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Alexander of Aphrodisias on the Principle of Non-Contradiction: The Argument "from Signification"

In *Metaph.* 4.4, Aristotle sets out to refute the views of those who deny the principle of non-contradiction. The nature and scope of these arguments have been a matter of scholarly controversy. Elizabeth Anscombe accurately described this text as "long, difficult and bad-tempered" but pointed out that in it Aristotle was making a connection between his ontology and the principle of non-contradiction.[1] Some prominent logicians questioned the status of PNC as an indemonstrable first axiom.[2] Some leading Aristotle scholars saw his arguments in support of PNC in *Metaphysics* as a sign of his departure from a demonstrative model of science developed in the *Posterior Analytics.*[3] Clearly this difficult text has been used to support several very weighty claims, and even this alone would make understanding it important for students of Aristotle. Alexander's interpretation has received some critical attention in recent scholarship,[4] but many questions still remain.

In this paper, I would like to provide an outline of Alexander's reading of Aristotle's argument which will allow us to see how his position stands in the light of contemporary discussions of Aristotle's argument. After a very brief summary of the main points of Aristotle's argument in Γ 4 in § 1, I discuss (in § 2) Alexander's interpretation of elenctic demonstration (with special attention to his distinction between the *elenchos* proper and the more general argument from signification), and in § 3, I try to show that Alexander develops his own version of unrestricted

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1 Anscombe (1961), p. 39.
2 For a good analytical summary, see Berti (2014).
3 Irwin (1977) and Irwin (1988), pp. 179–198, Bolton (1994).
4 Flannery (2003) and Mignucci (2003).

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essentialist interpretation of Aristotle's argument which has some philosophical merits.

1 Outline of Aristotle's Argument

The discussion of the principle of non-contradiction is answering the question raised in the second aporia of *Metaph.* 3.2: "Is it the task of a single science to investigate both the ultimate principles of being and the basic principles of reasoning (e.g., the principle of non-contradiction)? Or is it the task of fundamentally different sciences?" (996b26–997a15). In *Metaph.* 4.3, the question is reformulated to ask whether it belongs to the same or different sciences to treat of what is called in theoretical disciplines "axioms" and of being.[5] Aristotle's answer supports the first disjunct: it is the task of the single science, for these principles belong to all the things that are rather than to some particular kind separate from others (1005a22–23).

In the space of a dozen lines in *Metaph.* 4.3, we have several formulations of the principle:[6]

> PNC-I **(***[A] belonging and not belonging to [B]):* It is impossible for the same thing both to belong and not to belong to the same thing at the same time and in the same respect—and let us assume we have drawn all the further distinctions that might be drawn to meet logical complaints (1005b19–20)
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> PNC-II *(contrary attributes belonging to the same thing):* It is impossible that contrary attributes should belong at the same time to the same subject (the usual qualifications must be presupposed in this premiss too) (1005b26–27)
>
> PNC-III *([A] being and not being [B]):* It is impossible for anything at the same time to be and not to be (F) (1006a3–4)
>
> PNC-IV *(veridical or semantic):* It is impossible that it should at the same time be true to say of the same thing both that it is man and that it is not man. (1006b33–34)

In *Metaph.* 4.3, Aristotle establishes that the PNC is the "firmest" principle about which it is impossible to be mistaken. Aristotle's goal, as he explains, is not to demonstrate (i.e., scientifically prove) the PNC: this is impossible as it would require

5 For a recent study of Aristotle's overall strategy in *Metaph.* 4.3–6, see Crubellier (2008).

6 For a recent detailed study of these formulations and on relation of PNC to other logical principles making up the Law of Contradiction in Aristotle and later tradition, see Cavini (2007 and 2008).

a derivation of PNC from some prior principle. Rather, his goal is to show that *given that it is true*, it is necessary to believe it and rejecting it is implausible.[7]

Aristotle's argument in *Metaph.* 4.4 can be divided into three parts. The first part (Aristotle, 1005b35–1006a28, Alexander's commentary *in Metaph.* 271, 24–275, 20) opens with a methodological preamble, in which Aristotle tells us that there are some people who deny the PNC in full earnest, and some others still who ask for its demonstration. This latter query is, for Aristotle, a sign of poor education (1005b35–1006a11).

Despite this disparaging remark, Aristotle still goes on to say that it is indeed possible to demonstrate the PNC, not by an unqualified demonstration, which would require deriving the PNC from a more fundamental principle, but by a qualified one, which he calls "elenctic", or "refutative". This kind of demonstration will be effective against those people who subvert the proof of the "firmest principle" in *Metaph.* 4.3 by claiming that they are happy to deny its assumption, i.e., the truth of PNC, and so also on rational grounds deny it as the principle governing their beliefs. Aristotle promises to show how they cannot avoid committing to PNC on pain of being unable to engage in any rational discourse. (1006a11–28).

In the second part (Aristotle 1006a28–1007b18, Alexander 275, 23–290, 21), after the introduction of the concept of elenctic demonstration and the general explanation of the way it works, Aristotle sets out the details of the argument from signification. It is the longest single argument in this chapter. Its main line is punctuated by a number of departures building up towards additional arguments that result in several important points and distinctions which Aristotle uses to respond to possible difficulties or counterexamples and stave off any misreadings of the proposed argument. I'll look at its main steps in the course of my discussion of Alexander's interpretation.

The third part contains six shorter arguments in which Aristotle goes on to show further implausible consequences of the denial of the principle of non-contradiction.[8]

My main focus in this paper is on the elenctic demonstration and the argument from signification which correspond to the first and second parts of the overall argument of Gamma 4.

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7 This argument has been at the centre of controversy; see Lukasiewicz (1993), pp. 22–48, Barnes (1969), and Wedin (2004).

8 Argument from monism (1007b18–1008a2, Alexander 290, 24–292, 21), argument from the law of excluded middle (1008a2–7/292, 24–293, 32), arguments against partial and total denial of PNC (1008a7–34/293,35–297,6), argument from bivalence (1008a34–b2/297,7–25), argument from truth and pragmatic (1008b2–31, 297, 28–300, 22), argument from the more and less (1008b31–1009a5/300, 24–301, 25).

2 Alexander on Elenctic Demonstration

Aristotle's argument in *Metaph.* 4.4 starts with an explanation of the goals and epistemic status of his proofs in defense of the PNC. These proofs are addressed to those opponents who would not accept the PNC and would ask for its demonstration. Aristotle indicates that although the principle does not need a demonstration, there must be a rational way of establishing the truth of the principle for its opponents, by showing that some of their assumptions depend on it, and so they cannot deny it without denying also some of those assumptions.

> (T1) (1) But it is possible to demonstrate by way of refutation also about this, that it is impossible, *if only the disputant says something.* If he says nothing, it is ridiculous to look for a speech[9] in response to one who has a speech of nothing, in so far as he has not; such a person, in so far as he is such is similar to a plant. **(2)** I say that an elenctic demonstration differs from a demonstration because someone who is demonstrating would seem to be begging the question, whereas if another were to be responsible in such a way it would be refutation but not a demonstration (1006a11–18)[10]

This "demonstration by refutation" or "elenctic demonstration"[11] must be different from both a standard demonstration and a standard *elenchos.* We already know the reason why it cannot be a standard demonstration: a demonstration would need an even more fundamental principle as its premiss, and this Aristotle will not concede. It cannot be an *elenchos* proper, because an *elenchos* is a reduction to a contradiction,[12] but Aristotle's opponents will not be taking a contradiction in their claims as a sign of defeat, as it is their position that it is not problematic.

The logical structure of the elenctic demonstration of the impossibility of the denial of PNC mirrors the dialectical *reductio ad absurdum* in the following way.

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9 'Speech' translates λόγος, the word that is rendered differently in different translations. In this paper I largely follow Kirwan's translation of Metaphysics Gamma and Madigan's translation of Alexander's commentary. In both cases light modifications will be obvious (needed in part for some consistency of vocabulary). Kirwan translates λόγος as 'statement', while Madigan prefers 'speech'. There are many other possibilities. I will keep the translation 'speech' for both Aristotle and Alexander, understanding by it a meaningful speech which can be used by the parties in a dialectical argument rather than any utterance.

10 (1) ἔστι δ' ἀποδεῖξαι ἐλεγκτικῶς καὶ περὶ τούτου ὅτι ἀδύνατον, ἂν μόνον τι λέγῃ ὁ ἀμφισβητῶν· ἂν δὲ μηθέν, γελοῖον τὸ ζητεῖν λόγον πρὸς τὸν μηθενὸς ἔχοντα λόγον, ᾗ μὴ ἔχει· ὅμοιος γὰρ φυτῷ ὁ τοιοῦτος ᾗ τοιοῦτος ἤδη. (2) τὸ δ' ἐλεγκτικῶς ἀποδεῖξαι λέγω διαφέρειν καὶ τὸ ἀποδεῖξαι, ὅτι ἀποδεικνύων μὲν ἂν δόξειεν αἰτεῖσθαι τὸ ἐν ἀρχῇ, ἄλλου δὲ τοῦ τοιούτου αἰτίου ὄντος ἔλεγχος ἂν εἴη καὶ οὐκ ἀπόδειξις.

11 *Metaph.* 4.4: 1006a15. See a fine discussion of this passage in Crubellier (2008).

12 *An. Pr.* 2.20, 66b11, 8. See also *Soph. El.* 9, 170b1.10, 171a2.4.

While in the *reductio*, the respondent aims to hold on to his professed beliefs and avoid the trap that will lead him to a contradiction, in our special case the respondent is happily embracing any contradictory statement and the dialectician's task is to force him into making a statement that would prove that he cannot be committed to a contradiction.

Formalizing a standard dialectical discussion will give us something like this:

$$\{\Gamma, \{B \in \Gamma |\ A\&\sim A\}\} \mid\!\!- \sim B$$[13]

Here Γ stands for any beliefs the respondent may have, and B is a particular belief that entails a contradiction. In order to avoid the contradiction, the respondent must reject B (deriving ~ B).

Formalizing the elenctic demonstration will give us the following strange result:

$$\{\Gamma, \{B \in \Gamma, (A\&\sim A) \mid \sim B\}\} \mid\!\!- \sim(A\&\sim A)$$

Here, Γ stands for any beliefs the respondent may have, and B is a particular belief that is so important to the respondent, that whatever formula entails its denial must be rejected, even if this leads the respondent to the denial of the contradiction, to which he was committed to begin with.

P. Gottlieb has aptly called this proof "the elenctic demonstration turned upside down".[14] The respondent is forced to deny the contradiction because denying one of his other premisses, B, is still less acceptable to him. It is very hard to imagine what kind of a dilemma could be so powerful as to force the denier of the PNC to drop this commitment of his. As M. Crubellier has pointed out, it is the task of a questioner to discover the kind of premiss that the respondent will not be able to deny.[15]

An important constraint for the questioner is that his proposed premiss cannot involve any reference to the law of contradiction. Aristotle describes this step, i. e., the premiss of the proof supplied by the opponent to make the refutation possible, as satisfying a condition "if only the disputant says something" (T1.1). The

13 I am grateful to Stephen Menn for discussing the formalism with me (he is not responsible for the final version).

14 Gottlieb (2009).

15 Crubellier (2008), p. 391.

meaning of "says something" has been controversial. We will take a look at Alexander's understanding of this condition.

Alexander generally seems to be treating Aristotle's argument as dialectical, because its main purpose is the refutation of those who object to the PNC, and because by refuting them and showing the reasons for accepting the PNC, one still contributes to the elucidation of the principles of science, which is one of the main tasks of dialectic outlined by Aristotle in *Topics* 1.2. [16]

Alexander begins his analysis of this proof by describing the difference between the demonstration *simpliciter* and the elenctic demonstration.

> (T2) (1) The one who demonstrates something without qualification assumes certain things as primary and more familiar than the thing to be demonstrated, and attempts in this way to demonstrate the proposition. **(2)** But it is not possible to assume anything primary and more familiar than this axiom, as has been said [1005b12–25], and so it is not possible to demonstrate it either. **(3)** Further, one who assumes from himself [17] and posits that everything either is or is not what he says it is will seem to be begging the question, i.e., to be assuming in advance the object of the inquiry, for this is what the inquiry was about. **(4)** Since, however, the refutation is carried on in reply to someone else, i.e., is derived from what the respondent posits (a refutation is a syllogism that leads by way of questioning to a contradiction), it can also be carried on by way of such premisses. **(5)** For such a syllogism is not carried on by way of premisses that are primary, nor will one appear to beg the question [by assuming this] from himself, if the respondent agrees *that everything either is or is not something which it is said to be.* **(6)** For it is he who is responsible for such a syllogism: the one who thinks that things immediately familiar should be proven, and who is being forced out of shame to grant these things; **(7)** if the one demonstrating posited these things from himself, he would seem to be begging the question. **(8)** For as Theophrastus said in his *On Affirmation*, demonstration of this axiom is forced and contrary to nature.[18]

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16 I have shown in Kupreeva (2017) that Alexander takes this task very seriously.

17 'From himself' (ἀφ' ἑαυτοῦ) means from own decision rather than being proposed by the opposing party in a dialectical debate. This formula is standardly used by Alexander in this discussion for this kind of signposting. Thanks to Stephen Menn for flagging and discussing this.

18 (T2) (1) ὁ μὲν γὰρ ἁπλῶς ἀποδεικνὺς λαβὼν πρῶτά τινα καὶ γνωριμώτερα ὄντα τοῦ δεικνυμένου, οὕτω τὸ προκείμενον ἀποδεικνύναι πειρᾶται. (2) οὐχ οἷόν τε δὲ πρῶτόν τι καὶ γνωριμώτερον τούτου λαβεῖν, ὡς προείρηται, ὥστε οὐδὲ ἀποδεῖξαι αὐτὸ οἷόν τε. (3) ἔτι ἀφ' ἑαυτοῦ λαμβάνων τε καὶ τιθεὶς πᾶν εἶναι τοῦτο ὃ λέγει ἢ μὴ εἶναι δόξει τὸ ἐν ἀρχῇ αἰτεῖσθαι καὶ τὸ ζητούμενον προλαμβάνειν, ἐπεὶ περὶ τούτου ἡ ζήτησις ἦν. (4) ὁ μέντοι ἔλεγχος ἐπεὶ πρὸς ἄλλον γίνεται καὶ ἐξ ὧν ὁ προσδιαλεγόμενος τίθησιν (ἔστι γὰρ ἔλεγχος συλλογισμὸς δι' ἐρωτήσεως εἰς ἀντίφασιν ἄγων), δύναται γίνεσθαι καὶ διὰ τῶν τοιούτων. (5) οὐκέτι γὰρ οὔτε διὰ πρώτων ὁ τοιοῦτος συλλογισμός, οὔτε τὸ ἐν ἀρχῇ λαμβάνειν τις παρ' αὐτοῦ δόξει, ἂν ὁ προσδιαλεγόμενος συγχωρήσῃ πᾶν ἢ εἶναί τι ὃ λέγεται ἢ μὴ εἶναι. (6) ἐκεῖνος γὰρ αἴτιος τοῦ τοιούτου ὁ ἀξιῶν δείκνυσθαί τε τὰ αὐτόθεν γνώριμα καὶ διδόναι ταῦτα ἀναγκαζόμενός τε καὶ δυσωπούμενος, ἃ εἰ ὁ ἀποδεικνὺς ἐτίθει ἀφ' ἑαυτοῦ, ἐδόκει ἂν τὸ ἐν ἀρχῇ αἰτεῖσθαι· (7) ὡς γὰρ εἶπε Θεόφραστος ἐν τῷ Περὶ καταφάσεως, βίαιος καὶ παρὰ φύσιν ἡ τούτου τοῦ ἀξιώματος ἀπόδειξις. (273, 4–19)

In (T2.1–2), Alexander follows Aristotle in seeing the PNC as the most primary and best known, indemonstrable principle. He further explains (T2.3) that this principle cannot be taken for granted by a questioner in a dialectical debate against the opponent of PNC, for this will be begging the question. But (T2.4) a valid refutation can have its premisss posited by the respondent. Alexander points out that the proof will be question-begging if the questioner "posits that everything is or is not what he says" (T2.3), but not if the same assumption is made by the respondent (T2.5). This expression "if the respondent agrees that everything either is or is not something which it is said to be" (T2.5) seems to be Alexander's paraphrase of Aristotle's "if only the disputant says something" (T1.1 above). So, Alexander's interpretation of this condition is not yet explicitly connected with the argument from signification, but takes it to be the most general description of the respondent's role as a source of premisses in this dialectical exchange. The nature of the premisses is not yet discussed.[19] The report about Theophrastus' appraisal of this demonstration as "being against nature" at (T2.8) suggests that Alexander's interpretation at this point might have as its source Theophrastus' work *On affirmation and negation,* which he seems to know well.[20]

In a standard dialectical discussion, with both interlocutors recognising the decisive role of the PNC in the argument, the questioner asks general questions, presupposing "yes" or "no" answers, selecting these questions so as to challenge some known stock beliefs of the respondent. In our case of elenctic demonstration, the respondent denies the PNC. Therefore, the questioner can't expect the respondent to be impressed if a contradiction is discovered in his views: it was licensed by the respondent to begin with, so having him reiterate it in his answers will not make a refutation. The only way to produce a refutation is somehow to force the respondent to give up on his denial of PNC without resorting to the PNC. In doing so, the questioner has to ask a question so that the respondent in his answer must voluntarily give up on his denial of PNC without a standard *reductio ad absurdum.* This is

19 So, Kirwan's analysis of the phrase at 1006a12–13 as presupposing not only the argument from signification but in fact, the definitive formula as a part of the respondent's speech is a bit farfetched from the point of view offered by Alexander's interpretation. K. Flannery sees it as a flaw of Alexander's interpretation of Aristotle, attributing it to Alexander's failure to appreciate the difference between the semantic and the dialectical argument (Flannery (2003), pp. 121–123). I am going to show that Alexander does indeed treat the elenctic refutation as a dialectical argument, but distinguishes it from the argument from signification which follows after the elenchos.
20 Fr. 68.3c and 85 A FHS&G and see next note.

why, probably, Theophrastus called this a "forced" proof, going against the nature of the proof.[21]

Aristotle gives us some more details about the nature of the premiss that can be elicited from the respondent:

> (T3) The starting point, in reply to all such arguments, is *not** to insist that [the respondent] say that something is the case or is not the case, but to signify something for himself and for another: for this is necessary if he were to say something that is meaningful. (1006a18–21)
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> ἀρχὴ δὲ πρὸς ἅπαντα τὰ τοιαῦτα οὐ τὸ ἀξιοῦν ἢ εἶναί τι λέγειν ἢ μὴ εἶναι (τοῦτο μὲν γὰρ τάχ' ἄν τις ὑπολάβοι τὸ ἐξ ἀρχῆς αἰτεῖν), ἀλλὰ σημαίνειν γέ τι καὶ αὑτῷ καὶ ἄλλῳ· τοῦτο γὰρ ἀνάγκη, εἴπερ λέγοι τι.

The only request that comes from the questioner is that the respondent should "signify something for himself and for another", i.e., commit to some meaningful speech. The option of not assigning any meaning to his own statements is ruled out by Aristotle in strong terms: someone who does not "say something" is not entitled to a search for the *logos*, as long as he has not got any *logos* himself, and this type of interlocutor is similar to a plant. (T 1.1, 1006a13–16) Thus the respondent's choices are limited.

Alexander's manuscript reading of Aristotle's text at 1006a18–20 **(T3)** is different from our received text in the crucial bit of missing the negative particle οὐ where it is particularly important.[22] So Alexander would have to comment on the text which *prima facie* says that the starting point in such arguments is precisely to insist that the respondent say that something is the case or not.[23] Alexander spends some time developing a tortuous interpretation of this reading that would exempt the questioner from a charge of *petitio principii.* But Alexander is famously good at developing tortuous explanations to save the right meanings, and in this case, he gets the faulty text to say the same thing as the correct one. He explains that Aristotle means: "i.e., he [the respondent] should be asked whether it does not seem to him that everything that is said [to be something] is that or not, e.g., whether 'man' is or is not man, and likewise horse, dog, etc.".[24] Where the problematic text would have a yes-or-no question concerned with something being

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21 Cf. Bocheński (1947), p. 46; Graeser (1973), pp. 66–67; Repici (1977), pp. 62–64; Huby (2006), pp. 44–45.

22 Our Ross' text has "is not" (on the basis of EJ, with Alexander being the only source to report the reading without negation). See Kotwick (2012), pp. 130–134.

23 Flannery thinks Alexander is attracted to this reading; I don't see any evidence for this in the arguments.

24 273, 24–26: τουτέστιν ἐρωτητέον αὐτὸν εἰ μὴ δοκεῖ αὐτῷ πᾶν ἢ εἶναι τοῦτο ὃ λέγεται ἢ μὴ εἶναι, οἷον ἄνθρωπον ἢ εἶναι ἄνθρωπον ἢ μὴ εἶναι, ὁμοίως ἵππον, κύνα, τὰ ἄλλα.

the case, Alexander's interpretation renders it as the question concerned with the *use of language*, asking whether the objects to which the names are applied are or are not such as their names say they are.[25]

Alexander is still not too happy with this construal of the text[26] and informs us that some manuscripts have the reading which seems to him to make better sense —this is the reading of the rest of our tradition of this text so far.[27] On the basis of this superior reading he develops an interpretation of what "saying something" could mean as a step in a dialectical argument.

(T4) Alexander *in Metaph.* 274, 1–13

(1) And this way [i.e., with negation] the meaning is more perspicuous. **(2)** He thinks, then, that one should ask the respondent whether, when speaking, he signifies anything, to himself and to another, by the words he speaks and by the names he gives to things, and whether there is something to which he applies the name, i.e., which he wishes to signify when he speaks and produces the name. **(3)** For one who says that he signifies nothing by what he says and the answers he makes could not be saying anything to himself or to another, **(4)** nor will his thoughts which he uses [speaking] to himself in place of names and speech, be signifying anything; **(5)** for if these were signifying anything, it would be possible to put names on the things signified by the thoughts, and thus the spoken sound would also be signifying. **(6)** In this way the respondent would be agreeing that he was not using speech; for speech is the significant spoken sound (7) But he would likewise destroy the speech (logos) if he said that it no more signifies than does not signify. For if he did not signify whenever he said something, he would not be in conversation: for this one again is like a plant.[28]

25 273,22–26: Τοῦ ἐλεγκτικοῦ συλλογισμοῦ καὶ τοῦ πρὸς ἄλλον γινομένου περὶ τῆς τοῦ προκειμένου ἀξιώματος δείξεως ἀρχήν φησιν εἶναι τὸ ἀξιοῦν τὸν προσδιαλεγόμενον ἢ εἶναί τι λέγειν ἢ μὴ εἶναι, τουτέστιν ἐρωτητέον αὐτὸν εἰ μὴ δοκεῖ αὐτῷ πᾶν ἢ εἶναι τοῦτο ὃ λέγεται ἢ μὴ εἶναι, οἷον ἄνθρωπον ἢ εἶναι ἄνθρωπον ἢ μὴ εἶναι, ὁμοίως ἵππον, κύνα, τὰ ἄλλα.

26 My interpretation here and in what follows differs from Flannery (2003). I think that Alexander realises the impossibility of the position described by the transmitted text and when interpreting it he uses the explanation he finds further down in Aristotle's argument from signification to get the right sense. He is not very happy with the reading he has, *pace* Flannery.

27 This reading is adopted by modern editions of the *Metaphysics*, see n. 22 above.

28 (1) καὶ ἔστι γνωριμώτερον τὸ λεγόμενον οὕτως. (2) ἀξιοῖ δὴ ἐρωτᾶν τὸν προσδιαλεγόμενον, εἰ λέγων τι σημαίνει δι' ὧν λέγει τε καὶ ὀνομάζει καὶ ἑαυτῷ καὶ ἄλλῳ, καὶ ἔστι τι καθ'οὗ φέρων τὸ ὄνομα καὶ ὃ σημαίνειν βουλόμενος λέγει τε καὶ προφέρεται αὐτό. (3) ὁ γὰρ λέγων μηδὲν σημαίνειν δι' ὧν λέγει τε καὶ ἀποκρίνεται, οὗτος οὔτ' ἂν πρὸς αὐτὸν λέγοι τι οὔτε πρὸς ἄλλον. (4) οὐδὲ γὰρ τὰ νοήματα ἔσται σημαίνοντά τι, οἷς ἀντὶ τῶν ὀνομάτων καὶ τοῦ λόγου χρῆται πρὸς αὐτόν. (5) εἰ γὰρ ἦν τι ταῦτα σημαίνοντα, ἦν ἂν τοῖς σημαινομένοις ὑπ' αὐτῶν καὶ ὀνόματα τίθεσθαι, καὶ οὕτως ἂν ἦν καὶ ἡ φωνὴ σημαίνουσα. (6) οὕτω δὲ αὐτὸς ἂν ὁμολογοίη μὴ χρῆσθαι λόγῳ ὁ γὰρ λόγος φωνὴ σημαντική. (7) ὁμοίως δὲ ἀναιρεῖ λόγον κἂν λέγῃ μηδὲν μᾶλλον σημαίνειν αὐτὸν ἢ μὴ σημαίνειν. εἰ οὖν μὴ σημαίνοι ὅταν λέγοι τι, οὔτ' ἂν διαλέγεσθαι εἴη· πάλιν γὰρ οὗτος ὅμοιος γίνεται φυτῷ.

According to his explanation, the question asked by the dialectical questioner is whether the respondent signifies anything, to himself and to another, by the words he speaks and the names he gives to things. This is further paraphrased as asking whether there is something to which he applies the name and which he wants to signify when speaking and producing the name. We can now see that this question is exactly the same as the one that Alexander teases out of the incorrect MS reading, so there is no reason to think that he is somehow swayed by the wrong text or otherwise biased.[29] If the respondent answers this question by "no, I don't signify anything at all with what I say" or "I signify no more this than that", he will destroy the *logos*.

In his summary of the elenctic demonstration, Alexander gives us two different versions of the argument:

(T5) Alexander *in Metaph.* 274, 13–20

(1) [First version] But if he grants and agrees that he signifies something by what he says, it will be possible for us to assume this and carry out a refutation of his proposition. He uses "demonstration" for "refutation". **(a)** For the one who grants this is by that very fact treating something as definite. **(b)** For he grants that what is signified by each speech is something definite. **(c)** For what is no more this than that is indefinite. (2) [Second version] (a) Or the statement "there will, then, be something definite" [1006a24–25] is this very thing that is granted, that the respondent signifies something. **(b)** This being granted, then, "there will be demonstration" [1006a24], that is, refutation, of which refutation the cause will be not the refuter but the one being refuted, for he will be refuted on the basis of what he grants.[30]

Both versions presuppose that the respondent grants that he "signifies something" with his speech. What is different is the explanation of how the *elenchos* is achieved in the two cases. According to **(T5.1)**, the respondent grants that he signifies something by what he says. It is then possible for the questioner ("us" in the sentence) to proceed with the refutation from this assumption. "We" will establish that the respondent by granting us that he signifies something treats this something as definite. At **(T5.1b)** the proof moves from "granting that he signifies some-

29 The only difference between the two readings, on his presentation, is that the incorrect reading without οὐ formulates the question about meaning as a dilemma: something that the correct reading purports to be avoiding.

30 (1) ἂν δὲ διδῷ καὶ συγχωρῇ σημαίνειν δι' ὧν λέγει, τοῦτο λαβόντας δυνατὸν ἔσται ἔλεγχον τοῦ προκειμένου ποιήσασθαι ἀντὶ γὰρ τοῦ ἐλέγχου τῇ ἀποδείξει ἐχρήσατο. (a) ὁ γὰρ τοῦτο δοὺς ἤδη τι ὁρίζει (b) δίδωσι γὰρ ὡρισμένον τι εἶναι τὸ ὑφ' ἑκάστου λόγου σημαινόμενον (c) ἀόριστον γὰρ τὸ οὐδὲν μᾶλλον τοῦτο ἢ τοῦτο. (2) (a) ἢ τὸ ἔσται δή τι ὡρισμένον αὐτὸ τοῦτο δεδομένον τὸ σημαίνειν τι (b) τούτου δὴ δοθέντος ἔσται ἀπόδειξις τουτέστιν ἔλεγχος, οὗ ἐλέγχου αἴτιος οὐχ ὁ ἐλέγχων ἀλλ' ὁ ἐλεγχόμενος· ἐκ γὰρ ὧν δίδωσιν ἐλέγχεται.

thing by what he says" and that thing being definite to a universal claim that every *logos* signifies something that is definite. It is not clear whether we get an assent of the respondent to this move: this could be a part of this interpretation, or this generalisation could be derived by the questioner as a consequence of the single assumption granted at the beginning. The final step **(T5.1.c)** "but what is no more this than that is indefinite" entails that the denial of the claim that any x is no more this than that must now be given up by the respondent because it does not satisfy the condition on every *logos* that follows from the assumption he has earlier granted. This seems to be the rough idea of the first explanation. Alexander may be not totally happy with it, because it is not clear whether it is dialectically effective: what if the respondent only grants the signification claim but denies a more general claim and any further derivations?

On the second version **(T5.2),** the very thing that is granted, namely that the respondent signifies something, is understood to be "something definite" mentioned by Aristotle.[31] Once this response has been obtained, there will be a "demonstration, i. e., a refutation" of the denial of the PNC, for which the respondent and not the questioner will be responsible.

Alexander seems to make use of both interpretations in his commentary. The first interpretation based on the idea that the respondent must signify something definite is at the foundation of Alexander's interpretation of the argument from signification, as we shall see in § 3. It aims to give universal, or "global", refutation of PNC-denial. This interpretation has its difficulties. We already mentioned the need for justification of the generalised premiss (T5.1.b): it may be dependent on the argument from signification, but in this case the elenctic refutation as a whole will depend on this argument, which has not yet been fully explained at this point. Alexander may think that taken in a narrow exegetical sense, this understanding does not do justice to Aristotle's idea in this text.

The second interpretation, on the other hand, seems to be in better agreement with Aristotle's claim that the respondent, the denier of PNC, is responsible for this proof. While on the first version, the conclusion that something definite has been granted is *derived* from the initial concession by the respondent that he signifies something and then considered in a generalised form that is applicable to any similar objection, on the second version this conclusion that there will be something definite is seen as a part of what is being granted, so that the "demonstration" is taken to be produced by the respondent himself rather than derived by the ques-

31 Unless this is a paraphrase, we seem to have a different reading at 1006a24–25: where the MSS have ἤδη γὰρ τι ἔσται ὡρισμένον, Alexander reports ἔσται δή τι ὡρισμένον (274, 18).

tioner from his concession about signifying.[32] This argument lacks a generalised premiss which the first version has, so this refutation will have a "local" rather than "global" scope. But its merit is that it raises no questions about the provenance of the generalised premiss, and it agrees better with the terms of the discussion described by Aristotle so far. The fact that in Alexander's interpretation this version is given as the last one may indicate that Alexander himself prefers it to the first one.[33]

(T6) Alexander *in Metaph.* 274, 20–32

(1) And the one responsible for the refutation will be the one refuted, not the one refuting; for he is refuted out of what he himself grants. **(2)** For if [the one refuting] tried to argue from himself[34] that to be the case and not to be the case cannot be both true of the same thing at the same time, and assumed that speech signifies something and treated this as definite, he would appear to beg the question; **(3)** but since it is the one who supports that thesis who is forced to agree to this position, he is responsible for the refutation, because he does away with speech. **(4)** For one who says that everything is not more so than not so (this was to do away with [the notion of] contradiction) does away with speech. But in doing away with speech he makes use of speech. This is [the meaning of] "he abides by the speech" [1006a27]. **(5)** Aristotle proves by what he says that **(i)** one who says that speech signifies nothing says that speech has been done away with. **(ii)** Or if there is speech, there is also something posited as definite, and it is not true in every case that nothing is this rather than that. **(6)** And he was wary of appearing to be producing a demonstration in a strict sense because he set it out as indemonstrable and the principle of all the axioms.[35]

Alexander here explains how the refutation depends on the respondent. Alexander takes the structure of the refutation to be summarized in Aristotle's statement

32 Alexander appears to be drawing this distinction between the two arguments at 276, 3–6 (T10.1 below, discussed in section 3.2 below, pp. 305–307).

33 It may also indicate (although we have no evidence for this) that Alexander finds the first version in an earlier commentary which he is using while writing his own (e.g. by Aspasius, or his teacher Aristotle, sometimes identified as Aristotle of Mytilene, or some other earlier commentator on the *Metaphysics*)

34 "From himself" (ἀφ' ἑαυτοῦ): see n. 17 above.

35 **(1)** οὗ ἐλέγχου αἴτιος οὐχ ὁ ἐλέγχων ἀλλ' ὁ ἐλεγχόμενος· ἐκ γὰρ ὧν δίδωσιν ἐλέγχεται. **(2)** εἰ μὲν γὰρ ἀφ' αὑτοῦ δεικνὺς τὸ μὴ δύνασθαι ἐπὶ τοῦ αὐτοῦ ἅμα τὸ εἶναί τε καὶ μὴ εἶναι ἀληθεύεσθαι ἐλάμβανε τὸ τὸν λόγον σημαίνειν τι καὶ ὥριζε τοῦτο, ἐδόκει ἂν τὸ ἐν ἀρχῇ λαμβάνειν· **(3)** ἐπεὶ δὲ ὁ τῇ θέσει παριστάμενος ἐκείνῃ αὐτός ἐστιν ὁ ἀναγκασθεὶς συγχωρῆσαι τοῦτο, ἐκεῖνος τοῦ ἐλέγχου αἴτιος, ἀναιρῶν λόγον. **(4)** ὁ γὰρ λέγων πᾶν οὐδὲν μᾶλλον οὕτως οὐχ οὕτως ἔχειν (τοῦτο γὰρ ἦν τὸ ἀναιρεῖν τὴν ἀντίφασιν) ἀναιρεῖ λόγον. ἀναιρῶν δὲ λόγον χρῆται λόγῳ· τοῦτο γὰρ τὸ ὑπομένει λόγον. ἔδειξε δὲ δι' ὧν εἶπεν ὅτι ἀνῃρῆσθαι λέγει λόγον ὁ μηδὲν σημαίνειν αὐτὸν λέγων. **(5)** ἢ εἰ ἔστι λόγος, ἔστι τι καὶ ὡρισμένον τιθέμενον, καὶ οὐκ ἐπὶ παντὸς ἀληθὲς τὸ οὐδὲν μᾶλλον τοῦτο ἢ τοῦτο. **(6)** ἐφυλάξατο δὲ τὸ δοκεῖν κυρίως αὐτοῦ ἀπόδειξιν πεποιῆσθαι, ὅτι ἔκειτο αὐτὸ εἶναι ἀναπόδεικτόν τε καὶ ἀπάντων τῶν ἀξιωμάτων ἀρχή.

at 1006a26: 'for even doing away with the speech he abides by the speech' (ἀναιρῶν γὰρ λόγον ὑπομένει λόγον).[36] **(T6.2)** may be directed against the proof at **(T5.1)**, where what is granted by the respondent is clearly separated from the demonstration conducted by "us" on behalf of the questioner. It is clear from these texts and from what follows that Alexander has no quarrel with the nature of the moves made by "us" in that demonstration. However, because it is not clear how the acceptance of these further moves is secured in our elenchos, he probably sees these details as obscuring the general form of elenctic argument at this stage. What is important at this point is to show that the PNC-denier himself accepts the key premiss that leads to the refutation, on pain of being excluded from the rational conversation, rather than granting a neutral point from which a refutation can be derived by his questioner defending the PNC.

In **(T6.4)**, Alexander explains why denying the PNC puts one outside rational discourse. The PNC-denier holds that everything is no more thus than not thus, no more F than ~F, where F is any predicate. This does away with contradiction, not by reducing it to a further contradiction, but by denying its very concept, so that there is no work for the PNC to do. This position lacks consistency in a way more fundamental than could be acceptable for a respondent with inconsistent opinions: in this latter case the discovery of inconsistency by registering a contradiction does not need to annul the respondent's participation in the dialogue at least up to this point, whereas the PNC-denier who admits to not signifying anything locks himself out of rational discourse. Yet somebody who in this way destroys meaningful speech must still use meaningful speech to do so.

In **(T6.5)** Alexander summarizes Aristotle's refutation in the form of a dilemma which faces the PNC-denier: "Accept that you are not making any statements and take your exit, or agree that you signify something with your statements, and then you've lost". The first horn **(T6.5i)** corresponds to the "exit" option: if the respondent does not signify anything, he confirms that he makes no statement, and the discussion is over. The second horn **(T6.5ii)** corresponds to the "staying" option: the denier agrees that he signifies something and stays in the discussion, sticking to his denial of PNC, only to be forced to give up on it.[37] The following pas-

36 The expression translated here as 'abides by the speech' (ὑπομένει λόγον) is rare and occurs in rhetorical and polemical contexts in the meaning of countenancing or tolerating somebody's speech (e.g, Dionysius of Halicarnassus, *Antiquit. Rom.* VIII. 71.1.3, X.40.2.1, X.41,2,3) Alexander seems to take *logos* here as speech or account in general rather than the adversarial speech of the opponent more specifically (so too Asclepius *in Metaph.* 260, 33–34)

37 This passage has been analyzed differently by Madigan, who saw (i) and (ii) as two different interpretations of the refutation (Madigan 1993, p. 56 and n. 341), and Flannery, who took (T6.5ii)

sage confirms that this is Alexander's understanding of the overall structure of the argument and gives us a new version which more fully illustrates how the respondent, the PNC-denier, is in charge of his own refutation:

> **(T7) (1)** This person is responsible for his own refutation: not the one asking questions (if he who assumes this had assumed it from himself,[38] he would have appeared, as Aristotle said [1006a16–17, 20–21] to beg the question), but rather the respondent, who is forced either to do away with speech or to give answers that conflict with his own thesis. **(2)** And he adds the explanation. "*While, then, he* completely *does away with speech*" by his thesis[39] ((i) For one who says that in every case nothing is any more this than the opposite of this does away with speech. (ii) For he will say, as he says about other things, that speech too is no more than it is not. (iii) But this is [the stance] of one who does away with speech, because speech is significant vocal sound, and one who says that speech no more signifies than it does not signify would also do away with speech; (iv) but this is what one who says that in every case a contradictory pair can be true at the same time would say.) (3) *While he indeed does away with speech by his thesis, he agrees to it by his answers*; for when he says that speech signifies, he posits that there is speech, positing by his answer what he destroyed by his thesis (275, 8–20).[40]

In (T7.2 (i)–(iv)), we have the position of the PNC-denier presented as a reasoning concluding that speech is neither signifying nor not signifying, the claim that does away with speech (T7.2iii). So, the step whereby the respondent admits to signifying something supports rational discourse and destroys his own reasoning that nullified it.

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to be a third version of the argument (Flannery 2003, p. 129). Neither construal seems to me to be borne out by the text.

38 As before: i.e. as his own premiss (see nn.17, 34 above)

39 Alexander paraphrases and explains Aristotle's claim at 1006a26: ἀναιρῶν γὰρ λόγον ὑπομένει λόγον.

40 T7 (1) οὗτος δὲ τοῦ ἐλέγχου αἴτιος, οὐχ ὁ ἐρωτῶν (εἰ γὰρ αὐτὸς ἀφ' ἑαυτοῦ ἔλαβε τοῦτο ὁ λαμβάνων τοῦτο, ὡς εἶπεν, ἔδοξεν αὐτὸ τὸ ἐν ἀρχῇ λαμβάνειν), ἀλλ' ὁ ἀποκρινόμενος, ἀναγκαζόμενος ἢ ἀναιρεῖν λόγον ἢ μαχόμενα ἀποκριθῆναι τῇ θέσει τῇ αὐτοῦ. (2) καὶ προστίθησι τὴν αἰτίαν. ἀναιρῶν γὰρ ὅλως λόγον διὰ τῆς θέσεως ((i) ὁ γὰρ λέγων ἐπὶ παντὸς οὐδὲν μᾶλλον τοῦτο ἢ τὸ ἀντικείμενον αὐτοῦ λόγον ἀναιρεῖ (ii) ἐρεῖ γὰρ ὁμοίως τοῖς ἄλλοις καὶ τὸν λόγον μηδὲν μᾶλλον εἶναι ἢ μὴ εἶναι (iii) τοῦτο δὲ ἀναιροῦντος λόγον, ὅτι ὁ μὲν λόγος φωνὴ σημαντική, ὁ δὲ μηδὲν μᾶλλον σημαίνειν ἢ μὴ σημαίνειν λέγων αὐτὸν ἀναιροῖ ἂν καὶ οὗτος λόγον·(iv) λέγοι δ' ἂν τοῦτο ὁ λέγων ἅμα τὴν ἀντίφασιν ἀληθεύειν ἐπὶ παντὸς δύνασθαι) —(3) ἀναιρῶν δὴ λόγον διὰ τῆς θέσεως, δι' ὧν ἀποκρίνεται συγχωρεῖ· λέγων γὰρ τὸν λόγον σημαίνειν, τίθησιν εἶναι λόγον, ὃ διὰ τῆς θέσεως ἀνῄρει, τοῦτο διὰ τοῦ ἀποκρίνεσθαι τιθείς.

3 Argument from Signification

This section of Chapter 4 (1006a28–1007b18) is devoted to the explanation of the way in which signification depends on the PNC. This has to do with the notion of signifying and Aristotle explains the way it works using many examples.

3.1 Signifying Something: An Instance of Elenctic Reasoning?

Aristotle begins by explaining what he means by "signifying something" and why signifying nothing makes any discussion impossible.

> **(T8) (1)** First of all, it is clear that this itself is true, that the name signifies "being an F" or "not being an F", so that it is not the case that everything is so-and-so and not so-and-so. **(2)** Further, if "man" signifies one thing, let that be "biped animal". What I mean by "signifying one [thing]" is this: if that thing is a man, then if anything is a man, that thing will be to be a man. **(3)** But it makes no difference even if someone were to assert that it signified more than one thing, provided that these were definite; for a different name could be assigned to each formula: I mean, for instance, if one did not say that "man" signifies one, but many, of which one would have one formula "biped animal", and there were several others, but limited in number, he could assign a peculiar name for each formula. **(4)** But if, instead of so assigning, he were to assert that it signified infinitely many things, it is obvious that there would be no speech. **(5)** For not to signify one thing is to signify nothing, and if names do not signify, discussion with others is eliminated; and, in truth, even with oneself, since it is not possible even to think of anything for someone who is not thinking on one thing, and if it is possible, one name could be assigned to the object [of thought] (1006a28–b11).[41]

41 (1) πρῶτον μὲν οὖν δῆλον ὡς τοῦτό γ' αὐτὸ ἀληθές, ὅτι σημαίνει τὸ ὄνομα τὸ εἶναι ἢ μὴ εἶναι τοδί, ὥστ' οὐκ ἂν πᾶν οὕτως καὶ οὐχ οὕτως ἔχοι· (2) ἔτι εἰ τὸ ἄνθρωπος σημαίνει ἕν, ἔστω τοῦτο τὸ ζῷον δίπουν. λέγω δὲ τὸ ἓν σημαίνειν τοῦτο· εἰ τοῦτ' ἔστιν ἄνθρωπος, ἂν ᾖ τι ἄνθρωπος, τοῦτ' ἔσται τὸ ἀνθρώπῳ εἶναι (3) (διαφέρει δ' οὐθὲν οὐδ' εἰ πλείω τις φαίη σημαίνειν μόνον δὲ ὡρισμένα, τεθείη γὰρ ἂν ἑφ' ἑκάστῳ λόγῳ ἕτερον ὄνομα· λέγω δ' οἷον, εἰ μὴ φαίη τὸ ἄνθρωπος ἓν σημαίνειν, πολλὰ δέ, ὧν ἑνὸς μὲν εἷς λόγος τὸ ζῷον δίπουν, εἶεν δὲ καὶ ἕτεροι πλείους, ὡρισμένοι δὲ τὸν ἀριθμόν τεθείη γὰρ ἂν ἴδιον ὄνομα καθ' ἕκαστον τὸν λόγον· (4) εἰ δὲ μή [τεθείη], ἀλλ' ἄπειρα σημαίνειν φαίη, φανερὸν ὅτι οὐκ ἂν εἴη λόγος·(5) τὸ γὰρ μὴ ἓν σημαίνειν οὐθὲν σημαίνειν ἐστίν, μὴ σημαινόντων δὲ τῶν ὀνομάτων ἀνῄρηται τὸ διαλέγεσθαι πρὸς ἀλλήλους, κατὰ δὲ τὴν ἀλήθειαν καὶ πρὸς αὐτόν· οὐθὲν γὰρ ἐνδέχεται νοεῖν μὴ νοοῦντα ἕν, εἰ δ' ἐνδέχεται, τεθείη ἂν ὄνομα τούτῳ τῷ πράγματι ἕν).

Aristotle's first sentence **(T8.1)** is difficult: both what is taken to be true and the inference from it allow for several different interpretations.[42] As a further difficulty, Alexander's commentary here reports a different text: where the received text of Aristotle has "or" (ἤ) Alexander's lemma at 1006a28 has "and" (καί).[43] Whether or not this different reading influenced his interpretation of the passage is hard to say, but his interpretation differs from all others that have been offered.[44]

> **(T9) (1)** First, he says, given that things said signify something, it is true that the one who says that something "is" signifies something, and likewise the one who says that something "is not", but not that he signifies and does not signify. **(2)** And he referred to "being" and "not being" as the names. **(3)** If it is true of them that they signify and not true that they do not signify, then it is no longer the case that both the affirmation and the negation are true of everything. **(4)** For since "not signifying" is the negation of "signifying", it is not true of that which has been conceded to signify something. **(5)** For even if it does not signify, signifying would not be conceded, and so there would not be any speech. **(6)** And when he says "first of all, it is clear that this itself is true, that the name "being" signifies", having said this, he has added "a this", which indicates that the signifying [expression] signifies some definite nature. **(7)** For someone who signifies something for himself or for another always signifies a this or a that; namely, he signifies some of the things that are and something that differs from other things that are not signified by the same [expression]. For it is not the case that all [expressions] signify the same [things], nor are all things signified by one expression (275, 23–31).[45]

Alexander seems to take Aristotle's argument in **(T8.1)** as a concluding round of the elenctic demonstration. In what has been seen as a problematic move, he

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42 Kirwan, in his commentary (ad loc.), lists three interpretations different from Alexander's: (1) 'The name chosen signifies e.g. "(to be) man" or "not (to be) man" but never both ['or' exclusive]; so it is impossible to be both man and not man'….(2) 'One who says that x is e.g. a man signifies that x is, or is not, something in particular; so it is not everything whatever (whatever you like)'…(3) 'The name chosen signifies being or not being something; and that is the starting point from which we proceed to prove PNC'. (Kirwan 1971, p. 93)

43 πρῶτον μὲν οὖν δῆλον ὡς τοῦτο αὐτὸ ἀληθές, ὅτι σημαίνει τὸ ὄνομα τὸ εἶναι καὶ μὴ εἶναι [τοδί] (275, 21–22). This reading does not seem to be attested in other sources; see Kotwick (2016), p. 290.

44 Kirwan attributes two different interpretations to Alexander: '(4) 'The name chosen signifies to be or not to be something and does not also not signify that; so at least one predicate, "signify" does not share its contradictory with any of its subjects'. (5) 'the name "to be" or "not to be" signifies this particular thing' (Kirwan 1971, p.93) He considers both to be unsuccessful.

45 Τὸ πρῶτον, φησί, δοθέντος τοῦ τὰ λεγόμενα σημαίνειν τι, ἀληθές ἐστι τὸ σημαίνειν τι τὸν εἶναί τι λέγοντα καὶ τὸν μὴ εἶναί τι ὁμοίως, ἀλλ' οὐχὶ καὶ σημαίνειν καὶ μὴ σημαίνειν. ὀνόματα δὲ εἶπε καὶ τὸ εἶναι καὶ τὸ μὴ εἶναι. Εἰ δ'ἀληθὲς ἐπ'αὐτῶν τὸ σημαίνειν, οὐκ ἀληθὲς δὲ τὸ μὴ σημαίνειν, οὐκέτι ἂν ἐπὶ παντὸς καὶ ἡ κατάφασις καὶ ἡ ἀπόφασις ἀληθὴς ἂν εἴη· τοῦ γὰρ σημαίνειν τὸ μηδὲν σημαίνειν ἀπόφασις ὂν οὐκ ἔστιν ἀληθὲς ἐπὶ τῶν σημαίνειν τι συγχωρηθέντων. Εἰ γὰρ καὶ μὴ σημαίνοι, οὐκέτ' ἂν εἴη τὸ σημαίνειν συγχωρούμενον, οὕτω δὲ οὐκέτ' ἂν οὐδὲ ὁ λόγος εἴη.

takes τὸ εἶναι and τὸ μὴ εἶναι in Aristotle's text to be names **(T9.2).**[46] Alexander may be relying on *De interpetatione 3*, 16b19–22, where Aristotle says that verbs pronounced by themselves are names, so there is nothing to forbid μὴ εἶναι to be a naming and signifying expression.[47] It is perhaps important to see that Aristotle in the *De int*. 3 passage says that verbs spoken by themselves are names because they 'signify something' (σημαίνει τι) insofar as 'the speaker arrests his thought and the hearer pauses',[48] but they do not yet signify whether something is the case or not.[49] This latter clause defines the force of his claim that follows, that taken separately, "being" or "not being" do not signify "the thing" (τὸ πρᾶγμα). "Signifying the thing" involves signifying whether or not something is the case, whereas "bare" substantivated infinitives or participial constructions cannot do this latter job.[50] Aristotle here does not retract what he said in lines 16b19–21 about the verbs spoken by themselves being names. In Ammonius' commentary, we find the explanation of this point according to which the 'name' here stands for a signifying expression (54, 24 Busse) which may be going back to Alexander's lost commentary.[51]

Alexander explains in **(T9.3)** that each of these names does signify, and therefore the affirmative statement which says that "being" signifies is true, as is the similar affirmative statement about "not being". Both the negative statements which deny signifying to each of these two names, respectively, are false. Thus **(T9.4)** for each of these names we have a contradictory pair of affirmation and negation such that when one of the pair is true, the other is false. This would provide us with a position that differs from the total denial of PNC. We have to understand that these truth values underlying this position have also been granted by the opponent of the PNC. Avoiding the *petitio principii*, Alexander points out that, on the other hand, the case when the affirmation of signifying of either of these two names is taken to be false **(T9.5)** and the respective negation true will amount to the respondent's refusal to grant signifying in the elenctic demonstra-

46 Kirwan has this worry about Alexander's reading, pointing out a possible inconsistency with *De int.* 16b22–25, and he seems to be seconded by Whitaker, who does not name Alexander (Whitaker 1996, p.190, n. 11).

47 See further and n. 51 below.

48 16b20–21: ἴστησι γὰρ ὁ λέγων τὴν διάνοιαν, καὶ ὁ ἀκούσας ἠρέμησεν (Ackrill trans.)

49 16b21–22: ἀλλ' εἰ ἔστιν ἢ μή, οὔπω σημαίνει.

50 οὐ γὰρ τὸ εἶναι ἢ μὴ εἶναι σημεῖόν ἐστι τοῦ πράγματος, οὐδ' ἐὰν τὸ ὂν εἴπῃς ψιλόν (1006a22–23)

51 Alexander reiterates this point shortly in our text arguing that all the names according to Aristotle are by convention: τό τε γὰρ εἶναι καὶ τὸ μὴ εἶναι ὀνόματα αὐτοῦ. οὐδὲν γὰρ κωλύει καὶ τοῦτο γίνεσθαι ὄνομα, ὄντων κατὰ συνθήκην τῶν ὀνομάτων (280, 30–31). For Alexander's view on the nature of names, see also his Quaest. 3.11.

tion, thus closing the rational discussion in line with Aristotle's dialectical framework discussed in the previous section.

So, this argument is taken by Alexander as the application of the argument "from signifying" to the case of our denier of the PNC. Perhaps it has to be read as supporting his interpretation of the nature of elenctic refutation in **(T5.2)** above.

Modern interpretations of this passage differ on how to take the expressions τὸ (μὴ) εἶναι τοδί in **(T8.1).** Anscombe translates τὸ εἶναι τοδί or τὸ μὴ εἶναι τοδί, "to be (or not to be) a this" and argues that the expression τὸ εἶναι τοδί means the formula of essence, taking it to be in the category of substance.[52] Whitaker more recently has argued that τοδί need not be a substance and stand for a particular (τόδε τι), as well as quality, quantity, etc.[53] On his reading, the requirement of definiteness does not seem to entail any essentialist interpretation.

Now, despite an altogether different construal of the text, Alexander's interpretation of this passage seems to have something in common with both these approaches, but as I will try to show below it is distinct. Alexander in **(T9.6)** does read its account of signifying along essentialist lines, agreeing in this with Anscombe. He says that the names "being" and "not being" signify "a this", which in turn refers to "*some definite nature*" that differs from all other things. The meaning of this "definite nature" is not specified any further, and moreover, Alexander does not tell us what the nature signified by "being" and "not-being" is on his reading of the argument, postponing this explanation till the next step in Aristotle's argument. We will see in § 3.3 that his essentialist interpretation of the expression does not entail a substantialist interpretation of the category of τοδί: on this, he agrees with Whitaker.

3.2 Signifying One Thing vs. Many

In **(T8.2)**, Aristotle introduces a further requirement for a signifying expression: it should signify "one thing" (ἕν). In order to explain what he means by "signifying one thing" Aristotle introduces a stipulative definitional formula of a thing being signified in this way. When our respondent agrees that he signifies something by "man", for instance, he has to accept that the name "man" in all its occurrences stands for such a formula, e.g., "animal biped". In the case where a name is used homonymously **(T8.3)**, a different formula and a corresponding name can

52 Anscombe (1961), p. 39.
53 Whitaker (1996), p. 191.

be assigned to each different use to avoid saying that such-and-such a name signifies indefinitely many things. In this latter case, i. e., when a name signifies indefinitely many things **(T8.4)** there will be no rational discourse, and even thought itself will be eliminated **(T8.5).**

The exact force of this unity requirement has been a matter of controversy, and the example of "man" (ἄνθρωπος) does not make things clearer: are we to understand that this requirement can be met only by substances?[54] In order to see what Alexander's position is, it will be good to study his reading of Aristotle in some more detail.

Alexander provides us with his take on Aristotle's argument in the following summary. It is worth citing in full despite its length because Alexander himself introduces it as his synopsis of Aristotle's argument from signification.

(T10) Alexander *in Metaph.* 276, 3–28 (ad 1006a31–b11)

(1) Having assumed that the names signify and each of them signifies something definite, and having proved on this basis that someone who has granted this will no longer be able to state that this is no more than its opposite, **(2)** now using this he proves that the contradictory pair (ἀντίφασις) can in no case be jointly true (συναληθεύειν). **(3)** But he states and proves what he set out to prove by means of many arguments. The reason for this is that he takes instead those [premisses] through which he proves what he wants to prove and establishes *them* as the ones that must be assumed; this is why the text (λέξις) is less clear. **(4)** But for someone who has grasped it, the sense of the reasoning is as follows. **(5)** If each name signifies, it signifies some one thing. For that which signifies, signifies something, and what is something is one. For even if homonyms are said of several things, one who uses them and signifies something by them is not signifying all these things at the same time. **(6) (i)** The names that are different and do not signify the same thing as the name that was posited as signifying one thing clearly will not be said of that thing. **(ii)** For otherwise that [thing] would no longer have *the one nature*, if the names that are signifying different things were true of it. **(7)** (a) "Man" and "not-man" are different names, and not the names *of one thing*, **(b)** for they will be neither predicated of the same (ἐπὶ ταὐτοῦ), **(c)** nor will that which is signified by "not-man" be true of that which is signified by "man", **(d)** given that the names themselves differ from one another, and the different names express different [things], and *each name expresses one* [thing], *i. e., one nature* **(e)** For that which is signified by "man" will no longer be one, as has been said, if "not-man", which signifies another object, were also true of it. (The same argument as applies in the case of "man" and "not-man" applies in all other cases as well.) **(8)** But if the things revealed by these names do not belong together, then neither

54 Some commentators took it this way raising worries about a potential *petitio principii* committed by a questioner on this scenario and about potential confusion of sense and reference by Aristotle himself. This is an influential reading defended by Anscombe (1961). Other scholars have resisted this approach arguing for the unrestricted scope of signifying one thing in Aristotle's argument. More on this point below in § 3.3.

> would the affirmation saying that so-and-so is a man have as simultaneously true together the negation saying that so-and-so is not a man.[55]

Alexander first **(T10.1)** outlines the general structure of Aristotle's argument.[56] As already pointed out in the previous section,[57] he seems to take Aristotle's explanation at **(T8.1)** as an instance of elenctic demonstration against someone who denies the PNC but concedes to signifying something with his speech. The denial of this concession will exclude the respondent from rational discourse. So, on pain of that, the questioner can elicit from the respondent a concession of signifying and the rejection of non-signifying, which together can give us a position different from the denial of PNC. As Alexander is aware, this position is forced upon the opponent by the elenctic demonstration and it does not amount to establishing the PNC. It is not even an instance of PNC. The logical form of the outcome of this elenchos would be:

Sa & ~~Sa,

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55 (1) Λαβὼν ὅτι σημαίνει τὰ ὀνόματα καὶ ἕκαστον αὐτῶν τοδί, καὶ δείξας δι' αὐτοῦ ὅτι μηκέτι δυνήσεται λέγειν ὁ τοῦτο συγχωρήσας τὸ οὐδὲν μᾶλλον τοῦτο ἢ τὸ ἀντικείμενον αὐτοῦ, (2) νῦν τούτῳ προσχρώμενος δείκνυσιν ὅτι ἐπὶ μηδενὸς οἷόν τε τὴν ἀντίφασιν συναληθεύειν. (3) διὰ πλειόνων δὲ λέγει τε καὶ δείκνυσι τὸ προκείμενον. αἴτιον δὲ τούτου ὅτι μεταλαμβάνει τὰ δι' ὧν δείκνυσιν ὃ βούλεται, καὶ κατασκευάζει αὐτὰ ὡς δεόντως λαμβανόμενα· διὸ καὶ ἀσαφεστέρα ἡ λέξις. (4) ἐκλαβόντι δὲ ὁ νοῦς τῆς ἐπιχειρήσεως τοιοῦτος. (5) εἰ ἕκαστον ὄνομα σημαίνει, καὶ ἕν τι σημαίνει· τὸ γὰρ σημαῖνον τὶ σημαίνει, τὸ δὲ τὶ καὶ ἕν· καὶ γὰρ εἰ κατὰ πλειόνων τὰ ὁμώνυμα, ἀλλ' οὐχ ἅμα γε πάντα σημαίνει ὁ χρώμενος αὐτοῖς καὶ σημαίνων τι δι' αὐτῶν. (6) (i) τὰ διαφέροντα δὴ ὀνόματα καὶ μὴ ταὐτὸν σημαίνοντα τῷ κειμένῳ ἓν σημαίνειν δῆλον ὡς οὐ ῥηθήσεται κατ' ἐκείνου· (ii) εἴη γὰρ ἂν οὐκέτι μία φύσις ἐκείνου, εἰ τὰ διαφερόντων πραγμάτων σημαντικὰ ὀνόματα ἀληθεύοιτο κατὰ τοῦ αὐτοῦ. (7) διαφέροντα δὲ ὀνόματα τό τε ἄνθρωπος καὶ τὸ οὐκ ἄνθρωπος, καὶ οὐκ ἔστιν ἑνὸς ὀνόματα πράγματος· οὐ γὰρ ἐπὶ ταὐτοῦ κατηγορηθήσεται, οὐδὲ ἔσται ἀληθευόμενον κατὰ τοῦ σημαινομένου ὑπὸ τοῦ ἀνθρώπου τὸ σημαινόμενον ὑπὸ τοῦ οὐκ ἀνθρώπου, εἴ γε διαφέρει τε αὐτὰ τὰ ὀνόματα ἀλλήλων, καὶ τὰ διαφέροντα διαφερόντων ἐστὶ δηλωτικά, καὶ ἑνὸς ἕκαστον καὶ φύσεως μιᾶς· οὐ γὰρ ἂν ἔτι εἴη τὸ ὑπ' ἀνθρώπου σημαινόμενον ἕν, ὡς ἐρρέθη, εἰ ἀληθεύοιτο ἐπ' αὐτοῦ καὶ τὸ οὐκ ἄνθρωπος, ἄλλου πράγματος ὂν σημαντικόν. ὁ δὲ αὐτὸς λόγος ὃς ἐπ' ἀνθρώπου καὶ οὐκ ἀνθρώπου, καὶ ἐπὶ τῶν ἄλλων πάντων. (8) εἰ δὲ μὴ τὰ ὑπὸ τῶν ὀνομάτων τούτων δηλούμενα συνυπάρχει, οὐκ ἂν τῇ καταφάσει τῇ λεγούσῃ εἶναι ἄνθρωπον τόδε, ἅμα συναληθεύοιτο ἡ ἀπόφασις ἡ λέγουσα μὴ εἶναι ἄνθρωπον τόδε. (276, 17–27)

56 This part is skipped by Mignucci in his discussion and therefore he does not sufficiently appreciate that Alexander distinguishes between the elenctic refutation in a dialectical exchange as set out by Aristotle in 1006a18–31 and the argument from signification in 1006a31–b34 (which may be seen as directed against the strong form of the denial of PNC). See Mignucci (2003), p. 112.

57 See pp. 302–303 above.

where a is a respondent and S stands for 'signifies something with his speech'. The resulting statement is not logically equivalent to PNC, even though it provides a sort of case against the denial of PNC by showing the statement that such a denial is not true as *conceded* by the opponent of PNC.

At the next step, according to Alexander, Aristotle wants to prove that in no case can both parts of a contradictory pair be true together **(T10.2).** Aristotle conducts this next proof "making use" (προσχρώμενος) of what has been established in the elenctic refutation. Alexander tells us that this second proof is conducted διὰ πλειόνων, probably referring to a complex structure of the argument from signification. In the sentence that follows in **(T10.3)** he says that the reason for this more complex structure of the argument is that Aristotle additionally adopts, μεταλαμβάνειν, those premisses 'through which he will prove what he intends to prove' and establishes them as necessary assumptions, which gives an impression of unclarity. Μεταλαμβάνειν can also mean 'take instead' and in this meaning it may be a reflection on the use Aristotle makes of the elenctic demonstration, to which Alexander refers in the previous sentence **(T10.2).** While in the elenctic demonstration we have the main premiss provided by the respondent, and the conclusion has the force within this very narrow, "local" scope, the task of the argument from signification is to show that it is possible to have this kind of proof for a general case, starting from the premiss that each name signifies something. This kind of argument requires a more detailed discussion of the nature of signifying. Establishing these new assumptions 'as necessary' means showing that they are true and that the conclusion follows from them. This involves further additional steps in the argument.

In **(T10.4)** Alexander signals the opening of a "synoptic" argument which will provide the proof of the PNC based on the agreed assumption about signification, in its universal version, i. e., where the impossibility of contradiction depends already not on one "forced" quasi-counterexample, but on some universal feature of signification. The overall schema of the argument seems to be as follows:

If each name signifies, it signifies some one thing (T10.5)

The names that are different and do not signify the same thing will not be said of that thing. (T10.6)

'Man' and 'not-man'—and all the other names of this form (F and not-F)—are different names, and not the names of one thing (T10.7)

But if the things revealed by these names do not belong together, then neither would the affirmation saying that so-and-so is a man (x is F) have as simultaneously true together the negation saying that so-and-so is not a man (x is not F) **(T10.8)**

Each of these claims is established by means of clarifying arguments. So the proof 'by means of several arguments' refers to both several inferences involved

and several clarifications which establish the key concepts and show how inferences work.

In **(T10.5)** Alexander follows Aristotle as he explains what "signifying one thing" means by drawing a contrast between univocal and multivocal (homonymous) expressions. This contrast is helpful because it gives us an idea of what is ruled out by the requirement of the unity of the signified object. Homonyms share the same name but have different definitional formulae associated with these names, e.g., the name "bank" can signify a financial institution or a landscape feature (as in 'the left bank of the Forth') or a piece of garden furniture. This multivocity can be disambiguated if we assign a different name to each definitional formula (e.g., $bank_1$, $bank_2$, $bank_3$). If the same name, as a linguistic item, signifies more than one definitional formula, this will still not create a multivocity as long as the formulae are definite in number **(T8.3)** Aristotle in this whole argument seems to have in mind the opponents who will be looking for different methods of mitigating their concession of signifying one thing by making its scope more "inclusive", so as to include, ultimately, some possibility for deriving a contradiction. One of such moves towards a more "inclusive" treatment of the one is to say that each name signifies something one, but also many other things, as in the case of homonyms. Aristotle posits a limit to such an inclusion by demanding that the number of different things signified by one name be finite.

Alexander devotes a small digression to the question: "Why if each name were to signify more [things] that are definite, the rational discourse is not destroyed, even though the signified thing is not one, and if it were to signify unlimited [things], it is destroyed?" (278, 21–23). His discussion has a structure characteristic of some short treatises preserved in Alexander's school collections, *Mantissa* and *Quaestiones*, where we have the main question based on Aristotle's claim and different types of answer that could be given to this question.[58] Alexander gives five different arguments to explain and support Aristotle's position.[59]

> **(T10.5 A)** Either [1], first, everything definite and comprehensible is in a way one, so that even [a name] that signifies more things [than one], but a limited number, in a way signifies one thing. It is possible to circumscribe them, i.e., to separate them from the things that are not being signified, and to say that these are the things that are being signified, whereas with those that are unlimited this is impossible.

58 This type of a question belongs to *vera problemata* in Bruns' classification, where we have the statement of the puzzle and the arguments for proposed solutions (see Bruns 1892, pp. V-VII and Sharples 1992, p. 4).

59 Madigan notes arguments (i) and (ii) as two different explanations, but it its clear that the three short arguments that follow respond to the same question and all five form a single small treatise suitable as a basis for classroom discussion.

> Or [2] [Aristotle says] "to signify more [things], but a definite number" because it is possible for all those things that are taken as signified to be distinguished from each other and made definite by distinctive names, in this way [the names] would be signifying something.[60] But if each of the names signified an unlimited number of things, none of the things signified by a name could have a distinctive name or sign. But in this way even the names given to them could not be signifying anything, as they could no more be predicated of the things to which they are given than of those to which they were not given.
>
> Further, [3] if each of the names signifies an unlimited number of things, then each of the names would signify the same things. But if all names signify the same things, discussion and signification are destroyed. For no name signifies one thing if it is posited that all names signify the same things as each other. For to say that each name signifies all things is equivalent to saying that each name signifies nothing.
>
> It is also possible for someone who proceeds methodically to show in the following way that the things expressed by each name are not unlimited in number, though the proof is more dialectical. [4] If "man" signifies an unlimited number of things, then either [i] "man" also signifies "not-man" (for this too is included among the unlimited number of things), so that one who says "man" would also have signified "not-man"; or, if this is absurd, [ii] there will be some thing over and above the infinite number of things; the addition of not-man to the infinite number of things that "man" signified makes the things even more numerous; and thus the infinite number will be less than some higher number.
>
> Further, [5] either [i] the name "infinite" signifies non-infinite as well, and thus each name no more signifies an infinite number of things than it signifies a non-infinite number of things; or [ii] if it does not signify this as well, then, first, (a) it will not be possible [in that case] for the negation also to be true of that of which the affirmation is true; and further, (b) that which is signified by the name "non-infinite" will be outside the infinite number of things; the infinite number of things will be more numerous with the addition than they were by themselves. (278, 24–279, 14).

Alexander elucidates Aristotle's point that homonymy cannot be used by the opponents of PNC as a legitimate case to argue that a thing can be an F and not an F because a bank can be a financial institution and not a financial institution (insofar as we mean a riverbank). Aristotle resolves this problem explaining that any homonymy could be disambiguated and presented as a finite series of unambiguous (non-homonymous) names, each with its own signified object.

Alexander considers the question why such a series should be finite or limited. In the first argument the main reason he gives is that there should be a definite number of different signified things for each name, so that it would be possible to separate what is signified by this name from what is not signified by it. The con-

60 The text at 278, 27–30, is uncertain. I read: ἢ τὸ 'πλείω σημαίνειν, ὡρισμένα δὲ' τῷ δύνασθαι πάντα τὰ σημαινόμενα ληφθέντα διακριθῆναί τε ἀπ'ἀλλήλων καὶ ἰδίοις ὀνόμασι ὁρισθῆναι, τούτῳ ἂν εἴη σημαίνοντα τι.

trast seems to be not with the case when we have an infinite number of signified objects, i.e., definitional formulae, corresponding to one ambiguous name.[61] The claim is not that even if this original ambiguity is resolved in a distinct way by each of these formulae, we cannot say the same with regard to the original ambiguous term on the whole. Rather the claim seems to be that in the case of infinite number of significata, it will be impossible to assign a distinct name to each of them, and the original term will be permanently ambiguous.[62]

This point seems to be spelled out more clearly in the second argument, where Alexander says that if each name signified an unlimited number of things, it would be impossible to have a distinct name for any of those things. The limit on the number of "things" signified by a name is imposed by the definitional formula whose negation serves as a definitional formula for those things that are not signified by this name.

What is being resisted in both this and the previous argument is an attempt to introduce the concept of signifying bypassing the question of how this signification is fixed. As soon as we have an Aristotelian answer to this question, namely, that it is fixed by means of a definitional formula, it becomes impossible for the name so defined to signify an infinite number of things. In the argument [3] Alexander points out that signifying an infinite number of things means that all names will signify the same things, and this will destroy the signification.

These three short arguments are distinguished by Alexander from the following two, which are described as "more dialectical": this striking description immediately precedes argument [4], but the nature of the proof in both arguments seems very similar and most likely the description is intended for both. While the arguments [1]-[3] are directly showing how taking the object of signification to be un-

61 In this sense, Alexander agrees with Kirwan and Dancy that the unlimited in question is not an infinite series but lack of definition in the case of each signified object, i.e., each definitional formula. Neither Aristotle nor Alexander say much about what provides such a formula with unity and limitedness, but it is clear from counterexamples that a formula must answer stronger criteria than just any syntactically well-formed combination of names. See Kirwan (1993), p. 94, and Dancy (1975), pp. 83–87.

62 The case where we could have an infinite number of finite well-formed definitional formulae does not seem to be considered by either Aristotle or Alexander. The reason may be once again that Aristotle's concern is to rule out the case where accepting an indefinite number of names as a potentially infinite series (in accordance with Aristotle's own definition of the infinite in Physics 3.6, as that of which some part is always beyond), leaves open a possibility that at one of the future assignments of meaning to an ambiguous term will bring about an ambiguous or, worse, contradictory definitional formula. The actually infinite multiplicity of good formulae is much less problematic in this respect (this agrees with the argument about Aristotle's actual infinities developed recently by Jacob Rosen in Rosen 2021).

limited leads to the impossibility of signifying and rational discourse, in the two last arguments, [4] and [5], the discourse is destroyed by the absurd consequences of the assumption that a name can signify things without a limit. In the argument [4], the first absurd consequence [i] is that "man" signifies the same as "not-man", and that is described as absurd. But of course, it is absurd for Alexander and his students, whereas for Aristotle's opponents this is exactly a desideratum as a position to take in the elenctic demonstration. So, this particular reduction to absurdity by Alexander cannot be very strong because it begs the question. The second consequence [ii] is based on a familiar kind of reduction to what is greater than infinity.

Argument [5] treats "infinite" as a name and shows that it either [i] does not properly signify "infinite" in that it also signifies the "finite" or [ii] if the opponent denies that it signifies the finite, this will (a) amount to his denial of his rejection of PNC and (b) lead to the thing "greater than the infinity", because if what is finite is outside the scope of what is infinite, the two together would make something that is greater than the infinite.

The names that are different and do not signify the same thing as the name that has been posited as signifying one thing will not be spoken of that thing **(T10.6):** e. g., $bank_2$ will not be spoken of a financial institution, nor $bank_1$ of a piece of garden furniture. Alexander explains the reason for this: the nature of that thing would not be one, or single, if the names that were signifying different things were true of it. It is clear from our text that **(T10.6)** continues the discussion of the possible counterexample of homonyms started in **(T10.5).**[63]

In order to understand these arguments, it is good to keep it in mind that by "things signified" Alexander, following Aristotle, means not the extensions of the predicates or formulae used to explain the signification but the objects as specified by stipulative definitional formulae. "Circumscribing" definite names is thus done by these definitive formulae—and also, as we can see from some of these arguments, by their negations, which too, in their turn, have the function of circumscribing and will thus "signify something one".

Two problems have been raised in connection with this view. The first was originally a question for Aristotle, which we can now forward to Alexander: are the things signified by names only substances? The second was raised recently by Mario Mignucci and had to do with the coherence of this argument and the account of signification that underlies it.

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63 Mario Mignucci in his reconstruction of Alexander's argument omits the discussion of homonyms and takes **(T10.6)** as a separate self-standing premiss (γ) which he considers to be false or at least in need of a supplement. But his reconstruction omits some crucial parts of the context. More on this in § 3.4. See Mignucci (2003), pp. 112–116, with a reconstruction of premisses on p. 112.

Mario Mignucci argued that the fact that two different names may have no single nature does not forbid us to predicate them of the same subject: e.g., the names "man" and "white" can be both truly predicated of Callias without any contradiction. The suggestion he makes is that Alexander should distinguish between the predicate which expresses the signified relatively to the subject ("identifying predication"), and the predicate which does not express the signified relatively to the subject ("non-identifying predication"). In the former case, the predicate will express the nature of the subject and in the latter case not: e.g., "man" expresses the nature of the subject (Callias) and "white" does not express the nature of the subject.[64] In this way, presumably, it will be possible to derive the PNC for both the identifying and non-identifying predication by reasoning about signification.

In order to see how this argument works, it will be useful to take into account a further distinction drawn by Aristotle, between "signifying one thing" and "signifying about one thing". Alexander presupposes it in this argument.

3.3 Signifying One Thing vs. Signifying About One Thing

For his conclusion in this argument, Aristotle still needs a further distinction between signifying *one thing* and signifying *about one thing*. This distinction will allow him to establish that what is signified by a name cannot be signified by its negation, a key step in deriving the PNC "from signification".

This is a complex argument, and before reading it with Alexander, it will be good to have a general outline of its structure. In doing so, I will not discuss in detail the problems of each step in order to keep the overall framework clear.

> **(T11) (1)** Let the name, then, as was said originally, signify something and signify one thing. **(2)** "To be man" cannot signify the same as "not to be man", if "man" signifies not just *about one thing*, but *signifies even that which is one.* For we do not consider that as signifying one thing, namely that which signifies about one thing, since in this way also the "musical", the "white", and the "man" would signify one thing, so that all will be one: for they would be synonyms. **(3)** And it ["to be man"] will not be to be and not to be the same thing, except homonymously, as if, for instance, what we were calling "man", others would be calling "not-man". But the question is not whether something can be the same and not the same in respect of name, but in respect of the thing. **(4) (a)** And if "man" and "not man" do not signify different things, **(b)** it is clear that there will be no difference between "not to be man" and "to be man", **(c)** so that "to be man" will be "not to be man"; **(d)** for they will be one. For being one means this: as in the case of garment and cloak, if their definition is one.(e) And if

64 Mignucci (2003), pp. 115–116.

> ["man" and "not man"] are one, **(f)** then "to be man" and "not to be man" will signify one thing. **(g)** But it has been shown that they signify different things. **(5) [Concluding argument] (a)** Therefore it is necessary, in order to make a true statement that something is a man, to say that it is a biped animal (for this was what "man" signifies). **(b)** But if this is necessary, then it cannot fail to be the biped animal (for "necessary" means "impossible not to"). **(c)** Therefore it is impossible to say that it is true that the same thing simultaneously is and is not a man (1006b11–b34).[65]

In (T11.1) Aristotle restates the assumptions of his argument. (T11.2–4) provides us with the claim that "to be man" and "not to be man" signify different things (T11.2); the expression of the form "to be man" will not signify being and not being the same thing, except by homonymy (T11.3); (T11.4) proves that "man" and "not-man" signify different things.

The concluding argument (T11.5) is: (a) if it is true to say of something that it is a man, then it must be a biped animal (the signified of the name "man"); (b) if this is necessary, then it is impossible for it not to be a biped animal. (c) Then it is impossible to say that it is true that the same thing simultaneously is and is not a man. I'll consider the concluding argument (T11.5) in the next section. Now, let us concentrate on the distinction between the two types of signifying.

The distinction between signifying one thing and signifying about one thing is drawn as an auxiliary step in the proof of the claim that "to be man" cannot signify the same as "not to be man" (T11.2). Without this distinction, the names "musical", "white", and "man", when signifying *about one thing*, will all be *signifying one thing*.

The *one thing* these three different names are signifying *about* is taken to be an individual, e.g., Socrates, of whom all these three predicates are true. This is

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65 (T11)(1) ἔστω δή, ὥσπερ ἐλέχθη κατ' ἀρχάς, σημαῖνόν τι τὸ ὄνομα καὶ σημαῖνον ἕν· (2) οὐ δὴ ἐνδέχεται τὸ ἀνθρώπῳ εἶναι σημαίνειν ὅπερ ἀνθρώπῳ μὴ εἶναι, εἰ τὸ ἄνθρωπος σημαίνει μὴ μόνον καθ' ἑνὸς ἀλλὰ καὶ ἕν (οὐ γὰρ τοῦτο ἀξιοῦμεν τὸ ἓν σημαίνειν, τὸ καθ' ἑνός, ἐπεὶ οὕτω γε κἂν τὸ μουσικὸν καὶ τὸ λευκὸν καὶ τὸ ἄνθρωπος ἓν ἐσήμαινεν, ὥστε ἓν ἅπαντα ἔσται· συνώνυμα γάρ). (3) καὶ οὐκ ἔσται εἶναι καὶ μὴ εἶναι τὸ αὐτὸ ἀλλ' ἢ καθ' ὁμωνυμίαν, ὥσπερ ἂν εἰ ὂν ἡμεῖς ἄνθρωπον καλοῦμεν, ἄλλοι μὴ ἄνθρωπον καλοῖεν· τὸ δ' ἀπορούμενον οὐ τοῦτό ἐστιν, εἰ ἐνδέχεται τὸ αὐτὸ ἅμα εἶναι καὶ μὴ εἶναι ἄνθρωπον τὸ ὄνομα, ἀλλὰ τὸ πρᾶγμα. (4)(a) εἰ δὲ μὴ σημαίνει ἕτερον τὸ ἄνθρωπος καὶ τὸ μὴ ἄνθρωπος, (b) δῆλον ὅτι καὶ τὸ μὴ εἶναι ἀνθρώπῳ τοῦ εἶναι ἀνθρώπῳ, (c) ὥστ' ἔσται τὸ ἀνθρώπῳ εἶναι μὴ ἀνθρώπῳ εἶναι· (d) ἓν γὰρ ἔσται. τοῦτο γὰρ σημαίνει τὸ εἶναι ἕν, τὸ ὡς λώπιον καὶ ἱμάτιον, εἰ ὁ λόγος εἷς· (e) εἰ δὲ ἔσται ἕν, (f) ἓν σημανεῖ τὸ ἀνθρώπῳ εἶναι καὶ μὴ ἀνθρώπῳ. (g) ἀλλ' ἐδέδεικτο ὅτι ἕτερον σημαίνει. (5) (a) ἀνάγκη τοίνυν, εἴ τί ἐστιν ἀληθὲς εἰπεῖν ὅτι ἄνθρωπος, ζῷον εἶναι δίπουν (τοῦτο γὰρ ἦν ὃ ἐσήμαινε τὸ ἄνθρωπος)· (b) εἰ δ' ἀνάγκη τοῦτο, οὐκ ἐνδέχεται μὴ εἶναι <τότε> τὸ αὐτὸ ζῷον δίπουν (τοῦτο γὰρ σημαίνει τὸ ἀνάγκη εἶναι, τὸ ἀδύνατον εἶναι μὴ εἶναι [ἄνθρωπον])· (c) οὐκ ἄρα ἐνδέχεται ἅμα ἀληθὲς εἶναι εἰπεῖν τὸ αὐτὸ ἄνθρωπον εἶναι καὶ μὴ εἶναι ἄνθρωπον.

suggested by Aristotle's own use of an example of an individual,[66] and Alexander understands this example in the same way.[67] This understanding of the subject of predication as an individual has led some scholars to identify an individual with an individual substance of the *Categories* and thus to an interpretation of the scope of the argument "from signification" as restricted to substances only. On such a view, of our three names, "man", "white", and "educated", only "man" signifies *one thing* when thus signifying *about one thing*, whereas the other two expressions signify something *about one thing*, but do not signify *one thing* in the sense required by Aristotle.

The argument to this effect, connecting this passage with Aristotle's discussion of substance in the *Categories* and *Metaphysics* Z, has been given by Elizabeth Anscombe.[68] In relation to our text, the reasoning behind such a reading would go as follows: "man" is the most important of all the names predicated of Socrates, because it expresses what Socrates is as an individual, and it must hold of Socrates as long as Socrates exists. The expressions "white" and "musical", although true of Socrates, do not express what he is and must not hold of Socrates always in the same way as "man", but sometimes their negations can also be true of Socrates, such as "not-white" and "not-musical". Even if we assume that "white" can signify as "something one", the individual white colour that is "in" Socrates as "in a subject", in the sense of the *Categories* 2, there exists an insoluble ambiguity about whether in "signifying one thing that is white" the "one thing" is to be understood as (a) a white colour present in Socrates as in a subject—if so, our signification would be *per se*, having as its object a *per se* existent which is not said of anything further (*Cat*. 2, 1a25–29), or (b) a thing which has white colour, as in the reading of our example mentioned above, e. g., "white man", where the signified of a name "man" does not possess an attribute "white", but can have it accidentally—this meaning of a white thing (τὸ λευκόν) will not satisfy the criteria for Aristotle's "one thing" because it belongs to an entity of which the predicate "not-white" can also truly hold.[69] This ambiguity cannot be clarified in the case of such predicates as "white" and "educated" because the presence of a subject in which the *per se* existents they signify (i. e., the individual properties of being white and educated "owned" by a given individual substance) must always be presupposed in their signification. Anscombe thought we could get support for this interpretation—or evidence of Aristotle's confusion on this point—by clarifying the scope of the modal

66 In the argument "from substances", 1007b5–15.

67 See T12 below.

68 Anscombe (1961); a similar view is expressed by Lear (1980), pp. 106–110 and Furth (1986), pp. 376–381.

69 Anscombe (1961), pp. 41–43.

operator of necessity in the concluding argument where Aristotle derived an instance of the PNC for "man" (1006b28–34). But she admitted that *prima facie* the concluding derivation permits a construal that accounts for the unrestricted scope of the whole argument.[70]

Several more recent works argue for the unrestricted scope of PNC in the argument from signification but do not address the role of the distinction between "signifying about one" and "signifying one" in their interpretations.[71]

What about Alexander? He sees the distinction between *signifying one* and *signifying about one thing* as implicit in Aristotle's account of signification which he uses in his "synoptic argument" (in **(T10)**). Explaining the concept of "signifying one thing", he says:

> **(T12) (1)** What the signified object is, he defines and makes known by means of showing that it is not the case that if something is said about something, this already signifies one thing, as he will also say further down. **(2)** For it is not the case that if "white" is said *about* Socrates, then Socrates and "to be Socrates" are also signified by the white. **(3)** As for all those things that are predicated *so as to signify nature and essence, as is the case with those predicated in "what it is"*, they are taken as signifying one thing, and in this way something one is signified by each of the names. **(4)** And he explained in what sense he said "signifying one thing" lest someone should think that he means one numerically, nor that a numerically one thing should be called one, as he will say, but *a certain one nature.* **(5)** For if "man" signifies a biped animal, then "to be man" will consist in being a biped animal (276, 37–277, 9).[72]

In (T12.1), the formula "something is said about something" from Aristotle's definition of premiss[73] refers to any well-formed statement, such as "Socrates is white" (T12.2) which is contrasted with predication in the genus "what is it?" (T12.3) Alexander points out in (T12.2) that in the ordinary predication, the name that ex-

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70 Anscombe (1961), p. 44.

71 The "unrestricted" reading is supported, on different grounds, by Dancy (1975), Kirwan (1993), Whitaker (1996), and Wedin (1999). Kirwan and Wedin argue for it on the basis of the logical structure of the concluding argument (1006b28–34). Whitaker's unrestricted interpretation seems to be based on the view of Aristotle's signification according to which words pick out things (Whittaker 1996, p. 195), but the role of essence in the process of "picking" does not seem to be very important.

72 (1) τί δέ ἐστι τὸ σημαινόμενον, ὁρίζεται καὶ γνώριμον ποιεῖ ὑπὲρ τοῦ δεῖξαι ὅτι μή, εἴ τι κατά τινος λέγεται, ἤδη τοῦτο καὶ ἓν σημαίνει, ὡς καὶ προϊὼν ἐρεῖ. (2) οὐ γὰρ εἰ τὸ λευκὸν κατὰ τοῦ Σωκράτους λέγοιτο, ὁ Σωκράτης καὶ τὸ εἶναι Σωκράτει ὑπὸ τοῦ λευκοῦ σημανθήσεται. (3) ὅσα δὴ οὕτω κατηγορεῖται ὡς φύσιν τε καὶ οὐσίαν σημαίνειν, ὡς ἔχει τὰ ἐν τῷ τί ἐστι κατηγορούμενα, ταῦτα ὡς ἓν σημαίνοντα λαμβάνεται, καὶ οὕτως ὑφ' ἑκάστου τῶν ὀνομάτων ἕν τι σημαίνεται. (4) ἐξηγήσατο δὲ πῶς εἶπε τὸ ἓν σημαίνειν, ἵνα μὴ ἓν κατὰ τὸν ἀριθμόν τις αὐτὸν ἡγῆται λέγειν, μηδὲ ἓν τὸ καθ' ἑνὸς τῷ ἀριθμῷ λέγεσθαι, ὡς ἐρεῖ, ἀλλὰ μίαν τινὰ φύσιν. (5) εἰ γὰρ ὁ ἄνθρωπος ζῷον δίπουν σημαίνει, καὶ τὸ ἀνθρώπῳ εἶναι ἐν τούτῳ ἔσται ἐν τῷ ζῴῳ δίποδι εἶναι.

73 *An. Pr.* 1.1, 24a16–17.

presses the predicate does not necessarily signify the subject of the statement. By contrast, in the case of the predication "in what-it-is", the predicate expression will signify the subject of the statement (e.g., "Socrates is a man"). (T12.3) This distinction is introduced in order to make it clear that "signifying one thing" should not be taken as referring to the thing which is one numerically (T12.4). "Signifying one thing" means signifying *nature* and *essence* (*ousia*) rather than something that is numerically one (T12.3–4).

The terminology of "*ousia*", "nature", and "things predicated in what it is" in (T12.3) might suggest that Alexander takes "signifying one thing" to be restricted to the category of substance, along the lines of Anscombe's reading above. Therefore, it is important to show that this is not the case.

As we can see in (T12), Alexander relates the distinction between the two kinds of signifying to the difference between two types of predication. Signifying *about one thing* is what a name is doing as a standard predicate of one thing about another, *ti kata tinos* (T12.1) Signifying *one thing*, which means signifying *nature and substance (ousia),* characterizes the predicates in "what it is" (ὡς ἔχει τὰ ἐν τῷ τί ἐστι κατηγορούμενα) **(T12.3)**.

One way of understanding the latter kind of predicates would be indeed to take them to be substances, the first of the ten highest genera of being: in his list of ten categories in the *Topics* 1.9 Aristotle uses the expression τί ἐστι instead of οὐσία for what we translate as "substance" (103b20), a variation duly noted by Alexander in his commentary who, however, remarks also that τί ἐστι is used in many ways.[74]

The weakness of this interpretation of the predicates 'in what it is' (from **T12.3**) is that it reduces the difference between the two kinds of signifying to the categorial difference between the predicates in the category of substance and the predicates in the non-substantial categories. But there is nothing in either Aristotle or Alexander to suggest such a reduction. In *Metaphysics* Γ, Aristotle does not exclude substances from "signifying about one thing": in his example, "man", as well as "white" and "educated", can signify "about one thing", e.g., individual Socrates. "Man" is then taken as an example of "signifying one thing", but this is not enough to suggest that such signifying is reserved for the class of substance-predicates.[75] If this example entailed that the names "white" and "educat-

74 Alexander *in Top*. 65, 17–19: "Instead of 'substance' Aristotle adopts the phrase 'what-it-is': for substance is what is in the strict sense, and the 'what it is' and the definition are strictly of substance, even if 'what it is' is used in more than one way" (trans. Van Ophuijsen).

75 Marco Zingano is one of very few authors who discusses this problem and correctly rejects this version of "essentialism" (Anscombe-style; see Zingano 2008, p. 409 n. 5). But Zingano treats in the

ed" do not signify, respectively, one thing each, Aristotle probably would have indicated this, as this would be an important exception to his argument from signification. It is more promising therefore not to stick with substantialist interpretation of signifying one thing, but to see if we could make any sense of "signifying one thing" as a property of any predicate, not alternative to, but distinct from "signifying about one thing". What exactly might be this property?

We know that "man", according to the *Categories*, is "said of" "this man, e.g., Socrates" as "man" and "Socrates" share a definitional formula ("biped animal").[76] This would be a special way in which "man" is said of Socrates, but "white" and "educated" are not. On the other hand, "white" and "educated" could conceivably be predicated in a similar way, as "being said of something", of an individual taken to be "this white" and "this educated thing". We have indirect evidence that Aristotle sees it this way in the *Categories* 2, where Aristotle distinguishes the class of things that are in a subject *and* are said of the subject.[77] And there is more direct evidence in *Topics* 1.9, where Aristotle uses the expression τί ἐστι in a sense different from the above mentioned[78] but also technical, as signifying any one of the ten highest kinds, namely, the one to which the predicate expressed in the predication belongs. [79]

> (T12 A) Aristotle, *Topics* 1.9, 103b27–(1) It is clear from this that he who signifies the "*what-it-is*" signifies sometimes substance, sometimes quantity, sometimes quality, and sometimes some of the other categories. (2) For when about a given man he says that the given one is a man or an animal, he says what it is and signifies substance. (3) When about a given white colour he says that the given is white or a colour, he says what it is and signifies quality. (4) Similarly, if about a given length of a cubit he says that the given is a cubit long in respect of magnitude, he says what it is and signifies quantity. (5) And similarly with the rest. (a) For each of such [things], if it is said either about itself or about the genus of it, signifies what it is. (b) But

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same way a different kind of essentialism, the one that seems to be closer to Alexander's version that I am exploring here.

76 *Categ.* 2, 1a20–22.

77 *Categ.* 2, 1a29–b3. This example is much discussed in connection with the problem of the ontological status of non-substantial individuals, especially with the problem of recurrence. For the current discussion, it is important that Aristotle has room for the case where X is legitimately 'said of' Y, where Y is a non-substantial individual, no matter how clear or felicitous this particular example is, and no matter what we think of the recurrence of Y. What is important is that there are non-substantial universals and they are said of their corresponding individuals.

78 *Top*. 103b20 and n.64 above.

79 This text, and the exact ontological status of τὸ τί ἐστι has been much discussed. See, in particular, Michael Frede's paper on the nature of the categories in Aristotle (Frede 1981). My task here, though not unrelated to the problems discussed by Frede, is more narrowly circumscribed: to find some support for non-substantial predication in 'what-it-is' (proposed by Alexander) in the texts of Aristotle.

> when it is said about another thing, it does not signify what it is, but quantity or quality or a certain one of the other categories.[80]

Aristotle distinguishes two types of categorial predication: one when the subject and the predicate are in the same category (say, "man" is predicated of this man, e.g., Socrates, or "colour" of this white colour) and another when the subject and predicate are in different categories (e.g., "Socrates is white").

When predication is in the same category its predicate signifies the "what-it-is" and the category in question. Thus, if we say "the white of this page is white" we signify the "what-it-is" of the white of this page and its quality: both are expressed by "[colour] white". If we say "the white of this page is a colour", we signify the "what-it-is" of the white of this page and its quality: both are expressed by "colour" (the genus of white and a kind in the highest genus of quality).

When subject and predicate are in different categories, the predicate does not signify the "what-it-is" but signifies only its own category. Thus, if we say "Socrates is white", "white" signifies a quality (of whiteness or colour white), but does not signify any "what-it-is".

Alexander, in his commentary on this *Topics* passage, explains that the cases of predication in the same category, when the predicate signifies this category and "what-it-is", include: predication of a thing of itself, predication of a genus of a thing, and predication of the definitional formula of a thing:

> **(T12B) Alexander *in Top.* 67, 3–(1)** That the *what-it-is* is given in each category, and that what is predicated in the *what-it-is* can be obtained for each category, this, as I have said, Aristotle shows by induction. **(2)** For each of the things under each category, whether the thing is itself said of itself, as e.g., that the man is man or the white is white, and so with the other categories, <or whether> it gives the genus appropriate to it, "signifies *what-it-is*". **(3)** Similarly, when someone gives the definition of each thing, he too states the *what-this-thing-is:* for it is equivalent to pronounce the man man or biped land animal, for in both expressions it is said about itself, and both have the same extension, which is why he has taken the name instead of a definition. **(4)** But when the thing predicated is not of the same genus as the subject but is said of another thing (for this is the sense of "but when one thing is said of another thing"), then the genus of the problem will be from the same category as

80 (1) δῆλον δ' ἐξ αὐτῶν ὅτι ὁ τὸ τί ἐστι σημαίνων ὁτὲ μὲν οὐσίαν σημαίνει, ὁτὲ δὲ ποσόν, ὁτὲ δὲ ποιόν, ὁτὲ δὲ τῶν ἄλλων τινὰ κατηγοριῶν. (2) ὅταν μὲν γὰρ ἐκκειμένου ἀνθρώπου φῇ τὸ ἐκκείμενον ἄνθρωπον εἶναι ἢ ζῷον, τί ἐστι λέγει καὶ οὐσίαν σημαίνει· (3) ὅταν δὲ χρώματος λευκοῦ ἐκκειμένου φῇ τὸ ἐκκείμενον λευκὸν εἶναι ἢ χρῶμα, τί ἐστι λέγει καὶ ποιὸν σημαίνει. (4) ὁμοίως δὲ καὶ ἐὰν πηχυαίου μεγέθους ἐκκειμένου φῇ τὸ ἐκκείμενον πηχυαῖον εἶναι μέγεθος, τί ἐστι λέγει καὶ ποσὸν σημαίνει. (5) ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων· ἕκαστον γὰρ τῶν τοιούτων, ἐάν τε αὐτὸ περὶ αὐτοῦ λέγηται ἐάν τε τὸ γένος περὶ τούτου, τί ἐστι σημαίνει· ὅταν δὲ περὶ ἑτέρου, οὐ τί ἐστι σημαίνει ἀλλὰ ποσὸν ἢ ποιὸν ἤ τινα τῶν ἄλλων κατηγοριῶν.

> the thing predicated. **(5)** It then no longer signifies the what-it-is, for a thing from one category is not predicated of a thing in another category as what-it-is; one thing is stated of another in those in which the thing predicated is an accident (trans. Van Ophuijsen, modified).[81]

Alexander takes Aristotle's examples in (T12 A2–5) to be parts of an inductive proof showing that each category has its own frame for signifying "what-it-is". He spells out the results of Aristotle's argument by stating the types of predication in each category which correspond to signifying "what-it-is". In ordinary predication, where subject and predicate are in different categories, there is no predication in "what-it-is".

Moreover, every category also has its own qualified οὐσία. In the *Metaphysics* Δ, explaining the senses of οὐσία, Aristotle mentions the meaning which he describes as the substance of each thing (οὐσία ἑκάστου): "also the what-it-was-to-be, whose formula is a definition, and this is said to be the substance of each thing".[82] Aristotle devotes just a line and a half to this meaning of οὐσία as οὐσία ἑκάστου, but Alexander's commentary elaborates on it and allows us to see that Alexander takes for granted the essences that correspond to non-substantial categories:

> (T12C) Alexander *in Metaph.* 374, 37—375, **9** (1) In addition to the above-mentioned meanings, Aristotle says, they call substance (οὐσία) the 'essence whose formula is definition'. For when asked what essence is we say that it is definition (and he uses a more general expression 'formula' (λόγος) for definition (ὁρισμός)).(2) He says in fact that substance (οὐσία) is also the definition of each thing, namely of that of which it is the definition, not without qualification. In this way there could be the substance (οὐσία) of a quality, a quantity, and likewise all the rest. (3) This would be different from the enmattered form which he mentioned shortly before [1017b14–16] as the cause for each of the substances to be the one it is, because that one is in things put together naturally and is a natural form and is substance (οὐσία) in a strict sense, whereas that which is discussed now is the form according to which each thing has

81 (1) ὅτι καθ' ἑκάστην κατηγορίαν τὸ τί ἐστιν ἀποδίδοται, καὶ ὅτι τὸ ἐν τῷ τί ἐστι κατηγορούμενον καθ' ἑκάστην λαμβάνεται, τῇ ἐπαγωγῇ, ὡς εἶπον, δείκνυσιν. (2) ἕκαστον γὰρ τῶν ὑφ' ἑκάστην κατηγορίαν, ἄν τε αὐτὸ περὶ ἑαυτοῦ λέγηται, οἷον ὅτι ὁ ἄνθρωπος ἄνθρωπός ἐστιν ἢ τὸ λευκὸν λευκόν ἐστι (καὶ ἐπὶ τῶν ἄλλων ὁμοίως), <ἄν τε> τὸ οἰκεῖον γένος αὐτοῦ ἀποδιδῷ, τί ἐστι σημαίνει. (3) ὁμοίως δὲ κἂν τὸν ὁρισμόν τις τὸν ἑκάστου ἀποδιδῷ, τὸ τί ἐστιν αὐτὸ λέγει· ἴσον γάρ ἐστι τὸν ἄνθρωπον ἄνθρωπον εἰπεῖν ἢ ζῷον πεζὸν δίπουν· ἐν ἀμφοτέροις γὰρ αὐτὸ περὶ ἑαυτοῦ λέγεται, καὶ ἐπ' ἴσης ἀμφότερα· διὸ ἀντὶ τοῦ ὁρισμοῦ τὸ ὄνομα ἔλαβεν. (4) ὅταν δὲ τὸ κατηγορούμενον μὴ τοῦ αὐτοῦ γένους ᾖ τῷ ὑποκειμένῳ, ἀλλὰ περὶ ἄλλου λέγηται (τοῦτο γάρ ἐστι τὸ ὅταν δὲ περὶ ἑτέρου), ἐξ ἧς ἂν κατηγορίας ᾖ τὸ κατηγορούμενον, ἐξ ἐκείνης καὶ τὸ γένος τοῦ προβλήματος ἔσται. (5) καὶ οὐκέτι τὸ τί ἐστι τὸ ὑποκείμενον σημαίνει· οὐ γὰρ ἐν τῷ τί ἐστι κατηγορεῖται τὸ ἐξ ἄλλης κατηγορίας τοῦ ἐξ ἄλλης. περὶ ἑτέρου δὲ ἕτερον λέγεται, ἐν αἷς συμβεβηκός ἐστι τὸ κατηγορούμενον.

82 *Metaph.* 5.8: 1017b21–22: ἔτι τὸ τί ἦν εἶναι, οὗ ὁ λόγος ὁρισμός, καὶ τοῦτο οὐσία λέγεται ἑκάστου.

its essence (τὸ τί ἦν εἶναι) even if it is not in substances: for essence (τὸ τί ἦν εἶναι) is not only of substances. (4) Therefore such forms are not substances without qualification, but they are substances of those things whose essence they express. This is why it is said that each thing has some substance. (5) Someone can also understand this so that the form is said in many ways: in one way, as the cause of being for that in which it is, as the soul, about this way he said before, and another as the being itself[83] whose cause was perceiving soul, which is not the same as the soul, but soul is its cause. (6) And he would be mentioning this now, not the external form and shape, which is somehow a limit of each thing and defines it.[84]

In (T12C2) Alexander explains the οὐσία ἑκάστου as a qualified definition distinguishing it from an unqualified definition, which he seems to posit as a default case, and which allows us to speak of essences and definitions not only of substances, but also of qualities, quantities, and other categories. The difference of unqualified essence is that it corresponds to the enmattered form which has a causal role in relation to the substance in which it is present (T12C3).

The default case Alexander describes here is in agreement with his reading of *Topics* 1.9 passage (T12 A2–5, T12B) according to which 'signifying what-it-is' characterises predication in the same category. From the three kinds of such signification considered there, the relevant one here is 'when someone gives the definition of a thing' (T12B3).

This seems to be the sense of *ousia* that Alexander is using in his unrestricted interpretation of 'signifying one thing' in *Metaphysics* Γ 4 (T12 above).

It is remarkable that the distinction between the two types of essence is followed in T12C3–5 by the distinction between the two senses of 'form'. Standard enmattered form (Form-1) corresponds to the unqualified essence, which is a formal cause of a hylomorphic compound. Another sense of form (Form-2) picks out the

83 'The being itself': reading αὐτοῦ τοῦ εἶναι at 375, 12, following, with Dooley, Bonitz's conjecture from Sepulveda's translation.

84 **(1)** Πρὸς τοῖς προειρημένοις οὐσίαν φησὶ λέγεσθαι καὶ τὸ τί ἦν εἶναι, οὗ τί ἦν εἶναι λόγος ἐστὶν ὁ ὁρισμός· τί γάρ ἐστι τὸ τί ἦν εἶναι ἀπαιτούμενοι, λέγομεν ὅτι ὁ ὁρισμός, λόγον κοινότερον εἰπὼν τὸν ὁρισμόν. **(2)** οὐσίαν δή φησι καὶ τὸν ὁρισμὸν τὸν ἑκάστου ἐκείνου εἶναι οὗ ὁρισμός ἐστιν, οὐχ ἁπλῶς· οὕτω γὰρ καὶ ποιοῦ οὐσία ἂν εἴη καὶ ποσοῦ καὶ τῶν ἄλλων ὁμοίως. **(3)** διαφέροι δ' ἂν τοῦ ἑνύλου εἴδους, περὶ οὗ πρὸ ὀλίγου εἶπεν ὡς αἰτίου ὄντος ἑκάστῃ τῶν οὐσιῶν τοῦ εἶναι ταύτην ἥτις ἐστίν, ὅτι ἐκείνη μὲν ἐν τοῖς φύσει συνεστῶσιν οὖσα καὶ φυσικὸν εἶδος οὖσα καὶ κυρίως ἦν οὐσία, τὸ δὲ νῦν λεγόμενον εἶδος, καθ' ὃ τὸ τί ἦν εἶναι ἑκάστῳ, καὶ ἐν μὴ οὐσίαις ἐστίν· οὐ γὰρ μόνον τὸ τί ἦν εἶναι ἐπὶ τῶν οὐσιῶν. **(4)** διὸ οὐδὲ ἁπλῶς τὰ τοιαῦτα εἴδη οὐσίαι, ἀλλ' ἐκείνων οὐσίαι ὧν τὸ τί ἦν εἶναι δηλοῦσι, διὸ καὶ λέγεται ἑκάστου οὐσία τις εἶναι. **(5)** δύναταί τις καὶ τοῦ εἴδους ὡς πλεοναχῶς λεγομένου ἀκούειν, καὶ ἑνὸς μὲν ὄντος ὡς αἰτίου τοῦ εἶναι τῷ ἐν ᾧ ἐστιν, ὡς ἡ ψυχή, περὶ οὗ εἶπε πρώτου, ἄλλου δὲ ὡς αὐτοῦ εἶναι, οὗ ἦν αἰτία ἡ ψυχὴ ἡ αἰσθητική, ὃ οὐκ ἔστι ταὐτὸν τῇ ψυχῇ, ἐκείνη μέντοι αἰτία τούτου. **(6)** καὶ εἴη ἂν τούτου νῦν μνημονεύων, ἀλλ' οὐχὶ τῆς ἔξωθεν μορφῆς καὶ τοῦ σχήματος, ὃ πέρας πώς ἐστιν ἑκάστου καὶ ὁρίζει αὐτό.

characteristics of a hylomorphic composite that are caused by the Form-1. Form-2 is not to be taken in the sense of shape contrasted with body, rather it seems to be an ensemble of all the properties that are causally dependent on Form-1. With this distinction Alexander signals a very important exegetical presupposition in his interpretation of Aristotle's hylomorphism.[85] The important point for the current argument is that Alexander sees the 'qualified' essence, which is the definition of a property in any category, including all non-substantial categories, as fully underwritten by his version of hylomorphic theory of substance.

So, Alexander's interpretation of "signifying one thing" seems to be essentialist in so far as "one thing", the definitional formula of a thing, is understood as the nature and essence of the thing, but it is not substantialist, because a thing in question can belong to any of the ten categories. Next, we will see how this distinction works and whether it really can support the concluding argument.

3.4 Negated Names and Two Types of Negation

The distinction between "signifying one thing" and "signifying about one thing" is important in disambiguating certain expressions with negation, of the form "not-man". This is how Alexander explains the use of "signifying one" commenting on Aristotle **(T11):**

> (T13) Alexander *in Metaph.* 279, 32–280, **20 (1)** [Aristotle] teaches us how one should understand "signifying one". For "man" is one [thing] because it signifies *some one nature*, not because it is said of one thing. **(2)** But as it signifies *one nature* it would not signify also simultaneously some other nature. **(3)** He shows that not everything said *about one* thing is one. For "man", "the white", and "the educated" can be truly predicated about one thing, but it is not the case that because of that they are one. **(4)** And he arrived at proving this because it seems that "discussing" can be predicated about one and the same thing as "man" [signifies], e. g., about Socrates; yet "discussing" is not "man". **(5)** For in this way, of *that about which* (καθ' οὗ) "man" is predicated, the "not-man" would also be predicated accidentally, but it is not the case that thereby already that which is signified by "man" and "not man" are the same. **(6)** For "signifying one thing" is not defined in the same way as "being predicated about one thing". **(7)** Aristotle proved by the additional argument that [names] predicated about one thing do not by the same token also signify one thing. **(8)** For several [names] different from each other are predicated about one thing: those [things] that are ac-

85 See Marwan Rashed's discussion of this distinction in relation to the ontological project of the middle books of Metaphysics in Rashed 2007, 232–234. There remains a question of Alexander's motivation for setting this discussion in parallel with the discussion of two types of essence, but discussing it would lead to a major digression in this already very long paper. I plan to discuss this question elsewhere.

> cidental to something are similarly predicated about that thing to which they are accidental, which is one, but it is not the case that because of that all [of them] signify one and the same thing. **(9)** Thus, it is not the case that since "educated", "white", and "man" are predicated of one thing, therefore even that which is signified by them is the same. **(10)** For had the signified been the same, so that there would be no difference between being predicated of one thing and signifying one thing, they would have been synonyms, i.e., polyonyms, for he now uses "synonyms" instead of "polyonyms" (279, 32–280, 20).[86]

The concept of "one nature" which Alexander uses in **(T13.1)** is already familiar. The nature of X for Alexander is the "what-it-is" expressed by the definitional formula of X, where X can belong to any of the ten categories. There is an important point that Alexander spells out: as the name signifies one nature it cannot simultaneously signify another nature **(T13.2).** There is exactly one definitional formula for each name which expresses that which a name signifies. When several different names are said *about* one and the same thing, they do not signify one nature. Alexander uses Aristotle's example of "man", "educated", and "white" predicated of Socrates to illustrate the point **(T13.3).**

Aristotle's aim in drawing this distinction, according to Alexander, is to disambiguate the negated name "not-man". If we use it to mean anything that is *different* from "man" without any further qualification,[87] so that either "white" or "educated" or "discussing" could be substituted with "not-man", then the following piece of reasoning could get us a purported denial of PNC: "Socrates is a man. But Socrates is also white. To be white is not the same as to be a man. So, Socrates is also not the

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86 (1) πῶς τὸ ἓν σημαίνειν ἀκούειν χρή, διδάσκει ἡμᾶς· ὁ γὰρ ἄνθρωπος ἓν τῷ φύσιν τινὰ μίαν σημαίνειν, οὐ τῷ καθ' ἑνὸς λέγεσθαι. (2) μίαν δὲ φύσιν σημαίνων οὐκ ἂν ἅμα καὶ ἄλλην τινὰ σημαίνοι. (3) ὅτι δὲ τὸ καθ' ἑνὸς λεγόμενον οὐ πᾶν ἕν, δείκνυσι· καθ' ἑνὸς γὰρ καὶ τὸ ἄνθρωπος καὶ τὸ λευκὸν καὶ τὸ μουσικὸν δύναται κατηγορεῖσθαι ἀληθῶς, ἀλλ' οὐ διὰ τοῦτο καὶ ἓν ταῦτα. (4) ἦλθε δὲ ἐπὶ τὸ δεικνύναι τοῦτο διὰ τὸ δοκεῖν δύνασθαι καθ' ἑνὸς καὶ τοῦ αὐτοῦ καθ' οὗ ὁ ἄνθρωπος, οἷον κατὰ Σωκράτους, κατὰ τούτου καὶ τὸ διαλέγεσθαι· τὸ δὲ διαλέγεσθαι οὐκ ἄνθρωπος. (5) εἴη γὰρ ἂν καθ' οὗ ὁ ἄνθρωπος, καὶ οὐκ ἄνθρωπος κατηγορούμενος κατὰ συμβεβηκός· ἀλλ' οὐ διὰ τοῦτο ἤδη καὶ ταὐτόν ἐστι τό τε ὑπὸ τοῦ ἀνθρώπου καὶ τοῦ οὐκ ἀνθρώπου σημαινόμενον. (6) οὐ γὰρ τούτῳ ὥρισται τὸ ἓν σημαίνειν τῷ καθ' ἑνὸς κατηγορεῖσθαι. (7) ὅτι γὰρ μὴ τὰ κατὰ τοῦ αὐτοῦ κατηγορούμενα ἤδη καὶ ἓν σημαίνει, δι' ὧνπερ παρέθετο ἔδειξε. (8) καθ' ἑνὸς γὰρ πλείω κατηγορεῖται διαφέροντα ἀλλήλων· τὰ γὰρ συμβεβηκότα τινί, ἕτερα ὄντα καὶ τούτου ᾧ συμβέβηκε καὶ ἀλλήλων, ὁμοίως κατηγορεῖται κατ' ἐκείνου ἑνὸς ὄντος, ᾧ συμβέβηκεν, οὐ μὴν διὰ τοῦτο πάντα τὸ αὐτὸ καὶ ἓν σημαίνει. (9) οὐ γὰρ ἐπεὶ καθ' ἑνὸς τὸ μουσικὸν καὶ τὸ λευκὸν καὶ ὁ ἄνθρωπος κατηγορεῖται, ἤδη καὶ ταὐτόν ἐστι τὸ σημαινόμενον ὑπ' αὐτῶν. εἰ γὰρ ταὐτὸν εἴη τὸ σημαινόμενον ὡς μὴ διαφέρειν τὸ καθ' ἑνὸς κατηγορεῖσθαι τοῦ ἓν σημαίνειν, ἔσται συνώνυμα, τουτέστι πολυώνυμα, καθ' ὧν πλείω κατηγορεῖται·τῷ γὰρ συνώνυμα νῦν ἀντὶ τοῦ πολυώνυμα χρῆται.

87 For instance, if we were to take in this way Plato's suggested solution to the Parmenidean paradox of Not-Being in the Sophist, taking "Not-Being" as "Different from Being" (*Soph.* 255d5–e7)

same as a man. To be not the same as a man is to be a not-man. Hence Socrates is a man and not-man. Hence Socrates is a man and Socrates is not a man".

But Alexander explains that in this case "not-man" would be predicated of Socrates accidentally, just as "white" was. **(T13.4–5)** So, it should inherit its accidental type of predication from the "white" for which it was substituted: this kind of "not-man" is predicated of Socrates accidentally and does not constitute a real denial of PNC. Being predicated about one thing does not amount to signifying one thing. Had the three terms "man", "white", and "educated", signified one thing, they would have been synonyms, Aristotle says, or polyonyms, as Alexander corrects.[88] This would mean that each of these expressions is just another way of signifying the essence of a thing (Callias or Socrates).

The important corollary of this discussion is that in order to get a genuine denial of PNC, the negated name "not-man" should inherit its type of predication not from an accident, but from the definitional formula itself, so that the function of this kind of negated expression should be not just to "point away in every direction indiscriminately", as is the function of negated names construed as indefinite names in *De interpretatione.*[89] Rather, its role should be a more targeted destruction of the definitional formula itself. It is a different meaning of negation. Alexander explains it in this way, elaborating on Aristotle's text:

> (T14) Alexander *in Metaph.* 281, 1–(1) The object of our investigation was not whether it is possible to impose to the same thing both the name "man" and "not-man", so that their difference would be merely verbal and no longer also according to that which is signified, **(2)** but whether, when the objects signified by each differ, and "man" signifies such a form whose formula is "animal footed biped", while "not-man" signifies *the destruction of such a form*, it is possible for these to be predicated simultaneously and about the same thing so that it would be the

88 Aristotle uses the concept just once in our extant corpus (*Hist. An.* 289a1–3: Καλεῖται δ' ᾗ μὲν λαμβάνει, στόμα, εἰς ὃ δὲ δέχεται, κοιλία· τὸ δὲ λοιπὸν πολυώνυμόν ἐστιν). This concept goes back to Speusippus' division of names into tautonyms (further divided into homonyms and synonyms) and heteronyms (further divided heteronyms proper, polyonyms and paronyms) of which we know through Boethus' report preserved to us by Simplicius (Simplic. *in Categ.* 38,19–24 Kalbfleisch = Boethus fr. 10 Rashed, see also Barnes 1971). It seems that this classification was used by Peripatetics as a part of their own school legacy: at least Alexander's correction of Aristotle's usage here suggests this much. Cf. also Alexander, in Metaph. 247, 22–29: οὕτως ἔχει πρὸς ἄλληλα καὶ τὸ ἀμερὲς καὶ τὸ ἐλάχιστον, καὶ σπέρμα καὶ καρπός, καὶ ἀνάβασις καὶ κατάβασις, καὶ πάνθ' ὅσα κυρίως ἑτερώνυμα καλεῖται. εἰπὼν δὲ τὸ ὂν καὶ τὸ ἓν ταὐτὰ εἶναι καὶ μίαν τινὰ φύσιν, οὐ μέντοι ὡς ἑνὶ λόγῳ δηλούμενα, ἐπήνεγκεν ὅτι διαφέρει δὲ οὐδὲν οὐδ' ἂν καὶ κατὰ τὸν λόγον αὐτὰ ταὐτὰ ὑπολάβωμεν εἶναι, μὴ μόνον κατὰ τὴν ὑποκειμένην φύσιν, ὡς εἶναι τῶν πολυωνύμων τὸ ὑποκείμενον αὐτοῖς, ὧν πλείω μὲν ὀνόματα, καθ' ἕκαστον δὲ τῶν ὀνομάτων ὁ αὐτὸς λόγος, ὡς φασγάνου καὶ μαχαίρας, καὶ λωπίου καὶ ἱματίου.

89 I borrow a fine description by Whitaker (Whitaker 1996, p. 64).

> same thing to be such a substance and not to be. **(3)** For *the contradictory opposition* is of this kind, while the opposition which is accidental is not contradictory.[90]

Alexander spells out Aristotle's distinction between the accidental and non-accidental predication of a negated name "not-man" of Socrates in terms of signifying. If we predicate "not-man" of Socrates accidentally, meaning that Socrates is white, say, and being white is not the same as being man, the opposition the "not-man" and "man" will be accidental and not contradictory.

Let us use a rather ugly contraption Not-Man$_{ac}$ to stand in for the predicate "not-man" used as such an umbrella term for all the things that are not the same in definition as Man (which will be a predicate form of the name "man"). The pair:

> Man (Socrates) and Not-Man$_{ac}$ (Socrates)

is not a contradiction because we can substitute a predicate (White, Educated, Bald, In the Market, 70 years old) instead of our Not-Man$_{ac}$. Note that we cannot substitute 'Not-(a)-Biped-Animal' for Not-Man$_{ac}$, because the 'biped animal' is not an accident of 'man'.

But a contradiction will arise if we take 'not-man' to stand in for the predicate whose only meaning is that the definitional formula associated with 'man' is not applicable to a thing of which 'not-man' is predicated. Let us call it Not-Man$_{def}$, a "definitional" Not-Man: also not an inch-perfect label, because this predicate Not-Man$_{def}$ does not define anything. It only denies the application of a definition (a definitional formula or a corresponding predicate) to a subject. And it can give us a contradictory opposition. The pair:

> Man (Socrates) and Not-Man$_{def}$ (Socrates)

will make a contradiction when said of the same subject. The predicate Not-Man$_{def}$ denies the application of the definition of the signifying expression 'man' to Socra-

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90 (1) οὐκ ἦν δὲ τοῦτο ἡμῖν τὸ ζητούμενον, πότερον δύναται τῷ αὐτῷ πράγματι καὶ ἄνθρωπος ὄνομα καὶ μὴ ἄνθρωπος τεθῆναι, ὡς εἶναι τὴν διαφορὰν αὐτῶν κατὰ τὴν λέξιν μόνην, μηκέτι δὲ καὶ κατὰ τὸ σημαινόμενον, (2) ἀλλ' εἰ ὄντων τῶν σημαινομένων ὑφ' ἑκατέρου διαφερόντων, καὶ τοῦ μὲν ἀνθρώπου τὸ τοιοῦτον σημαίνοντος εἶδος οὗ λόγος ζῷον πεζὸν δίπουν, τοῦ δὲ οὐκ ἀνθρώπου τὴν ἀναίρεσιν τοῦ τοιούτου εἴδους, οἷόν τε ἅμα ταῦτα καὶ κατὰ τοῦ αὐτοῦ κατηγορεῖσθαι οὕτως ὡς εἶναι ταὐτὸν τὸ εἶναί τε τὴν τοιαύτην οὐσίαν καὶ μὴ εἶναι·(3) τοῦ τοιούτου γὰρ δηλωτικὴ ἡ ἀντιφατικὴ ἀντίθεσις, οὐκ ἀντιφατικὴ δὲ ἡ ἀντίθεσις ἡ κατὰ συμβεβηκός.

tes. In order to introduce this kind of opposition Aristotle needs this distinction between 'signifying one thing' and 'signifying about one thing'.

Alexander seems to think that this distinction, in order to work properly, has to be supported by the whole system of categories, in particular by the predication of "what-it-is", and more specifically still, of the definitional formulae, within each category. Aristotle's example of "man" illustrates the way it works with substances, but we could do the same with the predicate in any other category, for instance, we could take "white" and formulate in the same way as above:

White (Socrates) and Not-White$_{ac}$ (Socrates)

is not a contradictory pair if Not-White$_{ac}$ stands for Man (Socrates). But

White (Socrates) and Not-White$_{def}$ (Socrates)

is a contradictory pair if the definition of white is, say: "the colour which dissolves the eye-stream"[91] and the definitional Not-White denies the definitional formula of white. The analysis then could be sketched out as follows. White (Socrates) will say that Socrates is of a colour that satisfies the definition of white and Not-White$_{def}$ (Socrates) will say that Socrates is of a colour that does not satisfy the definition of white (assume Socrates has just one colour: a multicolour version can be worked out as well, using Aristotle's tools for disambiguation we have just seen). Here the definitional formula and the subject to which it is applied also must be in the same category, the way we had it with substance, but in this case it will be a non-substantial category of 'qualified' (ποιόν). Socrates *qua* qualified cannot receive contradictory properties, and this will be true of all categories, and supplying any further qualifications that are needed to rule out any easy counter-examples.

This analysis of Alexander's interpretation of Aristotle might answer the worry raised by Mario Mignucci who accepted that Alexander's interpretation of "signifying one thing" does not restrict it to substances alone, but thought that he did not distinguish sufficiently clearly between understanding a negated name of the form not-X (e.g., "not-man") as a complement of X (the understanding that rules out their joint predication of the same subject, say Y) and understanding not-X as anything that is different from X (the understanding that does not rule out their joint predication of X, as when both "man" and "white" are predicated of Soc-

91 *Top*. 3.5, 119a30; cf. *Metaph.* 11.7, 1057b8.

rates in an ordinary way).[92] Assuming that each name "signifies one thing", i.e., signifies the corresponding proper nature, still, when both "white" and "man" are predicated of Socrates, "man" does signify one thing, but not the "white", because only "man" expresses the nature of Socrates. Mignucci suggested that in this perspective it is necessary to distinguish between "signifying one thing" and "signifying one thing in respect of the subject".[93] For instance, in the statement "Socrates is white" and "Socrates is a man", both "white" and "man" do signify one thing, i.e., signify, respectively, their own proper nature (corresponding definitional formula to each), but with respect to Socrates only "man" signifies one thing, but "white" does not. Mignucci thinks that this further distinction is necessary, but Alexander misses it.[94]

But it we take Alexander's "broad" essentialist interpretation of "signifying one thing" to be linked to the way in which a definitional formula is predicated within each of the ten categories, this further distinction suggested by Mignucci may be unnecessary. For Alexander follows the distinction drawn by Aristotle in the *Topics* 1.9 between the predication in the same category (i.e., when the subject and the predicate belong to the same category) and not in the same category (i.e., when the subject and the predicate belong to different categories). According to this distinction, the definitional formula—which expresses the one nature or the one thing signified by a name—belongs to the former type of predication, where the subject and predicate belong to the same category. This is the only kind of predication that could give us a contradictory pair if name and its negation were predicated on the same subject. And every name that has a definitional formula has its own category and its own subject of predication with which it is synonymous under that category. So, even if "white" is an accident of Socrates, still the pair "White" and "Not-White$_{\text{def}}$" will be contradictory and subject to the same rules in this respect as the pair "Man" and "Not-Man$_{\text{def}}$".[95]

Aristotle's concluding argument **(T11.5)** above is:

> **(a)** Therefore, it is necessary, in order to make a true statement that something is a man, to say that it is a biped animal (for this was what "man" signifies). (1006b28–30)

92 Mignucci (2003), p. 114.

93 Mignucci (2003), p. 115.

94 Mignucci (2003), pp. 115–116.

95 This analysis based on Alexander's interpretation might also provide an answer to a much earlier worry raised by Maier with respect to Aristotle's argument from signification which he saw as working only for definitional formulae and unable to account for all the statements where predicates are accidental (Maier 1896, pp. 55–56).

> **(b)** But if this is necessary, then it cannot fail to be the biped animal (for "necessary" means "impossible not to") (1006b30–33)
>
> **(c)** Therefore it is impossible to say that it is true that the same thing simultaneously is and is not a man. (1006b33–34).

The crucial role is given to the definitional formula that expresses what is signified by a name used as a predicate term in a statement. It is impossible for it to hold and not to hold of the subject of its predication. Alexander summarizes this argument in his commentary three times: twice as a part of a larger argument (at the beginning, at 276, 17–27 and in the end, 282, 3–19), and once in some more detail to its text (282, 19–36). All three seem to be mutually consistent. Let us consider the one that comes from Alexander's synopsis we have been discussing, our **(T10.7)** above:

> (a) "Man" and "not-man" are different names, and not the names *of one thing* (ἑνὸς πράγματος),
>
> (b) for they will be neither predicated of the same (ἐπὶ ταὐτοῦ),
>
> (c) nor will that which is signified by "not-man" be true of that which is signified by "man",
>
> (d) given that the names themselves differ from one another, and the different names express different [things], and *each name expresses one* [thing], *i. e., one nature (*καὶ ἑνὸς ἕκαστον καὶ φύσεως μιᾶς)
>
> (e) For that which is signified by "man" will no longer be one, as has been said, if "not-man", which signifies another object, were also true of it. (The same argument as applies in the case of "man" and "not-man" applies in all other cases as well.)
>
> (f) But if the things expressed by these names do not belong together, then neither would the affirmation saying that this (*tode*) is a man have as simultaneously true together the negation saying that this (*tode*) is not a man.

We know that the difference between the names "man" and "not-man" is accounted for by a difference of a respective signified thing which is expressed by a definitional formula. We have now seen that Alexander is taking both "man" and "not-man" in the strictly definitional sense, so that "not-man" should be taken as our $\text{Not-Man}_{\text{def}}$, not as $\text{Not-Man}_{\text{ac}}$ above. The name "$\text{Not-Man}_{\text{def}}$" signifies that the definitional formula of "man" does not apply. The name and its definitional negation will never be predicated of the same thing (b) because the predication in question is not the accidental predication, but a definitional predication of two different names.

That which is signified by a "not-man" will not be true of what is signified by "man" (c) because two genuinely different names correspond to two different definitional formulae which cannot express the same nature, but must express two

different natures signified respectively by each name (d). Had it been possible for "not-man" to signify what is signified by "man", this signified object and nature would no longer be one. (e) Since these things (or natures) do not belong together (συνυπάρχει), it follows that the affirmation saying that this is a man will not be true together with the negation saying that this is not a man (f).

Thus, the refutation of those who deny the PNC seems to be based on the impossibility for the definitional formula and its negation to hold truly of the same subject in a statement. The denial of PNC allows for these two formulae, one of which negates the other, to "belong together" as being signified by the same name, and this destroys signifying, since the first postulate stated by Aristotle was that the name should signify something one, e.g., the name "man" should signify always "animal biped" (if this has been stipulated), and cannot signify both "animal biped" and "not [an] animal biped". The latter case amounts effectively to the opponent's withdrawal of his concession to signifying something and once again to the destruction of rational discourse or to being excluded from it.

4 Conclusion

This is a very incomplete survey of Alexander's commentary on Aristotle's argument from signification in *Metaphysics* Γ 4, not just because it does not cover the whole argument, but also because Alexander's commentary needs to be much better contextualized with his other work on the *Organon* and other relevant parts of the corpus. There is still much to do on all these fronts. However, some of the results we have discovered are interesting for Aristotelian scholarship. In the elenctic demonstration, Alexander seems to distinguish two different (but related) arguments: the elenchos proper, where the concession of "something definite" is secured "locally", from this interlocutor, and the more general argument based on a generalized concession by an imaginary opponent, where the defender of PNC can work out certain general rules applicable in all such cases. Alexander's interpretation of signification develops an unrestricted essentialist, but not substantialist, interpretation of the scope of the argument. Its particular interest for Aristotle scholars is its very important connection with the account of predication that we find in *Topics* and in the *Categories.* Alexander's approach allows us, I think, to see what work the categories do in Aristotle's first philosophy. [96]

96 To this extent, Alexander's interpretation of the argument from signification may be seen as belonging to the project that was described by John Ellis as his defence of Aristotle's *Categories* (Ellis 1994).

Bibliography

Anscombe, Gertrude Elizabeth Margaret (1961): "Aristotle". In: Anscombe, Gertrude Elizabeth Margaret and Geach, Peter Thomas: *Three Philosophers: Aristotle, Aquinas, Frege.* Ithaca and New York: Cornell University Press, pp. 1–63.

Barnes, Jonathan (1969): "The Law of Contradiction". In: *The Philosophical Quarterly* 19. No. 77, pp. 302–309. [Revised version in Barnes, Jonathan (2012): *Logical Matters. Essays in Ancient Philosophy* II. Oxford: Oxford University Press, pp. 353–363.]

Barnes, Jonathan (1971): "Speusippus and Aristotle on Homonymy". In: *Classical Quarterly* 21, pp. 65–80. [Revised version in Barnes, Jonathan (2012): *Logical Matters. Essays in Ancient Philosophy* II, Oxford: Oxford University Press, pp. 284–311.]

Berti, Enrico (2014): "Objections to Aristotle's Defence of the Principle of Non-Contradiction". In: Ficara, Elena (Ed.): *Contradictions: Logic, History, Actuality.* Berlin and Boston: de Gruyter, pp. 97–108.

Bocheński, Józef Maria (1947): *La logique de Théophraste*, Fribourg: Librairie de l'Université.

Bolton, Robert (1994): 'The Problem of Dialectical Reasoning (Συλλογισμός) in Aristotle', *Ancient Philosophy* 14, pp 99–132.

Castagnoli, Luca (2010): *Ancient Self-Refutation*, Cambridge: Cambridge University Press.

Cavini, Walter (2007): "*Principia Contradictionis:* Sui principi aristotelici della contraddizzione (§§ 1–3)". In *Antiquorum Philosophia* 1, pp. 123–170.

Cavini, Walter (2008): "*Principia Contradictionis:* Sui principi aristotelici della contraddizzione (§ 4)". In: *Antiquorum Philosophia* 2, pp. 159–187.

Crubellier, Michel (2008): "La tactique argumentative de Métaphysique Gamma 3–6". In: Hecquet-Devienne, Myriam and Stevens, Annick (Eds.): *Aristote, Métaphysique Gamme: Édition, Traduction, Études.* Louvain: Peeters, pp. 379–402.

Dancy, Russell (1975): *Sense and Contradiction: A Study in Aristotle.* Dordrecht and Boston: D. Reidel.

Dooley, William E. (1993): *Alexander of Aphrodisias on Aristotle Metaphysics 5*, London: Duckworth.

Ellis, John (1994): 'Alexander's Defense of Aristotle's Categories', *Phronesis* 39/1, pp. 68–89.

Flannery, Kevin (2003): "Logic and Ontology in Alexander of Aphrodisias' Commentary on Metaphysics IV". In: Movia, Giancarlo (Ed.): *Alessandro di Afrodisia e la "Metafisica" di Aristotele.* Milan: Vita e Pensiero, pp. 117–134.

Furth, Montgomery (1986): "A Note on Aristotle's Principle of Non-Contradiction". In *Canadian Journal of Philosophy* 16. No. 3, pp. 371–381.

Gottlieb, Paula (1994): "The Principle of Non-Contradiction and Protagoras: The Strategy of Aristotle's *Metaphysics* IV 4". In: *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 8, pp. 183–209.

Gottlieb, Paula (2019): "Aristotle on "Non-contradiction". In: Zalta, Edward N. (Ed.): *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition). https://plato.stanford.edu/archives/spr2019/entries/aristotle-noncontradiction, last accessed on November 7, 2022.

Graeser, Andreas (1973): *Die logischen Fragmente des Theophrastus*, Berlin-New York: Walter de Gruyter.

Huby, Pamela, et al. (2006) *Theophrastus of Eresus. Sources for His Life, Writings, Thought and Influence: Commentary, Volume 2: Logic*, Leiden, Brill.

Irwin, Terence (1977): "Aristotle's Discovery of Metaphysics". In: *Review of Metaphysics* 31, pp. 210–229.

Irwin, Terence (1988): *Aristotle's First Principles.* Oxford: Clarendon Press.

Kirwan, Christopher (Ed.) (1971): *Aristotle, Metaphysics.* Books IV, V, and VI. Oxford: Clarendon Press.

Kotwick, Myriam (2016): *Alexander of Aphrodisias and the Text of Aristotle's Metaphysics.* Berkeley: University of California Press.

Kupreeva, Inna (2017): "Aporia and exegesis". In: Karamanolis, George and Politis, Vasilis (Eds.): *The Aporetic Tradition in Ancient Philosophy.* Cambridge: Cambridge University Press, pp. 228–247.

Lear, Jonathan (1980): *Aristotle and Logical Theory.* Cambridge: Cambridge University Press.

Lukasiewicz, Jan (1993): *Über den Satz des Widerspruchs bei Aristoteles.* Hildesheim: G. Olms.

Madigan, Arthur (1993): *Alexander of Aphrodisias on Aristotle Metaphysics 4.* London: Duckworth.

Maier, Heinrich (1896): *Die Syllogistik des Aristoteles*, *1. Teil: Die Logische Theorie des Urteils bei Aristoteles.* Tübingen, H. Laupp.

Mignucci, Mario (2003): "Alessandro interprete di Aristotele: luci e ombre del commento a *Metaph.* Γ". In: Movia, Giancarlo (Ed.): *Alessandro di Afrodisia e la "Metafisica" di Aristotele.* Milan: Vita e Pensiero, pp. 93–116.

Politis, Vasilis (2004): *Aristotle and the Metaphysics.* London: Routledge.

Rashed, Marwan (2007): *Essentialisme: Alexandre d'Aphrodise entre logique, physique et cosmologie*, Berlin & New York: Walter De Gruyter

Repici, Luciana (1977): *La logica di Teofrasto: studio critico e raccolta dei frammenti e delle testimonianze*, Bologna: Il Mulino.

Rosen, Jacob (2021) 'Aristotle's Actual Infinities', in: *Oxford Studies in Ancient Philosophy* Volume LIX, pp. 133–185

Sharples, Robert William (1992) *Alexander of Aphrodisias: Quaestiones 1.1–2.15*, London: Duckworth.

Wedin, Michael Vernon (1999): "The Scope of Non-Contradiction: A Note on Aristotle's 'Elenctic' Proof in *Metaphysics Γ* 4". In *Apeiron* 32. No. 3, pp. 231–242.

Wedin, Michael (2004): 'Aristotle on the Firmness of the Principle of Non-Contradiction' in *Phronesis* 49/3, pp.225–265

Whitaker, Christopher (1996): *Aristotle's De interpretatione: Contradiction and Dialectic.* Oxford: Clarendon Press.

Zingano, Marco (2008): "*Sêmainein hen, sêmainein kath' henos* et la preuve de 1006b28–34". In: Hecquet-Devienne, Myriam and Stevens, Annick (Eds.): *Aristote, Métaphysique Gamme: Édition, Traduction, Études.* Louvain: Peeters, pp. 403–421.