>9</sup> according to which Zeno 'put forth no view of his own, but raised further puzzles' on the matters already discussed by Parmenides. An interpretation along those lines has been advocated in modern times by Jonathan Barnes<sup>10</sup> and John Palmer,<sup>11</sup> among others. A plausible variant of this option is provided by the fourth-century rhetorician Alcidas, according to whom<sup>12</sup> Zeno was indeed a follower of Parmenides in his youth, but later became philosophically independent.

However, there was a third way to read Plato's evidence: if Zeno there denies Socrates' guess that he wrote his book in support of Parmenidean monism, and is taken to concede that monism as well as pluralism has ridiculous consequences, albeit less ridiculous ones, that may have seemed to some to leave only one further ontological stance open to him: if neither pluralism nor monism, then nihilism. If it is false that there are many things, and false too that there is only one thing, it could seem to follow that there is simply nothing. Or alternatively: if positing the existence of many things has *utterly* ridiculous consequences, and positing the existence of just one thing has *less* ridiculous consequences, positing that there

<sup>7</sup> This interpretation has been most fully defended by G. Vlastos, 'Plato's Testimony concerning Zeno of Elea', *Journal of Hellenic Studies*, 95 (1975), 136–62.

<sup>8</sup> D.L. 8. 57, 9. 25; S.E. M. 7. 7. The work was Aristotle's *Sophist*.

<sup>9</sup> Ps.-Plut. *Strom.* 6 < Zeno A 23 DK.

<sup>10</sup> J. Barnes, *The Presocratic Philosophers* [*Presocratic*] (London, 1979), ch. XII.

<sup>11</sup> J. Palmer, *Parmenides and Presocratic Philosophy* [*Parmenides*] (Oxford, 2009), 189–96.

<sup>12</sup> D.L. 8. 56.

is nothing at all could well be the thesis with the *least* ridiculous consequences.

It would be a mistake to dismiss nihilism as too absurd a thesis for any philosopher to have held. For one thing, an ostensible form of nihilism was elaborately defended by Zeno's near contemporary Gorgias in his treatise *On Not-Being*. Many scholars have prudently doubted that this was Gorgias' own ontology, but even if that is conceded Zeno's case may well be different. His teacher Parmenides had already set very strict criteria for 'being', and maintained that there was only one thing that satisfied them, dismissing everything else as mere seeming. It is not hard to imagine Zeno taking the extra step and reducing *everything* to seeming, on the ground that nothing whatsoever meets the Parmenidean criteria for being.

That a nihilist interpretation of Zeno was possible, and gained some currency in antiquity, is shown by a letter of Seneca's (*Ep.* 88. 44):

Parmenides ait ex his quae videntur nihil esse universe; Zenon Eleates omnia negotia de negotio deiecit; ait nihil esse . . . (45) si Parmenidi [*sc. credo*], nihil est praeter unum; si Zenoni, ne unum quidem.<sup>13</sup>

Parmenides said that, of the things that appear, none exists at all. Zeno of Elea put all concerns beyond our concern: he said that there is nothing . . . If I believe Parmenides, there is nothing but the One; if Zeno, not even the One.<sup>14</sup>

In modern times this thesis that Zeno was a nihilist has had, as far as I am aware, just one advocate, Néstor-Luis Cordero.<sup>15</sup>

<sup>13</sup> The passage contains a number of textual and interpretative uncertainties, and the adverb *universe* is my conjecture for the manuscripts' *universo*. Fortunately the attribution of nihilism to Zeno is secure.

<sup>14</sup> Seneca is here collecting vacuous or self-defeating philosophical stances, the offenders being Protagoras, Nausiphanes, Parmenides, Zeno, the Pyrrhonists, the Megarics, the Eretrians, and the Academics. If he has a source, it is almost certainly Epicurean: Nausiphanes was a very minor figure, but had been Epicurus' reviled teacher and became a special target of his school's critiques; cf. J. Warren, *Epicurus and Democritean Ethics* (Cambridge, 2002), 187–8. It is a tempting conjecture that Epicurus somehow learnt this interpretation of Zeno from his older contemporary Eudemos, who I shall be arguing was its source or main conduit.

<sup>15</sup> N.-L. Cordero, 'Zénon d'Élée, moniste ou nihiliste?', *La parola del passato*, 43 (1988), 100–26. F. Solmsen ('The Tradition about Zeno of Elea Re-examined' ['Tradition'], *Phronesis*, 16 (1971), 116–41; repr. in A. Mourelatos (ed.), *The Pre-Socratics* (Garden City, NY, 1974), 369–93) also presses the case for the inclusion of Parmenides among Zeno's targets, but does not go so far as to make Zeno a nihilist, partly because he denies that Parmenides was a monist.

## 2. Eudemus

How did the nihilist interpretation originate? There is good evidence, it seems to me, that it was championed in particular by Eudemus of Rhodes, pupil of Aristotle, in his own treatise the *Physics*, which was apparently written as a companion or supplement to Aristotle's *Physics*. Eudemus' nihilist interpretation of Zeno was not endorsed by Aristotle himself, who in the *Sophistical Refutations* twice echoes Plato in representing Zeno as, on the contrary, a defender of the Parmenidean One Being.<sup>16</sup> Nevertheless, Eudemus' alternative nihilist interpretation must have acquired a significant foothold in the Peripatetic tradition, since it was in due course to influence the leading Aristotelian of the Roman imperial era, Alexander of Aphrodisias.

We shall see later that Eudemus had access to independent historical sources that could, albeit questionably, be construed as favourable to this nihilist interpretation. Nevertheless, the interpretation can if necessary be adequately accounted for by a pair of simpler assumptions. (a) It is reasonable to suppose that Eudemus cited the classic passage from Plato's *Parmenides*, but understood it, in accordance with the third option I have distinguished, as indicating Zeno's self-distancing from both pluralism and monism alike. (b) Eudemus appears to have studied Zeno's book at first hand, proposing an exegesis which made monism as well as pluralism its target.

<sup>16</sup> Aristotle, *SE* 170<sup>b</sup>19–25 Ross, εἰ δὲ τινες πλείω σημαίνοντος τοῦ ὀνόματος οἰοῦντο ἔν σημαίνειν—καὶ ὁ ἐρωτῶν καὶ ὁ ἐρωτώμενος (οἶον ἴσως τὸ ὄν ἢ τὸ ἔν πολλά σημαίνει, ἀλλὰ καὶ ὁ ἀποκρινόμενος καὶ ὁ ἐρωτῶν Ζήνων ἐν οἰόμενοι εἶναι εἰρήκασιν, καὶ ἔστιν ὁ λόγος ὅτι ἐν πάντα), (ἀρ') οὗτος πρὸς τοῦνομα ἔσται ἢ πρὸς τὴν διάνοιαν τοῦ ἐρωτῶμένου διειλεγμένους; ('If some people, when the word has several meanings, were to think it has one—both the questioner and the person questioned (for example perhaps "being" or "one" has several meanings, whereas both the respondent and the questioner, Zeno, have spoken in the belief that they have one, and the argument is that all things are one), will this argument be one propounded in relation to the word, or to the thought of the person questioned?'); and *ibid.* 182<sup>b</sup>25–7, τοῖς μὲν γὰρ δοκεῖ ταῦτὸ σημαίνειν τὸ ὄν καὶ τὸ ἔν, οἱ δὲ τὸν Ζήνωνος λόγον καὶ Παρμενίδου λύουσι διὰ τὸ πολλαχῶς φάναι τὸ ἔν λέγεσθαι καὶ τὸ ὄν ('For some think that being and one mean the same thing, while others solve the argument of Zeno and Parmenides by saying that one and being have multiple meanings'). In the former passage editors excise Ζήνων as a gloss, unjustifiably in view of the latter passage, whose significance is also underrated by Palmer, *Parmenides*, 204–5 n. 24, when arguing that Aristotle dissents from the Platonic account of Zeno's purpose.



It is to Eudemus' own direct reading of Zeno's book that I now turn.

### 3. The small/large paradox

By good luck there is one paradox from Zeno's book for which we can check Eudemus' reading against the Zenonian original. This is Zeno's small/large paradox (B 1–2 DK < D 5–10 LM). The overall argumentative interrelation between its constituent steps seems to have been left by Zeno for the reader to work out, so I shall number them 1–4, without for the moment indicating their logical relation to each other.<sup>17</sup> Simplicius gives us all the clues needed to establish the following sequence:

- (1) *Each of the many has no magnitude, since it is the same as itself and one* (Simplicius' paraphrase).<sup>18</sup> // **(If there exist many things, the unit/one [τὸ ἓν] has no magnitude. For if what is one [τὸ ἓν ὅν] had magnitude, it would have parts, and they rather than it would be the units.)** (conjecture as to at least part of the original wording).
- (2) *What has no magnitude, bulk, or mass would not even exist* (Simplicius' paraphrase, 139. 9–11). **For if it were added to some other existing thing it would make it no larger. For, its magnitude being nil, its addition could make no increase in magnitude. Thus it would already follow that that which was being added was nothing. If, on its subtraction, the other thing will be no smaller, and, on its addition, will not be enlarged, clearly that which was added, or subtracted, was nothing.** (verbatim: 139. 11–15)<sup>19</sup>
- (3) **Each one, if it does exist, must have some magnitude and**

<sup>17</sup> I use bold for Zeno's original wording as quoted by Simplicius from Zeno's treatise (*συγγράμματι*, 139. 5, 140. 28 (all references are to Diels)); bold inside angle brackets (( )) for my own conjectures as to Zeno's original wording; and italic for Simplicius' paraphrases of Zeno. The reasons for arranging the text in the order shown will be indicated in the following footnotes.

<sup>18</sup> Simpl. *In Phys.* 139. 18–19: ὁ δείκνυσσι προδείξας ὅτι οὐδὲν ἔχει μέγεθος ἐκ τοῦ ἑκάστων τῶν πολλῶν ἑαυτῷ ταυτὸν εἶναι καὶ ἓν. The opening three words, '... which he shows having previously shown that ...', are the evidence that step 1 preceded step 3.

<sup>19</sup> ἐν δὴ τούτῳ δείκνυσσιν ὅτι οὐ μήτε μέγεθος μήτε πάχος μήτε ὄγκος μηθεὶς ἐστίν, οὐδ' ἂν εἴη τοῦτο. "εἰ γὰρ ἄλλω ὄντι, φησί, προσγένειτο, οὐδὲν ἂν μείζον ποιήσκειν· μεγέθους γὰρ μηδενὸς ὄντος, προσγενομένου δὲ οὐδὲν οἷόν τε εἰς μέγεθος ἐπιδοῦναι. καὶ οὕτως ἂν ἥδη τὸ προσγενομένον οὐδὲν εἴη. εἰ δὲ ἀπογενομένου τὸ ἕτερον μηδὲν ἐλαττόν ἐστι, μηδὲ αὖ προσγενομένου αὐξήσεται, δῆλον ὅτι τὸ προσγενομένον οὐδὲν ἦν οὐδὲ τὸ ἀπογενομένον."

bulk, and one part of it must be distinct from the other. And the same argument applies to the bit that protrudes—it too will have magnitude, and some part of it will protrude. It is the same to say this once and to say it always. For no such part of it will be the last, or be unrelated to a further part. (verbatim: 141. 1–6).<sup>20</sup>

- (4) Thus, if there are many things, they must be both small and large—so small as to have no magnitude, so large as to be infinite. (verbatim: 141. 6–8).<sup>21</sup>

There is no evidence that the argument started by announcing the small/large antinomy that was to be proved. As far as one can tell, readers had to await step 4 to learn from the explicit closing announcement that it has now been proved that ‘if there are many things, they must be both small and large—so small as to have no magnitude, so large as to be infinite’.<sup>22</sup> This lack of explicit signposting in Zeno’s text—whether we connect it to his book’s premature publication, to the familiar dialectical strategy of not warning one’s interlocutor where the argument is heading for, or both—is important if we are to imagine the difficulties faced by his contemporaries in tracking the logical structure of his reasoning.

Step 1, which survives only in a frustratingly condensed paraphrase, stands by itself as the proof of the ‘small’ half of the small/large antinomy. The expression ‘the same as itself’ used in the paraphrase is both surprising (isn’t *everything* the same as itself?) and hard to incorporate into the argument.<sup>23</sup> The obscurity is no doubt

<sup>20</sup> προδείξας γὰρ ὅτι εἰ μὴ ἔχοι μέγεθος τὸ ὄν οὐδ’ ἂν εἴη, ἐπάγει “εἰ δὲ ἔστιν, ἀνάγκη ἕκαστον μέγεθός τι ἔχειν καὶ πάχος καὶ ἀπέχειν αὐτοῦ τὸ ἕτερον ἀπὸ τοῦ ἐτέρου. καὶ περὶ τοῦ προὔχοντος ὁ αὐτὸς λόγος. καὶ γὰρ ἐκεῖνο ἔξει μέγεθος καὶ προέξει αὐτοῦ τι. ὅμοιον δὲ τοῦτο ἅπαξ τε εἰπεῖν καὶ αἰεὶ λέγειν· οὐδὲν γὰρ αὐτοῦ τοιοῦτον ἔσχατον ἔσται οὔτε ἕτερον πρὸς ἕτερον οὐκ ἔσται. . . .” The opening three words, ‘For having previously shown that . . .’, are the evidence that step 2 preceded step 3. Nothing directly attests that step 1 preceded step 2, but the order in which the full conclusion proceeds (step 4) confirms that the proof of ‘no magnitude’ (=step 1) is likely to have preceded that of ‘infinite magnitude’ (steps 2–3), as it must have done anyway, given that the text of steps 3–4 is reported as continuous, leaving nowhere that the proof of ‘no magnitude’ could be inserted after that of ‘infinite magnitude’.

<sup>21</sup> οὕτως εἰ πολλά ἐστιν, ἀνάγκη αὐτὰ μικρά τε εἶναι καὶ μεγάλα, μικρά μὲν ὥστε μὴ ἔχειν μέγεθος, μεγάλα δὲ ὥστε ἅπειρα εἶναι. This must follow step 3 because the quotation of Zeno continues uninterrupted from 141. 2–6 (see previous note).

<sup>22</sup> Cf. Simpl. *In Phys.* 140. 29–33 = Zeno B 3 DK = D 11 LM, where we seem to have the entire paradox and there is no introductory announcement.

<sup>23</sup> At Parm. B 8. 50–61 DK = D 8. 55–66 LM, mortals are said to postulate two distinct elements, the first of which is ‘the same as itself in all directions, but not the same as the other one’: ἐωντῶ πάντοσε τωῦτόν, τῶ δ’ ἐτέρῳ μὴ τωῦτόν (57–8). That

due to over-condensation by Simplicius or his source. For present purposes, fortunately, the remainder of the paraphrase is sufficient to make Zeno's central argument clear. To be a genuine unit, each of the many things must lack parts, because its parts, if they existed, would have a stronger claim than it does to be the units of the plurality. It follows that only items of zero magnitude, being partless, could possibly satisfy this criterion and be the units of the plurality.

Steps 2–4 are the counteracting proof that each of the many does have magnitude, indeed infinite magnitude. Step 2 introduces a deft little argument to show that if each of the many had no magnitude it would not exist. Take something with no magnitude, such as a geometrical point, and add it to something else. Since the latter thing has not grown, nothing has been added to it. Hence the thing added was nothing, and therefore did not even exist.<sup>24</sup>

Step 3 is thus enabled to open with the firm insistence that each of the many *must* therefore, in order to exist, have magnitude. The question now is *how* big each unit is. And the answer is arrived at by counting its parts, which turn out to be infinitely many, since every part of the unit has parts of its own, as likewise do *those* parts. The consequence, first made explicit in the overall conclusion at step 4, is that each of the units of the plurality, being the sum of infinitely many discrete parts, is of infinite magnitude. The antinomy is now complete.

It is not my concern on this occasion to criticize or defend the philosophical coherence of Zeno's reasoning. Rather, I want to point out the extraordinary richness and dialectical potential of the materials it offers. For example, either of the subconclusions—that the units have zero magnitude and that they have infinite magnitude—could have stood on its own as a *reductio ad absurdum* of plural-

is, to count the elements in question as two we must first be assured that they have entirely distinct identities. Perhaps, then, Zeno's similar specification for the units of the plurality was intended to avoid counting e.g. a thing and its parts, or the same thing differently specified, as distinct and co-ordinate items.

<sup>24</sup> The argument looks like a subtle equivocation on 'nothing'. The fact that nothing was added, i.e. the fact of its not being the case that something was added, is interpreted as if it meant instead that an item *was* added, namely 'nothing', i.e. a non-existent thing. Cf. "I see nobody on the road," said Alice. "I only wish I had such eyes," the King remarked in a fretful tone. "To be able to see Nobody! And at that distance, too! Why, it's as much as I can do to see real people, by this light!" (Lewis Carroll, *Alice through the Looking Glass* (1871), ch. 7). Cf. also Polyphemus' 'Nobody is killing me . . .' at Hom. *Od.* 9. 408.

ism. Again, instead of Zeno's trademark concluding antinomy—that each of the many has both no size and infinite size—the pluralists could have been taunted with a dilemma: *either* the units of their plurality have no magnitude, *or* they have some magnitude, and both horns turn out to bring with them unacceptable consequences.

Now consider a yet further dimension. If steps 1 and 2 are combined, we can generate an additional absurdity. If there exist many things, each of the many has no magnitude; and what has no magnitude would not even exist. Therefore, it would seem to follow, if there exist many things, each of the many things would not exist, and so *a fortiori* there would not exist many things after all. Thus the premiss that many things exist entails its own negation.

It goes without saying that, despite the potentially confusing juxtaposition, such a pairing of steps 1 and 2 is no part of Zeno's strategy in the small/large paradox. Step 1 concludes the proof of 'so small as to have no magnitude', and step 2 is a new beginning, inaugurating the proof of 'so large as to be infinite'. The fact that each entails the other's negation does not weaken the overall argument containing them, since that argument's aim is precisely to expose the contradictions inherent in pluralism, and we should not be surprised if one of those contradictions is already starting to be visible in two of its steps: what matters is that both steps are ones the pluralist has little choice but to accept.

#### 4. Eudemus' exegesis

Now at last we can bring in Eudemus. He seems to have responded to steps 1 and 2 in yet another way, but a closely related one. The passage in which we learn this is from Simplicius' commentary on Aristotle, *Physics* 1. 3, the precise lemma being Aristotle's remark at 187<sup>a</sup>1–3 that 'some gave in to . . . the argument from dichotomy by positing indivisible magnitudes'.<sup>25</sup> What is this 'argument from dichotomy'? Simplicius wants to know. Regarding his predecessors' answers to that question, he writes (138. 3–6):

τὸν δὲ δεύτερον λόγον τὸν ἐκ τῆς διχοτομίας τοῦ Ζήνωνος εἶναι φησιν ὁ Ἀλέξανδρος λέγοντος ὡς εἰ μέγεθος ἔχει τὸ ὄν καὶ διαιρούτο, πολλὰ τὸ ὄν καὶ οὐχ ἓν ἔτι ἔσσεσθαι, καὶ διὰ τούτου δεικνύντος ὅτι μηδὲν τῶν ὄντων ἔστι τὸ ἓν.

<sup>25</sup> ἔνιοι δ' ἐνέδωσαν τοῖς λόγοις ἀμφοτέροις, τῷ μὲν ὅτι πάντα ἓν, εἰ τὸ ὄν ἐν σημαίνει, ὅτι ἔστι τὸ μὴ ὄν, τῷ δὲ ἐκ τῆς διχοτομίας, ἅτομα ποιήσαντες μεγέθη.

The second argument, the one from dichotomy, Alexander says, is Zeno's: that if what exists [τὸ ὄν] had magnitude and were divided, what exists would be many and no longer one. Zeno, he says, shows through this that the One is not among the things that exist [ὅτι μηδὲν τῶν ὄντων ἔστι τὸ ἓν].

We thus learn that, when Aristotle says that a theory of indivisible magnitudes arose as a response to the 'argument from dichotomy', according to Alexander his phrase 'argument from dichotomy' refers to an argument with which Zeno sought to refute the existence of the One. From the ensuing context there is not much doubt that the One that he understood Zeno as rejecting was not, or not merely, the unit assumed by pluralists, as we might have expected, but was or included the Parmenidean One itself. For Simplicius continues (138. 18–22):

ταῦτα τοῦ Ἀλεξάνδρου λέγοντος ἐφιστάνειν ἄξιον πρῶτον μὲν, εἰ Ζήνωνος οἰκεῖον τοῦτο τὸ μηδὲν τῶν ὄντων λέγειν τὸ ἓν, ὅς γε τοῦναντίον πολλὰ γέγραφεν ἐπιχειρήματα τὸ πολλὰ εἶναι ἀναιρῶν ἵνα διὰ τῆς τῶν πολλῶν ἀναιρέσεως τὸ ἓν εἶναι πάντα βεβαιωθῇ, ὅπερ καὶ ὁ Παρμενίδης ἐβούλετο.

When Alexander says this it is worth pondering, first of all, whether this assertion that 'the One is not among the things that exist' belongs to Zeno, who is, on the contrary, the author of many proofs in which he refutes the thesis that there are many things in order to prove, through the refutation of these many, that all things are one, in accordance with Parmenides' aim.

Here Simplicius is evidently relying on the authority of Plato, interpreted as confirming that Zeno's little book of antinomies was written in indirect support of Parmenidean monism—that is, in favour of restricting Being to the Eleatic One, a single, unique, all-encompassing, indivisible, and changeless entity. Since Simplicius thinks this disproves Alexander's competing view, that Zeno denied the existence of the Eleatic One, we can be fairly confident that the One that Alexander understood to be Zeno's target was, or included, the One of Parmenidean monism. That this is Alexander's understanding is in fact corroborated by Simplicius' later remark (141. 8–11):

μήποτε οὖν Ζήνωνος μὲν ἔστιν ὁ ἐκ τῆς διχοτομίας λόγος, ὡς Ἀλέξανδρος βούλεται, οὐ μὲντοι τὸ ἓν ἀναιρῶντος ἀλλὰ τὰ πολλὰ μᾶλλον τῷ τάναντία συμβαίνειν τοῖς ὑποτιθεμένοις αὐτὰ καὶ ταύτην τὸν Παρμενίδου λόγον βεβαιοῦντος ἐν εἶναι λέγοντα τὸ ὄν.

Perhaps then, while Alexander is right that the 'argument from dichotomy' is Zeno's, Zeno was *not refuting the One but rather the many*, by appeal to

the contraries that result for those who hypothesize the many, and in this way *was confirming Parmenides' argument which says that what exists is one.*

The words which I have emphasized would make poor sense here if by 'the One' Simplicius were referring to the putative units of a plurality. The expression can only be a reference to the Parmenidean One, which Alexander took Zeno to be refuting.

In this same context, Simplicius points to Eudemus as Alexander's apparent source for the heretical interpretation (138. 29–139. 3):

ἀλλ' ἔοικεν ἀπὸ τῶν Εὐδήμου λόγων ὁ Ἀλέξανδρος δόξαν περὶ τοῦ Ζήνωνος λαβεῖν ὡς ἀναιρουντος τὸ ἓν· λέγει γὰρ ὁ Εὐδημος ἐν τοῖς Φυσικοῖς “ἄρα οὖν τοῦτο μὲν οὐκ ἔστιν, ἔστι δέ τι ἓν; τοῦτο γὰρ ἠπορεῖτο. καὶ Ζήνωνά φασιν λέγειν, εἴ τις αὐτῷ τὸ ἓν ἀποδοίη τί ποτέ ἐστιν, ἔξειν τὰ ὄντα λέγειν. ἠπόρει δὲ ὡς ἔοικε διὰ τὸ τῶν μὲν αἰσθητῶν ἕκαστον κατηγορικῶς τε πολλὰ λέγεσθαι καὶ μερισμῷ, τὴν δὲ στιγμὴν μηθὲν τιθέναι. ὁ γὰρ μήτε προστιθέμενον αὔξει μήτε ἀφαιρούμενον μειοῖ, οὐκ ᾔετο τῶν ὄντων εἶναι . . .”

But it seems to be from Eudemus' words that Alexander got his view about Zeno refuting the One. For Eudemus says in his *Physics*: 'Then is it the case that, although this is not so,<sup>26</sup> there is a One? For that was a subject of puzzlement. And they say that Zeno remarked that if someone would explain to him what on earth the One is, he would be able to speak of the things that exist. He was puzzled, it seems, because every perceptible was spoken of as many, both predicatively and by division, and he supposed that the (geometrical) point was nothing at all, since that which neither increases something when added nor decreases it when removed is not, he thought, among the things that exist . . .'

The closing words here confirm that it was in the small/large paradox which we have already examined that Eudemus thought he could find Zeno's attack on the Parmenidean One. And as we have seen, if steps 1–2 of the small/large paradox are taken conjointly, they may seem to show that *any* genuine 'one' must be so small as to have no magnitude (step 1), and therefore be non-existent (step 2). Eudemus saw the Parmenidean One as falling victim to this argument. If it were divisible (which Parmenides naturally enough denied, B 8. 22–5), it would not be a One in the first place; but if it is not divisible, it is sizeless, and therefore forfeits its existence.<sup>27</sup>

One might have expected Eudemus' interpretation to be that this

<sup>26</sup> Since we lack the immediate context of Eudemus' remark, there is no basis for guessing what 'this' referred to.

<sup>27</sup> Parmenides was deemed to have a counter-argument to this, ascribed to him

is a case of collateral damage which was nevertheless acceptable to Zeno: the pairing of steps 1 and 2 overtly and formally serves to eliminate the units of a *plurality*, but as a matter of fact, and neither to Zeno's regret nor to his embarrassment given his supposed hostility to Eleatic monism (see above, '... they say that Zeno remarked that . . .'), it takes the Parmenidean One down with it as well. Such may have been Alexander's interpretation of the Zenonian paradox (Simpl. *In Phys.* 99. 12–16), and he apparently invoked Eudemos as endorsing an interpretation along those lines. But Simplicius insists that he has checked Eudemos' actual words and that Alexander had in fact misread him.<sup>28</sup> For Eudemos himself, according to Simplicius, thought that this was an argument in which Zeno *conceded* the existence of the many, and argued *purely* against the Parmenidean One (Simpl. *In Phys.* 99. 7–17):

ἐν ᾧ ὁ μὲν τοῦ Ζήνωνος λόγος ἄλλος τις ἔοικεν οὗτος εἶναι παρ' ἐκείνον τὸν ἐν βιβλίῳ φερόμενον, οὗ καὶ ὁ Πλάτων ἐν τῷ Παρμενίδῃ μέμνηται. ἐκεῖ μὲν γὰρ ὅτι πολλὰ οὐκ ἔστι δεικνύσι βοηθῶν ἐκ τοῦ ἀντικειμένου τῷ Παρμενίδῃ ἐν εἶναι λέγοντι· ἐνταῦθα δέ, ὡς ὁ Εὐδήμιος φησι, καὶ ἀνήρει τὸ ἐν (τὴν γὰρ στιγμὴν ὡς τὸ ἐν λέγει), τὰ δὲ πολλὰ εἶναι συγχωρεῖ. ὁ μὲντοι Ἀλέξανδρος καὶ ἐνταῦθα τοῦ Ζήνωνος ὡς τὰ πολλὰ ἀναιρούντος μεμνήσθαι τὸν Εὐδήμιον οἶσται. “ὡς γὰρ ἰστορεῖ, φησὶν, Εὐδήμιος, Ζήνων ὁ Παρμενίδου γνώριμος ἐπειράτο δεικνύναι ὅτι μὴ οἷόν τε τὰ ὄντα πολλὰ εἶναι τῷ μηδὲν εἶναι ἐν τοῖς οὖσιν ἐν, τὰ δὲ πολλὰ πλήθος εἶναι ἐνάδων.” καὶ ὅτι μὲν οὐχ ὡς τὰ πολλὰ ἀναιρούντος τοῦ Ζήνωνος Εὐδήμιος μέμνηται νῦν, δῆλον ἐκ τῆς αὐτοῦ λέξεως.

by Porphyry (ap. Simpl. *In Phys.* 140. 1–7), and seemingly an expansion of his B 8. 22 DK=D 8. 27 LM, οὐδὲ διαμετρὸν ἐστίν, ἐπεὶ πᾶν ἐστίν ὁμοῖον. Since the Eleatic One, assumed to be extended, is entirely homogeneous, it is divisible either everywhere or nowhere. But if divisible everywhere it consists of parts of zero magnitude, thus facing the sorts of difficulty raised by Zeno's step 2. Therefore it is divisible nowhere. The pluralists cannot use the same escape route, because to hold that many things exist is already to concede that reality is divisible at least somewhere, namely where the constituent entities are adjacent to each other. See further D. Sedley, 'Atomism's Eleatic Roots' ['Roots'], in P. Curd and D. Graham (eds.), *The Oxford Handbook of Presocratic Philosophy* (Oxford, 2008), 305–32 at 321–2.

<sup>28</sup> Palmer, *Parmenides*, 201, cites Alexander's interpretation of Eudemos here as his evidence that the latter thought Zeno to be attacking *only* the ones of a plurality. But (a) Simplicius claims (99. 7–17, quoted below) to have checked Alexander's reading of Eudemos against the text of the latter and found it incorrect. (b) Even Alexander, at least as Simplicius understood him, thought that Zeno was attacking the Parmenidean One *as well* (138. 1–6, 18–22), and Alexander was influenced in this by Eudemos (138. 29–139. 3). (c) Simplicius (139. 3–9) concedes to Eudemos and Alexander that Zeno may have attacked the Parmenidean One in the course of an argumentative exercise like that in the second part of the *Parmenides*, and resists them only so far as Zeno's *book* is concerned.

Here [i.e. in Eudemos' words about Zeno, as already quoted]<sup>29</sup> this argument of Zeno's appears to be a different one, over and above the one in his book which Plato mentions in the *Parmenides*. For in that one he shows that there are not many things, in support, from the opposite point of view, of Parmenides, who said that one thing exists. But here, according to Eudemos, *he was actually eliminating the One* (for when he speaks of the geometrical point he means the One), *while conceding the existence of the many*. Alexander, on the other hand, thinks that here too Eudemos is referring to Zeno as eliminating the many, saying 'For as Eudemos records, Zeno the associate of Parmenides tried to show that it is not possible for the things that exist to be many because there is no one/unit among existent things, and the many are a multitude of units.' That Eudemos is not here referring to Zeno as eliminating the many is clear from his own words.

How could Eudemos, as reported in the words I have emphasized, think that Zeno was here conceding plurality, and arguing purely against monism? Earlier I suggested that the original wording of step 1 might have been:

If there exist many things, the unit/one [ $\tau\delta\ \epsilon\nu$ ] has no magnitude. For if what is one [ $\tau\delta\ \epsilon\nu\ \delta\nu$ ] had magnitude, it would have parts, and they rather than it would be the units.

It is clearly Zeno's opening conditional, 'If there exist many things . . .', that Eudemos has taken, however implausibly, as *conceding* for the sake of argument that plurality does exist, in order to eliminate the Eleatic One. One might paraphrase the reconstructed step 1, as understood by Eudemos, as follows. 'If we concede for the sake of argument that there exist many things, that enables us to raise a problem about the Eleatic One, namely that it must have no magnitude, but be just a (geometrical) point: for if the One Being [ $\tau\delta\ \epsilon\nu\ \delta\nu$ , the Greek phrase now being understood very differently, as a reference to the Eleatic One] had magnitude, it would have parts, and no longer be a One.' Step 2 would then continue in the familiar way, by showing that the Eleatic One in that case does not exist, since, having no magnitude, if added to something it would make it no larger.

But why would Eudemos think that Zeno chose to make that opening concession, that plurality does exist? The answer is surely as follows. Step 2 asks what would happen if the One (meaning the

<sup>29</sup> The reference is to Eudemos' words quoted by Simplicius at 97. 11–16, which however are identical, apart from one minor variant, to 138. 30–139. 3, quoted above.



Eleatic One according to Eudemos) were added *to something else*; but on the doctrine of a Parmenidean One it makes no sense to speak of something else, since this One would be by its very essence all-embracing.<sup>30</sup> The hypothetical concession, then, was understood by Eudemos as Zeno's way of licensing this kind of move against the Parmenidean One, by introducing into the argument counterfactual external entities to which this sizeless One might, in a thought experiment, be imagined as being added. We do not have to agree with Eudemos to recognize that such is his exegetical strategy.

We must now return to Eudemos' citation, already quoted above, of an otherwise unknown oral tradition about Zeno (138. 32–3):<sup>31</sup> '[T]hey say that Zeno remarked that if someone would explain to him what on earth the One is, he would be able to speak of the things that exist.' By this remark, Zeno may well have meant, again with regard to step 1 of the small/large paradox, that if someone would tell him what the unit *of the plurality* is, he would be able to make sense of there being a plurality of beings: hence 'speak of things [plural] that exist'. But evidently, to judge from Simplicius' hostile reaction (139. 3–9), Eudemos has taken Zeno to mean that he cannot make sense of the Parmenidean One, and that in the absence of that understanding he is unable to give an account of Being quite generally. Eudemos' story—of a Zeno who confessed his inability to give an account either of the Parmenidean One or, in consequence, of Being quite generally—is entirely in keeping with, and may even be what motivated, his reading of steps 1 and 2 as a denial of the Parmenidean One.

What have we learnt here about Eudemos' methodology in reading Zeno? At least the following. Eudemos brought with him to the text of Zeno a preconceived global interpretation, probably based at least in part on an oral tradition which he took to record Zeno's anti-Parmenideanism, and further supported by what I earlier listed as the third available reading of Zeno's book and its purpose as pre-

<sup>30</sup> I owe the point to Gábor Betegh.

<sup>31</sup> For the text see the quotation of 138. 29–139. 3 above. J. Mansfeld and O. Primavesi, *Die Vorsokratiker* (Stuttgart, 2011), 371, rightly recognize Eudemos' *φασι* as citation of an oral tradition, as do Laks and Most at Zeno D 10 LM ('They report . . .'), where some have dismissed it as mere 'hearsay' (Solmsen, 'Tradition', 138) or as an 'anecdote' and 'second-hand story' (Barnes, *Presocratic*, 235). As I hope to bring out below, the oral tradition about Zeno was absolutely vital, given that he almost certainly published no further paradoxes after his youthful book against plurality.

sented in Plato's *Parmenides*. According to this preconceived interpretation, Zeno had been a critic not only of pluralism, but also of the monism espoused by his master Parmenides, the net result being some kind of nihilism. Support for this reading was, in the case we have examined, built up by diverting attention away from the overall architecture of the paradox found in Zeno's book, and focusing instead on the damage that can be done to Eleaticism by alternative construals of the same materials.

Although I do not intend to commit myself to any historical thesis regarding Zeno's philosophical purpose, it must be a serious possibility that he either was, or later became, a nihilist, but wrote his youthful book just as an attack on pluralism. Alternatively, the attribution of nihilism to him may have been simply a mistaken inference from his words in the *Parmenides*, and/or from other evidence now lost to us. Whichever hypothesis we choose, it seems clear that Eudemus' error was that of insisting, in defiance of textual indicators to the contrary, on finding this nihilism somehow present in Zeno's book.

Having learnt something of Eudemus' exegetical approach to Zenonian paradoxes, we can set him aside for a while, to return to him later, once the place paradox has been properly introduced.

## 5. The place paradox

This argument is, apart perhaps from the Millet Seed puzzle, Zeno's least famous and least discussed paradox. Yet there are good reasons why we should be interested in it. First, book 4 of Aristotle's *Physics* makes it clear that this puzzle exercised considerable influence on Aristotle when formulating his own analysis of place,<sup>32</sup> much as, in book 6, other more famous Zenonian paradoxes

<sup>32</sup> There is an excellent discussion of this aspect in B. Morison, *On Location: Aristotle's Concept of Place [Location]* (Oxford, 2002), 81–102. Additionally, the place paradox does get a section to itself in Barnes, *Presocratic*, 256–8, 'The paradox of place'; as also in J. Palmer, 'Zeno of Elea', in E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2017 edn.) <<https://plato.stanford.edu/archives/spr2017/entries/zeno-elea/>>, and in N. Huggett, 'Zeno's Paradoxes', *ibid.* (Winter 2010 edn.) <<https://plato.stanford.edu/archives/win2010/entries/paradox-zeno/>>; likewise in G. Köhler, *Zenon von Elea [Zeno]* (Berlin, 2014), ch. 4, 'Zenons mutmaßliches Fragment B 5—das sogenannte "Argument des Orts"'. In K. Algra, *Concepts of Space in Greek Thought [Space]* (Leiden, 1995) 50–1, it gets a long footnote.

influenced Aristotle's account of the continuum. Second, it contains the earliest surviving explicit allusion to the concept of 'place' in Greek philosophy. Third, it is a candidate for being the earliest infinite-regress argument to come down to us. Fourth, and closest to my specific concerns in this paper, fitting it into Zeno's œuvre provides an opportunity to advance our understanding of Eudemus' exegetical strategy, and thereby to get back closer to the Zenonian original.

In *Physics* 4. 1–5 Aristotle develops his own controversial analysis of place. In the second half of chapter 1 he sets out a series of *aporiai* about place which his own account must be able to resolve. Among them is the following (4. 1, 209<sup>a</sup>23–5):

ἔτι δὲ καὶ αὐτὸς εἰ ἔστι τι τῶν ὄντων, ποῦ ἔσται; ἢ γὰρ Ζήνωνος ἀπορία ζητεῖ τινα λόγον· εἰ γὰρ πᾶν τὸ ὄν ἐν τόπῳ, δῆλον ὅτι καὶ τοῦ τόπου τόπος ἔσται, καὶ τοῦτο εἰς ἄπειρον.

Also, if place is itself one of the things that exist, where will it be [ποῦ ἔσται; alternatively 'it will be somewhere, ποῦ ἔσται']?<sup>33</sup> For Zeno's puzzle demands some reasoning: if everything that exists is in a place, clearly there will be a place of the place as well, and so on *ad infinitum*.

In chapter 3 Aristotle explains that there are many—eight in fact—ways that one thing can be 'in' another, only one of which adds up to the simple notion of spatial containment. Thus there are many ways in which *x* can be 'in' *y* without *y* being *x*'s place. This enables him, near the end of the chapter (4. 3, 210<sup>b</sup>21–7), to return armed to Zeno's puzzle:

ὅτι μὲν οὖν ἀδύνατον ἐν αὐτῷ τι εἶναι πρῶτως δῆλον. ὁ δὲ Ζήνων ἠπόρει, ὅτι εἰ ὁ τόπος ἔστι τι ἐν τινι ἔσται, λύειν οὐ χαλεπόν. οὐδὲν γὰρ κωλύει ἐν ἄλλῳ μὲν εἶναι τὸν πρῶτον τόπον, μὴ μέντοι ὡς ἐν τόπῳ ἐκείνῳ, ἀλλ' ὥσπερ ἡ μὲν ὑγίεια ἐν τοῖς θερμοῖς ὡς ἕξις, τὸ δὲ θερμὸν ἐν σώματι ὡς πάθος. ὥστε οὐκ ἀνάγκη εἰς ἄπειρον ἵέναι.

Thus that it is impossible for anything to be primarily in itself is clear. And Zeno's puzzle, that if place is something it will be in something, is not hard to solve. For nothing prevents a primary place from being in something else, so long as that thing is not its place, but in the way that health is in

<sup>33</sup> Like Morison (*Location*, 82 n. 5) and LM (D 13), I somewhat prefer the interrogative ποῦ, which has the merit of delivering a real *aporia*, in the interrogative style of other *aporiai* in the surrounding text, and then going on to attribute some version of this *aporia* to Zeno. On the other hand, a non-interrogative version of the *aporia*, ἐν τινι, 'in something' and not 'in what . . .?', will be put in Zeno's mouth in the next passage (4. 3, 210<sup>b</sup>22–3), so some textual uncertainty must remain.