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BETWEEN ELEATICS AND ATOMISTS: GORGIAS' ARGUMENT AGAINST MOTION

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Abstract: The aim of my paper is to investigate Gorgias' argument against motion, which is found in his Peri tou mē ontos and preserved only in MXG 980a1-8. I tried to shed new light both on this specific reflection and on the reliability of Pseudo-Aristotle's version. By exploring the so called "change argument" and the "argument from

divisibility", I focused on the particular strategy used by the Sophist in his synthetikē apodeixis, which should be investigated in relation to the dispute between monistic and pluralistic ontology. In this regard, the puzzle from "divisibility everywhere" and its connection with the void as not-being can provide new elements to grasp the philosophical background in which the Sophist moves. On the one hand, Gorgias' argument against motion is part of a broader dispute on the divisibility/indivisibility of being; on the other, his original elaboration of this puzzle seems to be perfectly understandable within the controversy between Eleatics and Atomists, and coherent with the argumentative style of the Sophist.

Keywords: Gorgias, Eleatism, Atomism, Motion, Divisibility.

We all have reasons

For moving.

I move

To keep things whole

(Mark Strand)

Brief review of the two PTMO versions

The *Peri tou me ontos* (PTMO) of Gorgias has been preserved by two different versions: Sextus Empiricus (M. 7.65-87> 82B 3 DK> D26b LM) and the pseudo-Aristotelian Anonymous (MXG 979a12-980b21> D26a LM> \neq DK). The question of which of the two versions is more reliable has been highly debated, and for the most part the Anonymous has been preferred as more trustworthy. My aim is to focus not on this specific subject, which I have dealt with in the past, but to investigate Gorgias' reflection upon motion, which is found only in MXG.

Apart from some slight differences between the two versions, the summary statement of the three theses may be put as follows: "Gorgias says that nothing is; and if [scil. something] is, it is unknowable, and if [scil. something] both is and is knowable, it cannot be indicated to other people" (MXG 979a12-13). The two versions differ, however, starting from the strategy adopted in the structure of the first thesis, which according to the Anonymous is divided into two main arguments:

1. The protos logos or idios apodeixis is the "proper proof" (MXG 979a25-33), in which Gorgias demonstrates that nothing is by advancing arguments derived from three different hypothetical premises: (a) that what is not is what is not; (b) that what is not is; (c) that what is not and what is are identical. Whichever of the three premises is accepted, Gorgias concludes that it can neither be nor not be.

2. The deuteros logos or synthetike apodeixis is the "synthetic demonstration" (MXG 979b20-980a8), derived from the combination and the refutation of other philosophers' doctrines (especially those of Melissus and Zeno). In its turn, this proof is developed into two distinct arguments, the ungenerated/generated antinomy and the one/many antinomy, with the addition of an argument against motion that will be the subject of my investigation. This demonstration also aims at concluding that nothing is.

No explicit reference to either the proper proof or the synthetic one is found in Sextus; here the conclusion that nothing is is reached by denying each of the three horns of a trilemma, according to which "if [scil. something] is, then it is either what is or what is not, or both what is and what is not" (M. 7.66). My suggestion is that in Sextus' version the Gorgianic arguments are forced into a scheme widely used by the Skeptic or his source. As a confirmation of a Skeptical interference with Gorgias' text, it should be considered that the trilemma with the third horn connecting two contradictories or two opposites (proposed also in the argument on generation, M. 7.68), is a typical strategy of Aenesidemus, from whom Sextus borrows many arguments preserved in this section of M. 7. The hypothesis that the synthetic demonstration could actually be invented by the Anonymous (or other philosophers by whom he had been inspired) has been generally rejected. In contrast, the Sophist's method based on the antithetical assembly of others' doxai is confirmed by ancient sources: indeed, Gorgias probably influenced the tendency, which went on to become widespread in doxography, to gather and to combine different doctrines within opposing schemes. Furthermore, the Anonymous didn't have any plausible reason to arbitrarily add parts to Gorgias' treatise: by considering De Gorgia, we can maintain that when the Anonymous intervenes, he does so explicitly, as happens at the beginning and in the refutation of the idios apodeixis (see respectively MXG 979a14-24 and 979a34b19).

Drawing different arguments from his opponents who argue in favor of the same thesis, the Sophist combines and mutually contrasts their doctrines; moreover, their connection will bring to light and finally delegitimize their shared assumption. It is sometimes maintained that Gorgias is exclusively contrasting arguments within Eleatic philosophy, whose internal contradictions would be traced and faced by his strategy: evidence in support of this claim would be the fact that the only philosophers explicitly mentioned by the Anonymous are Melissus and Zeno. However, despite this, the synthetike apodeixis should also be investigated in relation to the dispute between Eleatism and anti-Eleatism. For Gorgias' methodology aims to connect the different doxai into two main and opposing groups based on the ungenerated/generated and one/many antitheses, which were so widely discussed in the Presocratic philosophy, especially between Eleatics and Atomists. In order to reach his 'deconstructive' end, Gorgias chiefly exploits the arguments of Melissus and Zeno, led by a prevalent, but not exclusively, anti-Eleatic task: for once unity and eternity are refuted, he concludes neither that being is many nor that it is generated, but – more radically – that nothing is.

The arguments in MXG attributed to Melissus and Zeno are often intertwined and not easily distinguishable. This is not a result, however, of a confused analysis by the Sophist; on the contrary, Gorgias must have been very careful in choosing the topics and in adopting the best strategy to make his assertions more effective. On the whole, the apagogical argument, which he widely uses, derives from Zeno; and yet Gorgias disproves a thesis not just by showing that it would inevitably lead to contrary or contradictory conclusions, but by inserting it in a more complex process, where arguments originally employed for an opposite purpose clash with one another (for example, Zeno's arguments against multiplicity end up being used against Melissus' one). Whereas the dialectical strategy is Zenonian, the overall inspiration of the synthetike apodeixis seems to be primarily anti-Melissean: for Gorgias recovers, and even radicalizes, Eleatic suggestions, though used with an anti-Eleatic purpose. On the one hand, the lack of Melissus' and Zeno's names in Sextus' version invites us to think that they were not made explicit in the original treatise; on the other, their arguments must have been well recognizable to shrewd readers or listeners. We can then assume that the Anonymous, even if it is the case that he added the names of the two Eleatics himself, does not force or manipulate the arguments, but limits himself to clarifying the philosophical origin of some of the Sophist's claims.

First antinomy: either ungenerated or generated

In spite of some evident stylistic differences, the two versions offer a rather similar reasoning against being ungenerated and generated. However, in contrast with the Anonymous, Sextus proposes a trilemma with the third horn composed by two opposites, namely, eternal and generated at the same time (M. 7.72). The MXG version, which I follow as more reliable, introduces the widely discussed ungenerated/generated dilemma as follows:

μετὰ δὲ τοῦτον τὸν λόγον φησίν· εἰ δὲ ἔστιν, ἤτοι ἀγέννητον ἢ γενόμενον εἶναι. καὶ εἰ μὲν ἀγένητον, ἄπειρον αὐτὸ τοῖς τοῦ Μελίσσου ἀξιώμασι λαμβάνει·

τὸ δ' ἄπειρον οὐκ ἂν εἶναί που.¹ οὕτε γὰρ ἐν αὑτῷ οὕτ' ἂν ἐν ἄλλῷ εἶναι· δύο γὰρ ἂν οὕτως ἢ πλείω εἶναι, τό τε ἐνὸν καὶ τὸ ἐν ῷ, μηδαμοῦ δὲ ὂν οὐδὲ εἶναι κατὰ τὸν Ζήνωνος λόγον περὶ τῆς χώρας.

After this argument he says: if [*scil*. something] is, it is either ungenerated or generated. And if it is ungenerated, he accepts by Melissus' axioms that it is unlimited. But the unlimited *could not be anywhere*.²For it is neither in itself nor in something else: for in this way they would be two or more [*scil*. unlimiteds], the one within and the one within which. But nothing is that would be nowhere, according to Zeno's argument about place.

(*MXG* 979b20-25> D26a LM, transl. Laks-Most, adapted)

The influence of arguments drawn from Melissus is evident, starting from the assumption that what is ungenerated (and therefore eternal) is infinite, and what is infinite must be one. First of all, Melissus supports the eternity of being (30B1 DK > D2 LM), that is, its lack of beginning and end; then, he deduces the infinity from the eternity (30B2-4 DK > D3-5 LM). Finally, if what is is unlimited, it must be one: "for if it were two, it could not be unlimited, but they would limit each other" (30B6 DK > D6 LM). Being, as infinite, cannot be delimited by anything.³

The dismissal of plurality is inferred from the infinity as essential feature of being: for two (or more) unlimiteds would find a limit in each other and would no longer be infinite. The same argument is

¹ που Foss : ποτε mss.

² Because of its consistency with the following part of the argument and its analogy with *M*. 7.69, I accept the correction of Foss που instead of the manuscript version ποτε, preferred by Laks-Most (2016) who translate "the unlimited could not ever be". Cf. Arist. *Phys.* IV 1, 209a23 (ἕτι δὲ καὶ αὐτὸς εἰ ἔστι τι τῶν ὄντων, ποὺ ἔσται): it is controversial whether the adverb in this Aristotelian passage should be understood as indefinite ποὺ according to the mss. reading, or ποῦ according to Ross' proposal. See also note 12.

³ The same sequence of attributes of being is preserved in 30B7[1] DK> D10 LM οὕτως οὖν ἀίδιόν ἐστι καὶ ἄπειρον καὶ ἕν καὶ ὅμοιον πῶν [...].

preserved also in *MXG*, but while in Melissus the puzzle of the two infinites is aimed at demonstrating the unity of being, in Gorgias it leads to the conclusion that nothing is. After admitting that infinity, as such, is nowhere, the Sophist resorts to Zeno's assumption that what is nowhere is not (*MXG* 979b25): although no such Zenonian argument has been explicitly handed down, we can suppose it was one of the conclusions of the motion puzzle according to which "what is moved does not move either in the place in which it is nor in the one in which it is not" (29B4 DK> D17 LM). But what is nowhere is not, as Zeno would probably have concluded. Finally, we don't know much about the Zenonian argument about place: according to Aristotle's testimony, Zeno maintains that whatever exists must be in a place, and the place itself, if it is considered one of the existing things, must be in a place, and that place in a further place, and so on and so forth. Therefore, place does not exist.⁴

By contrast, in Sextus (*M*. 7.69-70) the Melissean aporia of the infinite either in itself or in something else is developed by means of the distinction between containing and content, place and body, according to a topic highly discussed in many sections of Sextus' work but not in the surviving Eleatic fragments, at least in this form. In fact, for Sextus the first horn of the dilemma (the infinite contained in something other than itself) does not imply two infinites that limit each other (as in Melissus and Gorgias, *MXG* version), but a greater infinite which is the container and a lesser one which is the content. In the second horn the infinite contained in itself is introduced as a logical absurdity since it would be double, namely, place and body at the same time. If the argumentative core of *M*. 7 as a whole is authentic, the contrast between $\tau \circ \pi \circ \varsigma$ and $\sigma \widetilde{\omega} \mu \alpha$ is both linguistically

⁴ See Arist. *Phys.* IV 1, 209a23-26> 29A24 DK> D13a LM (cf. Simpl. *in Phys.* 562.3-6> D13b LM). On this regard, see Sedley, 2017, p. 23-4, and his investigation about Eudemus' reading of Zeno as a nihilist (cf. Simpl. *in Phys.* 563.17-20).

and theoretically ascribable to Sextus, who dedicates the second book of his *Against the Physicists* to the relationship between the two.⁵

The second element of the antithesis, the argument against being generated, is transmitted by a dilemma in both versions:

γενέσθαι γοῦν οὐδὲν ἂν οὕτ' ἐξ ὄντος οὕτ' ἐκ μὴ ὄντος. εἰ γὰρ τὸ ὂν μεταπέσοι, οὐκ ἂν ἕτ' εἶναι τὸ ὄν, ὥσπερ γ' εἰ καὶ τὸ μὴ ὂν γένοιτο, οὐκ ἂν ἕτι εἴη μὴ ὄν. οὐδὲ μὴν οὐδ' ἐκ <μὴ> ὄντος⁶ ἂν γενέσθαι. εἰ μὲν γὰρ μή ἐστι τὸ μὴ ὄν, οὐδὲν ἂν ἐκ μηδενὸς ἂν γενέσθαι· εἰ δ' ἔστι τὸ μὴ ὄν, δι' ἅπερ οὐδ' ἐκ τοῦ ὄντος, διὰ ταῦτα οὐδ' ἐκ τοῦ μὴ ὄντος γενέσθαι. εἰ οὖν ἀνάγκη μέν, εἴπερ ἕστι τι, ἤτοι ἀγέννητον εἶναι ἢ γενόμενον, ταῦτα δὲ ἀδύνατόν τι καὶ εἶναι.

For nothing could come to be either out of what is or out of what is not. For if what is changed, it would no longer be what is, just as, if what is not came to be, it would no longer be something that is not. *Nor certainly could it come to be from what is <not>.*⁷ For if what is not is not, nothing would come to be from nothing. And if what is not is, it could not come to be from what is not, for precisely the same reason that it does not come to be from what is.

(*MXG* 979b27-33> D26a LM, transl. Laks-Most, adapted)

What is cannot be generated from what is because birth is a kind of modification and, as such, it involves the transformation of what is into what is not, and vice versa. This argument from change, which

 6 οὐδ' ἐκ <µ $\dot{\eta}$ > ὄντος Foss: οὐδ' ἐξ ὄντος mss.

⁵ See, e.g., *M*. 10.24 (cf. *P*. 3.126). On *M*. 7.69 and its similarities with the *Parmenides* of Plato, who could have used Gorgias' *PTMO* to refute Eleatic doctrines, see Bremond (2019b), who follows Sextus' version. On the contrary, Migliori (1999, p. 112-18) argues in favour of *MXG*, which would have been used by Plato especially in the first part of his *Parmenides*.

⁷ I follow Foss' (1828) correction (also accepted by Newiger (1973) and Buchheim (1989)), which is justified from a palaeographic viewpoint assuming a drop of $\mu \dot{\eta}$ because of haplography. The same Melissean dilemma is preserved also in Sextus, *M*. 7.71. Laks-Most (2016) prefer instead the *lectio* of manuscripts and translate "and certainly it could not come to be from what is either".

is not preserved in Sextus, evidently echoes Melissus, as confirmed by the verb μεταπίπτειν, which is rare in itself but preserved both in Melissus (30B8[6] DK> D11 LM) and the Anonymous' version (*MXG* 979b28).

The second horn of the dilemma, namely birth from what is not, is rejected in *MXG* by a further dilemma: if what is not is not, it obviously cannot generate anything, whereas if what is not is conceived as *being* what is not, it is in some way (as stated in the *idios apodeixis*, *MXG* 979a28-29), so that it cannot generate anything for the same reasons why nothing can be generated from what is.⁸

Second antinomy: either one or many

Despite the severely corrupted text in *MXG*, we can reasonably trace Eleatic strands in Gorgias' argument against unity. In the Anonymous' version, which I emended in my 2010 edition, I tried to restore the meaning *ad probabilem sententiam* of this lacunose text⁹:

ἕτι εἴπερ ἔστιν, ἕν ἢ πλείω, φησίν, ἐστίν· εἴτε μήτε ἕν μήτε πολλά, οὐδὲν ἂν εἴη. καὶ ἕν μὲν <οὐκ ἂν εἶ>ναι ὅτι ἀσώματον ἂν εἴη, τὸ <δ' ἀσώματον οὐδ>έν <ἐστι, μὴ> ἔχον μέγε<θος ὡς ἐν> τῷ τοῦ Ζήνωνος λόγῳ. ἐνὸς δὲ <μὴ> ὄντος οὐδ' ἂν <ὅλως> εἶναι οὐδέν· μὴ <γὰρ ὄντος ἑνός>, μηδὲ πολλὰ <ἂν εἴη>. εἰ δὲ μήτε <ἕν, φησίν>, μήτε πολλὰ ἔστιν, οὐδὲν ἔστιν¹⁰.

⁸ Sextus' dilemma against generation excludes birth from both what is (since what is is not generated but already is) and what is not (since what generates something must participate in existence), according to an argument undoubtedly inspired by Arist. *Phys.* I 8, 191a27-31.

⁹ The text is usually edited as *locus deperditus*: see Diels, 1900, p. 33; Untersteiner, 1961, *ad loc.*; Cassin, 1980, p. 499-503; Buchheim, 1989, p. 46; Laks-Most, 2016, p. 223.

¹⁰ I emended the text of *MXG* 979b36-980a1 according to the version of L (καὶ ἕν μὲν [......] καὶ ὅτι ἀσώματον ἂν εἴη τὸ εν [......] εν κ [.....] ε ἔχον μέν γε [......] τῷ τοῦ Ζήνωνος λόγῳ. ἑνὸς δὲ ὅντος οὐδ' ἂν [.....] εἶναι οὐδὲ μη [......] μήτε πολλά [....] εἰ δὲ μήτε [......] μήτε πολλά ἐστιν, οὐδὲν ἕστιν). I follow Cook Wilson, 1892e, p. 444ff., who wrote ἀσώματον in the second gap of L, and Apelt, 1888, p.

Again, if something is, he says, it is one or more. But if it is neither one nor many, then it would be nothing. And it <could not be> one because it would be incorporeal, and <what is incorporeal, not> having magnitude, <is nothing>, as by Zeno's argument. But if it is <not> one, it must <definitely> be nothing; for, if <there is no one>, neither <can> many <be>. But if, <as Gorgias says>, it is neither <one> nor many, then nothing is.

(*MXG* 979b35-980a1> D26a LM, my translation)

The argument thus restored, which as a whole must correspond to Gorgias' original inspiration, refutes the existence of the one by making Melissus' doctrines collide with Zeno's. For on the one hand, Gorgias appears to assume the Melissean identity between being one and being bodyless. Moreover, according to the second part of the controversial 30B9 DK what has a body is endowed with thickness and parts; but having parts would correspond to being many.

εί μὲν οὖν εἴη, δεῖ αὐτὸ ἕν εἶναι· ἕν δ' ἐὸν δεῖ αὐτὸ σῶμα μὴ ἔχειν. εἰ δὲ ἔχοι πάχος, ἔχοι ἂν μόρια, καὶ οὐκέτι ἕν εἴη.

If it were something that is, it must be one. But if it is one, it must not have a body. And if it had thickness, it would have parts, and would no longer be one.

(Simpl. *in Phys.* 110.1-2 and 87.6-7> 30B9 DK> D8 LM)¹¹

^{191,} who wrote μ έγεθος in the fourth gap. Specifically, see Ioli, 2010, p. 101-2, 133-4.

¹¹ Laks-Most (2016) excluded the last sentence from Melissus D8 as spurious. Indeed, the authenticity of this fragment, quoted by Simplicius to confirm the Melissean belief in the incorporeal nature of being, is highly controversial (cf. Barnes, 1982, p. 178-80; Kirk-Raven-Schofield, 1983, p. 401). Being ἀσώματον seems to contradict the claim that what is is spatially unlimited (τὸ μέγεθος ἄπειρον, 30B3 DK) and full (πλέων ἐστίν, 30B7 DK). So, it might be supposed that Simplicius is drawing from a selection of Eleatic texts, perhaps mistakenly attributing to Melissus what is in fact by Zeno. According to Palmer (2003, p. 1-10), the second sentence could be an exegetical addition by Simplicius. However, there need not be a contradiction between being ἀσώματον, that is, without body,

On the other hand, the Sophist connects the incorporeal nature of the Melissean one with the Zenonian claim that what is sizeless (therefore, implicitly, without body and mass) is not (29B1 DK> D5 LM): consequently, if the one is, by definition, without body and magnitude, it is not.¹² The one is therefore refuted by an argument consistent with Zeno's puzzles against plurality: according to Simplicius, we know that Zeno was the first to say that what has no magnitude is not.¹³ This last assertion was part of Zeno's reasoning aimed at denying the existence of a plurality: for, once plurality is conceded, it leads to absurd consequences (see D6 and D7 LM, on which *infra*, p.22). By using a *reductio ad absurdum*, Zeno reasonably ended up saving the existence of the one, whereas Gorgias employed the same strategy to disprove the one.

My task here is not to discuss whether Zeno's thought is to be read in an anti-unitarian or anti-pluralist perspective. The ancients had already noticed the point of weakness in his reasoning and realised that his arguments against the many could undermine the one too. To overcome this drawback, some scholars suggest that he proposed a modified and independent version of the Eleatic doctrine, theorising a differentiation between unities:¹⁴ on the one hand the absolute Parmenidean One, on the other the one as part of a multiplicity, first introduced with a dialectical end, then denied in its empirical

and having size or magnitude (μ é γ εθος). See Mansfeld, 2016, p. 98-103. McKirahan (2010, p. 301) points out that "bodies have extension and also limits, so something unlimitedly large is not, properly speaking, a body. Nor does it, properly speaking, have thickness, because thickness is a measure of the distance between a body's extremities".

¹² In Sextus' version, the argument is undoubtedly influenced by Aristotle both from a linguistic and a logical point of view. He introduces a quadrilemma considered as exhaustive; every horn is then dismissed according to the *modus tollendo tollens*: "if it is one, it is either a [*scil*. discrete] quantity (ποσόν), or continuous (συνεχές), or a magnitude (μέγεθος), or a body (σῶμα), but whichever of these it is, it is not one [...]. But it is absurd to say that what is is not any of these: so, what is is not one". On this specific argument, see note 27.

¹³ Simpl. *in Phys.* 139.9-15> 29B2 DK> D7 LM. See also Arist. *Metaph.* B 4, 1001b7-13> 29A21 DK> D8 LM.

¹⁴ See Furley, 1974, p. 353-67.

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existence. Aware of the aporias implicit in the Zenonian denial of the one as part of a plurality, Gorgias would have transferred those contradictions to the absolute One, using (as he had already done with Melissus' doctrine on being ungenerated) Eleatic arguments with an anti-Eleatic purpose.

Once the existence of the one is denied, in both versions Gorgias very briefly refutes the plurality, since it is made up of unities. Still, the *MXG* version introduces a new argument which is perfectly consistent with Gorgias' methodology and can be chiefly – but not exclusively – read as an anti-pluralistic attack.

The argument against motion

The argument against motion is preserved only in *MXG* 980a1-8. Some scholars suppose a textual gap corresponding to a presumed argument about rest.¹⁵ This hypothesis could be supported by the comparison with the previous antinomies, according to a typical Gorgianic strategy well attested also in that philosophical doxography which investigates reality by means of opposites: we can consider, for example, Xenophon (*Mem.* I 1.14-15), where the pairs rest/motion, one/many, ungenerated/generated, put side by side, remind us of Gorgias' antinomies.¹⁶

In contrast, many considerations against the hypothesis of a *lacuna* should be taken into account: firstly, there is no mention of the supposed opposition at the beginning of the treatise, where the Anonymous, introducing Gorgias' synthetic proof, mentions only the antinomies ungenerated/generated, one/many. Secondly, two gaps should be granted, one at the beginning, and the other at the end, with the final recapitulation and dismissal of both horns, according to the

¹⁵ See Gomperz, 1914, p. 20; Nestle, 1922, p. 556; Newiger, 1973, p. 75-107; Sicking, 1976, p. 390; Mansfeld, 1985, p. 245.

¹⁶ According to Mansfeld (1985, p. 246 and 1990, p. 59ff.), the source of Xenophon could be Gorgias himself. See also Bandini-Dorion, 2000, p. 62, note 38. Cf. Pl. *Parm.* 139b2-3.

usual Gorgianic procedure.¹⁷ Not even the οὐδέ, which opens the argument on motion allows us to assume that a part relating to rest is missing, since the negative conjunction works as a simple paratactic link between two traditionally connected arguments, such as that on number and that on motion. The reflection upon motion was generally treated as part and development of the debate about generation-change and multiplicity-divisibility in Eleatic as well as in Atomistic thought.¹⁸ Finally, it is very likely that, if Sextus had faced a rest/motion dilemma, given his favour for symmetries and antinomies, he would not have let it slip. Thus, we can reasonably suppose that Sextus decided to omit the argument on motion, which he could have considered as the unessential development of the previous reasoning.¹⁹

It should also be underlined, as an important feature of the Anonymous' methodology, that his style is mostly brachylogical and, when he intervenes in Gorgias' text, he does not generally introduce arbitrary additions. Furthermore, as mentioned on p. 2, the Anonymous usually makes the nature and reason of his own intervention explicit. Therefore, although this overall section of the text has some highly corrupted passages, there is no reason to consider the argument as unauthentic. Indeed, the reasoning can be

¹⁷ As Calogero (1932) suggests, "l'ammissione di lacune è rimedio estremo" (p. 225), and the same opinion was supported by Apelt (1888) and Diels (1900), who corrected the preserved text without supposing *lacunae*. See also Gigon, 1936, p. 200-2 and Di Benedetto, 1955, p. 292-3. Conversely, according to Sicking (1976, p. 390ff.) and Untersteiner (1996, p. 154, n.90), the two versions of *PTMO* could derive from the same incomplete source, lacking in the argument about rest.

¹⁸ By pointing out the thematic and linguistic analogies between *MXG* 979b28-29 and 980a1-3, Migliori (1973, p. 42-4) considers the argument on motion as an authentic development of the reflection upon generation. The gap between the two sections could have been caused by the "difficile gestazione del testo", with brachylogies and omissions that sometimes make the arguments obscure.

¹⁹ A different and persuasive reading is proposed by Bredlow (2016, p. LVII-LVIII): according to Bredlow, Sextus' quadrilemma in M. 7.73 would be a 'manipulated' development of Gorgias' argument against motion, particularly its second part on divisibility. Moreover, all this would confirm the hypothesis that the Gorgianic argument on motion is not a separate one, but it is connected with the reflection on the one and the many.

reconstructed and investigated in its main arguments. Here is the text of the Anonymous:

ούδ' ἂν κινηθῆναί φησιν οὐδέν. εἰ²⁰ γὰρ κινηθείη, [ἢ] οὐκ ἂν ἕτ' εἴη [ἢ] ὡσαὐτως ἔχον, ἀλλὰ τὸ μὲν <öv>²¹ οὐκ ἂν εἴη, τὸ δ' οὐκ ὃν γεγονὸς εἴη. ἕτι δὲ εἰ κινεῖται²² καὶ εἰ²³ μεταφέρεται οὐ συνεχὲς ὄν, διήρηται <ἦ δὲ διήρηται>²⁴ τὸ ὄν, οὐκ ἔστιν²⁵ ταύτῃ· ὥστ' εἰ²⁶ πάντῃ κινεῖται, πάντῃ διήρηται. εἰ δ' οὕτως, πάντῃ οὐκ ἔστιν. ἐκλιπὲς γὰρ ταύτῃ, φησίν, ἦ διήρηται, τοῦ ὄντος, ἀντὶ τοῦ κενοῦ τὸ διῃρῆσθαι λέγων, καθάπερ ἐν τοῖς Λευκίππου καλουμένοις λόγοις γέγραπται.

He says that it could not move either. **[A]** For if it moved, it would no longer be in the same way, but on the one hand it would not be, and on the other, what is not would have come to be. **[B]** Moreover, if it moves and is transported, not being continuous, it is divided, and <where> what is <is divided>, it is not; so that if it moves everywhere, it is divided everywhere. But if this is so, then it is not at all. For where there is division, there is lack of what is – he says "to be divided" instead of "void", as is written in what are called the arguments of Leucippus [cf. Atom. D1b].

(*MXG* 980a1-8> D26a LM)

After refuting eternity and generation, unity and plurality, Gorgias rejects motion without drawing, at least directly, from the four famous puzzles of Zeno handed down by Aristotle (*Phys.* VI 9, 239b9-240a1> 29A25-28 DK> D14-19 LM). His argument is developed into two main sub-topics. The first one [A], which I call the "change argument", considers motion as change (980a1-3) and is deeply indebted to Melissus; the second one [B], which I call the

 $^{^{20}}$ οὐδέν. εἰ Foss: οὐδενί LR

²¹ <öv> addidit Foss

²² εί (η L) κινεῖται L *et vulg.*: η κινεῖ η κινεῖται R

²³ εἰ R: ἕv L. In Ioli (2010) I followed the L *lectio* ἕv (accepted by Calogero, Untersteiner and Buchheim), but R seems to me syntactically more plausible.

²⁴ <ἦ δὲ διήρηται> Apelt

²⁵ οὐκ ἔστιν Foss: οὔτε τι mss.

²⁶ ὥστ' εί Foss: ὥστε mss.

"argument from divisibility", introduces motion in space (980a3-5) and contains, like an appendix, a reference to void as the essential condition of locomotion (980a6-8).²⁷

The "change argument"

Melissus describes change (whether understood as birth/death or locomotion) as the main enemy of being one. The first Gorgianic argument against motion (*MXG* 980a1-3) evidently takes up Melissus' assumptions in favour of being one:

εί γὰρ ἑτεροιοῦται, ἀνάγκη τὸ ἐὸν μὴ ὁμοῖον εἶναι, ἀλλὰ ἀπόλλυσθαι τὸ πρόσθεν ἐόν, τὸ δὲ οὐκ ἐὸν γίνεσθαι. εἰ τοίνυν τριχὶ μιῆι μυρίοις ἔτεσιν ἑτεροῖον γίνοιτο, ὀλεῖται πᾶν ἐν τῶι παντὶ χρόνωι.

For if it becomes different, it is necessary that what is not be similar, but what was before be destroyed, and what is not come to be. If then the whole had become different by a single hair in the course of thousands of years, it would have been destroyed in the whole of this time.

(Simpl. in Phys. 111.22-24> 30B7[2] DK> D10 LM)

Change, here introduced by the verb ἑτεροιοῦται (similar to the μεταπίπτειν of 30B8[6] DK and *MXG* 979b28, on which above), is incompatible with being ὑμοῖον, that is, the homogeneity of what is always identical to itself. Melissus deduces all the characteristics of

²⁷ Cf. the Platonic distinction between ἀλλοίωσις and φορά (cf. Pl. *Tht.* 181d5-6 and *Prm.* 138c1-2). Mansfeld (2002, p. 277-81) stresses that in Parmenides and Melissus the reflection upon birth/death is closely linked to the criticism against the movement, on which it depends (as also confirmed by Aëtius 1.24.1 Diels> 28A29 DK and 30A12 DK). Simplicius (*in Phys.* 103.13-104.17 > D20 LM) distinguishes two Melissean arguments similar to those by Gorgias: in the first one what is is immobile, for the one is always "similar to itself" (ὁμοῖον), that is without change, increasing or suffering. In the second one (introduced by "according to another mode", κατ' ἄλλον δὲ τρόπον, 104.4), what is is immobile because there is no void, so it can recede in no way.

being from each other in a rigorous counterfactual reasoning.²⁸ Being oµoĩov is not the object of an explicit demonstration in his surviving fragments, but it is given as a necessary assumption: for if the being is one, it must definitively be homogeneous since, if it were not so, it would be different, and therefore separate, from itself. In conclusion, the one would be many (cf. 30B8 DK). Similarly, in the *De Melisso* homogeneity is considered an essential feature of being one.

πᾶν δὲ καὶ ἄπειρον ὂν <ἕν> εἶναι· εἰ γὰρ δύο ἢ πλέω εἴη, πέρατ' ἂν εἶναι ταῦτα πρὸς ἄλληλα. ἕν δὲ ὂν ὅμοιον εἶναι πάντη· εἰ γὰρ ἀνόμοιον, πλείω ὄντα οὐκ ἂν ἔτι ἕν εἶναι, ἀλλὰ πολλά. ἀίδιον δὲ ὂν ἄμετρόν τε καὶ ὅμοιον πάντη ἀκίνητον εἶναι τὸ ἕν· οὐ γὰρ ἂν κινηθῆναι μὴ εἴς τι ὑποχωρῆσαν. ὑποχωρῆσαι δὲ ἀνάγκην εἶναι ἤτοι εἰς πλῆρες ἰὸν ἢ εἰς κενόν· τούτων δὲ τὸ μὲν οὐκ ἂν δέξασθαι [τὸ πλῆρες], τὸ δὲ οὐκ εἶναι οὐδέν [ἢ τὸ κενόν].

But being all and unlimited, it is <one>. For if things were two or more, they would limit each other. But if it is one, it is in every way similar to itself; for if it were dissimilar, then things, being a plurality, would be no longer one, but multiple. But if it is eternal, immense and everywhere similar, the one is immobile. For it could not move without receding into something. Now, it is necessary, in order to recede, to penetrate either into what is full or what is void. But of these two, the one could not receive it while the other is nothing.

(*MXG* 974a12-14> 30A5 DK> D19 LM)

In the *De Melisso* too, the counterfactual reasoning is marked out by the following steps: infinity – unity – homogeneity – immobility. Since being is full and everywhere equal to itself, it must be immobile (the last term of the demonstrative sequence): for there is nothing different from its fullness into which to withdraw. Therefore, also the Anonymous' version of the Melissean "change argument" against

²⁸ See Rossetti, 2017a, p. 326-27; Bremond, 2019b, p. 94.

motion aims to defend the unity of being, in opposition to the pluralists.²⁹

The sequence of arguments in Gorgias' proof is very similar to the Melissean one, and supports the hypothesis that the main opponent inspiring the *synthetike apodeixis* is Melissus and his Περὶ τοῦ ὄντος η Περì φύσεως, as reasonably confirmed by the antiphrasis in the title of Gorgias' treatise.³⁰ The adverb ώσαύτως (*MXG* 980a2) would refer to homogeneity:³¹ like the Eleatics, Gorgias maintains that if being is homogeneous (i.e. completely identical to itself), it must be immobile, since motion would involve change, that is a shift from a condition (ontological and logical at the same time) to its opposite. The identity of what is (or is not) to itself is underlying the whole Gorgianic argument: for it is already working in the overall anti-Eleatic inspiration of the *idios apodeixis* where if what is *is* what is and what is not *is* what is not, it can be concluded that being and not being are indistinguishable. Gorgias' reasoning is grounded in the complex semantics of the verb εἶναι, which is always shifting from copulative to veridical and, finally, existential meaning.³²

It is highly possible that the target of his *idios apodeixis* is not only the Eleatics, but also the Atomists, who maintain that what is (the set

 $^{^{29}}$ Bremonds (2019a, p. 30-31) rejects the Pseudo-Aristotelian argument and argues in favour of a temporal meaning of <code>óµoĩov</code>, but her reading cannot be discussed here in detail.

³⁰ In its extended form the title Περὶ τοῦ μὴ ὄντος ἢ Περὶ φύσεως is handed down only by Sextus. Olympiodorus (*In Gorg. Prooem.* 9> 82B2 DK> R23 LM) mentions a treatise known as Περὶ φύσεως, which could be an abbreviation of the longer title (Maier, 1943, p. 227, n.4), or the authentic title compared to a hypothetical addition by Sextus (Burnet, 1914, p. 120, n.1 and, albeit with differences, Freeman ,1966, p. 362, Di Benedetto, 1955, p. 290, n.7); but this last assumption is today mainly rejected (cf. Schmalzriedt 1970, p. 128; Mansfeld 1985, n. 16). The long title is sceptically considered by Kirk-Raven-Schofield 1983, p. 102-3, 391-2, note 1, and Mansfeld, 2016, p. 97-8, while Palmer 2009, p. 205ff. n. 25 argues in favour of it both in Melissus and Gorgias.

³¹ See also Calogero, 1932, p. 230, n.36; Gomperz, 1914, p. 20; Gigon, 1936, p. 200; Untersteiner, 1961, p. 68, note *ad loc*.

 $^{^{32}}$ The Greek verb $\epsilon\tilde{i}\nu\alpha\iota$ is described by Cassin, 1998, p. 23-4 as "fait de langue total".

of atoms) is *no more* than what is not (the void). A confirmation could come precisely from the clause $o\dot{v}\delta\dot{\epsilon}v \mu \tilde{\alpha}\lambda\lambda ov$ used by Atomists in order to defend the existence of both atoms and the void, and by Gorgias in the opposite sense: "for what is not *is* something that is not, and what is *is* something that is, so that things are *no more* than they are not"³³. To say that "things are no more than they are not" is equivalent, for Leucippus, to saying that "everything is", while for Gorgias that "nothing is".

The "argument from divisibility" and its forebears

Like Parmenides, Melissus denied that what is is divisible on the ground that division is a kind of change (30B7[1-2] DK> D10 LM). In Melissus, more precisely, motion derives from divisibility ("for if what is is divided, it moves. But if it moved, it would not exist", 30B10 DK> D9 LM), while in Gorgias it is divisibility that derives from motion ("if it moves and is transported, not being continuous, it is divided", *MXG* 980a5). Let us focus on the B argument in *MXG* 980a3-8:

T1

ἔτι δὲ εἰ κινεῖται καὶ εἰ μεταφέρεται οὐ συνεχὲς ὄν, διήρηται <ἦ δὲ διήρηται> τὸ ὄν, οὐκ ἔστιν ταύτῃ· ὥστ' εἰ πάντῃ κινεῖται, πάντῃ διήρηται. εἰ δ' οὕτως, πάντῃ οὐκ ἔστιν. ἐκλιπὲς γὰρ ταύτῃ, φησίν, ἦ διήρηται, τοῦ

³³ MXG 979a26-27 τό τε γὰρ μὴ ὄν ἐστι μὴ ὄν, καὶ τὸ ὃν ὄν, ὥστε οὐδὲν μᾶλλον ἢ εἶναι ἢ οὐκ εἶναι τὰ πράγματα. Cf. 67A6 DK (> D31 LM διὸ καὶ οὐθὲν μᾶλλον τὸ ὃν τοῦ μὴ ὄντος εἶναί φασιν, ὅτι οὐδὲ τὸ κενὸν <ἕλαττον> τοῦ σώματος), 67A8 DK (> D32 LM ἕτι δὲ οὐδὲν μᾶλλον τὸ ὃν ἢ τὸ μὴ ὃν ὑπάρχειν) and 68B156 DK (> D33 LM μὴ μᾶλλον τὸ δὲν ἢ τὸ μηδὲν εἶναι). I see no decisive reasons for expunging *MXG* 979a27, considered as an interpolation by Kerferd (1955, p. 7-11), Mansfeld (1988, p. 258) and Curd (2006, p. 187). Some possible reasons for the omission of οὐδὲν μᾶλλον in Sextus are discussed in Ioli (2009, p. 345-7; 2010, p. 73-6). For Gorgias' polemic remarks against Atomists see also De Lacy (1972, p. 595).

ὄντος, ἀντὶ τοῦ κενοῦ τὸ διῃρῆσθαι λέγων, καθάπερ ἐν τοῖς Λευκίππου καλουμένοις λόγοις γέγραπται.

Moreover, if it moves and is transported, not being continuous, it is divided, and <where> what is <is divided>, it is not; so that if it moves everywhere, it is divided everywhere. But if this is so, then it is not at all. For where there is division, there is lack of what is – he says "to be divided" instead of "void", as is written in what are called the arguments of Leucippus.

The argument, introduced by the adverb $\xi \tau i$ (*MXG* 980a3), is particularly condensed and develops two assumptions, that of divisibility and that of void. The reference to the void conceived as lack of being is a sort of explanatory note attributed *verbatim* ($\varphi \eta \sigma i v$) to Gorgias. Collectively, the argument from divisibility is organized into four steps:

1) If something moves, then it is divided and is no longer continuous.

2) To be divided *corresponds to* (and is equivalent to) void, that is not being.

3) Thus, in so far as it is divided, equally it is not.

4) Finally, if it moves everywhere, then it is divided everywhere, and so it is nowhere (or it is not at all).

Our first task is trying to grasp the problematic notion of $\pi \dot{\alpha} v \tau \eta$. As McKirahan opportunely pointed out, "everywhere ($\pi \dot{\alpha} v \tau \eta$) divisible is different from infinitely divisible."³⁴ Infinite division is a process which always leaves pieces of positive size, and therefore never runs out. On the contrary, "everywhere divisible" implies an actual division of a body and a further subdivision of each product of the previous division up to leaving pieces of no positive size.

The divisibility of being, as incompatible with its continuity, has been decisively countered by Eleatics. The being of Parmenides is in all

³⁴ McKirahan, 2010, p. 310.

equal to itself (therefore not divisible) and in all continuous and full (therefore immobile):

ούδὲ διαιρετόν ἐστιν, ἐπεὶ πᾶν ἐστιν ὑμοῖον·

οὐδέ τι τῆι μᾶλλον, τό κεν εἴργοι μιν συνέχεσθαι,

οὐδέ τι χειρότερον, πᾶν δ' ἔμπλεόν ἐστιν ἐόντος.

τῶι ξυνεχὲς πᾶν ἐστιν· ἐὸν γὰρ ἐόντι πελάζει.

Nor is it divisible, since as a whole it is all alike³⁵,

Nor at all more here, which would prevent it from being continuous $^{36}\!\!\!,$

Nor at all less,³⁷ but as a whole it is full of being.

That is why as a whole it is continuous: for what is is adjacent to what is.

(28B8.22-25 DK> D8 LM, transl. Laks-Most, adapted)

Being $\sigma \nu \epsilon \chi \dot{\epsilon} \zeta$ has been differently interpreted: some argue in favour of a temporal continuity,³⁸ others of a spatial continuity,³⁹ and finally others defend either an ontological or a logical interpretation.⁴⁰ However, it can be argued that being $\sigma \nu \epsilon \chi \dot{\epsilon} \zeta$ here implies (1) homogeneity, understood as being of the same kind, that is being alike everywhere, (2) indivisibility, (3) fullness of being. Furthermore, if being is full, therefore without qualitative

 ³⁵ In favour of an adjectival sense for ὑμοῖον (alike, same, equal) see Mourelatos (2008, p. 11) and Sedley (2008, p. 322, n. 45). Laks-Most translate "it is similar".
³⁶ Laks-Most translate "cohering".

⁻⁻ Laks-Most translate conering .

³⁷ Laks-Most translate "weaker".

³⁸ Owen, 1960, p. 96-7.

³⁹ Schofield, 1970, p. 134 and Coxon, 2008, p. 325ff. (but he admits also other meanings, n. 42).

⁴⁰ See, respectively, Tarán (1965, p. 108: "equal intensity of Being always and everywhere"), and Coxon (2009, p. 325-6), who maintains that Being is one and indivisible "in spite of the plurality of terms predicated of it".

differences, then it will be indivisible: for if something is divisible, that suggests it has distinguishable parts which can be separated from each other.⁴¹

The Gorgianic argument on motion and divisibility certainly echoes Eleatic claims derived both from Parmenides (such as the reference to being συνεχές) and Zeno. Although the origin of the argument from divisibility everywhere is not explicit, Gorgias could have in mind Zeno's puzzles about motion, particularly that from dichotomy⁴². Zeno's four puzzles are probably independent from the plurality arguments. Anyway, we should not be surprised to see the paradoxes against motion so strictly interwoven with those against plurality understood as the multiplicity of positions occupied by a body through distinct time units⁴³. Motion always implies a plurality of places in space and can generate logical absurdities such as that the fastest does not reach the slowest or the arrow does not fly while flying. It is not my task here to investigate the mathematical interpretation of Zenonian paradoxes and particularly the argument from dichotomy.⁴⁴ In fact, in his argument from divisibility Gorgias

⁴¹ On this point see Sattler, 2019, p. 49-52. According to Malcolm (1991, p. 92), "Parmenides is to be represented not as saying there is no locomotion because there is a plenum, but that there is no locomotion because there is no distinguishability in *plenum*".

⁴² Given the distance between A and B, M1 will be the intermediate point, M2 the intermediate between M1 and B, M3 the intermediate between M2 and B and so on to infinity (29A25 DK> R17 and 18 LM). Therefore, if a body has to cover the finite distance between A and B and this distance is composed of an infinite number of distances (or spaces), then the finite will be infinite. Consequently, a body can never reach B starting from A.

⁴³ Sedley 2017, p. 5, speaks of motion and multiplicity as "twin issues". Cerri (2018) introducing the concept of "frammentazione spazio-temporale" (p. 88), maintains that in Zeno's view it is plurality, not movement, that implies paradoxical conclusions (see the same opinion in Barnes, 2011). In contrast cf. Pulpito, 2018, p. 192-3.

⁴⁴ On this question see Barnes, 2011, p. 39-48; Zellini, 2016, p. 88-101. Today in mathematics the limit of the sum of a sequence which produces a convergent series is finite, while the limit of the sum of a sequence which produces a divergent series is infinite. There is therefore an arithmetic objection to Zeno's fallacy for which an infinite sequence of finite partitions is supposed to generate an infinite sequence of parts. Space and time are relational structures that undoubtedly involved theoretical

undoubtedly draws from Zeno's dichotomy, but even more from his famous criticism of plurality. Indeed, Zeno disproves the existence of the many since this hypothesis gives rise to incompatible and paradoxical consequences. On the one hand, if many things exist, they are both limited and unlimited: for, "if they are as numerous as they are, they will be limited"; but, at the same time, they are unlimited because "between the things that exist there are always other things, and then again others between those" (Simpl. in Phys. 140.28-33> 29B3 DK> D11 LM). On the other hand, if many things exist – and are therefore divided, or separated – "it is necessary that they be both small and large, so small that they do not have any size, and so large that they are unlimited" (Simpl. *in Phys.* 141.2-8> 29B1 DK> D6 LM). But according to Zeno, whatever exists must have magnitude, bulk, mass: that is, a body (Simpl. in Phys. 141.1-2> 29B1 DK> D5 LM). Therefore, as seen above, if each of the many has no magnitude, it does not exist. In contrast, if each of the many has some magnitude, it has parts, and each part will be distinct from the other, and so on and so forth; therefore a body having a finite size will be infinite because of its infinite divisibility. Then, quoting Zeno again, "it is the same thing to say this one time and to say it forever. For no part of such a thing will be the last one, nor will there be any part of it that will not be in relation with another" (29B1 DK> D6 LM).

The Atomists reply to Zeno's puzzles by defending the existence of a multiplicity of atoms, that is, very small and at the same time uncuttable bodies, infinite in number and invisible because of their minutenesss.⁴⁵ By moving in the void and combining, they generate every compound (Arist. *GC* I 8, 324b35-325a36> 67A7 DK> D30 LM). The Aristotelian section of *De generatione et corruptione* which preserves the Democritean doctrine seems to be a direct response to Zeno's arguments: it is composed of a first part (*GC* I 2,

divisibility even for the ancients: motion is problematic not because of its indisputable physical reality, but because of its theoretical essence.

⁴⁵ For an interpretation of Atomism as a response to some challenging Eleatic questions see Curd, 1998, p. 215.

316a14-b16) which is a faithful historical reconstruction of the Democritean thought, and a second one (316b16-34), called by David Sedley "neo-Democritean", which can be interpreted as a fictitious speech, that is a speech that Democritus could have given in response to the objections no longer of Zeno, but of Aristotle himself⁴⁶.

The Democritean claim in favour of the existence of ultimate minimal magnitudes is introduced by Aristotle as a *reductio ad absurdum* which contains a clear formulation of the argument from divisibility: by conceding the assumptions of his detractors, Democritus would finally defend the indivisibility of atoms and argue against the division of being down to nothing.

T2

Έπεὶ τοίνυν πάντῃ τοιοῦτόν ἐστι τὸ σῶμα, διῃpήσθω. Τί οὖν ἔσται λοιπόν μέγεθος⁴⁷; οὐ γὰρ οἶόν τε· ἔσται γάρ τι οὐ διῃpημένον, ἦν δὲ πάντῃ διαιρετόν. Ἀλλὰ μὴν εἰ μηδὲν ἔσται σῶμα μηδὲ μέγεθος, διαίρεσις δ' ἔσται, ἢ ἐκ στιγμῶν ἔσται, καὶ ἀμεγέθῃ ἐξ ῶν σύγκειται, ἢ οὐδὲν παντάπασιν, ὥστε κἂν γίνοιτο ἐκ μηδενὸς κἂν εἴŋ συγκείμενον, καὶ τὸ πᾶν δὴ οὐδὲν ἄλλ' ἢ φαινόμενον. Ὁμοίως δὲ κἂν ἦ ἐκ στιγμῶν, οὐκ ἔσται ποσόν. Ὁπότε γὰρ ἤπτοντο καὶ ἕν ἦν μέγεθος καὶ ἅμα ἦσαν, οὐδὲν ἐποίουν μεῖζον τὸ πᾶν. Διαιρεθέντος γὰρ εἰς δύο καὶ πλείω, οὐδὲν ἔλαττον οὐδὲ μεῖζον τὸ πᾶν τοῦ πρότερον, ὥστε κἂν πᾶσαι συντεθῶσιν, οὐδὲν ποιήσουσι μέγεθος.

Since, therefore, the body is like this everywhere, let it have been divided. What magnitude will be left, then? There cannot be one, for then there will be something undivided, but it was said to be divisible everywhere. On the other

hand, if there is going to be no body or magnitude left, but the division is going to exist, either the body will

⁴⁶ See Sedley, 2008, p. 317-20, for an accurate reconstruction of this argument, which shows a Democritean inspiration and faces some reasonable anti-Atomistic objections.

⁴⁷ I follow Sedley, 2008, p. 313, n. 27 ("I cannot see why the editors have preferred the scarcely natural punctuation τί οὖν ἔσται λοιπόν; μέγεθος").

consist of points and its components be sizeless, or they will be nothing at all, with the consequence that it could come to be and be composed from nothing, and the whole thing would be a mere appearance. Similarly, even if it consists of points, there will be no quantity. For when the points were in contact and there was a single magnitude and they were together,

they did not make the whole thing any bigger; for when the magnitude was divided into two or more, the whole was no smaller or bigger than before; hence even if they are all put together, they will produce no magnitude.

(Arist. GC I 2, 316a23-34> 68A48b DK)48

The Atomistic reply appears to be like a tautology: since divisibility in every part is impossible, then indivisible entities must exist.⁴⁹ To get out of the impasse a distinction between physical and geometrical divisibility has been suggested: whereas atoms cannot be physically separated into smaller parts, they could not be protected against a theoretical and geometrical division.⁵⁰ Thus, although their physical indivisibility is indisputable, this would not exclude the theoretical existence of parts. On the one hand, it is difficult to think that

⁴⁸ Translation by Sedley, 2008. Laks-Most (2016) select and translate only *GC* I 2, 316a14-17> D41 LM: they consider the following arguments in favour of ultimate indivisibility as a reconstruction.

⁴⁹ We do not have any precise suggestion on how to interpret πάντη in the Democritean argument, but only in the "neo-Democritean" one: it would be not a simultaneous division everywhere, but a progressive bisection of a magnitude, like a Zenonian dichotomy, which could never become exhaustive. Therefore, for the Aristotelian Democritus of *GC* I 2, 316b17-34 division at every point cannot be accomplished both because of its paradoxical consequences and its conceptual impossibility. Division ends when it reaches its limits (atoms).

⁵⁰ Sedley sees, within the so called neo-Democritean argument, the first likely formulation of a "theoretical divisibility", which Democritus could hardly contrast by mathematical means. Barnes, 1982 p. 276-85, especially p. 281, argues in favour of a physical indivisibility; Furley, 1967, I chap. 6, in favour of a mathematical one. Furthermore, by assuming that a distinction between physical and mathematical divisibility makes any sense in the fifth century B.C., according to Furley (1982, p. 370-1) the Eleatics would defend both indivisibilities, so that an Atomistic reply in favour of atoms only physically uncuttable would have been unconvincing.

Democritus limited himself to physical indivisibility and was therefore satisfied with such an incomplete response to Zeno's puzzles from dichotomy. On the other, if the divisibility, as everywhere and simultaneously occurring, were purely mental or theoretical (as the insistence on the fact that "it is possible" would suggest, in 316a16 and 17), why would Democritus illustrate such a division with the example of the sawdust (*GC* 316a34-b2)?⁵¹

For the sake of my argument, it seems reasonable to me to suppose that Democritus' accusers used an argument traditionally rooted in physical divisibility, that is, the separation of a magnitude out into ever smaller parts. Democritus would have attacked Eleatics by exploring the paradoxical consequence of their argument from divisibility everywhere: for if what is is *ex hypothesi* divided or divisible at every point, the remaining parts will be either sizeless points or nothing at all. But if so, we should suppose that either the reassembled body will be without magnitude, or it will be nothing at all and be composed of nothing. Since both hypotheses are absurd, Democritus concludes that indivisible magnitudes, namely uncuttable bodies, must necessarily exist.

An Eleatic version of the argument from divisibility, very similar to that introduced both in Gorgias (T1) and Democritus (T2), is preserved by Simplicius.

T3

ἕτερος δὲ ἦν λόγος τῷ Παρμενίδῃ ὁ διὰ τῆς διχοτομίας οἰόμενος δεικνύναι τὸ ὂν ἕν εἶναι μόνον καὶ τοῦτο ἀμερὲς καὶ ἀδιαίρετον. εἰ γὰρ εἴη, φησί, διαιρετόν, τετμήσθω δίχα, κἄπειτα τῶν μερῶν ἐκάτερον δίχα, καὶ τούτου ἀεὶ γενομένου δῆλόν φησιν, ὡς ἤτοι ὑπομενεῖ τινὰ ἔσχατα μεγέθῃ ἐλάχιστα καὶ ἄτομα, πλήθει δὲ ἄπειρα, καὶ τὸ ὅλον ἐξ ἐλαχίστων, πλήθει δὲ ἀπείρων συστήσεται· ἢ φροῦδον ἕσται καὶ εἰς οὐθὲν ἕτι διαλυθήσεται καὶ ἐκ τοῦ μηδενὸς συστήσεται· ἅπερ ἄτοπα. οὐκ ἄρα διαιρεθήσεται, ἀλλὰ μενεῖ ἕν. [140.1]

⁵¹ As Sedley (2008, p. 313) suggests, "the entire Democritean argument will prove to be one about the actual decomposition – and not merely the analysis – into its ultimate constituents of magnitude that is *ex hypothesi* divisible throughout".

καὶ γὰρ δὴ ἐπεὶ πάντῃ ὅμοιόν ἐστιν, εἴπερ διαιρετὸν ὑπάρχει, πάντῃ ὁμοίως ἔσται διαιρετόν, ἀλλ' οὐ τῃ μέν, τῃ δὲ οὕ. διῃρήσθω δὴ πάντῃ· δῆλον οὖν πάλιν ὡς οὐδὲν ὑπομενεῖ, ἀλλ' ἔσται φροῦδον, καὶ εἴπερ συστήσεται, πάλιν ἐκ τοῦ μηδενὸς συστήσεται. εἰ γὰρ ὑπομενεῖ τι, οὐδέ πω γενήσεται πάντῃ διῃρημένον. ὥστε καὶ ἐκ τούτων φανερόν φησιν, ὡς ἀδιαίρετόν τε καὶ ἀμερὲς καὶ ἕν ἔσται τὸ ὄν.

[A] Parmenides had another argument, the one by means of dichotomy, which aims to show that being is only one and that it is without parts and indivisible. For if it were divisible, says <Parmenides>, it is divided into two parts and each of the two parts still in two parts, and always proceeding this division, it is clear, he says, that either they would remain of the last very small and indivisible quantities but unlimited in number, and the whole would be composed of very small parts, but unlimited in number; or <the being> would vanish and dissolve into nothingness, and would be composed of nothing, and that is absurd. Therefore, being will not be divisible but remains one. [140.1] [B] And indeed, since it [*scil*. the one] is in all respects the same, if it were divisible it would be equally divisible in everything, and not already here, and not there. But let's say that being is divided in all respects; it is clear once again that nothing will remain, and it will disappear, and if it is composed, it will once again be composed of nothing. If in fact something remains, it will not have happened yet that it will be divided in all respects. So, even from this it is clear, <Parmenides> says, that being will be indivisible and with no parts and one.

(Simpl. in Phys. 139.25-140.6> R65 LM)

Porphyry explicitly attributes the argument from dichotomy to Parmenides. To my knowledge, only David Sedley does not exclude the possibility of a Parmenidean origin of this puzzle which is generally ascribed to Zeno.⁵² While the A argument appears to focus

⁵² Sedley, 2008, p. 322. In favour of Zeno as inspirer of the argument see many ancient commentators, like Simplicius (*in Phys.* 140.21) and Philoponus (*in Phys.* 80.23-81.7). See also Owen, 1975, p. 163 n. 10 and Makin, 1982, p. 231-3: according to Makin, the argument from divisibility is "consistent with any sensible

on the notion of infinite divisibility, advanced by Zeno in his claims against plurality (D5-6 LM), the B argument introduces a different idea of decomposition – that is, an exhaustive divisibility to the point of nothingness – and defends the unity of being by proposing an argument very similar to Parmenides 22B8 DK, vv. 22-24 ("nor is it divisible, since as a whole it is *all alike*, / nor at all more here [...] / nor at all *less*"). According to the Eleatics (and the Atomists too), being is ungenerated, homogeneous and indivisible. Then, Porphyry suggests just three possibilities:

- a) being can be divided nowhere (that is, it is indivisible)
- b) it can be divided somewhere (e.g. here and not there)
- c) it can be divided everywhere.

While the Eleatics obviously upheld the first option, the Atomists upheld the same about the atoms themselves, but not about the whole as composed by atoms and void. For, by considering the atoms which are full, homogeneous and without internal void, they agree with the Eleatics, whereas by considering the whole, which is an aggregate of atoms and void, they are forced to choose between (b) and (c). But, according to the homogeneity principle which the Atomists agree on, they must uphold (c), which is taken to be absurd. More precisely, if a body (namely a compound) is divisible in the portion corresponding to the void and the being is by definition homogeneous, that is everywhere identical to itself, then it must be everywhere divisible.⁵³ This claim, explicitly deriving from homogeneity, is suggested not only by Parmenides but also by Gorgias. In other words, it is likely that Gorgias (T1) drew on a topic inspired by Eleatics (whether

account of the arguments against plurality given in the Zenonian B fragments" (p. 231); moreover, the lack of explicit reference to homogeneity in Zeno would not be an evidence against it. Finally, according to Makin this type of argument seems out of style with Parmenides.

⁵³ By exploring Simplicius' testimony about Zeno (*in Phys.* 139.7-19; 140.27-141.8), Makin (1982, p. 225, n. 16), considers Zeno's argument against plurality as grounded in the homogeneity, and consequent indivisibility of being. On the principle of homogeneity and its connection with divisibility at every point see also Warren, 2007, p. 161-2.

proposed by Parmenides or Zeno, T3), who introduce the puzzle from " $\pi \dot{\alpha} v \tau \eta$ divisibility" with an anti-pluralistic aim. Democritus (T2) would have responded to this argument by claiming the paradoxality of divisibility everywhere. The point of weakness in the Atomists' reasoning must have been noticed by Gorgias: for, if an atom, insofar as it is homogeneous, cannot be divided at one point rather than another, it will be divided either at every point or, conversely, at no point. But the second conclusion is *no more* justified than the first one, so that the Sophist, taking up the Eleatic assumptions, would have attacked the Atomists' ontology as inconsistent.⁵⁴

Gorgias' version of the argument from divisibility and the role of the void

Gorgias' claim against motion is likely to refer to physical divisibility, as the presence of void suggests: if something is divisible, according to Atomists it is divisible only at some points, that is where the void stands between the atoms, while according to Gorgias it is divisible everywhere, once granted that being is by its nature homogeneous and all alike. But if something is divisible at every point, then at every point it is not. In order to make the argument from divisibility stronger, Gorgias adds the equivalence between being divided and void (i.e. not being) that the Anonymous explicitly attributes to the Sophist and which is not elsewhere preserved in the same way.

Void, as a condition of motion, is crucial in the Eleatic and in the Atomistic doctrine. According to Melissus, what moves needs a void in which to withdraw, but since void, that is not being, does not exist, neither does motion:

ούδὲ κενεόν ἐστιν οὐδέν· τὸ γὰρ κενεὸν οὐδέν ἐστιν· οὐκ ἂν οὖν εἴη τό γε μηδέν. οὐδὲ κινεῖται· ὑποχωρῆσαι γὰρ οὐκ ἔχει οὐδαμῆι, ἀλλὰ πλέων ἐστίν. εἰ μὲν γὰρ

⁵⁴ On the principle of sufficient reason and its application in this kind of reasoning see De Lacy, 1972 and Bredlow, 2016, p. LV-LVI.

κενεὸν ἦν, ὑπεχώρει ἂν εἰς τὸ κενόν· κενοῦ δὲ μὴ ἐόντος οὐκ ἔχει ὅκηι ὑποχωρήσει.

And there is not any void. For the void is nothing. But what is nothing could not exist. Nor does it move. For it has nowhere it can recede to, but it is full; for if there were void, it would recede toward the void; but since the void does not exist, it has nowhere to recede to.

(Simpl. in Phys. 112.6-112.10> 30B7[7] DK> D10 LM)

By considering this fragment, some scholars have interpreted void not as an empty space outside the bodies, but as a "negative substance" inside the bodies themselves, mixed with them to make them less than totally dense. Thus, Melissus would have denied "an internal admixture of void, which would make what exists rare or spongy and thus enable it to 'give way' (ὑποχωρεῖν) at some point."⁵⁵ By denying the existence of the void as an internal component of bodies, movement conceived of as dependent on density/rarity would therefore also be excluded. Indeed, a body without void, therefore entirely dense and full, is immobile. This interpretation cannot be discussed in detail here. In any case, it does not seem decisive for my argument to establish whether the void is conceived as an empty space or as a space occupier, although the hypothesis of void as a negative substance is well suited to my reading: what is certain is that the Eleatic being, completely full, immobile and continuous, is incompatible with any idea of void.

Melissus introduces, on the one hand, the notion of void as a precondition of motion and, on the other, the equivalence between "void" and "nothing", two intuitions taken up and then developed by

⁵⁵ See Sedley, 1982, p. 178: for the Atomists (and, in any case, up to the fourth century BC) what exists occupies or fills a space; therefore, both atoms and void (understood as a more or less wide gap between the atoms themselves) are space-occupiers. It is likely that the Atomists did not have a notion of space as such: what is certain is that the void is the space unoccupied by atoms, that is, the necessary condition for their movement. For a different reading cf. Malcolm, 1991, p. 94 note 43.

Leucippus and the Atomists with an anti-Eleatic purpose⁵⁶. It is likely, as the Anonymous suggests, that Leucippus responded precisely to this line of argument: for, even admitting that the mention of his name (*MXG* 980a7) is an introduction of the Anonymous himself, it should be considered as a recognizable reference to the contrast between Eleatics and Atomists on multiplicity and motion. Thus, the expression *kaloumenoi logoi* in *MXG* appears to confirm that Leucippus advanced his arguments as a reply to the Eleatic objections: the *kaloumenoi* of the Anonymous would precisely recall those specific arguments (*logoi*, in *GC* I 8, 325a23) attributed to Leucippus by Aristotle.⁵⁷

Λεύκιππος δ' ἔχειν ὡήθη λόγους οἵ τινες πρὸς τὴν αἴσθησιν ὑμολογούμενα λέγοντες οὐκ ἀναιρήσουσιν οὔτε γένεσιν οὔτε φθορὰν οὕτε κίνησιν καὶ τὸ πλῆθος τῶν ὄντων. Όμολογήσας δὲ ταῦτα μὲν τοῖς φαινομένοις, τοῖς δὲ τὸ ἕν κατασκευάζουσιν ὡς οὐκ ἂν κίνησιν οὖσαν ἄνευ κενοῦ τό τε κενὸν μὴ ὄν, καὶ τοῦ ὄντος οὐθὲν μὴ ὄν φησιν εἶναι. Τὸ γὰρ κυρίως ὂν παμπλῆρες ὄν· ἀλλ' εἶναι τὸ τοιοῦτον οὐχ ἕν, ἀλλ' ἄπειρα τὸ πλῆθος καὶ ἀόρατα διὰ σμικρότητα τῶν ὄγκων. Ταῦτα δ' ἐν τῷ κενῷ φέρεσθαι (κενὸν γὰρ εἶναι), καὶ συνιστάμενα μὲν γένεσιν ποιεῖν, διαλυόμενα δὲ φθοράν.

But Leucippus thought he possessed assertions that, in agreement with sensation, would not abolish either generation or destruction or motion and the multiplicity of the things that are. Having thus granted these points to appearance and also to the defenders of the one, that there could not be motion without a void, that the void is what *is not*⁵⁸, and that nothing that is not belongs to being, ha says that what is in the proper sense is being that is completely full, but that such a being is not one, but that they are unlimited in number and invisible because of the smallness of their masses. These are borne along in the void (because the void

⁵⁶ On the void as Melissus' invention see Barnes, 1982, p. 217-18; Kirk-Raven-Schofield, 1983, p. 408, n. 2; McKirahan, 2010, p. 300.

⁵⁷ On the presence of *logoi* as a linguistic tell-tale sign see Alfieri, 1936, p. 15, n.60; Newiger, 1973, p. 119ff.; Buchheim, 1989, p. 185 n. 13.

⁵⁸ Laks-Most translate "does not exist".

exists) and when they gather together, they produce generation, and when they are dissociated, destruction.

(Arist. GC I 8, 325a23-32> 67A7 DK> D30 LM, transl. Laks-Most, adapted)

It is reasonable to assume that the Anonymous was well aware of this section of the Aristotelian work where Leucippus' *logoi* are mentioned as claiming the existence of birth, death, multiplicity, motion; the Atomist is said to explicitly agree on three Eleatic assumptions: (1) motion implies void; (2) void is what is not; (3) nothing of what is not belongs to being. Before citing the *logoi* of Leucippus, Aristotle introduces arguments coming from an antipluralistic context, probably Eleatic, which prepares the ground for the subsequent refutation.

Ένίοις γὰρ τῶν ἀρχαίων ἔδοξε τὸ ὂν ἐξ ἀνάγκης ἐν εἶναι καὶ ἀκίνητον· τὸ μὲν γὰρ κενὸν οὐκ ὄν, κινηθῆναι δ' οὐκ ἂν δύνασθαι μὴ ὄντος κενοῦ κεχωρισμένου, οὐδ' αὖ πολλὰ εἶναι μὴ ὄντος τοῦ διείργοντος. τοῦτο δὲ μηδὲν διαφέρειν, εἴ τις οἴεται μὴ συνεχὲς εἶναι τὸ πᾶν ἀλλ' ἄπτεσθαι διῃρημένον, τοῦ φάναι πολλὰ καὶ μὴ ἕν εἶναι καὶ κενόν. εἰ μὲν γὰρ πάντῃ διαιρετόν, οὐδὲν εἶναι ἕν, ὥστε οὐδὲ πολλά, ἀλλὰ κενὸν τὸ ὅλον· εἰ δὲ τῇ μὲν τῇ δὲ μή, πεπλασμένῷ τινὶ τοῦτ' ἐοικέναι·

[A] Some of the ancients thought that what is must necessarily be one and immobile; for the void is something that does not exist, and what is could not move if there is no separate void, nor could many things exist, if there is not something that separates them; **[B]** and if one thinks that the whole is not continuous but, being divided, [*scil*. its parts] are in contact, this is not at all different from saying that many things exist and not only one, and that the void exists. For if it is divisible everywhere, there is nothing that is one, so that they are not many either, but all is void; but if it is [*scil*. divisible] here but not there, this seems to be like a fiction.

(Arist. GC I 8, 325a2-11> A8 DK> D12b LM)

I divided the text into two sub-arguments, respectively introduced by the plural pronoun \ddot{e} vioi and by the indefinite singular $\tau_i c$. According to the \ddot{e} vioi in argument A (*GC* 325a2-6), multiplicity and motion imply the existence of void, since a separation should necessarily occur between the elements that make up the many and that can move only through the void. Indeed, the existence of a multiplicity would be impossible without an intermediate void. Argument B (*CG* 325a6-11) introduces a new element: even if we suppose a divisibility in contact, namely a divisibility of the whole into adherent parts, we should still conclude that the whole is not one but many. And finally, if a complete division of the whole is granted *ex hypothesi*, we should still admit the presence of an element must be the void, that is, not being.⁵⁹

Although the overall argument in *GC* 325a2-11 is not attributed to any particular philosopher, we can recognize Eleatic claims behind this section of the Aristotelian text, and specifically Zenonian in reference to divisibility, and Melissean regarding to the equivalence between void and nothing. In my opinion, however, the co-presence of these two themes excludes the possibility that the author of the whole argument is exclusively one or the other philosopher.⁶⁰ As seen above, in Melissus we find a well-developed argument against motion which is based on assumptions different from Zeno's. For, at least as far as we know, Zeno would refute motion not starting from the unity of being, as Melissus does, but considering the aporias related to the existence of the place in which to move (as in D17 LM,

⁵⁹ Cf. in this regard also Philoponus: "When Democritus said that the atoms are in contact with each other, he did not mean contact, strictly speaking, which occurs when the surfaces of the things in contact fit perfectly with one another, but the condition in which the atoms are near one another and not far apart is what he called contact. For no matter what, they are separated by void" (Philop., *Commentary on Aristotle's* GC 158.27-159.3> DK 67A7). Cf. 68A64 DK.

⁶⁰ On this point I agree with Bremond, 2017, p. 42-3.

on which see p. 4). Finally, neither do we have Zenonian arguments about void nor any reason to believe that he denied its existence.⁶¹

Wondering about the identity of the *ɛ̃vioi*, many scholars favour the hypothesis of an argument created *ad hoc* by Aristotle to describe the Eleatic being and to anticipate the Atomistic counterargument according to a methodology elsewhere adopted in his *Metaphysics*.⁶² It is difficult to believe that Aristotle introduces a specific topic by Melissus, and then extends it to Eleatic thought as a whole: therefore he would have created an Eleatic argument by selecting Melissean and Zenonian claims, and this, as well as being perfectly compatible with his argumentative strategy, would also be confirmed by the fact that this passage works as a historical introduction to Atomism. The Atomists in fact resume the Eleatic premises but, accepting the existence of the void, they aim to explain phenomena such as motion and multiplicity.⁶³ According to this hypothesis it would therefore have been important for Aristotle to highlight both the Eleatic argument from divisibility, replied to by the Atomistic doctrine of indivisible atoms, and the argument of the void, whose existence is denied by Melissus as not being. However, the relevance of argument B, which connects the topic of divisibility everywhere with that of void, ending up denying the one and the many at the same time, brings us to a very particular strategy that combines pre-existing arguments, diverting them towards a 'nihilist' goal. This strategy, albeit in an overcondensed form, is perfectly in accord with the Gorgianic reflection upon motion as preserved in T1 (MXG 980a3-8).

I would therefore suggest that the argument B, starting right from the indefinite τις, echoes a specific topic of Gorgias which Aristotle must

⁶¹ Furthermore, even by assuming that the denial of void aims to deny multiplicity, we must remember that Zeno has other more famous arguments against the many.

⁶² Barnes (1982, p.159) speaks of an "Aristotelian *potpourri*": this hypothesis is essentially agreed on by Bremond, 2017, p. 44ff. The Leucippean origin of this reflection as proposed by Bollack (1969, p. 35) has been rejected with convincing arguments by De Ley, 1972.

⁶³ Cf. Rashed, 2005, p. 139ff.

have been familiar with: the MXG text, full of Eleatic and Atomistic suggestions, is not only linguistically very similar to GC I 8, 325a8-11, but also referred both to divisibility everywhere and void. These elements were probably reworked by Gorgias himself, aware of the aporias involved in the doctrine of Atomism. Let us consider that the assumption of numerically unlimited atoms could easily legitimize an objection based on infinite divisibility; moreover, a dialectician such as Gorgias would have certainly regarded with suspicion the distinction between "what is being in the proper sense" (to [...] κυρίως öv, *GC* I 8, 325a29) and what is being *not* in the proper sense. This theoretical ambiguity must have been the fertile ground for the Sophistic claim aimed at revealing the shift between the existential and copulative meaning of the verb εἶναι, exactly as in the *idios* apodeixis. Finally, the B argument in GC ends up denying not just either the many or the one, but both (GC 325a8-9), and that is a remarkable conclusion shared with Gorgias (MXG 980a5-6).

It could be argued that it is a dialectical move by the Eleatics, who refute the one in order to deny the multiplicity which is composed by units (as in Zeno's puzzles, whether or not he was aware of the aporia). Nevertheless, the reasoning is aimed at showing that, once divisibility (and therefore void) is admitted, the first element to be dismissed is the one, and only consequently the many.⁶⁴ Moreover, the reference to Leucippus' *kaloumenoi logoi* in *MXG* encourages us to assume that the Anonymous was very familiar with this passage of the Aristotelian text where Eleatic and Atomistic arguments are intertwined with their polemic echo in Gorgias.

Here as elsewhere Aristotle is probably borrowing some suggestions from *PTMO*, but he avoids making Gorgias' name explicit.⁶⁵ Many

⁶⁴ Furley distinguishes the divisibility argument inspired by Zeno from that which, considering the void, concludes that everything is empty, and therefore nothing is. This last conclusion, as Furley himself admits, "has not been advanced, as far as I know, anywhere else" (Furley, 1982, p. 364). My suggestion is that this specific argument should be attributed to Gorgias.

⁶⁵ I addressed the problem in Ioli, 2007. Further example of a Gorgianic echo could be the dilemma on generation as birth either from what is or what is not (*Phys.* I 8 191a27-31). In this regard see also Bremond, 2017, p. 47: the argument could be

echoes from Gorgias could be mentioned: let us here introduce just a passage from *De sensu* where, behind the anonymous τινες, we may reasonably recognise an argument from the third thesis of *PTMO*, as seems to be confirmed both by linguistic and argumentative analogies.⁶⁶ According to Aristotle the origin of a sensation is one and the same, although consequent motions and perceptions are many and different. In such a way he responds to the aporias raised by the supporters of the so-called intersubjective argument, first of all Gorgias, who maintains that it is impossible for two persons to share the same perception. For a single thing, whether a perception or a thought, cannot physically and simultaneously be found in two different and separate subjects, for example in a speaker and a listener, since the one would be two. This specific element of the theory of perception, rooted in the doctrine of haporroai, is due precisely to the Sophist. An implicit reference to Gorgias and his theory of perception is recognizable also at the beginning of *GC* I 8, where the generic reference to the Empedoclean theory of *poroi* must certainly include the Sophist among his supporters. This can be confirmed by the numerous analogies between that Aristotelian passage (GC I 8, 324b26-29> 31A87 DK> D210 LM) and the third thesis of PTMO in the two versions (MXG 980a20-b7 and S.E. M. 7.83-86). ⁶⁷ Therefore, we should not be surprised that some Gorgianic arguments are traced in Aristotle: the target of the Sophist, who must have been very familiar with Melissus' arguments and their

considered as the Aristotelian reformulation of an ancient debate on the generation, preserved in Gorgias too (*MXG* 979b27-33 and S.E., *M*. 7.71, *supra* p. 5).

⁶⁶ Arist. Sens. 6, 446b18-21 ἀδύνατον γάρ φασί τινες ἄλλον ἄλλῳ τὸ αὐτὸ ἀκούειν καὶ ὀσφραίνεσθαι· οὐ γὰρ οἶόν τ' εἶναι πολλοὺς καὶ χωρὶς ὄντας <ε̈ν> ἀκούειν καὶ ὀσφραίνεσθαι· τὸ γὰρ ἐν χωρὶς ἀν αὐτὸ αὐτοῦ εἶναι ("for they argue that it is impossible for several separate persons to hear or smell the same thing; for in that case a single thing would be separate from itself", transl. Hett 1957). Cf. *MXG* 980b9-11 ἀλλὰ πῶς ὁ ἀκούων τὸ αὐτὸ ἐννοήσει; οὐ γὰρ οἶόν τε τὸ αὐτὸ ἄμα ἐν πλείοσι καὶ χωρὶς οὖσιν εἶναι· δύο γὰρ ἂν εἴη τὸ ἕν ("then how will someone who hears understand the same thing? For it is not possible that the same be at the same time in multiple things that are separately, for one would be two"). See also Gorg. *Pal*. 35.

⁶⁷ Cf. also Pl. *Men*. 76c4-e4> 82B4 DK> D45a LM, and Theoph. *Ign*. 73> 82B5 DK> D45b LM.

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polemic reply in Leucippus, was reasonably not only Eleatism, but also Atomism. Since being is found to be neither one nor many, Gorgias can conclude that nothing is.

An argument against motion such as that preserved in *MXG* does obviously target the Atomists who defend motion: they argue for the existence of a 'residual' outcome in a process of divisibility, that is very small and indivisible bodies which move in the void and can generate the whole reality, thanks to their movement. Thus, in his synthetic proof Gorgias uses Eleatic arguments against multiplicity and motion, by mixing them together for a purpose which is jointly anti-pluralistic and anti-monistic.

Conclusive remarks

By exploring the structure of *PTMO* and, above all, its first thesis, it can be concluded that the argument against motion perfectly fits within the *synthetike apodeixis* and the dispute between Eleatics and Atomists which inspired this whole section of Gorgias' treatise. It is not necessary to suppose a lost argument about rest: in the philosophical background in which Gorgias is included too,⁶⁸ the discussion about unity and multiplicity is strictly connected with the problem of motion.

We can therefore defend the reliability of the Anonymous regarding the general structure of the first thesis and, specifically, its argument against motion. Furthermore, the conciseness of the Anonymous style suggests that, even if some interference is not excluded, it is recognisable in brachylogical passages and not arbitrary additions. Conversely, Sextus does not refrain from making cuts and edits, as it is evident in the third thesis where he omits both the inter- and the intra-subjective argument (*MXG* 980b8-19).

In the doxographical passage which prefaces the *PTMO* first thesis, the method attributed to Gorgias by the Anonymous involves a

⁶⁸ Cf. Isocr. *Antid*. 15.268 (82B1a DK> R24a LM) and *Hel*. 3 (82B1b DK> R24b LM).

synthesis (MXG 979a14 σ uv θ eic từ ἑτέροις εἰρημένα), that is, a wellaimed assembly of the doctrines of others, whose mutual contrast corroborates his thesis that nothing is. His conclusion is therefore supported by a dialectical use of the arguments of Eleatics and Atomists. In this context, his claim against motion must be understood as an argument well-grounded in the debate about one/many. The Atomists respond to the puzzles from dichotomy and *regressus ad infinitum* which undermine plurality, by introducing the multiplicity of indivisible atoms, capable of composing everything by joining in complex aggregates. Atomic compounds must be formed not only by being (i.e. homogenous and indivisible atoms), but also by not-being (i.e. void). This latter is necessary for both the separation between atoms and motion. But if being is composed of nothing – that negative substance which is void – then being itself is nothing.

It is strange that none of the ancient commentators mentioned the argument from divisibility, preserved in Democritus and Gorgias, as a plausible response to the well-known Zenonian dichotomy or to some generally Eleatic claim against plurality. I believe that Gorgias' argument against motion (T1) is a specific formulation of the argument from divisibility: by comparing this section of *MXG* with T2 (Democritus in *GC* 316a23-34) and T3 (Parmenides or some other Eleatic thinker in Simpl. *in Phys*.140.1-6)⁶⁹ we can shed new light on the ancient debate about being. Two elements are preserved in all the texts, precisely the puzzle of divisibility everywhere ($\pi \dot{\alpha} \tau \eta$) and the lack of a $\lambda o \iota \pi \dot{o} v$, a rest once the division is occurred. However, only Gorgias makes explicit the equivalence between void and divisibility which ends up proving not just that the motion does not exist, but also – and above all – that nothing exists.

In conclusion, my suggestion is that Gorgias' argument against motion is part of a broader dispute on the divisibility/indivisibility of being, which has probably Parmenides as forebear (22B8 DK). On

 $^{^{69}}$ For the similarity between our passage in Simplicius and GC 316a see also Curd, 1998, p. 186, n. 15.

the one hand, Gorgias would be confronted with the Eleatic (Parmenidean or Zenonian) version of the argument from divisibility as preserved in Simplicius. According to this anti-pluralistic claim, once the homogeneity of being is admitted, together with its divisibility, it will inevitably involve a complete divisibility, so that nothing will remain. Moreover, the whole (finally recomposed after the decomposition) will be composed of nothing, but this is absurd. Therefore, there is only the one, which is without parts. On the other hand, Gorgias must have faced a Democritean version of the argument from divisibility everywhere, that is, the Atomistic response to this puzzle, whose paradoxicality is contrasted by defending the plurality of indivisible atoms.

Within this guarrel, Gorgias elaborates a particular version of the argument that clearly targets Eleatics as well as Atomists. If it is true, as I suppose, that Gorgias is the source of *GC* I 8, 325a6-11, we can suggest that Aristotle was well aware of the Sophistic reinterpretation of the puzzle which Gorgias diverted toward a 'nihilistic' conclusion. For Gorgias' final aim is to show the contradictions inherent in monism as well as in pluralism. However naive and provocative his argument may turn out to be, it seems to me perfectly understandable within the controversy between Eleatics and Atomists, and coherent with the argumentative style of the Sophist, who likes collecting the doxai of others, showing inconsistencies and aporias not only (or not so much) in themselves, but above all in comparison with the opinions of others. In Gorgias' PTMO, Zeno's arguments are employed against Melissus and, even more skilfully, the Eleatic premises accepted by the Atomists end up refuting both in one fell swoop.

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