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# Naming the Principles in Democritus: An Epistemological Problem

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**Abstract:** It is well known that Democritus posited two principles of reality, *i. e.* atoms and void, and that he gave them many names. Synonyms of atom include the terms “body”, “form” and “thing” or δέν, while void was also called “space”, “infinite” and “no-thing” or μηδέν. What usually escapes the attention of scholars is the problematic outcome that this apparently plain mode of expression raises at the epistemological level. Indeed, according to Proclus (*In Plat. Crat.* 16 = fr. 68 B 26 DK), Democritus believed that names are not established by nature, but by convention, which may imply that they do not express the true nature of the object named. Proclus gives four proofs on his behalf, among which we find the ἰσορροπία argument. Names do not have a natural link with the objects they refer to and, therefore, do not express their inner essence, since the same thing will receive different designations and meanings, none of which fully expresses its real φύσις. Now, I will argue that, if we apply this idea to the principles, it follows that Democritus may have acknowledged that they are not fully comprehensible to human beings. The fact that both the atom and the void are assigned different names/meanings shows that their nature escapes human understanding. At the same time, I will also briefly suggest that the “ἰσορροπία argument” does not lead to skepticism. Instead, it leads to a rational dogmatism, which recognizes that atoms and void exist, are known and can be expressed through language, although no mind can fully comprehend their essence.

**Keywords:** Democritus, language and reality, history of science, theory of knowledge

Au fond de l’Inconnu pour trouver du *nouveau!*  
(C. Baudelaire, *Le Voyage*, VIII, v. 8, in *Les Fleurs du Mal*, poem 231)

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The most important source on Democritus' theory of language is Proclus' *Commentary on Plato's «Cratylus»* (§ 16 = B 26).<sup>1</sup> Here, the Neoplatonist philosopher affirms that the atomist took the same view as Hermogenes, namely that names belong to things by convention (cf. Plat. *Crat.* 384c9-d8), by building four specific arguments:

ἐκ τῆς ὁμωνυμίας· τὰ γὰρ διάφορα πράγματα τῶι αὐτῶι καλοῦνται ὀνόματι· οὐκ ἄρα φύσει τὸ ὄνομα· καὶ ἐκ τῆς πολυωνυμίας· εἰ γὰρ τὰ διάφορα ὀνόματα ἐπὶ τὸ αὐτὸ καὶ ἕν πρᾶγμα ἐφαρμόσουσιν, καὶ ἐπάλληλα, ὅπερ ἀδύνατον· τρίτον ἐκ τῆς τῶν ὀνομάτων μεταθέσεως· διὰ τί γὰρ τὸν Ἀριστοκλέα μὲν Πλάτωνα, τὸν δὲ Τύρταμον Θεόφραστον μετωνομάσαμεν, εἰ φύσει τὰ ὀνόματα; ἐκ δὲ τῆς τῶν ὁμοίων ἐλλείψεως· διὰ τί ἀπὸ μὲν τῆς φρονήσεως λέγομεν φρονεῖν, ἀπὸ δὲ τῆς δικαιοσύνης οὐκέτι παρονομάζομεν; τύχη ἄρα καὶ οὐ φύσει τὰ ὀνόματα. καλεῖ δὲ ὁ αὐτὸς τὸ μὲν πρῶτον ἐπιχείρημα πολύσημον, τὸ δὲ δευτερον ἰσόρροπον, <τὸ δὲ τρίτον μετώνημον>, τὸ δὲ τέταρτον νώνυμον

First, that from homonymy: different things are called by the same name, so the name does not belong to them by nature. Then, that from polyonymy: if different names fit one and the same thing, they must fit one another, which is impossible. Third, that from change of names: why was Aristocles' name changed to Plato, and Tyrtaemus' to Theophrastus, if names apply by nature? Then, that from absence of similar terms: why do we form the verb 'think' from 'thought', but do not form any verb from 'justice'? Names, therefore, apply by chance, not by nature. He himself [*i.e.* Democritus] calls the first argument "the ambiguous", the second "the equivalent", <the third "the name-changing"> and the fourth "the anonymous" (transl. Taylor 1999, 137).

How trustworthy is this source? At first sight, we may be tempted to dismiss it for three reasons. The first is that not all the examples derive from Democritus. Indeed, he surely did not develop the one of *μετάθεσις*, since he lived before Plato and Theophrastus, who received this name from Aristotle (see Diog. Laet. V 38.9-39.1).

Secondly, since an anonymous commentator on the *Philebus* attributed to Democritus the claim that some names are "speaking images" of the gods, and since the atomist employed the etymological method, it is possible to infer that in reality he was not in agreement with Hermogenes' conventionalism.<sup>2</sup> Confirmation lies in the fact that in the *Cratylus* also Socrates employs etymology against it (397a4-c2). This method shows, after all, that some names have a

<sup>1</sup> I am quoting all Democritus' sources from Diels-Kranz 1956, but without including the chapter (68) and the acronym DK. Sometimes, however, I also cite the collections of Luria (1970) and Leszl (2009).

<sup>2</sup> See *In Plat. Phil.* 24 (= B 142; his commentary is attributed by some to Olympiodorus, by others to Damascius: cf. Westerink (1959, XV–XVIII)), *Etym. Oryon.* p.153.5 (= B 2), Soran. *Gyn.* III 17 (= A 159).

natural link with the object to which they refer. It is also worth mentioning that two examples Socrates makes later on find direct parallels in Democritus, namely that γυνή (“woman”) comes from γονή (“womb”), *i. e.* that woman derives her ὄνομα from the faculty to generate (compare 414a3-4 and B 122a), and that of the letters Δ and T (see 427a6-7 with B 20). Such a point may be a sign that Plato is here quoting his predecessor.<sup>3</sup>

Finally, even the general conclusion that – accordingly to Proclus – follows from the four arguments (“Names... apply by chance, not by nature”) appears to stand in contradiction to the thought of the atomist. Did Democritus not deny the existence of chance (B 119: ἄνθρωποι τύχης εἶδωλον ἐπλάσαντο πρόφασιν ἰδίης ἀβουλῆς) in the footsteps of Leucippus, who declared that things do not happen randomly but out of an all-mighty necessity?<sup>4</sup>

Proclus’ trustworthiness can be preserved, however, for it is possible to overcome all these difficulties. The fact that he presents examples that cannot be traced back to Democritus simply shows that the Neoplatonist philosopher was reading a text which did not record all the original words of the atomist.<sup>5</sup> The most important thing to note, in any case, is that Proclus mentions that the atomist himself calls (καλεῖ) the four arguments in different ways. Unlike the Neoplatonist philosopher, for example, Democritus refers to the πολυωνυμία argument by the name of ἰσορροπία, which also seems to be a term already employed by Leucippus.<sup>6</sup> So while Proclus may have been reading an original Democritean fragment, he nonetheless could still find in his source a good account of his predecessor’s thought.

As regards to the second difficulty, one must keep in mind that the anonymous commentator on the *Philebus* may be referring to a third-century

<sup>3</sup> See Philippson (1929, 926–927). Note that, in the dialogue, Socrates claims ironically that his etymological wisdom only *mostly* (μάλιστα) derives from Euthyphro (396d4-5). He may then be inspired also by other thinkers, including Democritus. On Plato’s etymology, see Sedley (2003, 25–50).

<sup>4</sup> 67 B 2 DK = Aet. I 25.4. On this fragment, see Barnes (1984).

<sup>5</sup> Brancacci (1986, 18), supposes that he read a manual on the *Cratylus*, which was influenced by the *Categories* of Aristotle. Indeed, the language and the examples used by Proclus, while expounding Democritus’ position, depend on this treatise (for the similarities between the two, cf. Romano (1989, 126–127)).

<sup>6</sup> Cf. Diog. Laert. IX 31.8-9: ἰσορροπῶν δὲ διὰ τὸ πλῆθος μηκέτι δυναμένων περιφέρεισθαι. Luria (1970, 416) also thinks that the argument of ἰσορροπία – which is described by Aetius (III 15.7 = fr. 4 Luria) and makes the Earth motionless (see also Plat. *Phaed.* 108e4-109a6) – can be traced back to the atomists. A word that Democritus could have used in the argument of ἰσορροπία is κόσμος. Indeed, in fr. B 274 he plays with its double meaning as order and ornament, and also gives different meanings in other fragments (cf. *e. g.* B 47, 180, 259).

Neoplatonist by the name of Democritus,<sup>7</sup> as well as that the parallels between Democritus and Socrates in the *Cratylus* are not to be exaggerated. The etymology woman-womb may have been a part of an example from the  $\nu\omega\nu\mu\acute{\iota}\alpha$  argument. Democritus may have asked: is it not a sign that names are conventional, since  $\gamma\upsilon\eta$  is formed from  $\gamma\omicron\nu\eta$ , but “man” ( $\alpha\acute{\rho}\sigma\eta\nu$ ) is not derived from anything?<sup>8</sup> Moreover, Socrates in the *Cratylus* recalls the letters  $\Delta$  and  $T$  in order to describe their power to imitate the nature of things, but this would not seem to have been also the atomist’s aim. Democritus may have simply investigated whether both letters are euphonic or not.<sup>9</sup>

The third difficulty is instead resolved by noting that, even if Democritus recognized that everything takes place out of necessity, this does not imply that some events also happen at random. In the ethical fragments, he affirms that chance has some influence on human life. In fr. B 119 itself, he even admits that the wise man sometimes ( $\beta\alpha\acute{\iota}\alpha$ ) succumbs to accidental events, thus acknowledging their existence.<sup>10</sup> Now, the formation of names may have been derived from random events, for the account of the origin of language reported in Diodorus Siculus’ *Bibliotheca Historica* – which may depend on the Democritean material<sup>11</sup> – shows that the linguistic expressions of each nation originated by chance,<sup>12</sup> namely through the contingent things and places that humans met in their surroundings.

I do not wish to reconsider here Democritus’ theory of language.<sup>13</sup> I just aspire to highlight a possible consequence of the application of the Democritean argument of  $\text{isopporia}$  preserved by Proclus to the theory of ontological princi-

7 Cf. Westerink (1959, 15) and Hirschle (1979, 63–65). On the weak reliability of the information provided by the anonymous commentator [etc.], see also Philippson (1929, 926), who shows that even if the doctrine of the  $\acute{\alpha}\gamma\acute{\alpha}\lambda\mu\alpha\tau\alpha$   $\phi\omega\nu\eta\epsilon\nu\tau\alpha$  can be ascribed to Democritus, it still admits a strong conventionalism. *Contra* Langerbeck (1935, 53–54), Brancacci (1986, 24–25). I also exclude without hesitation Diels’ supposition that Hierocl. *In Pyth. c. aur.* 25 (= B 142) is a source on Democritus: the name of the atomist does not appear here.

8 Some scholars however argue that  $\nu\omega\nu\mu\acute{\iota}\alpha$  may have played a positive role, as a means to indicate a “void” in our language and the possibility to fill it with new terms/ideas. Cf. Brancacci (1986, 18), and Bertagna (2007).

9 See *Περὶ εὐφώνων καὶ δυσφώνων γραμμάτων* in Diog. Laert. IX 33.36 and Brancacci (2007, 189).

10 Verde (2013, 178–181). Chance is recognized in fr. B 3, 176, 197, 210, 269, 288, 293.

11 Of fundamental importance here is Cole (1967). Useful also Vlastos (1993). Doubts in Bertelli (1980, 531–532).

12 Cf. I 8.4:  $\acute{\omega}\varsigma$   $\xi\tau\upsilon\chi\epsilon$ . See here Philippson (1929, 923–924). Even Socrates admits in Plato’s *Cratylus* that some names may depend on chance (cf. 394e9; see also Proclus, *In Plat. Crat.* 1, 10, 51, 88, 123).

13 For a general outline of the theory of language of Democritus, cf. von Fritz (1963, 8–30), Calogero (1967, 436–438), Martano (1984, 275–279), Paneris (1985), Barnes (1986, 469), Brancacci (1986, 16–27), Denyer (1993, 69), Bernabé (1998, 328), Ademollo (2003), and Bertagna (2007).

ples, which received many names by the atomist. In his work *On Democritus*, for example, Aristotle reports that synonyms for “atom” include “body”, “form” and “thing” or δέν, while “void” is also called “space”, “infinite” and “no-thing” or μηδέν.<sup>14</sup> Before I proceed any further, however, I need to make another premise. When Democritus recognizes that names are conventional, he may also be affirming that names do not often fully express the nature of the things named, and therefore that naming does not depend on a strong knowledge of the essence of things. This point is indeed confirmed by § 16 of Proclus’ commentary on Plato’ *Cratylus*. Since Proclus opposes Democritus’ position to that of Pythagoras, who claimed that the faculty to name things belongs to the one who contemplates the intellect and the nature of things (ἔστι τὸ ὀνοματουργεῖν... τοῦ τὸν νοῦν ὁρῶντος καὶ τὴν φύσιν τῶν ὄντων), we may infer that the former did not hold the same belief as the latter, *i. e.* that according to the Neoplatonist the atomist claimed that often full knowledge is not involved in the process of naming.<sup>15</sup>

Such a point seems to conflict with two texts. One is fragment B 283, where Democritus claims that πενίη and πλοῦτος are ὀνόματα for ἔνδεια and κόρος. The fragment might be stating that the one who knows what satiety and lack are will also know that they can rightly be called “wealth” and “poverty”, and therefore will call “poor” the opulent human who is never satisfied in his desires and “rich” the one who always satisfies his needs, even if he does not possess a single coin.<sup>16</sup> But the objection only shows that Democritus was not a rigid defender of conventionalism. Probably, he granted that conventional names – which usually give only a generic reference to a thing, or at most a reference to a thing that is known imperfectly – may sometimes properly express a thing that is correctly understood.<sup>17</sup> In the specific case of fr. B 283, Democritus knows both what autarchy and its opposite are, and therefore might also know that their true names are respectively πλοῦτος-κόρος and πενίη-ἔνδεια. However, it could also be argued that the process of naming αὐτάρκεια might not be based on any knowledge of the strongest sense of the word, but only on its weaker form: the

<sup>14</sup> Simpl. *In Arist. De coel.* p. 295.1-5 = 37 DK.

<sup>15</sup> This is also argued by Frank (1923, 170), who writes that language: “ist ein bloß *subjektives Bild*, nicht die objektive Wahrheit selbst, nicht ‘von Natur’, sondern ‘durch Kunst’, ‘durch Satzung’”.

<sup>16</sup> See here B 219 and 284 with Spinelli (1991). On this kind of argumentation, cf. Vlastos (2008, 370–371).

<sup>17</sup> Other argument on the behalf of this claim can be found in Cole (1967, 68–69), Joly (1984, 250 and 263), Brancacci (1986, 25–27). *Contra* Pagliaro (1956, 58–60).

one which appears true because it satisfies our ethical needs. One might recall here a parallel with Socrates, who according to Gregory Vlastos did not contradict himself in claiming to know nothing (cf. Plat. *Ap.* 21b1-d7) while at the same time affirming to possess some irrefutable truths, for example that it is better to suffer injustice rather than commit it (Plat. *Gorg.* 508e6-509a4). For the philosopher's claims indeed imply two different kinds of knowledge: scientific knowledge, which he completely disavows, and moral knowledge, which he instead proclaims to possess and to teach.<sup>18</sup> Now, as regards moral truths, Socrates admitted that true wealth consists in the absence of needs (Xenoph. *Mem.* I 6.4-10): the same idea that Democritus defends in B 283. This point might therefore allow us to suppose that the atomist too, like Socrates, taught that the choice to call *πλοῦτος κόρος* is based on ethical (not scientific) certainty.

Another text that appears to run against my proposal is the aforementioned account by Diodorus, who writes that the first human beings formulated common expressions to *make known* (*γνώριμον*) the significance of each reality (I 8.3). In my opinion, however, this source does not indicate that they were experts on the nature of things. Rather, *γνώριμον* refers to a weaker form of knowledge. It is well known that Democritus distinguished at the theoretical level two kinds of *γνώμαι*: the *σκοτή* one, which consists in perceiving, and the *γνησίη* one, which involves the intellectual grasp of something finer and invisible, probably atoms and void.<sup>19</sup> Now, it is plain to me that the knowledge which ancients human beings may have possessed stops at the *σκότιος* level. For they did not know anything about the atoms and the void, on which the knowledge of the secret essence of things is based. This means that the ancients named each thing trusting their raw sensations only, which may also explain why an identical reality receives so many different designations.

Indeed, sensation will always presents a given thing in a different light. Depending on what occurs during the interaction between the bodily states of the subject and the internal composition of the external objects, the senses may suggest, for example, that honey is now sweet and now bitter, that a tree is now green, now brown or red, and so on. Other sources point out that this process led Democritus to develop the principle of the *οὐ μᾶλλον τοῖον ἢ τοῖον εἶναι*, according to which it is impossible to infer which qualities that are perceived really belong to the thing. We simply cannot decide and must conclude that honey is no more sweet than bitter, that trees are no more green than brown or

<sup>18</sup> See Vlastos (1991, 82–86 and 269–271). His position is further strengthened in Vlastos (1994).

<sup>19</sup> On Democritus' epistemology, cf. at least Sassi (1978), Morel (1996, 448–456), and Montano (2014, 67–115).

red, and so on.<sup>20</sup> Something similar may apply to the formation of names.<sup>21</sup> The first human beings labeled the same things differently, because they perceived the same thing in different ways, depending on the place that they inhabited, their physical constitution and other empirical factors. And if we compare the many ὀνόματα of the different nations, we are bound to conclude that it is impossible to decide which of them really belong to the objects they describe. So we must for example conclude that the true name of the horse is no more ἵππος than ‘horse’, no more ‘Pferd’ than ‘cavallo’, for these names can all equally be ascribed to the animal.

By keeping all this in mind, let us take another look at the ἰσοροπία argument. The fact that many names refer to the same object shows that none of the former naturally belong to the latter.<sup>22</sup> Not only that, but our brief description of Democritus’ epistemology also reveals that the existence of many ὀνόματα is a sign of the possession of an *imperfect knowledge* on the named πράγμα. If the name-givers perfectly knew an object, they would have created a single name, more precisely they would have created a unique name that always clearly expresses the true properties and the inner essence of that particular object.

Now, what happens when this epistemological interpretation of the ἰσοροπία argument is applied to the fact that atoms and void were called with many names by Democritus? We find that the two basic principles of the universe received different ὀνόματα by the atomist, because he himself was aware that he possessed a modest knowledge of them and could not consequently fully express their inner essence through language.

This conclusion seems to contradict, at first sight, the famous statement of Democritus that atoms and void are the only true objects, as opposed to the sensible qualities and possibly the atomic conglomerates that exist/are known by convention only.<sup>23</sup> It also appears to create a contrast with the aforementioned possibility that the γνησίη γνώμη consists in grasping the two fine

**20** For the sources and a discussion, see De Lacy (1958), Morel (1996, 244–256), and Gregory (2013).

**21** This point was already noted by Brancacci (1986, 23).

**22** Luce (1969).

**23** For Leucippus, see Aet. IV 9.8 (= 67 A 32). For Democritus, see Diog. Laert. IX 44.1–2 and 45.6–8 (= A 1), but especially the sentence νόμωι γὰρ χροῖή, νόμωι γλυκύ, νόμωι πικρόν, ἐτεῖτι δ’ ἄτομα καὶ κενόν, which is reported by many sources (Gal. *De elem. sec. Hipp.* I 2 = A 49; Sext. Emp. *M* VII 135 = B 9; Diog. Laert. IX 72.9 = B 117; Gal. *De medic. empir.* 1259.8 = B 125). However, the Epicurean Colotes (in Plut. *Adv. Col.* 1110e4–f1) reports also νόμω σύγκρισιν, thus making Democritus a physicist that argued that compounds are unreal, in other words an “eliminativist”. The champion of this reading is Wardy (1988).



principles. This is correct, but begs a further question: is this truth or γνησίη γνώμη completely achievable by a human being? The pair of fragments B 117–118 suggests that it is not. B 117 consists in a quotation of Democritus from Diogenes Laertius (= IX 72.10), who reports that according to the atomist we know nothing true (ἐτεῆτι οὐδὲν ἴδμεν). Now, if only atoms and void are ἐτέος, the sentence must mean that we cannot fully grasp the two fundamental principles of the universe.<sup>24</sup> According to Dionysios (in Eus. *PE* XIV 27.4), B 118 reports, instead, that Democritus exclaimed that he would prefer to discover a single causal explanation (βούλεσθαι μᾶλλον μίαν εὐρεῖν αἰτιολογίαν) than become king of the Persians. Since the understanding of causes ultimately consists in the knowledge of the behaviour of atoms within the void,<sup>25</sup> it may be inferred that these words imply an admission of the great difficulty to achieve an awareness of how both principles produce phenomena. Nothing, then, prevents us from supposing that this same admission of partial ignorance also led Democritus to adopt many names for the two main constituents of the universe.

One reason for our imperfect knowledge of atoms and void may be the fact that even γνησίη γνώμη cannot move beyond appearances. Indeed, the starting point of the knowledge of invisible principles is always found in the senses (cf. the end of B 125). The names of the atoms and the void may continually change, therefore, because they are derived each time by the study of different appearances, or at least by the study of the same appearance from different perspectives. While many examples could be given, I will furnish a single one, namely the ὀνόματα of the void that are reported by the fragment of Aristotle' *On Democritus*:<sup>26</sup>

Δημόκριτος ἡγεῖται τὴν τῶν αἰδίων φύσιν εἶναι μικρὰς οὐσίας πλῆθος ἀπείρους, ταύταις δὲ τόπον ἄλλον ὑποτίθησιν ἄπειρον τῷ μεγέθει· προσαγορεύει δὲ τὸν μὲν τόπον τοῖσδε τοῖς ὀνόμασι τῷ τε κενῷ καὶ τῷ οὐδενὶ καὶ τῷ ἀπείρῳ, τῶν δὲ οὐσιῶν ἐκάστην τῷ τε δὲν καὶ τῷ ναστῷ καὶ τῷ ὄντι

**24** Beware, however, that Diogenes Laertius introduces this quotation in reference to Democritus' dismissal of sensible qualities (IX 72.8). Also, mind that the verb ἴδμεν may actually describe the act of knowing through the senses, rather than through the intellect.

**25** The most direct confirmation is provided by Dionysios' own comments on Democritus' words and by Theophrastus in Simplicius (*In Arist. De cael.* p. 564.24–29 = A 120): ἰστορεῖ, ὡς ἰδιωτικῶς ἀποδιδόντων τῶν κατὰ τὸ θερμὸν καὶ τὸ ψυχρὸν καὶ τὰ τοιαῦτα αἰτιολογούντων ἐπὶ τὰς ἀτόμους ἀνέβη. See also Philop. *In De gen. et corr.* I 154 (= fr. 62.6 Leszl) and *In Arist. Phys.* 262 (= fr. 18 Luria).

**26** Simpl. *In Arist. De coel.* p. 295.1–5 (= A 37). The text also corresponds to fr. 642 of Gigon (1987).



Democritus thinks that the nature of the eternal things consists of small substances infinite in number; these he posits in place, separate from them and infinite in extent. He calls place by the following names: ‘the void’, ‘nothing’, and ‘the infinite’, and each of the substances he calls ‘thing’, ‘the solid’ and ‘what is’ (transl. of Taylor 1999, 70–71).

Aristotle reports that for Democritus the void receives different names from different explanations of how place appears.<sup>27</sup> Other external sources further specify that this principle is called κενόν, when it is interpreted as the space that allows a thing to move and to change,<sup>28</sup> or ἄπειρον, when it is conceived as the boundless magnitude that hosts all worlds.<sup>29</sup> The third name οὐδεὶς is puzzling, but it is probably connected to a polemic against Parmenides,<sup>30</sup> who denied that Being changes place (τόπον ἀλλάσσειν), for it would mean that there are empty non-Beings in which Being could move, which is absurd, for non-Being is unthinkable and unnamable.<sup>31</sup> This implies that what-is *always occupies the same τόπος*, i. e. the entire universe. Therefore, Parmenides is arguing that there is a *single* full space that coincides with Being and is attacking the habit of trusting our blinded eyes (28 B 7 DK), which suggest that there are *many* empty places (= non-Beings). If that is so, it may be inferred that Democritus

**27** Alternative interpretations can be found in Calogero (1967, 369), Algra (1995, 47–48), Taylor (1999, 186), and Andolfo (2001, 19–26).

**28** See Leucipp. 67 A 14 DK (= Simpl. *In Aristot. De coel.* p. 242.18-23) and 19 DK (= Arist. *De cael.* I 275b29-276a5). For Democritus, see the commentaries of Simpl. *In Arist. Phys.* pp. 394.24-25 (= fr. 250 Luria) and 1318.32-1319.5 (= A 58), as well as the texts collected in fr. 255–260 and 266–268 Luria. More information in Barnes (1986, 273–275), Löbl (1987, 132–140), Salem (1996, 53–59), Curd (2004, 184–188), Gemelli Marciano (2007, 152–154), and Reichenberger (2002, 115–118).

**29** See Aet. I 4.3-4 and Epic. *Ad Pyth.* 89.1-9, which are both sources on Leucippus (= 67 A 24 DK). Useful notes in Bailey (1928, 117–122).

**30** Some ancient sources report, that Leucippus developed his ideas both in continuity and in polemical contrast with the Eleatics (cf. the texts collected in 67 A 7–8 and 10 DK). Democritus may have followed his footsteps. See here fr. 15.2-4 Leszl (= Philopon, *In Arist. De gen. et corr.* I 8), Mugler (1956, 239–242), Joly (1984, 251), Löbl (1987, 79–83 e 92–95), Makin (1993, 11, 49 and 71), Taylor (1999, 161–162), Hasper (1999), Curd (2004, 182–184). Doubts in Asmis (1984, 245–252 and 348), and Gemelli Marciano (2007, 141–162).

**31** Cf. 28 B 2 and 8.34-41 DK. For discussions on the topic, see Denyer (1993, 24–26), Givone (1995, 24–28), Curd (2004, 28–34), Mourelatos (2008, 74–93), Vlastos (2008, 368–378), Pulpito (2014, 22–26). This interpretation is opposed by Kirk and Stokes (1960) – but see too the response by Bicknell (1967). I would cautiously add that Democritus may have entered in a polemic with Melissus’ claim that Being has no place into which withdraw (30 B 7.7). For it is also possible that Melissus claimed this in order to defend Parmenides against the attacks of Leucippus (see Klowski 1971; Graeser 1970, 303–304; Graeser 1972, 19–29; Curd 2004, 206–216; *contra* Matson 1963; McGibbon 1964; Algra 1995, 41–52).

gave the name οὐδεις to void based on the following reasoning. He assumed that one must trust those appearances that show the existence of many empty places. And since Parmenides recognized that this would mean that there are many non-Beings, the only possible solution to avoid the difficulty was to affirm that even non-Being is something that is, namely that μὴ μᾶλλον τὸ δὲν ἢ τὸ μηδὲν εἶναι.<sup>32</sup> From a linguistic perspective, Democritus then also assigns void the name οὐδεις with the aim of interpreting place in anti-Eleatic terms: as a plurality of empty gaps, in which one can freely go back and forth.

None of these three names express, in any case, the true and complete nature of the principle. For void is, at the same time, what allows movement and change, what hosts the birth of all worlds, what allows us to say that there is a plurality of places, and probably many other things. After all, there is nothing to prevent us from discovering other properties of the principle in the future and, consequently, from creating new names for it. Our knowledge of void is imperfect, so that a continuous investigation of its nature may one day reveal something that today escapes our intellect and is not expressed by our present language.

With some caution, one may also suggest that the same theoretical discourse can equally be applied to the naming of Democritus' moral end. The sources indicate that the atomist called the human goal by the names of εὐθυμία, εὐδαιμονία, ἀθαμβία, εὐεστώ, ἄρμονία, συμμετρία, ἀταραξία and many others (καὶ πολλοῖς ἄλλοις ὀνόμασι).<sup>33</sup> Democritus may have done so, because he believed that the moral end is really difficult to grasp and/or express with a single word. At the same time, he may have thought that the human end is so complex, that one needs to call it in different ways when evaluating its consequences in the social sphere (e.g., εὐεστώ),<sup>34</sup> when speaking of its effects on behavior (e.g., εὐθυμία and ἄρμονία: see B 191), when studying the resulting psychic states (e.g., ἀθαμβία and ἀταραξία), and so on – finding new designations to suit different perspectives. The first part of the suggestion must remain

<sup>32</sup> B 156 = Plut. *Adv. Col.* 1109a4-8, with Bailey (1928, 75 and 118), Alfieri (1953, 57–58), Diano (1964, 55–57), Calogero (1967, 364–367 and 375), D'Alessandro (1976–1977), Rossitto (1980, 203–205), Brunschwig (1984), Brancacci (1986, 11–15), Morel (1996, 63–65), Voelke (1990, 346–347), Salem (1996, 60–65), Perilli (1997–2000), Taylor (1999, 185), Andolfo (2001, 20–21 and 58), Curd (2004, 196 and 205–206), Gemelli Marciano (2007, 149–150), Warren (2009, 218–220). See also *Simpl. In Arist. Phys.* 28.14-15 (= Leucipp. 67 A 8 DK) and the sources on Democritus collected in fr. 177–178, 194, 214, 262 Luria.

<sup>33</sup> See Diogenes Laertius (IX 45.1-6), Cic. *De fin.* V 8.23 (= A 169) and B 167. Possibly, one of the “other names” for the moral end may have been ἀθαυμαστία (see Strab. I 3.21 = A 168).

<sup>34</sup> Thanks to fr. B 140, we know that the word means: εὐδαιμονία ἀπὸ τοῦ εὖ ἐστάναι τὸν οἶκον.

speculative, for the surviving sources never report that Democritus expressed any doubt as to our capacity to understand and name the moral end. The second part can instead be justified by acknowledging that the Democriteans were so aware of the complexity of the human goal described by their master, that they also tried to further express it using the names αὐτάρκεια, ψυχαγωγία, ἀκαταπληξία (see Clem. Alex. II 21.130.4-6 = B 4, Hecataios' fr. 73 A 4 DK, Apollodotus' fr. 74 A 1 DK, Nausiphane's fr. 75 B 3 DK).

My epistemological interpretation of the ἰσορροπία argument might come across as an admission of the fact that Democritus was a sceptic. Now, this is not the case. Democritus would have been a sceptic if he had suspended judgment on the existence of atoms and void, or on the claim to know at least to some extent what the two principles are, or again on the possibility that their names were not chosen based on some reasoning. But these statements are never found in his *corpus*.<sup>35</sup> My own reading of the “ἰσορροπία argument” has instead presented Democritus as a dogmatist who acknowledged that both atoms and void 1) exist 2) are knowable 3) can receive sound names, but who also openly admitted that there are considerable limits to our rational knowledge and linguistic expression of them.

Even if this conclusion is mainly negative, it also has a positive consequence. It shows that the philosophical research on the fundamentals of reality can continue indefinitely and improve day after day. Truth does exist, although it is buried in depth (cf. again Diog. Laert. IX 72.10 = B 117: ἐν βυθῶι γὰρ ἡ ἀλήθεια). Had Democritus spoken French, he would probably have put it as Baudelaire does in the closing lines of his poem *Le Voyage*, which I quoted at the beginning of this paper: “Au fond de l'Inconnu pour trouver du *nouveau!*”. We will probably never reach the truth buried in depth in its entirety, but in the meantime we will feel the joy of probing at least an extensive portion of the abyss.

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<sup>35</sup> Against the skepticism of Democritus, see also at least Vlastos (1994, 55), Curd (2001) and Spinelli (2010).

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