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**Aristotle on Truth, Facts, and Relations:
*Categories, De Interpretatione, Metaphysics Γ***

Blake Hestir, TCU

1. Truth

Aristotle famously proclaims at *Metaphysics* G 7. 1011b26-7:

*To men gar legein to on mê einai ê to mê on einai pseudos, to de to on einai kai
to mê on mê einai alêthes, ...*

Aristotle is inclined to think of this as a definition of truth and falsehood,¹ we are inclined to wonder what he means by it. Perhaps a reasonable approximation in English would amount to something like:

T_{df}: For to state [of] that which is [that] it is not or [of] that which is not [that] it is [is] false, and [to state of] that which is [that] it is and [of] that which is not [that] it is not [is] true.

Many scholars² think T_{df} expresses the basic conception of a correspondence theory of truth, and insofar as correspondence theories maintain that truth depends in some sense on the world, Aristotle concurs. For him, truth depends on being, and presumably this

¹ *Met.* G 7. 1011b25, 1012b7-11. See W.D. Ross, *Aristotle's Metaphysics*, ed. with intro. and comm. (Oxford: Oxford University Press, 1924/1997), 284-5. This definition of truth is presumably one in a rough sense, general enough to be acceptable to the opponent.

² Perhaps Ammonius (*On Aristotle's On Interpretation 1-8*, trans. by David Blank [Ithaca, New York: Cornell University Press, 1996]) is the first to suggest such a view; see 21. 9-13, where he employs 'schesei' and 'epharmosei'. In the contemporary world, see for example, J.L. Ackrill, trans. and notes, *Aristotle: Categories and De Interpretatione* (Oxford: Oxford University Press, 1963/1994); F. Brentano, *Über den Begriff der Wahrheit* (1889), trans. as "On the Concept of Truth," in *The True and the Evident* (London: Routledge, 1966), 3-25; Charles Kahn, *The Verb 'To Be' in Ancient Greek* (Dordrecht: D. Reidel, 1973), 363; Terrence Irwin, *Aristotle's First Principles* (Oxford: Oxford University Press, 1988), secs. 2, 66, 69; Richard Kirkham, *Theories of Truth* (Cambridge, MA: MIT Press, 1992), ch. 4; Wolfgang Künne, *Conceptions of Truth* (Oxford: Oxford University Press, 2003), ch. 3; Deborah Modrak, *Aristotle's Theory of Language and Meaning* (Cambridge: Cambridge University Press, 2001); Kurt Pritzl, "Being True in Aristotle's Thinking," *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 14 (1998): 177-201; W.D. Ross, *Aristotle* (London: Methuen, 1923/1948); Jan Szaif, *Platons Begriff der Wahrheit* (Freiberg-im-Breisgau: Verlag Karl Abner, 1996); cf. Szaif, "Die Geschichte des Wahrheitsbegriffs in der klassischen Antike," *Die Geschichte des philosophischen begriffs der Wahrheit* (Berlin and New Work: Walter de Gruyter): 1-32; John Thorp, "Aristotle on Being and Truth," *De Philosophia* 3 (1982): 1-9; Mark Wheeler, "Semantics in Aristotle's Organon," *Journal of the History of Philosophy* XXXVII (1999): 191-226, and "A Deflationary Reading of Aristotle's Definitions of Truth and Falsehood at *Metaphysics* 1011b26-7," forthcoming in *Apeiron* (his view is similar to the weaker correspondence as correlation account); C.W.A. Whitaker, *Aristotle's De Interpretatione: Contradiction and Dialectic* (Oxford: Oxford University Press, 1996). And most extensively among contemporary scholars, Paolo Crivelli (*Aristotle on Truth* [Cambridge: Cambridge University Press, 2004], and "Aristotle on Signification and Truth," *A Companion to Aristotle*, Georgios Anagnostopoulos, ed., [West Sussex: Wiley-Blackwell, 2009]: 81-100), who has set a very high bar, "the height of which is not to be underestimated" (Christopher Shields, review of *Aristotle on Truth*, *Philosophical Review* Vol. 119.2 [2010]: 243-6). On the other side, Richard Campbell, *Truth and Historicity* (Oxford: Clarendon Press, 1992); Marian David, *Correspondence and Disquotation* (Oxford: Oxford University Press, 1994); Donald Davidson, "The Folly of Trying to Define Truth," *Journal of Philosophy* Vol. XCIII 6 (1996): 263-78; Blake Hestir, "A 'Conception' of Truth in Plato's *Sophist*," *Journal of the History of Philosophy* vol. 41.1 (2003): 1-24; Jonathan Barnes, *Truth, Etc.* (Oxford: Oxford University Press, 2007). Cf. Fred Sommers, "On Concepts of Truth in Natural Languages," *Review of Metaphysics* 23 (1969): 259-86.

condition places Aristotle in the correspondence camp. But there is room for an alternative interpretation. Distinctions among correspondence theories generally revolve around whether there be some *entity* in the world to which a truth corresponds, or whether every truth have a truthmaker like a fact or a state of affairs that obtains (if there is such a distinction), or whether truth requires a specific dependence *relation* between ontological entities and true statements or thoughts, and if so what that relation amounts to.³ Stronger versions of the correspondence view explain the relation in terms of congruence or structural isomorphism between truthbearers and truthmakers; weaker versions maintain that the relation is merely one of, say, correlation.⁴ T_{df} taken within either the general context of the discussion of truth or the context of Aristotle's metaphysics, psychology, and semantic theory does not require the additional explanatory features of correspondence to fact.

2. Relation

Albeit compact, T_{df} displays a number of interesting features. Aristotle claims that a true statement *states of that which is that it is*. At face T_{df} seems to make a nod towards relation: stating something *of* something. However, the Greek is not so straightforward. The verb *legein* here takes the accusative 'to on' with the negated infinitive 'mê einai'. So, the translation of the first part of T_{df} amounts to something like "to state *with respect to that which is that it is not*," which is non-committal about relation, but this means that stating of *that which is that it is* involves more than simply affirming some predicate of some subject. Truth requires ontological combination (broadly construed), in addition to noetic/linguistic combination. So, if T_{df} is non-trivial, it must be claiming not only that a true statement affirms or denies something of something—a feature of any predicative statement—but also that it states *with respect to that which is (is not) (ontic level) that it is (is not) (noetic/linguistic level)*. Perhaps this is an appropriate place to unpack the magnifying glass and focus, cautiously, on 'is'.

3. The Verb 'To Be' and Instantiation

Consider the story of Dr. Asclepius: Socrates says he's heard a ghost, and he is pale. Crito takes him to the doctor, who says he's fine. Crito exclaims, "But Doc, look how *pale* he is!" The doctor suggests Socrates should sit and have a drink.

Crito's concern about the paleness in Socrates' face illustrates a point about how Aristotle tends to emphasize properties (universals) insofar as they are or hold of some subject, especially in the case of predications beyond essential (cf. *Met. Z 1. 1028a1531*). Crito suggests a way to understand the referent of 'that which is' (*to on*) in T_{df} .

Much has been written on the proper interpretation of the verb 'to be'. Generally

³ Correspondence is sometimes understood as *agreement* with reality. Aristotle hints in this direction at *Met. Q10* ("he whose thought is in a state contrary to the things is false," *epseustai ho enantiôs exôs ê ta pragmata*, 1051b4-5), though the comment is non-committal and is rather benign in context. Künne (2003) comments, "Brentano invents a positive counterpart to this abbreviation, 'being in agreement with things' and then transfers it from persons to judgments. Thus he is able to connect Aristotle's definition almost seamlessly with the correspondence formula of much later centuries. *This* is the tradition Tarski defers to when he declares again and again (much to Davidson's annoyance) that he wants to remain faithful to 'intentions which are contained in the so-called classical conception of truth ("true—agreeing with reality")', 110-11. A. Tarski, "The Concept of Truth in the Languages of Deductive Science," *Collected Papers*, vol. IV (Basel/Boston/Stuttgart: Birkhäuser, 1986), 613-17.

⁴ See Kirkham (1992), ch. 4; Künne (2003), chs. 1-6.

some think that ‘*einai*’ and its various forms can have different uses or meanings⁵ depending on context. A reasonably fine-grained set of distinctions is this: a complete use is one in which there is no complement to the verb; an incomplete use is one in which the verb has a complement. Those who think there are different senses for ‘to be’ between its complete and incomplete uses claim that in its complete use ‘to be’ means “exists” (existential), or “is true”/“is the case” (veridical) when the statement takes as its subject a sentence or state of affairs. The incomplete ‘is’ can also have a number of different uses

⁵ I do not think that by itself ‘is’ has meaning in the same respect that ‘dog’ has meaning, at least as far as meaning is cashed out in terms of signification, and I doubt Aristotle thought so either, though he does place importance on being *kath’ hauto* and *kata sumbebêkos* (*Met. D* 7. 1017a7-8). But this is not to say that it cannot be *used* in different ways (*Met. Z* 1. 1028a10) to express or emphasize different ways of being. See for example *Phys.* I 3. 186a24-32, *Met. D* 7, E 2, 4. Call the tendency to locate the difference in character between sentences in single ambiguous words like ‘is’ the “fallacy of the magnifying glass” (R.M. Dancy, “Aristotle and Existence,” *Synthese* 54 (1983): 409-442, 424 ff; see also “Hintikka, Aristotle, and Existence,” *The Philosophy of Jaakko Hintikka*, ed. by R. Auxier and L. Hahn [Chicago and La Salle, IL: Open Court, 2006], 311-28). The distinction between the ‘is’ of existence and the ‘is’ of predication looks to be syntactical, not semantic. On the issue of existence, see further G.E.L. Owen, “Logic and Metaphysics in Some Earlier Works of Aristotle,” in *Aristotle and Plato in the Mid-Fourth Century*, ed. I. Düring and G.E.L. Owen (Göteborg: Elanders Boktryckeri Aktiebolag, 1960), 163-90, 165; R.M. Dancy, *Sense and Contradiction: A Study in Aristotle* (Dordrecht, Holland: D. Reidel Pub. Co., 1975), 127-31; Myles Burnyeat, et al., *Notes on Aristotle’s Metaphysics Z* (Oxford: Sub-faculty of Philosophy, 1979), 2; Jaakko Hintikka, “The Varieties of Being in Aristotle,” in *The Logic of Being: Historical Studies*, ed. Simo Knuuttila and Jaakko Hintikka (Dordrecht: D. Reidel Publishing Co., 1986); Halper (1989), who claims that “insofar as Aristotle has any concept of what later came to be called existence, it is his being as truth” (223), and Halper (2009), 82. Christopher Kirwan, trans. with notes, *Aristotle: Metaphysics Books G, D, E*, 2nd ed. (Oxford: Clarendon Press, 1993), 214-17.

On the difference senses or uses of be and their relation, see also F. Brentano, *On the Several Senses of Being in Aristoteles*, trans. by R. George (Berkeley/Los Angeles: University of California Press, 1975); Charles Kahn, “The Greek Verb ‘To Be’ and the Concept of Being,” *Foundations of Language* 2 (1966): 245-65; esp. 249-52; “Some Philosophical Uses of ‘to be’ in Plato,” *Phronesis* vol. 26 (1981) 105134; more extensively, *The Verb ‘Be’ in Ancient Greek* (Dordrecht, Holland: D. Reidel, 1973); and a summary in “A Return to the Theory of the Verb *be* and the Concept of Being,” *Ancient Philosophy* 24 (2004), 381-405. Kahn’s position is that copulative use supplies the foundation for a system of interrelations between generally three uses: the copulative, existential, and veridical. The existential and veridical uses make explicit what is implicit in the copulative use, and as such can be treated as second-order semantic operators. See also Lesley Brown, “Being in the *Sophist*,” *Oxford Studies in Ancient Philosophy* 4 (1986): 49-70; and Brown, “The Verb ‘to be’ in Greek Philosophy: Some Remarks,” in Steven Everson, ed., *Companions to Ancient Thought 3: Language* (Cambridge University Press, 1994), 213.

A different line of interpretation (L.M de Rijk, *Aristotle: Semantics and Ontology*, Vol. 1 [Leiden/Boston/Köln: Brill, 2002]) takes the primitive, focal meaning of ‘is’ to be something like “being there”, which is something like the existential use but semantically more robust, having a connotative and hyparctic (from ‘*huparchein*’, “to hold of”) or assertoric (like “is the case”) sense, 33 ff, 53ff, 197 ff. De Rijk argues that “there is no reason to abandon the traditional view that the existential use of *einai* is the central one, by which all others can reasonably be explained,” 30, and thinks that Ruijgh (C.J. Ruijgh, Review of Kahn [1973] in *Lingua*, vol. 48 [1979]: 43-83; “Sur la valeur fondamentale de *einai*: Une réplique,” *Mnemosyne*, vol. 37 [1984], *passim*) has convincingly refuted Kahn’s main thesis that the copulative use of ‘*einai*’ is central, sec. 2.4. To some extent my view remains non-committal on the discussion of which ‘is’ is primitive, though my view is more-or-less consistent with those who take Aristotle’s use of ‘is’ in the contexts I consider as most easily understood as somewhere within a combination of various uses. See also de Rijk, 83, n. 23, on Kahn and on Matthen, 80-84. For response, see Kahn (2004), 386. Also, the separate ‘being as truth’ issue is of secondary importance here. I treat it elsewhere.

including “is such and such” (copulative), “is the same as” (identity), “is enduring” (temporal), and “is located in space” (locative).

Aristotle’s use of ‘*to on*’ and ‘*einai*’ in T_{df} has been interpreted widely and variously, but generally either as employing the existential, copulative, or veridical use, or a combination of two or more.⁶

E. A true statement states of that which exists that it exists, and of that which does not exist that it does not exist.

V. A true statement states of that which is the case that it is the case, and of that which is not the case that it is not the case.

C. A true statement states of that which is P that it is P.

There are substantive and persuasive criticisms of each view. On purely philosophical grounds, one can rule out E for two reasons. Plato offers a serious attempt to resolve the problem of not being which Parmenides first wrestled in dactylic hexameter. Aristotle knows this problem well (*Phys.* I 3, *Met.* N 2). If Aristotle were to mean by ‘that which is’ and ‘that which is not’ “what exists” and “what doesn’t exist,” he would face the difficult problem of “absolute” non-being, and as a result those against whom Aristotle is objecting would certainly have grounds for counter-objection. Second, if ‘to be’ is understood existentially, the definition of truth will not be sufficiently general to cover all types of statement. The account could handle ‘This parrot is not’ in the sense that he is no more, but unable to handle all the variety of, say, predicative statements like ‘Socrates is pale’, ‘Socrates is a man’, etc. And strictly speaking there is no naked existence for Aristotle: particulars *are* insofar as they are something or other, and universals *are* insofar as they hold of some subject or other—the world is ontologically G-rated.⁷ But this is not to say that the ‘is’ in an expression such as ‘there is a man’ (*Cat.* 14b14, see also *Cat.* 13b19) should not be treated as if it were being used existentially—surely the syntactic arrangement has that emphasis (note Aristophanes’ *Clouds* 367: “*oud’ esti Zeus*”). Ontologically, though, things are different.⁸

⁶ One need not take these to be mutually exclusive possibilities. Brown (1994) and Kahn (1973), (1981), (2004) have argued that there is no hard distinction between the existential, copulative, and veridical uses of ‘*einai*’. Wheeler (forthcoming *Apeiron*) rightly argues that Aristotle needs ‘*to on*’ and ‘*einai*’ to be taken in the broadest scope possible to capture common usages, so the likely reading is a “comprehensive” use (see Matthen [1983], 115 ff.; and Ross [1924/1997]), a combination of existential and copulative uses: to be is to exist as something or other; so, on this view, T_{df} = “To assert of what exists as an F that it does not exist as an F, or of what does not exist as an F that it exists as an F, is false, while to assert of what exists as an F that it exists as an F, and of what does not exist as an F that it does not exist as an F, is true.” Wheeler claims one of the benefits of this reading is that it “doesn’t presuppose a particular ontological framework.” I agree. Nevertheless I think T_{df} must be read within the history of the discussion of being and not being, and in conjunction with Aristotle’s struggle to locate what is substance most of all. In this respect, and in light of the earlier works and *Met. G*, the quasi-copulative works better insofar as it captures the general way of talking about truth independent of specific logical and ontological concerns. See also Owen, “Aristotle on the Snares of Ontology” in *New Essays on Plato and Aristotle*, ed. R. Bambrough (London: Routledge and Keegan Paul, 1965), 69-75; Allan Bäck, *Aristotle’s Theory of Predication* (Leiden/Boston/Köln: Brill, 2000), who argues for the “aspect theory of predication,” 264 ff, according to which “every statement, strictly speaking makes an assertion of existence, ... ‘Is’ then has a single sense, a structure that is both existential and copulative: ‘existence with hooks’.”

⁷ See for example, *Cat.* 14a6-9, *De Int.* 19b19-30, *Top.* 103b27-39, *Phys.* 186a24-32. But the story is a bit more involved: *Met. G* 2. 1003b5-10, *D* 7, *Z* 1. 1028a13-20, *Q* 10. 1051b33-a2.

⁸ I more or less side with Ross, *Met.* vol. I (1924/1997), 308, Dancy (1975), 208-9; Kirwan (1993), 214-5. Cf. Whitaker (1996), ch. 2, and p. 136; Crivelli (2004) 100-25; Bostock, *Aristotle: Metaphysics Z and H*

The veridical use gains support from Aristotle's occasional tendency to treat "things" (*pragmata*) or composites (*suntheta*) as facts or states of affairs, like white wood and the incommensurability of the diagonal (*Met.* Q 10. 1051b20-1).⁹ But suppose after returning from the beach, Socrates is not pale and I tell him that he is not pale. I speak the truth: I have stated of that which is not that it is not. Treat 'that which is not' veridically. The result is that a true statement states of that which is not the case that it is not the case. However, we might ask, What's not the case? Socrates' not being pale? No, Socrates' not being pale is something that *is* the case; so, I would be speaking falsely: I state of what is the case (it is the case that Socrates is not pale) that it is not case. And surely Aristotle does not want to assert this. Second, if the veridical reading is correct, τ_{df} would claim that every true statement would state of some state of affairs (like Socrates' being pale) that is the case *that it is the case* (i.e., "Socrates' being pale is the case"), but statements rarely have this structure.¹⁰ Third, if the expressions 'to on' and 'einai' are both taken linguistically, then τ_{df} amounts to something like: "stating of 'S is P' is true that 'S is P' is true," etc. But then the statement becomes uninterestingly redundant.¹¹ The veridical reading will not do.

In the context of *Metaphysics* G, the copulative use looks more promising, though the reading I defend is "quasi-copulative"—perhaps the 'is' of instantiation. The bulk of G is dedicated to a discussion of the law of non-contradiction and a criticism of those, including the Heracliteans and sophists, who Aristotle thinks are committed to denying the law, but in G 7, with Anaxagoras on his mind, Aristotle turns to an *ad hominem* defense of the law of excluded middle.¹² The definition of truth and falsehood arises

(Oxford: Clarendon Press, 1994), 49, 57. On being *holôs*, *haplôs*, see for example, *Met.* Z 1. 1028a30-1, but in the case of existential statements regarding in-composites like universals, see Q 10. 1051b23-28, b33-a4. Alan Code ("Aristotle and Existence," forthcoming) has a promising account of how Aristotle explains the existence of essential and non-essential attributes in terms of their ultimate grounding in primary substances. See also, Frank Lewis *Substance and Predication in Aristotle* (Cambridge: Cambridge University Press, 1991), 63-73.

⁹ On the veridical side, see Kirwan (1993), 117; Kahn (1973) 336 n. 7, 363, 367-8; and Kahn (2004), 391. Crivelli (2004) opts for something like the veridical reading, but it turns on the notion of being as "being true" which he applies to 1011b26-7. Crivelli, 46-50, argues that Aristotle recognizes only affirmative states of affairs (though note *Cat.* 12b14-6; he thinks this does not support negative states of affairs). The evidence derives from *Met.* Q 10. 1024b17-21, but I remain unconvinced, primarily because it is unclear to me that Aristotle requires or even recognizes states of affairs (non-mental, non-linguistic objects of a propositional nature [3-5]). On Crivelli's view, the statements 'Socrates is standing' and 'Socrates is not standing' are likenesses (in the sense of signification) of the same state of affairs, *Socrates' standing*, which if 'Socrates is not standing' is true, is not in the sense of being false (Crivelli [2009], 95). But curiously as Aristotle presents it, the truth conditions for statements seem to bypass the Crivellian states of affairs and refer directly to the combined or divided *objects*, and as on my interpretation, with emphasis on the predicate expression. Crivelli may address the former issue; see 130 ff. Also, if Crivelli is right about the distinction between about states of affairs and the objects (universals and individuals) involved, it would seem to introduce new objects between noetic/linguistic entities and the world. Truth and falsehood emerge at two levels: a) between the state of affairs and the objects, and b) between assertions/denials and states of affairs. And if so, it seems to commit Aristotle to an ontology of universals, individuals, *and* states of affairs, where states of affairs function as *tertiary* entities (some true, some false) that are at once a truthbearers and truthmakers.

¹⁰ Künne (2004), 96. But cf. Crivelli (2004), 47-50, 130.

¹¹ See Wheeler (*Apeiron* forthcoming).

¹² Though Aristotle knows LNC is incapable of demonstration insofar as it is a first principle. Ross (1924/1997), vol. I, 285.

because Aristotle thinks it will make it clear why there cannot be any intermediate property between two contradictories.

Consider the way Aristotle formulates the Law of Non-Contradiction (LNC) and Law of Excluded Middle (LEM). At G 3. 1005b19-21, Aristotle says of LNC, “We have next to state what this principle is”; then he states it:

LNC: [For] the same thing to hold (*huparchein*) good and not to hold good simultaneously of the same [thing] and in the same respect is impossible. The statement of LEM comes at G 7. 1011b23-24:

LEM: It is impossible that there be anything between a contradiction, but it is necessary either to assert or deny any one [thing] of another.¹³

Supposing a comfortable shift between formulations of the laws in terms of particulars and universals, on the one hand, and linguistic subjects and predicate expressions, on the other, Aristotle *tends* to emphasize the properties insofar as they hold of, or regarding linguistic predicates that they are asserted or denied of, some subject (‘Socrates is pale’ asserts that *being pale* belongs to Socrates). In the case of both LNC and LEM, there is an emphasis on the predicate expression, but insofar as it indicates that a property *is* (or is not) in the case of a subject. So for instance, one can assert *being pale* in the case of Socrates and *not being pale* in the case of Socrates, but LNC does not permit claiming that being pale and not being pale hold of Socrates at the same time and in the same respect, and LEM claims it is necessary that one can either assert being pale of Socrates or deny being pale of Socrates (i.e., assert not being pale of Socrates).

Aristotle’s emphasis on properties insofar as they belong or not to a subject, or on predicate expressions insofar as they are asserted or denied of a subject suggests a plausible reason why Aristotle has a version of copulative use in mind when formulating his definition of truth and falsehood. If it is necessary to assert or deny any one thing of another, and what he means by this is that it is necessary that one can assert or deny any property of some subject, one thing Crito can assert truly about Socrates is *being pale*, since being pale really holds of Socrates.

Although this tendency reaches as far back as the *Categories* and *De Interpretatione*, this emphasis on the predicate expression is supported in G. Here are three cases:

I. Met. G 4. 1006b34: Consequently it is not possible that it should be simultaneously true to say of the same thing (*to auto*) [i.e., the subject] that it is a man and is not a man.

Here the copulative use of ‘*einai*’ with the emphasis placed firmly on the predicate insofar as it *is* or *is not* with respect to the subject is pretty clear: “to be a man” and “not to be a man” are not the sort of things we can state of the same subject.

II. Met. G 4. 1007b23-24: For if a man [i.e., a general subject] is thought by someone not to be a warship, it is plain that he is not a warship; so that he also *is* [i.e., in the sense that he *is* a warship], if the contradiction is really true.

Here the emphasis is on the subject expression insofar as some property is being asserted (or in this case “thought”) and denied of it, and a copulative reading of ‘*einai*’ and ‘*esti*’ provides the best sense of the passage.¹⁴

¹³ Note that there is a subtle difference in the way Aristotle expresses the laws. See P. Gottlieb, “The Principle of Non-Contradiction and Protagoras,” *Boston Area Colloquium in Ancient Philosophy* VIII (1994), 183-209.

III. *Met.* G 4. 1007b32-33: I mean for instance that if it is true to say of a man that he is not a man, plainly he is also either a warship or not a warship. So if the affirmation holds good of him, necessarily its denial does, too.

The third passage combines subject and property. What is accomplished when the statement that ‘Socrates is a man’ is true is successfully stating *of* the actual Socrates *that he is a man*,¹⁵ though ultimately what ‘is a man’ signifies is the particular instantiation of *man* in the case of Socrates.

Formulate the general assumption Aristotle makes about the “bi-directionality” of being (BD) this way:

BD: For any subject S and universal P, one way for S to be and one way for P to be is for S to be P.

BD_n: For any S and P, one way for S not to be and one way for P not to be is for S not to be P.

Supposing that Aristotle accepts BD and BD_n,¹⁶ the copulative interpretation of ‘that which is’ and ‘that it is’ would follow these principles (‘B’ = Being):

B1: ‘That which is’ can refer to any S when, for some P, S *is* P.

B2: ‘That which is’ can refer to any P when for some S, P *is* with respect to S.¹⁷ Moreover, the B principle can apply to the expression ‘that it is’ (*einai*) as well:

B1: ‘that it is’ can refer to any S when for some P, it is stated that S *is* P.

B2: ‘that it is’ can refer to any property P when for some s, it is stated that P *is* with respect to S (in other words, that s *is* P).

Given this way of interpreting the text, the expressions ‘that which is’ and ‘that it is’ may refer directly to the subjects and properties insofar as they are in the case of the other. This quasi-copulative reading of the verb ‘to be’—the ‘is’ of instantiation—is not exactly as straight-forward as that expressed in C, or even in the comprehensive combination of E and C. Stating of that which is that it is need not necessarily mean that one states of that which is P that it is P: ‘that which is’ and ‘that it is’ can refer either to real-world subjects and universals as if they in their particular instance of *being* were fragmented from that to which they adhere.¹⁸ The idea underwrites the significance of claims such as: “for when a man is healthy, then also health is ...” (*Met.* L 3. 1070a22-4; see too, *Cat.* 14a6-10, *Met.* G 2. 1003b5-10, Z 1. 1028a13-20), while at the same time capturing the additional condition expressed by claims such as, “it is because the thing [here, “particular”] is or is not that the statement is said to be true or false” (*Cat.* 4b8-9).

¹⁴ Cf. *Met.* G 5. 1009a7-8, b4, 1010b22.

¹⁵ Cf. *Met.* G 4. 1008a19-30, b30-33, G 5. 1010b14-18.

¹⁶ Here I see compatibility with Code (forthcoming), and Lewis (1991), 69.

¹⁷ This works for “not being” as well, and linguistic employment of B1-2. For additional textual support, see *De Int.* 10; in particular, *De Int.* 19b13-30.

¹⁸ Generally this notion of being in the case of something can be traced back at least to Plato’s *Sophist*. See Michael Frede, “Plato’s *Sophist* on false statements,” in Richard Kraut, ed., *The Cambridge Companion to Plato* (Cambridge University Press, 1992), 420; and see further, Frede, *Prädikation und Existenzaussage, Hypomnemata* 18 (Göttingen: Vandenhoeck & Ruprecht, 1967), 57-58. More frequently Aristotle employs the expressions ‘holds of’, ‘belongs to’ ‘predicated of’ (understood ontologically), which are used analogously to ‘being said of’ at linguistic level. In some cases, to *hold of* or to be *predicated of* looks like the relation of being. See S. Bobizen, “The Development of *Modus Ponens* in Antiquity: From Aristotle to the 2nd Century AD,” *Phronesis* 47, 359-94, esp. 372-3; cf. Crivelli (2004), 133, n. 18.

The beauty of such an interpretation is (1) it avoids the pitfalls of having to read the verb ‘to be’ with any particular sense in mind, though it emphasizes the more primitive copulative use of the verb while at the same time embodying the existential sense, (2) it fits nicely with the discussion of being and not being that precedes G 7, (3) it illuminates to some extent what Aristotle means by combination, broadly construed, (4) it fits well within the discussion of particulars and universals presented alongside truth in the *Categories* and *De Interpretatione*, (5) it is consistent with and perhaps even motivated by the *Posterior Analytics* claim that “perception is of the universal—e.g. of man but not of Callias the man)” (*APo.* 100a16-b1) and subsequently Aristotle’s commitment to the central explanatory role of universals, and finally (6) it makes sense within the development of Aristotle’s conception of substance, particularly in the *Metaphysics* where Aristotle struggles to locate primary substance (what can be subject and form, see for example *Met.* D 8. 1017b10-26, Z 3. 1028b34 ff, Z 6, Z 11. 1037a21-b7, Z 13. 1038b2-6, H 1. 1042a12-15, 26-31).¹⁹ Perhaps Crito was prescient.

4. Truth and the Facts, Funny or Otherwise

If truth requires the existence of a truthmaker like a *fact* or state of affairs, then one might claim that Aristotle has a correspondence theory of truth since he seems to treat combinations like Socrates’ being pale and the incommensurability of the diagonal as “things” or “*pragmata*.” LSJ lists a good number of different uses of ‘*pragma*’, including fact, matter, affair, activity, circumstance, trouble, and annoyance. Sometimes ‘*pragma*’ means plain old “object” or “thing.” Both Plato and Aristotle are rarely clear about what constitutes a *pragma*, though there is good evidence for thinking that—depending on the context—they mean something either like a particular circumstance or, loosely speaking, a state of affairs, or some entity like a form, species, universal, substance, or particular.

One striking passage involving ‘*pragma*’ is *Categories* 14b11-22, where Aristotle claims,

For of things which reciprocate as to implication of being (*tôn gar antistrephontôn kata tēn tou einai akolouthêsin*), that which is in some way (*hopôsoun*) the cause (*to aition*) of the other’s being (*tou einai*)²⁰ might

¹⁹ The latter two points are particularly helpful to remember when thinking about how Aristotle might deal with the truth conditions for existential statements. Also, one important issue that is beyond the scope of this paper but part of the larger project is that *Met.* D 8 and the opening of Z paint Aristotle’s trouble with locating primary substance. For example, paleness is in the case of Socrates, but Socrates, a combination of form and matter, is because he is a man. In other words, paleness is instantiated in the case of an instantiation of man. In this respect, it is difficult to determine what exactly it is that constitutes the subject as Aristotle struggles with the subject criterion of substantiality established in the *Categories* and modified in *Metaphysics* Z. So, whether an essential predication expresses an actual combination of subject and predicate poses a real challenge, but certainly there is a distinction between referring to the essence as such and the essence as instantiated (I) in cases I₁ – I_n. This may lend a bit more support for my reading, since the logical structure of subject-predicate expressions need not precisely reflect conditions at the ontic level, even when such statements are true.

²⁰ What sort of being might this be? Line b20 picks out *being true*. So, in this respect, Aristotle is specifying an ontological condition for being true. This would place him in line with *Met.* D 7. 1017a31-2, G 10. 1051b1-5, and 1051b33-5. Crivelli (2004) takes the G 10 passages in support of the states of affairs view, and subsequently takes the specification at *Cat.* 14b15 that the species man *is* as meaning that the

reasonably be called prior by nature. And that there are some such cases is clear. For there being a man (*to gar einai anthrōpon*) reciprocates as to implication of being with the true statement about it (*peri autou*): if there is a man (*ei gar estin anthrōpos*), the statement whereby we say that there is a man (*hoti estin anthrōpos*) is true, and reciprocally (*kai antistrephei ge*)—since if the statement whereby we say that there is a man is true, there is a man. And whereas the true statement is in no way the cause of the thing’s being (*oudamōs aition tou einai to pragma*), the thing (*to pragma*) does seem in some way (*pōs*) the cause (*aition*) of the statement’s being true; it is because the actual thing is or [is] not (*tōi gar einai to pragma ê mē*) that the statement is called true or false.

The example is an existential claim: ‘There is a man’.²¹ Whatever the *pragma* is that is the condition for the truth of ‘there is a man’ involves the universal *man*. Is *pragma* a simple fact? Unlikely since he doesn’t specify the use of the word in this way, though he occasionally slips into this way of speaking.²² It is more plausible that a *pragma* is something like a state of affairs. But read in the context of the *Categories* and *De Interpretatione* it is difficult to justify reading it this way since Aristotle tends to use ‘*pragma*’ to emphasize either the universal that the predicate expresses or the particular(s) that the subject term expresses. For example, Aristotle claims,

Now of the things (*tōn pragmatōn*) some are universal (*katholou*), others particular (*kath’ hekaston*) (I call universal that which is by its very nature (*pephuke*) predicated of a number of [things], and particular that which is not; man, for instance, is a universal, Callias a particular). (*De Int.* 17a38-b1)

Here ‘*pragma*’ refers either to the universal or particular. But he also claims, With contraries it is not necessary if one is (*êi*) for the other to be (*einai*) too. For if everyone were well health would be (*estai*) but not sickness, and if everything were white whiteness would be (*estai*) but not blackness. Further, if Socrates’ being well is contrary to Socrates’ being sick, and it is not possible for both (*amphoterā*) to hold (*huparchein*) at the same time of the same person (*tōi autōi*), it would not be possible if one of the contraries were for the other to be too; if Socrates’s being well were Socrates’s being sick would not. (*Cat.* 14a6-14)

Here the emphasis of being is on the instantiated universals health/sickness, whiteness/blackness, rather than whiteness, etc., generally or the particular Socrates. Although ‘*tou Sōkratē hugiainein*’ (‘Socrates’s being well’) suggests that Aristotle is referring to the state of affairs Socrates’-being-well, the referent of ‘*amphoterā*’ at a12 taken in conjunction with ‘*tōi autōi*’ is likely the *being well* and *being sick* referenced in

species man is in the sense of being true, and so this passage is evidence for and consistent with the states of affairs view. I do not; see notes 63 and 75.

²¹ This existential claim need not express an incomposite, but it can. I take it that given the context, Aristotle is using this statement to express a general point about priority with respect to truth. So, ‘there is a man’ could be read as elliptical for ‘Crito is a man’ or ‘Socrates is pale’, in which case ‘there is a man’ signifies the instantiated universal *man*, or as the strongly existential ‘Man is’. Cf. Crivelli (2004), ch. 3; Whitaker (1996), 135-7; Owen (1965), sec. III. Crivelli takes it that the *pragma* in question is the same as the “*autou*” in b15, which is correct, and on his interpretation *pragmata* can be composites in the form of a state of affairs or incomposites. On my interpretation argued for below, the *pragma* can be either the universal taken as such, the instantiated universal, or, in the case of assertions of the form S is P, the particular. Here it is likely the instantiated universal, but could also represent the universal as such.

²² Crivelli (2004), 130, cites *APr.* 2.15. 64b10, *GC* 1.8. 325a18, *Phys.* 8.8. 263a17, *Met.* A 3. 984a18. Cf. Pritzl (1998), 183-4.

the previous line. So here Aristotle is emphasizing the universal insofar as it is instantiated in the particular, Socrates, like Socrates' untreatable paleness.²³ Other times the subject is emphasized (*Cat.* 13b12-19; see also *Cat.* 4b8-9, *Top.* II 109a27). But in neither case does Aristotle treat *pragma* as a fact or state of affairs.

Although there are other passages that employ '*pragma*' in less precise ways (for example, *Cat.* 12b5-16) and some passages that more strongly suggest treating *pragma* as states of affairs, really the issue is whether T_{df} requires some truthmaker like a fact or state of affairs that obtains.²⁴ But the texts do not support that it does. Aristotle thinks that truth depends on being and not being, and this being resides in a property's *being* or *not being* in the case of some subject.

5. Asymmetrical Relations and Truth Making

The reasons for attributing a correspondence conception to Aristotle are diminished in light of the above considerations, though *Categories* 14b11-22 again raises concerns about whether Aristotle thinks truth is explained in terms of some sort of relation between noetic/linguistic entities and ontological combinations and separations. The word "cause" (*aition*) suggests as much, though note that Aristotle is emphatically hesitant to commit himself to the strict sense of cause when he qualifies by claiming that the *pragma* is a cause "in some way" (*hopôsoun*, b12), and reiterates the point at b20 (*pôs*).²⁵ Conceivably Aristotle thinks of a *pragma* as being a loose explanation of truth, rather than as a causal or definitional explanation, and his referencing it merely reveals his realist commitments (see *Met.* Q 10. 1051b6-9).²⁶ Perhaps more to the point, this "causal" dependency could be taken against the background of his semantic views. Since meaning is tied to the world via the route explicated in section 2 above, when Aristotle claims that a statement is true because of entities in the world—in other words, that a statement *is true in virtue of* something else—his point is a consequence of his semantic theory: truth depends on the world because meaning does. However, such "worldly" ties need not explain truth *per se*; ultimately as far as Aristotle is concerned, there are background semantic and ontological conditions necessary for the possibility of truth. 'Truth making', then, as I use it, indicates nothing more than that truth depends on the world, and not that truth is defined by a truth-making relation.

Another reason not to think that Aristotle considers truth to be a relation is that he does not treat the truth predicate in the same way he treats other predications, particularly *pros ti* predications. For example, at *Categories* 4a29-b13 Aristotle claims that "in the case of substances it is by themselves changing that they are able to receive contraries," whereas statements like 'Socrates is sitting' are "completely unchangeable in every way." As for truth, it is because of a change in Socrates, the *pragma*, that 'Socrates is sitting' becomes true then false. So, the shift in predicates *true*, *false* as applied to statements indicates no change in what they are predicated of. 'True' and 'false' operate differently

²³ See also *Top.* II. 109a27-33.

²⁴ Künne (2003), 96, n. 17, and P. Geach, "Aristotle on Conjunctive Propositions," *Logic Matters* (Oxford: Blackwell Pub, 1992), 21.

²⁵ Moreover, in whatever way the *pragma* is the cause, '*pragma*' refers in pertinent contexts to either the subject or universal, though in light of the B-principles this option is not mutually exclusive (see *Cat.* 4b8-10, 12b12-16).

²⁶ Cf. Irwin (1988), 269 and sec. 2. Künne (2003) offers an interesting discussion of Aristotle in the context of a consideration of the association of truth making correspondence relation; see ch. 3.5, particularly secs. 3.5.1-3.

from other predicates, including relatives. One might call them second order,²⁷ and *non-relational*.

6. Conclusion

So, back to T_{df} . In the context of G, Aristotle is engaged in dialectic. Aristotle appeals to a formula for truth that expresses minimal conditions for a statement or thought to be true or false.²⁸ Since Aristotle need not initially specify semantic or ontological conditions, T_{df} by itself is general enough to be non-question-begging and so acceptable to those dialectically engaged. But presumably his position is that to be capable of formulating true or false assertion—and in particular, of engaging in science—certain more substantive ontological and semantic conditions are necessary. In this respect, his strategy is similar to Plato's strategy against the lovers of sights and sounds in *Republic V*.²⁹ The lovers of sights and sounds need not (and don't) commit themselves to a world of forms, only to the claim that knowledge is set over that which is in every way, while belief is set over that which is and is not. Only later does Plato reveal what *that which is in every way* must really be about.

But Aristotle's own understanding of T_{df} is robust. On my interpretation, his view is this:

T_{df} -I: For to state of that universal P which *is* in the case of some subject S that P *is not* in the case of S *is false*, and to state of that P which *is* in the case of S that it *is* in the case of S and of that P which *is not* in the case of S that it *is not* of S *is true*.

This conception brings him closer to Plato. Plato's a realist, too. Aristotle prefers to keep his *being* immanent, but in some sense form takes on ontological primacy. My view is that even after Aristotle's central ontology, psychology, and semantics are in place, his particular conception of truth remains free of the hallmarks of the correspondence theory of truth and retains a minimalist character.³⁰

There are reasons for thinking Aristotle would not have appealed to them. Statements have a particular syntactical structure and their components acquire semantic content from functioning as symbols for the components of thoughts, though statements themselves can be legitimate bearers of meaning and truth via their functional dependency on thought. [I discuss this point in the longer version of the paper.] The components of thought are likenesses of universals accessed via a complicated perceptual mechanism. But for Aristotle complex thoughts (unlike thoughts of incomposites like essences where truth is something like contact [or identity] with no possibility of falsehood) are functionally and structurally unlike the world in that they exhibit intentionality and syntactic structure (a "deep syntactic structure"). Their structure is in some sense dependent on language (insofar as it is a natural product of our rational capacity). In the case of true assertions, their structure does not require isomorphism or agreement with what they are about *because* of the unique structural nature of thoughts and statements. Moreover, Aristotle does not treat the truth predicate as expressing some *relation* between noetic-linguistic and ontic items. Nor does Aristotle require that there be some fact or state of affairs that obtains to function as truthmaker. Aristotle's

²⁷ See Wheeler (forthcoming).

²⁸ Crivelli (2003), 260, lists nine assumptions that the definition of truth relies on.

²⁹ And perhaps more importantly, the Protagoreans and Heracliteans in the *Theaetetus*.

³⁰ Though not deflationary. Cf. Wheeler (*Apeiron* forthcoming). See Alston, *RCT*, chs. 1-2.

conception of truth merely requires that some universal be instantiated (or not) in the case of a subject, and given Aristotle's shift in conception of primary substance by the time of the *Metaphysics*, combination at the ontic level looks quite different from what it did in the *Categories*. Truthmaking resides in the immanent universal, the primary locus of being for Aristotle.

At *De Interpretatione* 18a39-b2, Aristotle claims, "For if it is true to say that it is white or it is not white, [it is] necessary that it is white or not white, and if it is white or not white, then it was true to say or deny this." Aristotle's conception of truth looks like this:

TA-Schema: 'S is P' is true \leftrightarrow S is P.

TA-Schema_(n): 'S is not P' is true \leftrightarrow S is not P.

By _{Tdf} Aristotle need only mean that *stating* with respect to some property P that *is* in the case some subject S *that P is* in the case of S, is what amounts to truth. More precisely then for Aristotle the TA-Schema would amount to:

TA-Schema*: 'S is P' is true \leftrightarrow the universal P is instantiated in the case of S. TA-Schema_(n)*: 'S is not P' is true \leftrightarrow the universal P is not instantiated in the case of S.³¹

Does this conception of truth require correspondence? Some are inclined to think so. That is fine, as long as we understand in what respect.

³¹ Cf. Künne (2003), 100.

