# Aristotle's Solution for Parmenides' Inconclusive Argument in *Physics* I.3

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If you thought that you were making your way to where the puzzles and pagans lay

I will put it together – it is a strange conversation

Beck Hansen ('Jack-Ass'), modified.

### Introduction: solving an inconclusive eristic argument

In the *Physics*, Aristotle describes Parmenides' arguments as eristic (*Ph.* 185a8–10, 186a6–8). Now, arguments turn out to be eristic if they purposely either assume some premise which seems to be good (i.e., true or acceptable) without being so, or if they seem to deduce their conclusion without doing so – or if they have both flaws (see *Top.* 10ob23–26). Aristotle is very assertive about Eleatic arguments (both Melissus' and Parmenides') satisfying both descriptions: they assume false premises (*Ph.* 185a9–10, 186a7) and they are inconclusive (*asullogistoi* – *Ph.* 185a10, 186a8). Aristotle explicitly charges Melissus with a fallacy of conversion – the paralogism of the consequent (*SE* 167b17–20, 168b37–38).

<sup>&</sup>lt;sup>1</sup> This is right about the paralogism of the consequent, but it is not so clear how Aristotle takes the other Melissus' arguments as fallacious. See Clarke (2019: 62–73), Castelli (2018: 84). About Melissos and Aristotle,

As for Parmenides, it is not so clear what is exactly the argument that is exposed as both having a false premise and being inconclusive.

Aristotle's main discussion of Parmenides' argument is found in the section 186a22-b14 (with what seems to be its main part in Ph. 186a23-32). It is not easy to parse Aristotle's train of thought. He never presents a full formulation of Parmenides' argument: he starts with saying what sort of solution ( $\lambda \acute{u}o\iota c$ ) should be applied to block the argument. But, instead of sticking exactly to the original terms of Parmenides' argument in expounding his solution, Aristotle proposes a parallel argument in which the term 'white' replaces 'being'. The parallel argument itself is difficult to disentangle and parse. Although it is clear which is the main premise that Aristotle takes to be false (since he clearly says so, Ph. 186a24-25), it is not so clear how and why Aristotle considers the argument to be inconclusive.

The text runs as follows:

T1: The *solution* is that he assumes what is not true and infers what does not follow. His false assumption is that things are said to be in only one way, when they are said to be in many. As for the invalidity, suppose we say that there are only pale things, and that 'pale' means only one thing: the pale things will be none the less many and not just one. The pale will not be one in virtue of being continuous, nor will it be one in account. For the being of pale will be different from the being of that which has received it. By that I do not imply that anything can be separately apart from the pale: it is not because they can be separated, but because they differ in their being, that the pale and that to which it belongs are different. This, however, is something Parmenides did not get far enough to see. (Charlton's translation, slightly modified)

I have only taken Charlton's translation to start with, for any translation depends on parsing the argument. An important remark is that I replaced 'answer' (which is too general) with 'solution' as a translation of  $\lambda \acute{v}\sigma \varsigma$ : I argue that  $\lambda \acute{v}\sigma \varsigma$  is employed as the technical term coming from *Sophistical Refutations* (*SE* 179b18–21, 24–26; 176b29–177a6; 170b3–5). Aristotle has depicted Parmenides' argument with two main features that are characteristic of eristic arguments (more on this below). Even if Parmenides' argument is not fully eristic or sophistic in the sense that it does not have the *purpose* of producing a false semblance of being knowledgeable, the fact that it has those two main features allows us to understand Aristotle's solution along the lines he has developed in *Sophistical Refutations*. Now, any interpretation of Parmenides' argument must meet some desiderata – the first of which is, of course, to meet the description of eristic arguments Aristotle has alluded to previously (*Ph*. 185a8–10, 186a6–8). Thus:

(D1) at least one premise in Parmenides' argument must be false;

### (D2) the argument itself must be inconclusive.

But a third desideratum is to meet Aristotle's explanation in 186a28–31 about what was wrong with the logical steps of the argument or, in other words, Aristotle's *solution* ( $\lambda \dot{\nu} \sigma \iota \varsigma$ ) for its inconclusiveness. Thus:

(D<sub>3</sub>) Parmenides' argument must meet Aristotle's solution (λύσις) for its inconclusiveness.

In order to understand desideratum (D3), it is important to stress what a solution consists in – for Aristotle has said very clearly that "not every exposure of a defect [i.e., in an eristic fallacy] constitutes a solution" (SE 179b18, Hasper's (2013) translation). There are two sorts of solution: if the argument is conclusive but concludes something false, the solution consists in spotting the false premise(s) on which the falsity of the conclusion depends.² But, if the argument is inconclusive, the solution consists in spotting the factor on which the inference has failed – the factor on which the false appearance of an inferential success depends.³ A solution, in this latter case, does not consist merely in spotting or telling that an argument is inconclusive. A solution consists in identifying what is exactly the inconclusive step or, in other words, identifying the logical factor on which the inconclusiveness depends. Thus, one cannot yet be said to have solved an inconclusive argument if all she has done was to tell that the conclusion is false and compatible with the truth of the premises. In order to solve an inconclusive argument, one has to detect exactly what is the fallacious step or factor on which the inconclusiveness rests.

Let me dwell on that point. Consider the following inconclusive argument (I will employ arguments with syllogistic form just for didactic purposes, without implying that fallacies must have such a form):

[fallacy 1]: every horse is a mammal; every horse is an animal; therefore, every animal is a mammal.

Exposing the inconclusiveness of this argument does not consist in merely spotting that the conclusion is false and that its falsity is compatible with the truth of the premises. One must do more than that: one must identify where exactly the logical mistake lies. In order to support this point, let us take an argument with the same form but a true conclusion:

<sup>&</sup>lt;sup>2</sup> See Arist. SE 176b35-36. These cases can overlap with those in Arist. APr. II.18, 66a16-24.

 $<sup>^3</sup>$  See Arist. SE 176b36, 179b18–21, 24–26; Top. 160b23–25, 33–35. See in this direction Smith (1997: 137), Fait (2007: 204), Rossi (2017: 214). I do not take the case described in Topics VIII.10 (160b26–33) as equivalent to those in APr. II.18, 66a16–24. In the latter case, we have the formal schema of valid arguments with (at least) one false premise. But, in the former case, one of the premises is not merely false, but deceptive in the sense of producing a false permission for the inference (ψεῦδος can encode both meanings, 'false' and 'inferentially-deceptive'). Thus, in this case, the solution does not consist merely in rejecting the premise as false (in the truth-functional sense) but in explaining why it is inferentially-deceptive (Top. 160b37).

[fallacy 2]: every horse is an animal; every horse is a mammal; therefore, every mammal is an animal

In this case, it is impossible to follow the same procedure to expose the inconclusiveness of the argument, namely, to state that the conclusion is false etc. – for the conclusion is certainly true, although it has not been deduced from the premises. Consider also an inconclusive argument with a different form:

[fallacy 3]: every mammal is an animal, every horse is an animal; therefore, every horse is a mammal.

Again, in this case too, it is impossible to expose the inconclusiveness of the argument by stating that the conclusion is false – for the conclusion is true. Now, the same general description applies to both fallacy 2 and fallacy 3: their conclusions are true, but have not been deduced from their premises. However, the sort of logical mistake is different in each case. Fallacy 3 is a fallacy of the consequent depicted as a pseudo-syllogism in the second figure. But fallacy 2 is not the same sort of fallacy and is rather represented as a pseudo-syllogism in the third figure. Now, in order to have a *solution* for an inconclusive argument, one has to explain exactly which is the sort of logical mistake that has been performed in the inferential step. (It is immaterial to my point to discuss what the explanation would be in my examples).

Consider the sophistical argument Aristotle has introduced in *Topics* VIII.10:

[fallacy 4]: "he who is seated is writing; Socrates is seated; therefore, Socrates is writing" (*Top.* 160b26–28).

The first premise (which is the premise on which the deceptiveness of the argument depends; cf. *Top.* 160b28–33) was true at a given context, when it referred to someone who was indeed seated and writing. However, the solution does not consist merely in spotting someone who, by being seated but not writing, makes the premise false. The solution, I submit, consists in explaining that the sophist, taking advantage of the first context (in which the premise was true), has made the premise appear as a general rule about everyone who happens to be seated, as if its content were this: "whoever is seated is writing" or "every seated person is writing".4

Now, it is far from clear what exactly Aristotle's *solution* ( $\lambda \dot{\omega} \sigma (\zeta)$ ) is for the inconclusiveness of Parmenides' argument. My next sections will be devoted to disentangling Aristotle's solution and, consequently, to showing how Parmenides' argument meets the third desideratum.

<sup>&</sup>lt;sup>4</sup> On this, see Smith (1997: 137).

### The parallel argument with leukon

One thing, at least, is clear: one of the premises of the parallel argument is this:

"white' signifies one".

But it is far from clear what sort of semantic relation is captured with the expression 'signifying one' ( $semainontos\ henos\ -\ Ph.\ 186a26-27$ ). I will return to this question below, but for the time being I wish to focus on the inconclusiveness of the argument.

What exactly is the argument Aristotle has taken to be inconclusive? And how does it come to be inconclusive? One thing seems clear: the problematic move in the argument is to arrive at the notion of *being one* from the notion of *signifying one*.<sup>5</sup> However, given Aristotle's depiction, it is not possible to reconstruct the argument on the following lines:

- (i) if 'X' signifies one, then X is one;
- (ii) 'white' [or 'being'] signifies one;
- (iii) therefore, white [or being] is one.

To be sure, Aristotle would consider premise (i) as false (for any interpretation of 'signifying one' and of 'X'), but he will take the argument as valid. It would not work to object that Aristotle's logical system has not ascribed any significant role to *modus ponens* and other forms of propositional calculus. For Aristotle's general theory of argumentation (as found in the *Topics* and *Sophistical Refutations*) is perfectly sensitive to those kinds of valid argument.<sup>6</sup>

My proposal starts with getting rid of premise (i) above – for it would play a validating role as an inference permit for the conclusion – and sticking with what remains:

- (1) 'white' signifies one;
- (2) therefore, white is one.

Thus, my proposal is to concentrate on this one-premise invalid sort of inference. As for the sentence "if only the white things were taken" (εἰ μόνα τὰ λευκὰ ληφθείη – Ph. 186a26), I can be content either with saying that it is not an actual premise of the parallel argument or, if it is a premise, it is not the most important for Aristotle's solution: the logical mistake does not rest on it (more on this below). What is really important in that sentence is the expression μόνα (only), which tells us that Aristotle is focusing exclusively on white things without paying attention to any other feature that might happen to

<sup>&</sup>lt;sup>5</sup> See Castelli (2010: 76), Quarantotto (2019: 95).

<sup>&</sup>lt;sup>6</sup> This is a modest sample of passages: Top. 108b12-19; 111b17-23; 112a16-21; 124b7-14; APo. 47a28-35.

accompany white things.<sup>7</sup> His point is highlighted again in 186a29–30: "there will not be any other thing separated apart from the white". The last sentence plays other roles too (more on this below), but it also works as a reminder that the parallel argument, in assuming that the term 'white' is to be applied to one thing, has *not* assumed that that thing would have in principle other features which could be picked up by terms different from 'white', nor has it assumed that there might be other things besides that white thing.

Another problem for interpreting Parmenides' argument is that Aristotle's objection at 186a28 is double – "the white will not be one in virtue of being continuous, nor will it be one in account" – which might be taken to imply that Parmenides' argument has targeted two different conclusions: that Being is one by continuity, and that Being is one in account. Perhaps these two different conclusions are indeed tracking different claims which can be found in Parmenides' poem. However, there is no room to develop here interesting issues about how these two different conclusions are (or can be) related to each other. As for Aristotle's solution in 186a27–32, I argue that it is most focused on the conclusion that Being is one in account, which is what will motivate the ensuing remarks about signification (*Ph.* 186a32–34). Aristotle's objection in terms of continuity holds in itself, but, as I will show, it does not work as a proper solution for Parmenides' inconclusive step.

Indeed, when saying that "the white will not be one by being continuous" (*Ph.* 186a28), Aristotle can be taken in two ways. He might be arguing that 'white' is applicable to many instances that are not continuous with each other – as, e.g., two white horses are not continuous with each other, nor are they continuous with white walls.<sup>10</sup> Or he might be arguing that any instance of whiteness will be a body and, being a body, will be

<sup>&</sup>lt;sup>7</sup> See on a similar direction Castelli (2018: 92).

<sup>&</sup>lt;sup>8</sup> For other options, see Clarke (2019: 87), Castelli (2018: 87–92), Quarantotto (2019: 96).

<sup>&</sup>lt;sup>9</sup> See Clarke (2019: 94–97), for this analysis (based on DK 28 B 8.22–25 from Parmenides' poem).

 $<sup>^{10}</sup>$  See the same intuition about 'being continuous' in Castelli (2010: 77), Clarke (2019: 105). Aristotle has already made the point about continuity in Ph. 185b9–11.

continuous and, being continuous, will be liable to infinite division – even if it were the only white thing in the world. Thus, even if there were only one individual instance of whiteness, the white thing would not be one in the sense required by Parmenides because it would have potentially infinite parts – and having only *two* parts would be enough for generating multiplicity in a way undesired by Parmenides.

This objection to the conclusion that Being is one by continuity would stand on several possible interpretations of what 'signifying one' amounts to in premise (1). If 'signifying one' is taken in terms similar to the notion of reference, the argument might be paraphrased along the following lines:

- (1a) 'white' refers to only one thing;
- (2a) therefore, white is [only] one [entity] by continuity.

But if 'signifying one' is taken in terms similar to the notion of meaning, the argument could be paraphrased rather along the following lines:

- (1b) 'white' has only one meaning;
- (2b) therefore, white is [only] one [entity] by continuity.

In that case, it would be claiming that having one single meaning leads to having just one referent (one single instantiation).  $^{11}$ 

But note that the argument might be construed without deciding these options for interpreting 'signifying one':

- (1c) 'white' has only one meaning or refers to only one thing (or both);
- (2c) therefore, white is [only] one [entity] by continuity.

Now, the three suggested construals – in terms of (1a)-(2a) to (1c)-(2c) – might deliver defensible interpretations of the inconclusiveness of the argument. However, I argue that they do not deliver the best story about Aristotle's *solution* for the inconclusiveness of the argument – and, as I said, there are two different things, first, detecting *that* the argument is inconclusive, second, identifying the logical factor that explains *why* it is inconclusive.

On any of the suggested interpretations, the argument will be moving from a premise that deals with the nature of signification (*whatever* that means) to arrive at a conclusion involving the nature of being as a continuous entity. I am not saying that there is something intrinsically wrong with such an interpretation of the argument. But I believe that

<sup>&</sup>lt;sup>11</sup> I have adopted this view in Angioni (2009: 99–100). See also Castelli (2010: 77): "Unity of *meaning* does not imply that there exists exactly one thing which is *denoted* by the term at issue rather than a multiplicity of beings each falling under the concept signified by the term" (my italics). But Castelli (2018: 87–93), has a different story.

Aristotle's *solution* concentrates on the other conclusion, namely, that Being is one in account. Perhaps Aristotle has preferred this other conclusion to expound his solution because, otherwise, he would have to rely on too many extra assumptions – about the nature of the bodies and the nature of the continuous etc. Besides, the interpretations suggested above depict Parmenides' argument as an inference that starts from the nature of signification and claims to attain something involving the nature of bodies or the nature of continuity. Now, signification is a general phenomenon involving our employment of terms to talk about things in the world, but oneness by continuity covers only a *partial* aspect of how things are in the world. Thus, I submit that it is most appropriate for Aristotle's solution to prefer (as his main target) an argument that starts from the nature of signification and attempts to conclude something about how things *in general* are in the world and *in their most general relation to our language*. And this explains why Aristotle prefers the conclusion "white [or Being] is one in account."

Thus, Aristotle's preferred solution concedes (for the sake of the argument) two Parmenidean assumptions in order to rest on what is most important. According to that solution, even if there were just one individual white thing (first concession to Parmenides), with no other feature besides being white (second concession to Parmenides) – and even being indivisible (third concession) – that white thing would not be one *in account* ( $\lambda \acute{o} \gamma \wp - Ph$ . 186a28).

In Aristotle's jargon, the dative expression 'in account' (λόγ $\phi$  – Ph. 186a28) – applied either to 'one' (ἕν) or to 'same' (ταὐτόν) or to its opposites – captures the intensional aspect under which something is being considered within a given situation. Thus, the expression applied in this way usually maps what it is for something to be such and such, where 'being such and such' can point to any feature that something happens to have. In our present context, the expression points to what it is to be white (τὸ εἶναι λευκ $\tilde{\phi}$  – Ph. 186a29) and what it is to be the receptacle of whiteness ([τὸ εἶναι] τ $\tilde{\phi}$  δεδεγμέν $\phi$  – Ph. 186a29) or, in other words, to be the whatever-it-is that happens to be characterised as white. (And I believe that, in the context of his solution, Aristotle does not need to take this receptacle in terms of being a surface, as he indeed takes it in his positive theory of coloured things etc. All he needs is to take the receptacle as the whatever-it-is that happens to be characterised as white). <sup>12</sup> I suggest that this distinction is Aristotle's solution. <sup>13</sup> And this is what we should expect, for Aristotle says in *Sophistical Refutations* (SE 176b36) that eristic, inconclusive arguments must be solved by *distinctions*.

Now, Aristotle cannot just be saying that this distinction is fundamental although Parmenides has ignored it. This distinction is indeed fundamental, and Parmenides

<sup>&</sup>lt;sup>12</sup> For a similar point, see Clarke (2019: 110-111).

 $<sup>^{13}</sup>$  This distinction is also central in Ph. I.7, 190a13–17 and arguably in I.8 too. Although Aristotle does not resort to the locutions λόγ $\phi$  and τ $\tilde{\phi}$  εἶναι in I.8, I submit that the distinction between the physician qua physician and the physician taken κατὰ συμβεβηκός (namely, according to one of her attributes that fails to be the most important for her being a physician) can ultimately be translated in terms of a distinction λόγ $\phi$  and τ $\tilde{\phi}$  εἶναι. This result depends on my interpretation of what κατὰ συμβεβηκός means, so there is no room to develop it here. For

has indeed ignored it. But Aristotle's solution cannot be just this double statement – for a solution does not consist in just pointing out *that* Parmenides had a false conclusion etc. If Aristotle's insistence on the distinction really works *as a solution of an inconclusive argument*, Aristotle's point must be that, contrary to Parmenides' *inferential* claim, the notion of signifying one (as asserted in the premise) does not entail the notion of being one in account (as asserted in the conclusion) – in other words, the notion of signifying one (asserted in the premise) does not entail the notion of being one in such a way that there will be no distinction between *being white* and *being the receptacle* (i.e., being the whatever-it-is that is characterised as white). Thus, Parmenides' inconclusive step did claim (on Aristotle's construal) that signifying one entails the sort of unity or identity in account that is incompatible with the distinction between *being F* and *being the receptacle of F*.<sup>14</sup> This is, therefore, on the right track to explain how Parmenides' argument meets the desideratum (D<sub>3</sub>). A reasonable paraphrasis can start along the following lines (but this will not be the end of the story):

(1d) 'white' signifies one (*whatever* that means: has only one meaning or refers to only one thing or both);

(2d) therefore, white is *one in account* (λόγω).

In order to understand Aristotle's solution, let us keep our assumptions at the minimum: take only one thing that happens to be white and *only* white (cf. *Ph.* 186a29–30). Even if that thing were an indivisible body (concession to Parmenides), even if that thing had only the characteristic of being white and nothing else (concession to Parmenides), it would still hold that, for that very same thing, being white will be different from being whatever-it-is-that-happens-to-be-white. More importantly, on the counterfactual situation proposed just for the sake of the argument, it will be true that 'white' *signifies one* both as having just one meaning and as having just one referent – but its signifying one in that way would not entail that there is no distinction between being white and being whatever-it-is-that-happens-to-be-white.

Aristotle stresses that the distinction between being white and being its receptacle does not need to rest on any separability between them. <sup>15</sup> As I suggested, the sentence "there will be nothing separated besides the whiteness" (*Ph.* 186a29–30) does double duty: on the one hand, Aristotle thereby reminds us that, for his solution to work, there is no need to take some other feature distinct from being white ("there will be no other feature besides the whiteness"), but, on the other hand, Aristotle stresses that there is no need to

a similar point, see Anagnostopoulos (2013: 251–252). I believe other approaches are not incompatible with that view (Clarke 2015: 140; Kelsey 2006: 338–354; Morison 2019).

 $<sup>^{14}\,</sup>$  Clarke (2019: 115) suggests that 'mounogenes' in Parmenides' poem can be taken as Aristotle's 'one in account'.

<sup>&</sup>lt;sup>15</sup> For a similar point see Castelli (2010: 76–77), Quarantotto (2019: 97), Clarke (2019: 113). On this point, I disagree with Bostock (2006: 108).

take the receptacle itself as separate or separable from the whiteness ("there is no need to take something – not even the receptacle – as separable from the whiteness"). Even if that receptacle were destined to be white to eternity, and even if being white were destined to be present only in that single receptacle to eternity – with the result that being white and being that receptacle were mutually convertible – they would still be different from each other. "For the white and what it is present in are different from each other not *as separable* but *in virtue of what they are*  $(\tau\tilde{\phi} \in \tilde{\text{EV}}\alpha \iota)$ " (*Ph.* 186a30–31). And this is the most important point Parmenides has not seen. <sup>16</sup>

### The solution to an eristic inconclusive argument

How does this distinction work as a solution to Parmenides' *inconclusive step*? Recall that, on my proposal, Parmenides' inconclusive step can be plausibly depicted as if it were a one-premise inference – a fallacy analogous to a fallacious conversion of (e.g.) a negative universal predication:

"No man is oviparous"; therefore, "some oviparous is a man".

If Aristotle were to expose where the mistake lies, if he were to identify the factor on which the fallacious conversion depends, what would he have done? I suggest that Aristotle would have resorted to the *dictum de nullo* and would have explained that whoever has made the fallacious conversion did not understand what exactly the *dictum de nullo* means. Now, the *dictum de nullo* means that, for any *A* said of no *B*, "no *B* can be found of which *A* is predicated".<sup>17</sup> Thus, if someone says that "no man is oviparous", this means that no man can be found of which oviparous is predicated. Now, if there were some oviparous of which man were predicated (as the fallacious conversion claimed), there would be a man of which oviparous were predicated, so that (contrary to what the *dictum de nullo* means) it would *not* be true that no man can be found of which oviparous is predicated (cf. *APr.* 25a15–17). Aristotle's solution would consist in saying that whoever has made the fallacious conversion has employed a notion ('predicating *A* of no *B*') without understanding what it implies or what exactly it amounts to.

I suggest that a similar thing is going on when Aristotle presents his compressed solution to Parmenides' inconclusive step. Parmenides has employed the notion of 'signifying something' without understanding what it implies or what exactly it involves or what exactly it amounts to. Several employments of 'signifying'  $(\sigma \eta \mu \alpha(\nu \epsilon \nu))$  can be found

 $<sup>^{16}</sup>$  Parmenides' oversight is described with the verb συνορᾶν (συνεώρα at *Ph.* 186a32), the same verb employed several times in *Topics* (e.g. *Top.* 100b30, 105b11, 158a4, 5, 10; 160a29; 163b10) to describe the ability of a dialectical answerer to find an objection and/or to see the consequences of what has been accepted. See also a funny use of the verb in GA 756b8.

<sup>17</sup> Striker (2009: 84).

in ordinary Greek and in Aristotle's language.¹8 But there is one employment which is central for our passage: signifying as something we do when employing our language to convey something about the world. When we do that, a term – let us take 'F' – is employed in such a way that 'F' points to a given thing that is (taken to be) F. Thus, saying that "the term 'white' *signifies* something" amounts to saying that 'white' is employable to pick out a given thing that is (taken to be) white. And this is enough for Aristotle's solution – for this is what Parmenides did not understand. It does not matter whether that thing has other features besides being white. It does not matter whether that thing is or is not the only white thing in the world. It does not matter whether that thing is a continuous or an indivisible body. If 'white' *signifies* something, 'white' points to a given thing that has the feature of being white. Even if 'white' *signifies* one *single* thing etc., 'white' is pointing to a given thing that has the feature of being white – so that being white and being whatever it is that has whiteness *are distinct in being and count as two in account*. As I will explore below, this fundamental point is stressed in Aristotle's next step (*Ph*. 186a32–34).

What Parmenides did not understand is that terms introducing a given feature such as 'white' (or 'being') introduce it as something different from the underlying thing it is predicated of. Thus, even if the underlying thing and the feature were inseparable (in any way of being inseparable, e.g., physically or conceptually or both etc.), they will still be different from each other in virtue of what they precisely are. A term, such as 'white', in being applied to a given receptacle, means that the receptacle is such and such without meaning that the receptacle is the very feature of being such and such. In other words, 'white' as applied to *X* means that *X* is white without meaning (or implying) that what *X* is is exhausted by its being white. In still other words, 'white' as applied to *X* means that *X* is white without meaning (or implying) that *X* is identical to what-it-is-for-something-to-be-white. For, even if *X* and its whiteness were inseparable, being white is still different from being its receptacle *X*. Thus, if 'white' signifies one, this does not entail that white

<sup>&</sup>lt;sup>18</sup> Ancient Greek usage of σημαίνειν is complex. The verb σημαίνειν can be assigned to (i) things (like in "smoke indicates fire"), (ii) human agents (cf. *Cat.* 15b30) and (iii) linguistic entities. (i) is irrelevant for our purposes. But a bunch of several relations can be found within the general classes (ii) and (iii). Thus, σημαίνειν can cover (depending of the context): the relation between a word and its meanings (*Int.* 16a17; *Metaph.* 1019b32), the relation between a word and its fixed class of referents, independently of any particular utterance (*Cat.* 1b26; *Top.* 103b27, 31, 33, 35; *Metaph.* 1024b14); the relation between a description and its referent (*Top.* 102a2); the relation between a word and its referent in a particular context (e.g., *Top.* 103a39); the relation between a word, its core meaning and the thing targeted in a given sentence or, in other words, what a predicate says about its subject when it is predicated (*Top.* 103b28 [the first occurrence], 103b37; 132a2; *APo.* 83a24 ff.; *Metaph.* 1006a29 ff.); the relation between a sentence and its meaning in particular contexts of utterance (e.g., *Top.* 130a20; *SE* 166a25, 28), etc. For a helpful survey, see Castelli (2018: 87–88).

<sup>&</sup>lt;sup>19</sup> Aristotle's solution does not depend on employing the term 'white' in two different ways and thereby spoiling the validity of the refutation etc. (for this view, see Bostock 2006: 108). Parmenides' conclusion (as represented in the parallel argument) was that "white *is one*". Aristotle's point is that, in asserting the premise, Parmenides must already be committed to the distinction between two different *ways of being white*: being the property of being white, being whatever it is that happens to be white (the awkwardness of the expression is not my fault!).

is one entity in account (or in being), as intended in the Parmenidean argument.<sup>20</sup>

And the same will hold for 'being'. The term 'being', in being applied to a given receptacle *X*, means that the receptacle *is a being* (whatever that means) without meaning that the receptacle is the very feature of being a being (or being Being). In other words, 'being' as applied to *X* means that *X* is a being without meaning (or implying) that what *X* is is exhausted by its being a being. In still other words, 'being' as applied to *X* means that *X* is a being without meaning (or implying) that *X* is identical to what-it-is-for-something-to-be-a-being.

There have been discussions about whether Aristotle's point depends on the specific nature of the term employed in his solution ('white') and/ or on the specific sort of predicative tie involved in the employment of that term. Thus, it has been argued that Aristotle's point depends on employing accidental predicates such as 'white' in his solution, and that Aristotle's next remark suggests that Parmenides could have avoided the fallacy (and deduced his intended conclusion) if he had resorted to essential predicates. As I will argue in detail by examining the next step (*Ph.* 186a32–34), Aristotle's solution depends only on the nature of signifying as an operation which we do by employing terms to talk about things. Aristotle's solution does not depend on accidental predicates such as 'white'. His solution does exclude some class of statements - i.e., strict identity statements - but it does not exclude essential predicates in general. We might be misled into the opposite view by two factors: first, contexts in which Aristotle employs the notion of oneness in account as covering many sorts of essential predicates – it might be argued, for instance, that 'human' and 'animal' are one in account because the latter is an essential predicate of the former;21 second, the contrast with sumbebekos in the next step of Aristotle's discussion. The latter factor will be discussed more extensively below. As for the former factor, I argue that essential predicates such as animal predicated of human (or human predicated of Socrates) are also affected by Aristotle's solution. Animal is not one in account with human in the relevant sense. For being a human is not the same as being an animal, even if they are essentially related.<sup>22</sup> Thus, being a human and being an animal count as two items in account - or two items in being.<sup>23</sup> Distinctness and multiplicity in account (or in

<sup>&</sup>lt;sup>20</sup> If Parmenides objected "but why should we apply the term to a receptacle?", Aristotle would answer that, in refusing to apply terms to things etc., Parmenides becomes a plant. Note that Aristotle does not need to be appealing to his preferred ontology (whatever that is) here: the distinction between *being white* and *whatever-it-is-that-happens-to-be-white* does not imply that the latter item must be an Aristotleian substance. Aristotle's point would equally apply even if the whatever-it-is-that-happens-to-be-white were a bunch of atoms, or an event. Actually, this is my reason for choosing the expression "whatever-it-is-that-happens-to-be-white".

<sup>&</sup>lt;sup>21</sup> See Quarantotto (2019: 99) for such a view.

 $<sup>^{22}</sup>$  See Arist. APo. I.5, 74b34, where Aristotle explicitly says that being an equilateral triangle is not the same as being a triangle.

<sup>&</sup>lt;sup>23</sup> Passages such as *Metaph*. 1016a30–32 are perfectly compatible with my interpretation. To be sure, there is a way in which it can be said that an isosceles triangle and an equilateral triangle are 'one and the same', because both are triangles. But their full *logos* and their *being* are different, so they must be counted as two (in being or in account), as we see also by another passage in the same chapter: "we count as more than one (...) things of which the *logos* is not one" (*Metaph*. 1016b9–11).

being – Ph. 186a31) are not restricted to accidental predication (even taking 'accidental' in the broad sense as equivalent to not-included in the essence). They also apply to at least some class of essential predicates. For any S and P such that S is essentially P but P is only part of S's essence, there is no oneness in account ( $\lambda$ ó $\gamma$  $\phi$ ) or in being ( $\tau$  $\tilde{\phi}$  e $\tilde{i}$  $\nu$  $\alpha$ I, which is the expression found in Ph. 186a31). Actually, as I will argue below, distinctness and multiplicity in account will only be avoided in strict identity statements.

# How Parmenides could have avoided inconclusiveness (Ph. 186a32-34)?

Aristotle's next remark (Ph. 186a32–34) sheds a light on Parmenides' inconclusive step. <sup>25</sup> The gist of the remark is this: if, for Parmenides, the notion of *signifying one* (asserted in the premise) is to entail the notion of *being one in account* (as asserted in the conclusion), Parmenides must hold that 'being' can only be employed in making identity statements. In other words, he must hold that 'being', in being predicated of a given thing, means – about that thing it is predicated of ( $\kappa\alpha\theta$ )' ov  $\alpha\tau\eta\gamma\rho\eta\eta\eta$  – Ph. 186a33) – that that thing is not only one, but is exactly what-being-Being is and what-being-One is. <sup>26</sup>

Let me clarify how I take the crucial sentence in Ph. 186a32-34:27

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[32] ἀνάγκη δὴ λαβεῖν μὴ μόνον ἕν
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[33] σημαίνειν τὸ ὄν, καθ' οὖ ἂν κατηγορηθῆ, ἀλλὰ καὶ ὅπερ

[34] ὄν καὶ ὅπερ ἕν (Ph. 186a32-34).

First, I remark on what seems trivial:

- ἕν (*Ph.* 186a32), ὅπερ ὄν and ὅπερ ἕν (*Ph.* 186a33-34) are *all* complements of σημαίνειν;
- τὸ ὄν (Ph. 186a33) is the subject of σημαίνειν;

Next, I address what is not so trivial and has been disputed:

<sup>&</sup>lt;sup>24</sup> As Clarke (2019: 111, 123) has done.

<sup>&</sup>lt;sup>25</sup> Aristotle's remark in *Ph.* 186a32–34 is pointing to the 'stronger assumptions' needed in order to avoid Aristotle's solution (see Ross 1936: 474, Charlton 1992: 60, Castelli 2018: 93, Clarke 2019: 110, 116, Quarantotto 2016: 226). This is why I do not agree with Gershenson and Greenberg (1962: 142–143, 150) when they break Aristotle's discussion exactly at 186a32 and say that there are two independent attacks against the Eleatics (for a criticism of them, see Clarke 2019: 119, n. 32).

<sup>&</sup>lt;sup>26</sup> Perhaps I can be happy with paraphrasing ὅπερ ὄν just as *what-being-is* instead of *what-being-Being-is*. But Aristotle usually employs a predicate expression 'X' in such a way that it stands for *being* X or *having the feature named* 'X' (this is made explicit in *Top.* 133b8–9), with the result that [τοῦτο] ὅπερ X [ἐστι] will be equivalent to "that which *being* X is". Therefore, if X is replaced with 'being' or 'Being' (the capital making allusion to the Eleatic notion), [τοῦτο] ὅπερ ὄν [ἐστι] can be accurately paraphrased as *what-being-Being* is. However, in what follows, I will sometimes employ the expression "*what being is*" instead of "*what-being-Being is*" just for the sake of brevity.

<sup>&</sup>lt;sup>27</sup> I am following what I have done in my Portuguese translation of *Physics* I–II, Angioni (2009).

– the antecedent of the relative pronoun oὖ (Ph. 186a33) is not any of the expressions explicit in the surface of the text, but an implied pronoun (τοῦτο or τόδε, as is common in Greek), which stands for the thing to which τὸ ὄν is applied as a predicate.

Next, there are three important issues that are far from trivial. First, the nature and the appropriate range of the semantic notion expressed by  $\sigma\eta\mu\alpha$ (veiv; second, the exact syntax compressed into the expression  $\ddot{\sigma}\pi\epsilon\rho$   $\ddot{\sigma}\nu$  (and  $\ddot{\sigma}\pi\epsilon\rho$   $\ddot{\epsilon}\nu$ ); third, the specific employment of the expression  $\ddot{\sigma}\pi\epsilon\rho$   $\ddot{\sigma}\nu$  in this context as something related to Aristotle's solution.

### Σημαίνειν (in this context)

The semantic notion expressed by  $\sigma\eta\mu\alpha$ (veiv (in this context) ranges over terms employed as predicates applied to a given subject: it is the notion of *meaning (or saying) something about the thing it is predicated of.* And I stress that  $\sigma\eta\mu\alpha$ (veiv has been employed in the same way in 186a26.

My proposal does not collapse into saying that  $\sigma\eta\mu\alpha$ (veiv coincides with the notion of meaning (whatever that notion is) as ranging over terms *considered abstractly*. Nor does it collapse into saying that  $\sigma\eta\mu\alpha$ (veiv ev stands for the notion of *having just one meaning or having just one definition*. I claim that  $\sigma\eta\mu\alpha$ (veiv ranges over terms, but not over terms abstractly considered as linguistic entities in a dictionary etc.; it ranges over terms *qua* employed in a given context to talk about a given thing.

Let me develop this point. The term 'white' can be employed in several different contexts: (i) 'white' can be employed as equivalent to 'whiteness' in a sentence such as "white is lighter than purple"; (ii) 'white' can be employed to point to a wall painted with the colour white; (iii) 'white' can be employed to point to a body with pale skin; (iv) 'white' can be employed to point to a voice which sounds clear and is easy to understand (*Top.* 106a25, 107a13). Now, it is not difficult to find *definitions* which capture exactly what is meant in each of those employments:

- (i) "white[ness] is a colour that promotes distinguishing" (cf. *Top.* 119a30);
- (ii) "'white' means having a surface coloured in such and such a way" (cf. Top. 107b1-2);
- (iii) "'white' means having pale skin";
- (iv) "'white' means clearly sounding [or easy to understand]" (cf. Top. 107b2).

It does not matter for my purposes whether this list mixes different sorts of definitions – real definitions of properties and nominal definitions of terms etc. Similarly, it does not matter whether those definitions are accurately formulated or not. Two remarks are relevant to develop my point. First,  $\sigma \mu \omega v v$  (as employed in Ph. 186a26, 33) covers the semantic relation between a given term, its meaning and the thing which is the target of the employment of the term. Second, the expression  $\sigma \mu \omega v v$  (as employed in v). 186a32–33) does not encode the notion of having just one meaning or one definition but

a different semantic phenomenon, namely, that each employment of a term, being one employment, can mean only *one* thing about its subject.

What  $\sigma\eta\mu\alpha$  (such as 'white') have, indeed, meanings, but their full function is to be employed to pick up things or to talk about things. When we talk about a given thing employing a given term in a sentence, we talk about the thing according to *one* meaning of the term – e.g., if we employ the term 'white' to say something about a given thing, we are assuming what 'white' means as an important criterion to apply the term. But we are precisely talking *about something*, and this amounts to saying that:

– when we employ the term 'white' to talk about something, we are presupposing (and taking for granted) the distinction between *the thing* we are talking about and *the property we are ascribing to that thing*. In other words, we are presupposing (and taking for granted) the distinction between, on the one hand, *being the thing* we are talking about and, on the other hand, *having the property* we are ascribing to that thing. To use the expressions employed by Aristotle in *Ph.* 186a28–31, we are presupposing (and taking for granted) the distinction between *being white* and *being the whatever-it-is-that-hap-pens to be white.*<sup>28</sup>

Why do we presuppose this (and take it for granted)? Because the semantic operation named  $\sigma\eta\mu\alpha$ (veiv (in Ph. 186a26, 33) is exactly this:  $\sigma\eta\mu\alpha$ (veiv (in the relevant contexts) ranges over terms as employed to talk about a given thing; more specifically, performing the operation expressed by  $\sigma\eta\mu\alpha$ (veiv is equivalent to claiming that the thing at stake has the property which is picked out when we define the meaning of the term. Thus, saying that 'white' signifies ( $\sigma\eta\mu\alpha$ (vei) something amounts to saying that 'white' picks out a given thing which allegedly has the property which defines what 'white' means.<sup>29</sup>

Accordingly, what  $\sigma\eta\mu\alpha$  (veiv  $\ddot{\epsilon}\nu$  captures in this context (*Ph.* 186a26, 33) is the following idea: when we employ the term 'white' to talk about something, we mean that the thing we are exactly considering is white *in just one way of being white* (among the several ways of being white that the above definitions mark). For instance, if we say that:

<sup>&</sup>lt;sup>28</sup> If someone objected: "but do I really need this presupposition?", Aristotle's reply would be: "You have an option: become a plant!". It would take me too long to argue that this distinction is intrinsically involved in Aristotle's insights about what it is to use our expressions to λέγειν τι. But I do believe that this distinction is involved (for instance) in the main argument against the denial of the Principle of Non-Contradiction (*Metaph.* 1006a18–26), and can also be tracked in *Metaph.* 1052b1–14.

<sup>&</sup>lt;sup>29</sup> I have employed the word 'thing' in my last paragraph (and elsewhere) in a very general way, as corresponding to any item in any ontology. Indeed, 'thing' might refer to processes, events, Aristotelian substances or Democritean atoms, or whatever it is that is 'out there', as the target of our language. As I said in footnote 20, the distinction between *being white* and *whatever-it-is-that-happens-to-be-white* does not require Aristotle's preferred ontology. The distinction is compatible with different ontologies. The most important point is that, in employing our language, we are conveying something about the world and, thereby, we are taking for granted that there is something 'out there', which, for instance, happens to be white.

"the wall is white",

we mean that the wall is painted with the colour white without meaning or implying either that the wall is at the same time whiteness, or has a pale skin, or sounds clearly etc.

And we cannot mean more than one thing at the same time with the same token sentence or with the same token employment of the term 'white' (of course, jokes and puns apart etc.).

Thus, if we grant that the wall is white, we cannot accept someone arguing that:

- white (i.e., whiteness) is different from a wall (from definition (i));
- therefore, the wall (which is white) is different from a wall.30

In a similar way, if we grant that the *Iliad* is an epic cycle ( $\kappa \acute{\nu} \kappa \lambda o \varsigma$ ), we cannot accept someone arguing that:

- a circle (κύκλος) is a geometric figure;
- therefore, the *Iliad* (which is a κύκλος) is a geometric figure.<sup>31</sup>

The reason why we cannot accept those (sophistical) arguments is that, even if the terms involved have more than one meaning, one cannot mean more than one thing when one actually employs the term in a token sentence to talk about something. We are allowed to mean *only one thing* about the item the term is meant to pick out.

Thus, the expression  $\sigma\eta\mu\alpha(i\nu\epsilon\nu)$  ev in this context (*Ph.* 186a26–27, 32–33) is not envisaging an abstract relation between the term 'white' and its (possible) meanings; consequently, the premise in the parallel argument is not equivalent to the claim that 'white' has only one meaning (and only one definition). Aristotle is considering a concrete relation between the term 'white' as employed in a given situation and what the term means in that particular situation, namely, *what the term means about the thing it is predicated of in that particular situation*.<sup>32</sup>

### "Όπερ ὄν: the full syntax of the expression

The full syntax of what is compressed into the expressions  $\delta\pi\epsilon\rho$   $\delta\nu$  and  $\delta\pi\epsilon\rho$   $\epsilon\nu$  is this:  $\delta\pi\epsilon\rho$   $\delta\nu$  and  $\delta\pi\epsilon\rho$   $\epsilon\nu$  are elliptical for to $\delta\pi\epsilon\rho$   $\delta\nu$   $\epsilon\sigma\tau$ 1 and to $\delta\pi\epsilon\rho$   $\epsilon\nu$ 2  $\epsilon\sigma\tau$ 1, where  $\delta\nu$ 2 are the subjects of the relative sentences and  $\delta\pi\epsilon\rho$  is the complement of the

<sup>&</sup>lt;sup>30</sup> There is a similar point in *Metaph*. 1007a8-20. See Angioni (2006: 64-66).

<sup>31</sup> See Arist. SE 171a9-11 and APo. 77b31-33.

<sup>&</sup>lt;sup>32</sup> Charlton (1992: 60) has somehow hinted at the relevant point: "if to know what the word 'f" means, is to know what it would be for a thing to be f". (However, I do not agree with Charlton's ensuing remarks.)

relative sentences. Thus, "that which being is" (and "that which one is") is, in my view, the more accurate translation. It is important to explain the syntax of the expression and the way in which its syntax allows Aristotle to employ the expression in the several ways he has employed it. Usually, scholars are prone to take  $\rm 6\pi\epsilon p$  just as a shorthand for 'essentially' without explaining what is going on with the expression. This flattening interpretation has consequences when the expression is employed in more complex contexts. This will be clear, so I hope, in my next steps.

The expression "[ $\tau o \tilde{\nu} \tau o$ ] ő $\pi \epsilon \rho$  ő $\nu$  [ $\epsilon \sigma \tau o$ ]" is just a particular case of the general pattern "[ $\tau o \tilde{\nu} \tau o$ ] ő $\pi \epsilon \rho$  X [ $\epsilon \sigma \tau o$ ]" or one of its abbreviated forms (where 'X' is replaceable with any term).<sup>34</sup> Now, the pattern is employed by Aristotle in several contexts to mark a specific feature of essential predications, with the term 'X' playing the role of predicate applied to a given subject.<sup>35</sup> The best passage is *Posterior Analytics* I.22 (I use the letters 'P' and 'S' in the translation to make the pronoun references easier to follow):

Besides, items [i.e., predicates, P] signifying essence signify of what they are predicated of [i.e., subjects, S] that S is what exactly P is, or what exactly a particular sort of P is [ὅπερ ἐκεῖνο τ]; but the predicates which do not signify essence but are said of some other underlying subject which is neither what exactly P is nor what exactly a particular sort of P is, are accidental, e.g. white of human. For human is neither what exactly white is nor what exactly some white is [οὕτε ὅπερ λευκὸν οὕτε ὅπερ λευκόν τι] – but is surely animal; for a human is what exactly animal is. (APo. 83a24–30, my translation)

Thus, animal as predicated of human means ( $\sigma\eta\mu\alpha$ ivei) that humans are that which [being an] animal strictly is, whereas white as predicated of human does not mean that humans are that which [being] white strictly is (APo.~83a28-30, cf. Metaph.~1007a26-33). Aristotle employs the expression ' $\sigma\pi\epsilon\rho$  X' in order to stress the relationship holding between the items involved. The point of using the relative clause, with the pronoun  $\sigma\pi\epsilon\rho$  as the complement, is to stress that there is something which being an animal is (i.e., being a living thing capable of perceiving), so that, when animal holds of something S, its holding of S means that being S is essentially connected with what being an animal is. The point of using the emphatic pronoun  $\sigma\pi\epsilon\rho$  (instead of a mere relative pronoun  $\sigma$ ) is

<sup>&</sup>lt;sup>33</sup> There are exceptions, such as Clarke (2019: 117). Other interpretations (such as Castelli 2018: 93–94) go in a direction similar to mine, but I am not satisfied with the way they explain how the syntax of the expression encodes certain claims.

<sup>&</sup>lt;sup>34</sup> Gershenson and Greenberg (1962: 143) have said that ὅπερ ὄν (and ὅπερ ἕν) "occur very rarely in the Aristotelian corpus". However, one cannot ignore that ὅπερ ὄν is a case of the expression ὅπερ X (where X is replaceable with any term), which Aristotle has employed several times.

<sup>&</sup>lt;sup>35</sup> There are some exceptions. In the highly complicated context of *Metaph.* 1030a3–5, the expression is in a sort of metalinguistical level. The sentence ὁ λευκὸς ἄνθρωπος οὐκ ἔστιν ὅπερ τόδε τι (*Metaph.* 1030a4–5) is not saying that *pale man is not essentially a [substantial] this*, but is saying that the expression 'pale man' does not encode *what a substantial this is*, i.e., 'pale man' cannot be taken as an appropriate definiens of a substance. I have defended this view; see Angioni (2014: 87–90). As for *APo.* 89a35–36 (another highly controversial case), see Angioni (2013: 273–279).

to stress that animal, when predicated of S, is stating that the being for S does not consist in anything else significantly different from being an animal (cf. *Metaph*. 1007a27). This is what signifying essence (APo. 83a24, 29–30), as an operation ranging over predicates qua predicates, amounts to. Aristotle's point is not the mere 'transitivity of predicates' – for transitivity will hold for both sort of predicates under appropriate interpretations of them: thus, if being an animal is exactly being a perceptive living being, it will follow that humans are perceptive living beings; however, if being white is exactly having a surface with such and such a feature (cf. Top. 107b1-2), it will also follow that a human (who is white) has a surface with such and such a feature, with the result that white as predicated of humans means that humans have a surface with such and such a feature. Aristotle's point is that humans, in being animals, can be said to be what animal is in a stronger way: being for humans is not something else significantly different from being an animal. In general terms, for any predicate E that signifies essence, being E either exhausts what it is for *S* to be what *S* is, *or is at least an important part of it*. But the same will not hold of whiteness. Humans, in being white, cannot be said to be exactly what being white is, for being white neither exhausts what is for human beings to be what they are, nor is an important part of it.

Now, the disjunction in my last sentence – which is based on ὅπερ ἐκεῖνο ἢ ὅπερ ἐκεῖνο τι in the Posterior Analytics 83a24-25 (cf. APo. 83a27, 29) - is really important to understand Aristotle's point against Parmenides. Indeed, for any essential predicate P, there are two options: if P is an essential predicate of S, then P either exhausts what it is for *S* to be *S or* is an important part of it. Aristotle does not always mark this distinction (and this has misled scholars), but *sometimes* he does (and *Ph.* 186a33-34 is 'one of those times'). Thus, Aristotle is comfortable using the expression "S is [τοῦτο] ὅπερ P [ἐστι]" when P is only an important part of what it is for S to be what S is. This is Aristotle's usual way of talking about the *genus* in the *Topics*.<sup>36</sup> However, on the same conditions – I mean, when *P* is only an important part of what it is for *S* to be what *S* is – Aristotle *sometimes* says that "S is [τοῦτο] ὅπερ P τι [ἐστι]", where the indefinite adjective 'τι' means something like 'of a given sort' or 'some'. 37 The addition of the adjective ' $\tau$ 1' in the expression is decisive to mark that P is an essential predicate which does not exhaust the essence of S. By contrast, when *P* exhausts what it is for S to be *S*, Aristotle cannot use the expression "S is [τοῦτο] ὅπερ P τι [ἐστι]". He can only say that "S is [τοῦτο] ὅπερ P [ἐστι]". Actually, in some occurrences of the expression "[τοῦτο] ὅπερ P [ἐστι]" with no addition of 'τι', the expression is pointing to what is the whole essence of the subject  $S^{.38}$ 

<sup>&</sup>lt;sup>36</sup> See, for instance, Arist. *Top.* 124a18.

 $<sup>^{37}\,</sup>$  These are some occurrences: Arist. Metaph. 1001a27; 1091b25, 27; 1045b1, 3-6, 23; APr. 49b7-8; APo. 83a6-7, 14.

<sup>&</sup>lt;sup>38</sup> See Arist. *APo*. 91a39. Note that, a few lines further, in 91b3, the expression  $\\\tilde{o}$ περ is used to mark the case in which A is predicated of all B without being convertible with it, like animal is predicated of human (APo. 91b4–7).

## "Όπερ ὄν as used in Aristotle's solution

What is important for the present case is that Aristotle's employment of ὅπερ ὄν in Ph. 186a33-34 is one of those times in which the expression stands for a predicate that exhausts what it is for S to be S. This amounts to saying that the expression "[τοῦτο] ὅπερ ὄν [ἐστι]", with no addition of τι, means – when applied to any subject – that the being of its subject is exhausted by being exactly what Being is. Therefore, applying the expression "[τοῦτο] ὅπερ ὄν [ἐστι]" (or one of its abbreviated versions) to a given subject amounts to formulating a strong identity statement between that subject and what being (or, rather, Being) essentially is.<sup>39</sup> Now, this is significantly different from saying that a given subject is essentially a being in the sense that being a being is an important part of its essence – and is also different from saying that S is exactly what being a [particular kind of] being is. Had Aristotle meant the last point, he would have employed the expression ὅπερ ὄν τι instead of the expression ὅπερ ὄν – for, just a few lines later (Ph. 186b2, 9), τι is employed exactly in the way I have highlighted: in 186b2, ὄν τι has the force of 'a [particular] being' either in the sense of 'a being of a particular kind' or in the sense of 'a particular token being', so that Aristotle's point (in 186b2, but not in 186a33-34) is that it would not be possible for what-Being-is to be the being of a particular kind or a particular token being.40

Therefore, the view that 'being' can only be employed in making strong identity statements about Being itself is exactly what Parmenides would need to avoid the inconclusiveness of his argument.<sup>41</sup> Parmenides would not have improved his argument if he had said that 'being' *signifies one* merely in the sense of being a (non-exhaustive) essential predicate of any subject. For, in that case, *being S* and being *what being is* ([ $\tau \circ \tilde{v} \tau \circ$ ]  $\tilde{o} \pi \epsilon \rho$   $\tilde{o} v$  [ $\tilde{e} \sigma \tau \circ v$ ]) would still count as two items in account, even if they are essentially related – in the same way as *being an equilateral triangle* and *being a triangle* are not the same, even if they are essentially related. In order to avoid the inconclusiveness of his argument, Parmenides should have resorted to the claim that 'being' *signifies one* in the stronger sense of exhausting what being is for any subject it is applied to. In that case, there will be no distinction between *being Being itself* and *being S* (playing the role of whatever-it-is-that-happens-to-be-Being). Only in this case the subject S would not count as distinct in account (or in being) from Being itself. But such a claim amounts to saying that 'being'

<sup>&</sup>lt;sup>39</sup> Pace Spangler (1979: 98), who believes that Aristotle's employment of the expression in that passage is conveying the idea that being is a genus. For a different view, see Castelli (2018: 93–94).

<sup>&</sup>lt;sup>40</sup> Similarly, at the end of the chapter, Aristotle asks: "for who understands 'being itself', excepts as being what exactly a given being is?" (τίς γὰρ μανθάνει αὐτὸ τὸ ὂν εἰ μὴ τὸ ὅπερ ὄν τι εἶναι; Ph. 187a8–9). The expression is a little bit different: the definite article τό goes with the infinitive εἶναι, and [τοῦτο] ὅπερ ὄν τι [ἐστι] works as the complement of the infinitive εἶναι, but the internal syntax of the expression is the same. Aristotle is suggesting that the emphatic expression αὐτὸ τὸ ὂν can only be understood with the force of "being what a particular being is".

<sup>&</sup>lt;sup>41</sup> This is stronger than 'essence monism' (as depicted in Clarke 2018: 68).

could only be employed in one strong identity statement about itself, so that predication will be impossible.  $^{42}$ 

# A quick survey of the consequences (Ph. 186a34-186b12)

In fact, that predication will be impossible is (among other things) what Aristotle intends to show in his next steps (*Ph.* 186a34–b12): for Parmenides, anything different from this strong view about *Being signifying one* would lead to inconsistency. The gist of Aristotle's discussion is this: let 'being' signify something not in the way suggested in the *Physics* 186a32–34 (i.e., not as meaning that what it is applied to is the same as what-being-Beingis): then, something which is not being will be (*Ph.* 186a34–b4); and Being itself will end up collapsing into non-being (*Ph.* 186b4–12).

In general lines, Aristotle's discussion is as follows. Suppose that 'being' does not signify, about X (= the thing it is applied to), that X is what-Being-is – instead, suppose that 'being' just *accompanies* (συμβέβηκε – Ph. 186a35, more on this expression below) that to which it is applied without being one with it – this is what Aristotle expresses with "τὸ γὰρ συμβεβηκὸς καθ' ὑποκειμένου τινὸς λέγεται" (Ph. 186a34–35) and "ἔτερον γὰρ τοῦ ὄντος" (Ph. 186a35–b1). The conclusion is stated at Ph. 186a35: "that to which *being* is applied as a predicate will not be" (ῷ συμβέβηκε τὸ ὄν, οὐκ ἔσται), for it will be different from being. However, if X is that to which being is applied (or if it is acceptable to apply 'being' to it), then X somehow is: for, if X were nothing at all, it would not be there as something to which 'being' could be applied. Now, if X somehow is (premise assumed for a Parmenidean is reductio), then it follows that "there will be some being which is not being" – a conclusion stated with an ironical surprise (marked by the particle 'ἄρα' at Ph. 186b1).

Now, in order to avoid this road of contradiction ("there will be some being which is not being"), Parmenides should have taken 'being' as meaning, about the thing it is applied to, that the thing is what-being-Being-itself is – as Aristotle has suggested in the *Physics* 186a32–34. But the suggestion is tantamount to saying that őv is not liable to be instantiated in different sorts of particular beings: "for it is not possible for it to be a certain being" (οὐ γὰρ ἔσται ὄν τι αὐτὸ εἶναι – *Ph.* 186b2). Consequently, let Parmenides get rid of the misleading X: ὄν can only be one, identical with itself – and it can only be employed in one identity statement, "Being is Being" (or "What-Being-is is What-Being-is"). Indeed, "it will not be possible for what-Being-is to be applied to anything else" (οὐ

<sup>&</sup>lt;sup>42</sup> For a different view, see Clarke 2019: 119-120).

 $<sup>^{43}</sup>$  For the ironical use of  $\alpha p \alpha$ , see Angioni (2009: 106). Quarantotto (2016) has been finely sensitive to Aristotle's humour in these highly abstract discussions.

δὴ ἔσται ἄλλω ὑπάρχον τὸ ὅπερ ὄν – Ph. 186b1-2).44

In *Ph.* 186b4–12, Aristotle develops the second part of the issue: Parmenides's view will not allow anything to be predicated of Being. For predication would entail non-identity (between the subject and the predicate) and non-identity would imply multiplicity. But there is no room here to examine that line of discussion.

# Being as a συμβεβηκὸς

What about the  $\sigma\nu\mu\beta\epsilon\beta\eta\kappa\delta\varsigma$  terminology in the passage 186a34–b1? If my interpretation of 186a32–34 is right,  $\sigma\nu\mu\beta\epsilon\beta\eta\kappa\delta\varsigma$  must cover any predicative relation in which subject and predicate are *two in account* – the only exception will be the sort of identity statement in which there is not even an intensional distinction between the subject and the predicate.

This is the passage:

[34] τὸ γὰρ συμβεβηκὸς καθ' ὑποκειμένου τινὸς

[35] λέγεται, ὥστε ῷ συμβέβηκε τὸ ὄν, οὐκ ἔσται (Ph. 186a34-35).

On standard interpretations of  $\sigma \nu \mu \beta \epsilon \beta \eta \kappa \delta \varsigma$ , the passage would be translated as follows: "For an accident is said of an underlying subject, consequently, what it is an accident of will not be".

See, for instance, how Ross (1936: 340) has taken the point in his analysis of the passage: "it will not do to suppose that being is an accident; for then what it is an accident of will not be". 45 On this interpretation, Aristotle seems to suggest that, if the Parmenidean view is rejected, we will be left with 'being' as an accidental predicate. Would Aristotle be committed to that consequence, namely, that 'being' is an accidental predicate of whatever it is predicated of (except Being itself)?

Some scholars suggest that Aristotle's solution (*Ph.* 186a23–32) is ascribing to Parmenides the view that being is an accidental predicate – for only accidental predicates, they claim, involve the distinction in being (or in account) between attribute and that which receives the attribute.<sup>46</sup> Now, I have argued that the distinction in being (or in account) needed for Aristotle's solution also works with essential predicates that do not exhaust what it is for their subjects to be what they are. Even if there is an aspect on which *human* and *animal* can be said to be one in account, it is clear that *being an* 

<sup>&</sup>lt;sup>44</sup> According to Aristotle's solution, Parmenides' claim is stronger than Predicational Monism – i.e., that "each being can only be one kind of thing" (O'Connor 2017: 37) – or 'essence monism' (Clarke 2019: 110, 114); his claim is that it is not possible for any particular being to be, for it will be different from Being itself. This is 'entity monism': only Being *is*.

<sup>45</sup> See also Bostock (2006: 109).

<sup>&</sup>lt;sup>46</sup> See Quarantotto (2019: 97–98); for a different view, see Clarke (2019: 115).

animal is not the same as being a human. Now, given that Aristotle's point in the Physics 186a32-b1 seems to involve an exhaustive opposition between identity statements ("signifying what-Being exactly is") and being a  $\text{sum}\beta\epsilon\beta\eta\kappa\delta\varsigma$  of its subject, my proposal seems to imply that even non-identity essential predicates (such as animal attributed to human) will be covered by  $\text{sum}\beta\epsilon\beta\eta\kappa\delta\varsigma$  as used in the passage. I will now explain why I am perfectly comfortable with that.

The term  $\sigma\nu\mu\beta\epsilon\beta\eta\kappa\grave{o}\varsigma$  is usually taken in the sense of contingent predicate – namely, the sort of accidental predicate that can indifferently belong or not belong to a given subject in different circumstances (as defined in Topics 102b6–7). Now, many scholars do not believe that  $\sigma\nu\mu\beta\epsilon\beta\eta\kappa\grave{o}\varsigma$  must be taken in that way in Physics 186a34. Most translators have resorted to alternative options (for instance, Hardie and Gaye: 'attribute'; Charlton: 'that which supervenes') and Clarke has remarked that  $\sigma\nu\mu\beta\epsilon\beta\eta\kappa\grave{o}\varsigma$  can be taken in the broad sense of attribute which is not included in the essence of its subject<sup>47</sup>. My proposal goes even further in this same direction.

I do not believe that συμβεβηκός is taken in a deviated or exceptional sense in 186a34. 48 I have developed my views about συμβεβηκός elsewhere, so I will only retrieve the most important points here. 49 Aristotle uses the word συμβεβηκός (as well as the verb συμβέβηκε with dative) in several ways, but there is an overall coherence in all his uses. First, the word συμβεβηκός covers a relation which seems to be dyadic (with only two relata) but always pressuposes a third item which gives a parameter under which the relation is being taken. Second, the word is highly context-sensitive: it has a core meaning, but defined in very general terms, such that more specific contexts of application imprint different forces to it. Third, the core meaning can be characterised with two conditions: one of the relata (let it be X) is said to be a συμβεβηκός of the other (let it be Y) when, first, X accompanies Y and, second, X is not the most important factor for Y according to the aspect or parameter under which Y is being considered in a given context. But, as I will show, there are many contexts, each with a different parameter. Fourth, the most traditional notion of συμβεβηκός, which covers a relation of contingency between X and Y, is found only in one subset of Aristotle's employment of the expression. Fifth, and most importantly, the employment of συμβεβηκός covering the notion of contingency gives us the (wrong) impression that the relation is strictly dyadic with no presupposed parameter at all – but that impression only arises because the aspect or parameter under which Yis being considered in those contexts is Y itself, i.e. (unpacking what that means for Aristotle in the relevant contexts), Y's being what it essentially is in itself. The same misleading impression holds for Aristotle's employment of συμβεβηκός in the broad sense of

<sup>47</sup> Clarke (2019: 111, 123).

<sup>&</sup>lt;sup>48</sup> I do not agree with Gershenson and Greenberg (1962: 143–144, 148–149), who take the occurrences of συμβεβηκός in *Physics* I.3 as depicting "precisely the meaning of this word for the Eleatics" (Gershenson, Greenberg 1962: 149).

<sup>&</sup>lt;sup>49</sup> See Angioni (2019: 362–368) for the general story.

a predicate not included in the essence of its subject; but there is an implied parameter, which is what the subject essentially is in itself.<sup>50</sup>

Thus, Aristotle says that *being seated* is a συμβεβηκός of Socrates because (i) being seated accompanies Socrates at a given circumstance, but (ii) being seated is not important for Socrates according to the aspect or parameter under which Socrates is being considered in that context - i.e., being seated is not important for Socrates' being essentially what he is. Now, according to that same aspect or parameter, Aristotle cannot say that being a man is a συμβεβηκός of Socrates: for, although (i) being a man accompanies Socrates (actually, in all circumstances), (ii) being a man is indeed important for Socrates according to that aspect - i.e., being a man is important for Socrates' being essentially what he is. But let us change the parameter: Socrates now is being considered as curable, i.e., as liable to the expert intervention of a physician (cf. Metaph. 981a18-20). Then, being a man becomes a συμβεβηκός of Socrates. For, according to that aspect or parameter, being a man is far from being the most important factor for Socrates, even if being a man is an essential predicate of his and, furthermore, a condition sine qua non presupposed in his being liable to the expert intervention of a physician. Thus, Aristotle is very comfortable in saying that being a man συμβέβηκε to Socrates (Metaph. 981a19-20), and this language is far from implying that man is an accidental predicate of Socrates - nor need we say that such an employment of the terms departs or deviates from their normal meaning. For the core definition still holds of this case.

This story could be fleshed out with more examples and details. However, as I have developed it in several places, I allow myself to be short here.

Thus, what is Aristotle doing in *Physics* 186a34–b1? He is not saying or implying that, if we reject Parmenides' view that 'being' can only be used in one strict identity statement, we would be left with taking 'being' as an accidental predicate either in the sense of a contingent predicate that could cease to be true about its subject in a different circumstance, or in the sense of an attribute not included in the essence of its subject. The first view will be odd, indeed. 'Being' is the most trivial predicate, in the sense that, at least on a given interpretation, it cannot be false about any being at all. We might even dare to say that being is a necessary predicate of every being that exists – 'X is a being' will be necessarily true of any existing X etc.<sup>51</sup> Many subtleties could be addressed here, but it is enough for my purposes to stress that contingency or non-essentiality of the predicate 'being' is not the central issue at stake in *Physics* 186a34–b1.

What is the issue, then, when Aristotle suggests that 'being' as predicated of a particular being is a  $\sigma \nu \mu \beta \epsilon \beta \eta \kappa \delta c$  of that particular being? Aristotle is implying that being *a being* is not the most important factor for any particular being's being what it is. Take a horse

<sup>&</sup>lt;sup>50</sup> A further clarification: when Aristotle calls the attribute 2R a συμβεβηκός καθ' αύτό of the triangle, what he means must be analysed in two steps: (i) first, ask whether the attribute is or is not *included* in the essence of its subject (if it is not included, it is a συμβεβηκός); (ii) second, ask whether the attribute is or is not *explained* by the essence of its subject (if it is, call it a συμβεβηκός καθ' αύτό).

<sup>&</sup>lt;sup>51</sup> For a similar point, see Clarke (2019: 87).

as an example of a particular being. Aristotle might comfortably say that *being a being* is a συμβεβηκός of horses, for, although (i) *being a being* accompanies horses in all circumstances, (ii) it is not the most important factor for horses' being essentially what they are. Similarly, picture a physician being called to attend an emergency and asking while she runs to it: "tell me more about the patient". What the physician wants is to consider the relevant features of the patient *qua* patient, which are strictly important for her expert intervention. It would not do to answer the physician with this: "the patient is a human being". Things will not improve if someone insists: "Well, you know, the patient is *essentially* a human being". Given that the expert intervention of the physician is the relevant parameter implied in this context, being essentially a human being is indeed a *sumbebekos* of the patient, for it does not qualify among the most important features of the patient *qua* patient. Similarly, even if there is some aspect on which it is correct to say that a horse is essentially a being, being essentially a being qualifies as a *sumbebekos* of the horse if we are interested in what makes it *a horse* – being essentially a being does not qualify among the most important features of the horse *qua* horse.

A possible objection to my proposal is that συμβεβηκός is explicitly used in the next section of the chapter (which starts at Ph. 186b14) both in the sense of contingent predicate and in the specific sense of συμβεβηκός καθ' αὐτό (non-included in the essence of its subject). There is no room here to discuss the argument starting at Ph. 186b14. But I argue that the context of the Physics 186a23-b12 is really different from the context of 186b14-35. Now, συμβεβηκός is indeed used differently in each of those contexts. But scholars are prone to conflate two different issues: on the one hand, the (ultimately sophistical) employment of the same expression with different meanings in a given argument in order to produce a false semblance of validity; on the other hand, the employment of the same expression with different meanings (or different referents, or different forces) within a short string of sentences. No one is allowed to conclude that the *Iliad* is a geometric figure from the premises that the *Iliad* is a κύκλος and that a κύκλος is a geometric figure. However, this gives us no ground to jump to the claim that, if a given expression is employed with different meanings (or different referents, or different forces) within a short string of sentences, then the validity of the argument is lost. One still has to prove that the short string of sentences at stake is tantamount to one and the same argument as the sophistical one about the *Iliad*. Actually, Aristotle has many times employed the same expression with different meanings (or different referents, or different forces) within a short string of sentences without damaging the validity of his arguments. It happens that a short string of sentences can pack several arguments.<sup>52</sup> Therefore, there is nothing

 $<sup>^{52}</sup>$  For συμβεβηκός, see Arist. *Metaph.* 1003a25, 30. A small sample for other terms: *anankaion* (*APr.* 47a19, 23); *meson* (*APr.* 44b12, 13); *phusis* (twice in the same line *Metaph.* 1054a10); *horizomenon* (*Top.* 139a28, 30; 147b12, 13; 158a26, 27), *erotomenon* (*Top.* 158a26); *archas* (*APo.* 84a31, 32); *episteme* (*APo.* 79a18, 24); *pragma* (*Top.* 179a37, b5); *genos* (*Top.* 102b30, 39). Do the two occurrences of *semainein* in *Top.* 103b28 have exactly the same force?

to worry about if συμβεβηκός has been used differently in different contexts within the same chapter.  $^{53}$ 

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### BIBLIOGRAPHY

**ANAGNOSTOPOULOS, A.**, 2013, "Aristotle's Parmenidean Dilemma", *Archiv für Geschichte der Philosophie* 95 (3), pp. 245–274.

ANGIONI, L., 2006, Introdução à Teoria da Predicação em Aristóteles, Campinas.

ANGIONI, L., 2009. Aristóteles: Física I-II, Campinas.

ANGIONI, L., 2013, "Knowledge and Opinion about the Same Thing in APo A-33", Dois Pontos 10 (2), pp. 255-290.

ANGIONI, L., 2014, "Definition and Essence in Aristotle's Metaphysics vii 4", Ancient Philosophy 34, pp. 75-100.

**Angioni**, L., 2019, "O léxico filosófico de Aristóteles (III): Comentários a *Metafísica* V.18–30", *Dissertatio* 48, pp. 295–376.

BOSTOCK, D., 2006, Space, Time, Matter, and Form: Essays on Aristotle's Physics, Oxford.

Brémond, M., 2017, Lectures de Mélissos: Édition, traduction et interprétation des témoignages sur Mélissos de Samos, Berlin.

CASTELLI, L., 2010, Problems and Paradigms of Unity: Aristotle's Accounts of the One, Sankt Augustin.

CASTELLI, L., 2018, "Physics I.3", in: D. Quarantotto (ed.), Aristotle's Physics Book I: a Systematic Exploration, Cambridge, pp. 82–105.

CHARLTON, W., 1992, Aristotle: Physics Books I and II, Oxford.

CLARKE, T., 2015, "Aristotle and the Ancient Puzzle about Coming To Be", Oxford Studies in Ancient Philosophy 49, pp. 129–150.

CLARKE, T., 2019, Aristotle on the Eleatic One, Oxford.

FAIT, P., 2007, Aristotele: Le Confutazioni sofistiche, Roma-Bari.

GERSHENSON, D. E., GREENBERG, D. A., 1962, "Aristotle Confronts the Eleatics: Two Arguments on 'The One'", Phronesis 7 (2), pp. 137–151.

HARDIE, R. P., GAYE, R. K., 1984, "Physics", in: J. Barnes, (ed.), The Complete Works of Aristotle, vol. 1, Princeton.

HASPER, P. S., 2013, "Aristotle's Sophistical Refutations: a translation", Logical Analysis and History of Philosophy 15, pp. 13–54.

IERODIAKONOU, K., KALLIGAS, P., KARASMANIS, V. (eds.), 2019, Aristotle's Physics Alpha: Symposium Aristotelicum, Oxford.

KELSEY, S., 2006, "Aristotle Physics I 8", Phronesis 51 (4), pp. 330-361.

Morison, B., 2019, "*Physics* I 7, Part I: The Complexity of the Subject in a Change", in: Ierodiakonou, Kalligas, Karasmanis 2019, pp. 229–261.

O'CONNOR, S., 2017, "The Eleatic Challenge in Aristotle's Physics I.8", Rhizomata 5 (1), pp. 25-50.

**QUARANTOTTO**, **D.**, 2016, "Aristotle's Way away from Parmenides' Way. A Case of Scientific Controversy and Ancient Humour", *Elenchos* 37 (1–2), pp. 209–228.

QUARANTOTTO, D., 2019, "Towards the Principles – Resolving the Eleatics' Argument for Absolute Monism", in Ierodiakonou, Kalligas, Karasmanis, 2019, pp. 89–123.

Ross, W. D., 1936, Aristotle's Physics: A Revised Text with Introduction and Commentary, Oxford.

Rossi, G., 2017, "Going through aporiai: The Critical Use of Aristotle's Dialectic", Oxford Studies in Ancient Philosophy 52, pp. 209–256.

SMITH, R., 1997, Aristotle Topics, Books I and VIII. Oxford.

SPANGLER, G. A., 1979, "Aristotle's Criticism of Parmenides in Physics I", Apeiron 13 (2), pp. 92-103.

STRIKER, G., 2009, Aristotle Prior Analytics, Book I, Oxford.

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# Aristotle's Solution for Parmenides' Inconclusive Argument in $Physics\, {\rm I.3}$

I discuss the argument which Aristotle ascribes to Parmenides at *Physics* 186a23–32. I examine (i) the reasons why Aristotle considers it to be eristic and inconclusive and (ii) the solution (*lusis*) that he proposes against it.

KEYWORDS

Aristotle; sophistical argument; Parmenides; predication; being.