

Definition and Essence in Aristotle's *Metaphysics* vii 4

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We may take Aristotle's *Metaphysics* vii 4 as advancing a theory about essence (*to ti en einai*) and at least a part of Aristotle's theory of definitions. The text is, however, very difficult: it is hard not only to understand each step of Aristotle's discussion, but also how they square with each other and with the broader context of *Metaphysics* vii as a whole. One might be tempted to say that Aristotle hesitates, or even contradicts himself, about criteria for definition and essence. I show that Aristotle's treatment of essence and definition here is completely coherent and perfectly in accord with its broader context. His discussion in vii 4 offers not only minimal criteria for what counts as definition and essence for whatever kind of object, but also stronger criteria for a primary sort of definition and essence. Thereby it serves the interest of book 7 in the explanatory power of the essence of composite substances.

Section 1 considers what '*logikôs*' means in vii 4. Section 2 examines passage 1029b13-22 in which Aristotle offers what I take to be a *logikôs* account of minimal features of the notions of essence and definition. Section 3 investigates the passage 1029b22-1030a2 that discusses whether this minimal notion of essence can be ascribed to accidental compounds. I also explain the possible motivation for such a concern. Section 4 explores 1030a2-17 that presents some further requirements for a stricter notion of essence. Section 5, focusing on 1030a17-32, attempts to explain how Aristotle's minimal (or *logikôs*) and stricter accounts of essence and definition fit together. In section 6, at last, I show that Aristotle's account of essence and definition in vii 4 is coherent and perfectly integrated into the account of substance in *Metaphysics* vii.

I. The meaning of *logikôs*

The chapter begins: 'Since at the start we distinguished the various marks by which we determine substance, and one of these was thought to be the essence, we must investigate this' (1029b1-2).¹ He adds shortly thereafter, 'And first let us make some remarks about it from a logical standpoint (*logikôs*)' (1029b13-4). What does Aristotle mean by this 'logical standpoint' that seems to circumscribe his following discussion? Need '*logikôs*' point to an inadequate or empty discussion? Or does it point to a preliminary diaporía (Irwin 1988, 211 suggests such a view)?

¹ This is Ross's translation, which I prefer to the Revised Oxford translation. I shall usually give my own translation of Aristotle's text, but use Ross's translation where this seems adequate.

The adverb ‘*logikōs*’ and the adjective ‘*logikōs*’ in Aristotle’s works usually introduce a point of view that is general, preliminary and—most importantly—attached to one sense of ‘*logos*’. This point of view can be the analysis of definitions and its logical consequences,² the analysis of requirements for a correct use of some expressions,³ the observation of consequences of a given hypothesis,⁴ and so on. Now, in a context where the issues to be solved require observation of facts, it is wrong to trust merely the analysis of definitions or the consequences of an initial hypothesis.⁵ Similarly, in a context that requires observation of the appropriate principles of the subject-matter, it is wrong to rely only on general principles, which, even being true about that subject-matter, do not explain specific questions about it.⁶ But in contexts where the issues depend strictly on the rules for a correct use of some expression, or on some general principles, a ‘*logikōs*’ approach may suffice. And where surveying logical or linguistic constraints can give some ground for further investigation, the ‘*logikōs*’ approach proves useful.⁷

The argument of vii 4 uses the ‘*logikōs*’ approach for such initial clarification. It provides a level of examination of *logos* (more precisely, of predicative statements) aiming: (a) to consider logical relations between terms in a predication (as whether one implies the other or not), (b) to assess features of a predication (as whether the predicate gives relevant information about the subject). But it is not concerned (c) to disclose the ontological status of the things referred to by the terms, nor (d) to discuss the explanatory features of the predication at stake.⁸

² In *Physics* 204b4, ‘*logikōs*’ points to an analysis in which the *definiens* account of ‘body’ as ‘that which is limited by a surface’ is shown to be inconsistent with the notion of ‘unlimited’ (*apeiron*). A similar point is found at *De caelo* 275b12-15: an unlimited world is a notion incompatible with circular motion, since the latter depends on the notion of a center (of the world), but what is unlimited cannot have a center.

³ The *logikē* aporia examined in *Physics* 202a 21ff. might be understood in this sense.

⁴ Passages like *Physics* 204b4 and *De caelo* 275b12-15 can be taken in this way too: the hypothesis will be the existence of an unlimited body (or unlimited world); from this hypothesis would follow a contradiction: a body, which is by its nature limited, will be unlimited (or it would follow that it will be impossible for the world to have circular movement).

⁵ See *De gen. et corr.* 316a6-14. The sense of ‘*logos*’ at *De caelo* 293a23-27 (as well as at *GC* 325a12-15) seems to be the ground for this pejorative usage of ‘*logikōs*’. But the pejorative sense depends on the context, see Burnyeat 2001, 21; Frede and Patzig 1988, 59.

⁶ ‘*Logikōs*’ and cognates have this pejorative meaning at *GA* 747b28-30, 748a7-8 (for a slightly different view, see Burnyeat 2001, 21), as well as in *Meta.* 1087b20-21 and at *EE* 1217b21 (perhaps also at *Meta.* 1069a28).

⁷ The opposition between ‘*logikōs*’ and ‘*phusikōs*’ at *Physics* 204b4-11 might be taken in this way. See also *APo.* 82b35, 84a7, b2 (maybe 88a19 too): the ‘*logikōs*’ approach is attached to general principles and works as an adequate preliminary approach. At *Phys.* 264a8, we find a *logikōs* argument leading to the same results as an appropriate one. This usage is compatible with what was called the ‘Andronicus’ sense’ by Burnyeat 2001, 24-25. More on Burnyeat on section 5.

⁸ I use ‘explanatory’ in a stronger sense than it is usual in some discussions (e.g., in Wedin 2000, 203-204). A predicate that gives us some relevant information about the subject and improves our knowledge about what the subject is can be called an explanatory predicate. But I use the word ‘explanatory’ here to refer to a sort of predicate that fully explains what the subject is, i.e., a predicate

What I mean may be better understood if we compare the following examples of predications:

- (1) ‘triangle is a three-sided plane figure’;
- (2) ‘thunder is a certain noise in the clouds’;
- (3) ‘goat-stag is an animal that is half goat and half stag’.

One might ask different sorts of question about these according to the fourfold distinction: (i) whether the conditions for a true application of the subject-term entails the conditions for a true application of the predicate-term, and vice-versa; (ii) whether the predicate gives relevant and sufficient information for fixing the reference of the subject; (iii) whether the terms name real beings; (iv) whether the predicate captures the essence of the subject.

All the three sentences give satisfactory answers to questions (i) and (ii). But sentence (3) cannot give a positive answer to question (iii); sentences (2) and (3) do not give a satisfactory answer to question (iv). I argue that ‘*logikôs*’ at 1029b13 circumscribes a level of analysis that considers only questions (i) and (ii). And since questions (iii) and (iv) are more demanding than (i) and (ii), the *logikôs* level of examination can be taken by Aristotle as a good introduction to the study of essence, a level more familiar to us.⁹

II. Use of the *logikos* approach in 1029b13-22

A. *Kath’ hauto* predication

In 1029b13-22 Aristotle begins to employ the *logikôs* approach. He intends to clarify the notion of essence in terms of ‘that which is said of something taken in itself (*kath’ hauto*)’.¹⁰ The expression ‘*kath’ hauto*’ — with either an explicit or an implied ‘*legomenon*’ (or something equivalent, like ‘*huparchon*’) — is Aristotle’s usual jargon for introducing some sorts of predicates, which are known in the literature as *per se* predicates. His most developed account of the notion of a *per se* predicate is found in *Posterior Analytics* i 4. At *Topics* 101b38-39, Aristotle says that a definition (i.e., a *definiens* account), which is one of the four kinds of ‘predicables’, is the account of the essence (*to ti en einai*). This suggests that essence is captured in a predicate-expression attributed to the thing of which it is the essence. In *Metaphysics* vii 4, Aristotle attempts, first of all, to discern which

that selects the most relevant characteristics through which the essential structure of what the subject is is somehow exhausted.

⁹ For this reason, I think that the passage 1029b3-13 might be in its proper place in the manuscripts and the replacement proposed by Bonitz and accepted by most editors and translators is unnecessary. As to the range of this standpoint, I agree with Burnyeat 2001, 9, 21-22 when he says that the *logikôs* approach extends from vii 4 to vii 6, but I argue that one section in vii 4 (1030a2-17) is a forward-looking interruption in the *logikôs* approach and that section 1030a17-b13 attempts to show that the new, stricter point of view introduced at 1030a2-17 is compatible with the *logikôs* point of view. It is not required for my purposes to discuss how (and in what sense) vii 5 and vii 6 are *logikôs* too.

¹⁰ Cf. 1029b14. The manuscripts have ‘*hekaston*’, but that can be taken as a distributive generalizer: ‘[essence is] each predicate that is said *per se* [= for each thing taken as subject, essence is what is said of it *per se*]. See Burnyeat *et al.* 1979, 17.

sorts of logical relations between subject and predicate are capable of displaying the notion of essence.¹¹ His first step is to say that ‘the essence of each thing is that which is said of it in itself’ (1029b13-14). He then clarifies this statement as follows: ‘being-for-you is not being-for-musical, since you are not musical in yourself’ (1029b14-15).¹²

A sentence such as ‘you are musical’ does not have the logical properties required for the notion of essence. Being musical is not your essence: what-being-is-for-musical is not what-being-is-for-you, because the predicate ‘musical’ is not a *per se* predicate. Now, with the classification of *per se* predicates elaborated in *Posterior Analytics* 73a34ff. as our background, it is clear that Aristotle’s first move in vii 4 rests on the distinction between accidental and *per se* attributes.¹³ Aristotle is taking *sumbebekos* in the same sense as in *Topics* 102b6-7: a predicate that can indifferently hold or not hold of the same subject in different circumstances. Thus, musical is an accidental attribute of man because there can be a musical man and there can be a non-musical man as well; or, if we take musical as an attribute of some individual like Socrates, we must say that musical is an accidental attribute of Socrates because he can lose the property of being musical and still continue to be Socrates.

But which feature of the predicate ‘musical’ excludes it from the class of *per se* predicates? There are many kinds of *per se* predicates, but it is enough to focus on the first two Aristotle presents in *Posterior Analytics* i 4.¹⁴ Both have a common feature that opposes them to accidental predicates: their logical relation to their subjects is not mere contingency. For the first kind of *per se* predicate, given that some x is S , it necessarily follows that x is P . This inference is not true for the second kind of *per se* predicate, but it is necessarily true that, given that x is P , x is S . For both kinds of *per se* predicates, there is some relationship of implication between subject and predicate.¹⁵ And this logical feature of a *per se* predicate is enough to rule out the relation of mere contingency that holds between an accidental predicate (like musical) and its subject (like man or Socrates). Therefore, Aristotle’s minimal point at 1029b14-15 is that the relation

¹¹ Let me from now on use the term ‘logical’ as a tool for referring to the *logikôs* level as I have characterized it in my previous section.

¹² I will adopt the awkward expression ‘being-for- X ’ for translating Aristotle’s jargon ‘*to + einai + a name in the dative*’. See Bostock 1994, 4-5.

¹³ This is the usual assumption, and I do not see any reason for challenging it. See Ross 1924, 168; Furth 1988, 105-106; Loux 1991, 75; Wedin 2000, 201; Witt 1989, 105; Burnyeat 2001, 24; Peramatzis 2010, 124.

¹⁴ The third usage of ‘*kath’ hauto*’ in *APo.* 73b5-10 does not introduce a kind of predicate, but what we might call ‘ultimate subjects’ (for a different view, see Peramatzis 2010, 159-165). The fourth usage of ‘*kath’ hauto*’ in 73b10-4 does introduce a kind of predicate, but one that can be overlooked at a *logikôs* level: a predicate that not only follows from but is also causally explained by its subject. In what follows, I use ‘*per se_x*’ to indicate which kind of *per se* predicate I am taking, where ‘ x ’ points to one of the four kinds.

¹⁵ I use ‘ S ’ for the subject and ‘ P ’ for the predicate. Such a relation of implication between subject and predicate is a necessary but not sufficient condition for capturing what these *per se* predicates are.

between essence and its subject cannot be a relation of mere contingency.¹⁶

Aristotle proceeds with a further requirement for the notion of essence: ‘But not even all of this is the essence; for the essence is not that which is said to be *per se* in the sense that white is attributed to a surface, because “being a surface” is not “being white”’ (1029b15-18). Aristotle is considering white as a predicate of surface.¹⁷ His point is that white as a predicate of surface is not the right sort of *per se* predicate: it does not capture the essence of its subject. White is a *per se*₂ predicate, which satisfies the conditions for this kind of predicate (*APo.* 73b37-40): (i) S is present in the definition of the predicate P, (ii) not every S is P, but every P is S.¹⁸ For every *per se*₂ predicate, its subject is included in its definition, but the predicate itself is not included in the definition of its subject. But essence as a predicate is supposed to give the *definiens* account of its subject. Thus, when Aristotle says ‘being-surface is not being-white’ (1029b17-18), he means that the predicate white does not tell what the being of a surface is, so that this predicate is not the expression of the essence of a surface.¹⁹

Thus, the kind of *per se* predicate relevant for the notion of essence is the first one introduced in the *Posterior Analytics*. Predicates of this kind ‘are present in what something is’ (73a34-35), i.e., they are involved in the account that says what the subject is. Now, it is not true that all *per se*₁ predicates qualify as essences. The genus is a *per se*₁ predicate, but Aristotle does not claim that the genus of S is the essence of S. So far, then, Aristotle’s discussion of essence in terms of *per se* predication has shown that essence is a sort of *per se*₁ predicate, but it is still open which subclass of *per se*₁ predicate essence is.

B. Non-circularity and co-extensiveness requirements

The next passage reads as follows:

- (i) (a) Nor is the essence the combination of both, ‘being a white surface’, because the same thing is repeated. (b) Therefore, the account of the essence of each thing will be that account in which this same thing is not mentioned, (ii) and

¹⁶ I need not discuss whether all essential predicates are necessary or not. Non-contingency does not entail necessity, since it is open for a non-contingent predicate to be true of its subject only ‘for the most part’.

¹⁷ See in this direction Burnyeat *et al.* 1979, 17-20; Wedin 2000, 202. I am not convinced by those—like Frede and Patzig 1988, 60-61 and Gill 1989, 117—who argue that Aristotle is rather considering white as subject and surface as predicate. See Peramatzis 2010, 129-131 for an extensive discussion of this.

¹⁸ Perhaps we should add that (iii) a *per se*₂ predicate is usually part of a finite set of predicates, among which one is necessarily true about a given subject of the proper kind. Conditions (ii) and (iii) can be well elucidated by the following example: it is not true that every surface is white, but it is true that everything that is white is a surface, as well as it is true that every surface is either white or has some other color. Aristotle refers not to a mathematical surface ignoring physical features, but to a physical surface.

¹⁹ Aristotle’s argument relies on the equivalence between the expressions ‘*to ti en einai*’ (translated as ‘essence’) and ‘*to + einai* + dative’: the essence of surface is equivalent to the being-for-surface. The same equivalence works at 1029b25-28 and 1030a1-2.

which introduces this same thing (*legonti auto*), (iii) so that, if being white surface were being smooth surface, then being white and being smooth would be one and the same thing. (1029b18-22)

In step (i), with his previous example, a surface that is accidentally white, Aristotle says that the *definiendum* cannot be one of the terms in the account claiming to define it. Let us call it the non-circularity requirement. From a formal point of view, repetition of the *definiendum* term in the *definiens* account would lead to infinite regress, since the *definiendum* occurring in the *definiens* could be replaced with the *definiens* account as a whole—thus, saying that ‘surface is white surface’ will generate the sentence ‘surface is white white surface’, and so on.²⁰ Besides, a *definiens* account must give information about the *definiendum* in terms that are independent of the *definiendum* itself.

In step (ii), Aristotle says that the account of the essence should refer to the same thing (*‘legonti auto’*) that was taken as *definiendum*, which amounts to saying that the *definiens* account and *definiendum* term must be coextensive with each other.²¹ This point about coextensiveness is well motivated. Aristotle has said that essence is a sort of *per se*₁ predicate, but it was still open which sort it is. The point about coextensiveness adds that essence is expressed by that sort of *per se*₁ predicate that is coextensive with its subject.²² In order to show that *‘legonti auto’* must be taken in the sense of ‘referring to the same thing’—so that coextensiveness is Aristotle’s concern in this context (as well as in 1030a7-8 and b7-8)—I briefly examine a text from the *Topics* that is closely related to step (iii) of 1029b18-22.

A topic for examining whether two things, A and B, are the same or distinct from each other is to check ‘whether one of them, A, when it is added to a given thing C, compounds a whole (AC) that is the same [as the whole that results from B being added to the same C, that is, BC]’ (152b10-11). In order to decide whether A and B are the same, check whether AC is the same with BC. This test has a counterpart: ‘one must check whether the remaining result is distinct when the same thing is subtracted from each of them’ (152b10-12). In order to decide whether A and B are the same, take the compounds AD and BD, subtract D from AD and from BD: if the outcomes of those subtractions are the same, A and B are

²⁰ The *definiendum* is a surface, which is accidentally white. Aristotle is not taking the compound white-surface as *definiendum*—this issue will be first introduced in his step (iii) at 1029b22. Nor is Aristotle interested at this juncture with the question introduced at vii 5.1030b14-16, which would require taking white as *definiendum* and ‘white surface’ as an ‘*ek prostheseôs*’ definitional account. I disagree with Frede and Patzig 1988, 61 on this point.

²¹ I stress the importance of *‘legonti auto’*. ‘*Auto*’ refers to the same thing taken as *definiendum* (*‘hekastôi’* 1029b20), and *‘legonti’* obviously takes back *‘logôi’* at 1029b19.

²² Besides, in the broader context of *Meta.* vii, Aristotle is opposing adversaries who do not accept the coextensive requirement: they believe that the explanatory power of essence will stand only if essence is taken as another entity, that is independent of the thing it is the essence of, and, consequently, is distinct from that thing. I do not argue for this interpretation, but I understand most of Aristotle’s discussion at vii 6 and vii 13 according to these lines.

the same.²³ Aristotle seems to have this topic in mind at 1029b21-22. Let us start with two things, the compound white-surface and the compound smooth-surface. If these compounds were the same, smooth would be the same as white, according to the subtraction topic related at 152b11-16.

Aristotle has explicitly said at *Topics* 151b28-31 that the sort of sameness at stake in these passages is numerical unity. This needs further clarification, since the notion of numerical unity has many senses in Aristotle.²⁴ Now, his examples (justice, courage, etc.) make it clear that he is taking the notion of numerical unity in the sense distinguished at 103a23-27: numerical unity as coextensiveness between a universal term and a description (or between two universal terms, or between two descriptions). On this condition, it makes sense to examine whether ‘mantle’ and ‘cloak’ are the same, as well as whether ‘human’ and ‘biped terrestrial animal’ are the same. Aristotle is not concerned with examining whether the terms (or descriptions) are both liable to the same analysis, nor is he concerned with reference to one single individual in a particular context. When he asks whether ‘human’ and ‘biped terrestrial animal’ are the same, his issue consists in examining whether the term ‘human’ and the description ‘biped terrestrial animal’ have the same extension.

Now, Aristotle has in mind this sort of issue in 1029b21-22. The jargon ‘being-for-white-surface’ is a shortcut for introducing the essence of white-surface. At 1029b18-19, this jargon played the predicate position, but now it shifts to subject position. The claim that the essence of white surface is being-for-smooth-surface must be understood as a sort of definitional statement in which some further clarification is added. A parallel case may prove useful: granted that ‘human is biped animal of such and such a sort’, one might add that ‘being a biped animal of such and such a sort is being an animal with this particular sort of bipedality’. Now, if definitional claims involve coextensiveness between *definiendum* term and *definiens* account, as it was established at step (ii), the sentence ‘being-for-white-surface is being-for-smooth-surface’ must be taken as saying that ‘being-for-white-surface’ is the same as (in the sense of being coextensive with) ‘being-for-smooth-surface’. Applying to that sentence the topic related at 152b11-12, we get that ‘being-for-white and being-for-smooth are one and the same thing’. Now, Aristotle cannot be flirting with the claim that white must be defined in terms of smoothness.²⁵ He is rather arguing (through a suggested *modus tollens*) that coextensiveness is a requirement for whatever sort of predicate claiming to display the essence of its subject.²⁶ The advantage of using the

²³ In ‘*tou autou aph’ hekaterou aphairethentos*’ (152b11-12), ‘*tou autou*’ = D, and ‘*hekaterou*’ = A, B.

²⁴ Numerical unity seems used consistently in the *Metaphysics* to introduce the notion of an individual like Socrates, but numerical unity is treated very differently at *Topics* 103a23-27, and actually there are many controversial occurrences in the *Metaphysics*, as 1039a28.

²⁵ I find no attractiveness in the idea that Aristotle is discussing some philosopher’s reductionist account of white as smooth, as suggested by Gill 1989, 118; Bostock 1994, 87; Frede and Patzig 1988, 61.

²⁶ This is the argument: ‘if being-for-white-surface is the same with being-for-smooth-surface, it

contrafactual example of sameness between being-for-white and being-for-smooth is to stress that coextensiveness is a necessary requirement that must be satisfied by every sentence that claims to be a definition—even if the definition is a wrong one. Take someone trying to define ‘human’ as ‘three-winged animal’. This attempted definition is clearly false, but its falsity does not alter the fact that part of the meaning of the sentence is the claim that ‘human’ refers to the same entities as the description ‘three-winged animal’. Such a claim of coextensiveness is part of the ‘formal content’ (so to speak) of whatever statement advanced as an account of essence. Therefore, Aristotle’s purpose with step (iii) is just to stress that what is involved in step (ii) is a coextensiveness requirement for essence.

C. Provisional conclusions

Aristotle wants to stress that a necessary (but not sufficient) logical feature of essence is to be coextensive with its subject (see 1030a6-8). Thereby he decides which kinds of *per se*₁ predicates are capable of displaying the essence of its subject. All *per se*₁ predicates that, even being part of the *definiens* account of their given subject, are not coextensive with that subject, do not express its essence. A genus, for instance, cannot be the essence of that of which it is predicated. The same would apply to *differentiae*.²⁷

This interpretation makes good sense of ‘*logikôs*’. This adverb in vii 4 introduces a level of analysis that is preliminary and insufficient for a full understanding of the notion of essence, because it is not concerned either with the ontological status of the *definienda* or with the explanatory value of the predicate. In this level, essence is characterized as what is expressed by an account that explicates what the *definiendum* is with information that does not incur in circularity—no matter what kind of thing the *definiendum* is: it can be a substance, an accidental compound, and so on. One can take anything from any category of being and treat it as a *definiendum*. A *definiens* account must only fulfill three requirements at this level: to give relevant information, to avoid circularity, to be coextensive with the *definiendum*. A *logikôs* definition is not committed to issues such as whether the *definiendum* really exists, whether the *definiendum* is a self-subsistent thing that does not depend on more basic elements for being what it is, what is its most relevant feature that grounds and explains most of its characteristics and turn them into a structured whole.

The following text from the *Topics* is enlightening: ‘a statement signifying the what-it-is will sometimes signify a substance, sometimes a quantity, sometimes a quality, and sometimes one of the other categories. For, if the item under consideration is a human, if it says that this item is a human or an animal, then it says

will follow that being-for-white and being-for-smooth are the same. Now, they are not the same. So, it follows (by *modus tollens*) that being-for-white-surface is not the same with being-for-smooth-surface’.

²⁷ There is, though, the difficult case of last *differentia*, which Aristotle tackles at vii 12. But I can leave this further difficulty out of my picture.

what it is and signifies a substance; but, if the item under consideration is white color, if it says that the item is white or a color, then it says what it is and signifies a quality... And likewise with the other categories' (103b27-35, Smith's translation). According to this text, one may pick up an item in whatever category of being and elucidate what this item is: this will be a statement of *ti esti* independently of the category of the terms involved. A definition of *ti esti* at this level has only to meet some minimal conditions that have nothing to do with full explanation or the ontological status of the things referred to.²⁸

III. 1029b22-1030a2

A. Is 'cloak is white man' a *logikôs* definition?

The next step of Aristotle's argument begins as follows: 'But since there are also compounds answering to the other categories, ... we must inquire (i) whether there is an account of the essence of each one of them; (ii) whether to these compounds also there belongs an essence, e.g., to "white man"' (1029b22-27). I have argued that an account of essence at the *logikôs* level is not concerned with the ontological status of the items involved and depends only on formal requirements, such as non-circularity, coextensiveness, and elucidativeness. In this light, Aristotle's next step is reasonable: he asks whether there are essences and definitions of what I call accidental compounds—compounds made of a substance (taken as subject) and a property from a non-substantial category of being.²⁹

Now, Aristotle does give a positive answer for this issue at the end of vii 4: 'hence even white man will have an account and definition; but in a different sense from the definition of whiteness and of a given substance' (1030b12-13). Thus, it is reasonable to expect to find a positive answer in Aristotle's official discussion of the issue, even if Aristotle's initial answer seems to be negative. The text continues as follows: 'Let this compound be named as "cloak". What is the essence of cloak? But this is not even something said *per se*' (1029b27-29). A negative answer seems to be implied. However, Aristotle's next sentence (1029b29-31) introduces a reconsideration of his implied answer: once one distinguishes the uses of *per se*, one might see that a negative answer is not required. I argue that there is no real hesitation in Aristotle's strategy. The negative attitude suggested at 1029b28-29 is at most an allusive anticipation of the stricter level to be introduced in the next step of Aristotle's argument, in 1030a2-17. But Aristotle's discussion from 1029b29 to 1030a2 sticks with the logical standpoint and rather suggests a positive answer, which is consistent with 1030a17-32 as well as with the vii 4 summary at 1030b12-13.

²⁸ I come back to this text from the *Topics* when I examine 1030a17-27.

²⁹ I follow Lewis 1991, 85-87 for this jargon. Compounds like odd-number are different from compounds like white-man: the relation between their elements is different in each case. Nonetheless, both qualify as accidental compounds in the general sense I have advanced. But the central case for Aristotle's purpose are compounds like white-man, in which there is no necessary relation between its elements. 'White human' means 'pale' or non-suntanned human (see 1044b25-26 and 1058b34-35).

Aristotle's argument continues: 'or [we must rather reply that] there are two ways in which a predicate is not said of its subject *per se*, one of which results from an addition, the other not' (1029b29-31). The particle ἢ ('or') introduces an abrupt objection that rectifies what was said or implied in the previous sentence, namely, that cloak is not a *per se* item.³⁰ One must consider a relevant distinction between two ways of being 'not *per se*'. The context suggests that '*per se*' points to the sort of link between subject and predicate that is required for a statement of essence (see 1029b14-19). In his next move, Aristotle introduces two kinds of sentences that count as 'not *per se*': these sentences claim to be definitory, but fall short of being definitory because they do not fulfill the requirement of presenting a *per se* predicate of the relevant sort. Thus, the first sentence falls short of being *per se* (in the sense appropriate for being a definition) 'because the term that is being defined is combined with something else; as if, e.g., in defining being-for-white one stated the definition of white human' (1029b31-33).³¹

'Being-for-white' is the usual jargon to introduce the essence that belongs to white. The context makes it clear that the term 'white' at its first occurrence in 1029b32 (in the dative) does not work as a definite description ('the thing that is white'), but is referring to the color white itself, so that 'white' might be replaced with 'whiteness'. Thus, if one claims to define whiteness through the sentence 'whiteness is white human', one is evidently wrong, since the color whiteness itself is not a white human. That which was to be defined, whiteness, was added (in the *definiens*) to another thing that is heterogeneously distinct from it, namely, to human. Being a white human is not a *per se* attribute of whiteness in the relevant sense required for being an essence (and it is not a *per se* predicate of whiteness in any sense). Now, how this remark about the sentence 'whiteness is white human' is related to the issue whether the accidental compound white human has an essence or not? I argue that Aristotle's underlying point is that the kind of mistake involved in the sentence 'whiteness is white human' does not affect a sentence such as 'cloak is white human', which remains a good *logikōs* definition of its *definiendum*.

In the second kind of 'not *kath' hauto* sentence', a sentence fails at being a *per se* definitional statement 'because something else is combined with the same thing [given in the *definiens* account]; as if, e.g., 'cloak' named white human and someone attempted to define cloak as white' (1029b33-34). Aristotle now considers the statement 'cloak is white', in which the accidental compound named as 'cloak' is taken as *definiendum*, but one tries to define it by mentioning just one of its relevant components, namely, white. The term 'white' is ambiguous: it can mean 'whiteness' or 'a white thing' (see 1031a24-5). But the next sentence clarifies in which sense it should be taken in this context: 'well, white human is surely white, but it is not that-which-white-is, but it is being-for-cloak' (1029b34-

³⁰ I have tried to catch this meaning with the bracketed sentence 'we must rather reply that' (see ἢ at *APo.* 85b4). See Ross's ('we reply that') and Bostock's translations ('we may reply that').

³¹ I do not see any immediate connection between '*ek prostheseos*' at 1029b30 and the sort of definition '*ek prostheseos*' that will be examined at vii 5.

1030a2).³²

Aristotle means that the sentence ‘cloak (= white man) is white’ is perfectly true, if ‘white’ is taken as equivalent to ‘that to which the property of being white is attributed’, that is, if ‘white’ is equivalent to ‘a white thing’. However, the issue at stake in this step is something different: Aristotle’s concern is to examine whether that sentence can be taken as a *per se*₁ predication that shows the essence of its subject. The answer is negative for either use of ‘white’. First, it is wrong to claim that ‘cloak’ is adequately defined as ‘a white thing’, since there are many white things that are not a white human. This attempted definition would not satisfy the requirement that the *definiens* should pick up exactly the same thing (*legonti auto*) that was picked up by the *definiendum* term. One of the components of the *definiendum* was overlooked in the *definiens*. Yet it is also wrong to claim that ‘cloak’ could be adequately defined as ‘whiteness’, since a quality like a color is evidently different from a concrete thing like a white human, which is what ‘cloak’ names. This attempted definition would not meet the coextensiveness requirement either. Although a good sense runs for either interpretation of ‘*leukon*’ at 1030a1, I prefer the second one, which has a parallel in 1031b25: the being-for-whiteness is not equivalent to (is not coextensive with) that to which white is attributed. Thus, even being true that cloak is white in the sense that it is a thing that has whiteness, it does not follow that cloak can be defined as being just whiteness. Cloak is not that-which-being-is-for-whiteness, but—with Bekker’s punctuation—is being-for-cloak.

Aristotle’s point is to stress that neither of these cases of ‘not *per se*’ sentences, which fail as definitions, affect the case of the statement ‘cloak is white human’. Aristotle’s issue at this section of vii 4 is to decide whether accidental compounds have definable essences. The section ends at 1030a2 with no boasted conclusion and this might give the impression that Aristotle is puzzled with the difficulties of the case. But at the end of the chapter Aristotle reminds us that white human also has a definition, and a further step of the vii 4 argument (1030a17-32) makes it clear that essence can be taken in as many ways as there are senses of ‘being’. Since the results of a careful analysis of his discussion at 1029b29-1030a2 do not tell anything against the logical definability of accidental compounds, except the abrupt remark at 1029b28-29, promptly corrected in the next lines, it is reasonable to conclude that Aristotle has nothing against the claim that the statement ‘cloak is white human’ counts as a good *logikôs* definition.

B. Aristotle’s motivation for these moves

Aristotle suggests at 1029b28-29 that the accidental compound named as ‘cloak’ does not have an essence and cannot be defined, arguably because it does not satisfy some relevant requirements. I argue that these requirements are not related to the *logikôs* level: Aristotle is rather alluding abruptly to a new level of investigation to be introduced in 1030a2-17. This new level, which is concerned

³² I follow Bekker’s punctuation, for reasons that become clear in my next lines.

with understanding essence in reference to substances, is like a forward-looking preparation for more particular issues that Aristotle will consider later in *Metaphysics* vii. The examination of essence at the *logikôs* level is only a preliminary step in Aristotle's discussion, because it is insufficient for capturing the relevant conditions that the essence of a substance must satisfy. These conditions require that one of the elements in the essence of a substance cannot be an underlying subject that does not depend on the other. Now, human and white, which are the elements of the thing denominated 'cloak', do not meet these conditions: they are independent of each other. Accordingly, white human 'is not even to be counted among *per se* things' (1029b28-29) in the sense that it is not a certain this (*tode ti*) capable of subsisting in itself. This usage of *per se* has to do with the priority requirement to be introduced at 1030a10-11, which focuses on ontological features of subjects, whereas the *logikos* approach focuses rather on links between subjects and predicates and employs only *per se*₁ and *per se*₂ predicates as they were distinguished in *Posterior Analytics* 73b34-40. The issue of the *logikos* approach at 1029b13-1030a2 is to decide whether there is an essence of white human, and whether the essence of white human (if there is one) is definable. Now, in a broader context, Aristotle is concerned with other issues: whether the essence of S is the *ousia* of S,³³ and what is *ousia* of a substance.³⁴ According to this broader context, the relevant underlying question is the following: whether white human has an essence that clarifies what the *ousia* of a substance is. Suppose that Aristotle accepts that white human has an essence and a definition at a logical level. It still remains a question whether this essence and this definition at a logical level qualify as a good pattern for understanding what is the essence and the definition of a substance.³⁵

Now, there might be two ways of denying that a *logikôs* definition is a good model for understanding the definition of a substance. (i) One might argue that the statement itself is not a 'well-formed' definition at all, because the predicate is not even a *per se* predicate in the relevant sense. (ii) One might argue that, even if a statement is a good *logikôs* definition, it does not qualify as a model for the essence of a substance because the elements in the *definiens* account are not related to each other in the appropriate way. Now, at 1029b29-1030a2 Aristotle is trying to show that strategy (i) is hopeless (for a similar approach, see Wedin 2000, 204-205). He considers two sentences ('white is white human' and 'cloak is white') that fail to be a definition because they do not put forward a *per se* predicate of the relevant sort. His underlying point is that the sentence 'cloak is white human' does not have these failures. What, then, would prevent this sen-

³³ See 1029b1-3, as well as further developments of this point at 1032b1-2, b14; 1035b16; 1041a28.

³⁴ From 1028b34-36 on, Aristotle is concerned with the notion of *ousia*-of-something—see Code 1997, 359, 370; Menn 2001, 87-89; Bolton 1995, 442-443; Wedin 2000, 170—and at 1029a33-34 he picks up the *ousia* of sensible substances as object of his subsequent investigation. See also 1042a4-6.

³⁵ It remains open whether this *logikôs* definition is helpful for establishing that the *ousia* of a substance is its essence.

tence from being a good logical definition?³⁶ Why could Aristotle not give a positive answer to the question whether accidental compounds have definable essences?

Aristotle actually gives a positive answer at the end of vii 4 (cf. 1030b12-13) and argues for it in 1029b29-1030a2, but at 1029b28-29 he allusively anticipates strategy (ii), which will be taken up in 1030a2-17.³⁷ Strategy (ii) is very important for the overall investigation of *Metaphysics* vii, since it clears the ground for more refined approaches, such as the hylomorphic account of generated substances (vii 7-9),³⁸ the investigation about relations between parts of the *definiens* formula and parts of the *definiendum* (vii 10-11),³⁹ and the investigation about the relations between genus and *differentia* (vii 12).⁴⁰ But it cannot be taken as a *logikôs* discussion, since it does not focus on minimal conditions for a *definiens* account, but considers the nature of the relation between the elements in the *definiens* account.

IV. 1030a2-17

The next step in vii 4 begins as follows: ‘Now, is [the being-for-cloak] a [genuine case of] essence or an essence at all? Or is it not?’ (1030a2-3).⁴¹ Aristotle’s answer is given in an implicit way: ‘[the being-for-cloak is not an essence of the relevant sort], since essence is that which *a this* is’ (1030a3). The *gar*-sentence at 1030a3 justifies an implied negative answer, which I have made explicit in the brackets.⁴² This sentence involves many difficulties: (i) whether one must read *ti* or *tode ti*, (ii) what is its syntactical structure, (iii) what the association between essence and *ti* or *tode ti* means and (iv) how this sentence can be squared with the previous section of vii 4 as well as with the last sentence in vii 4.

³⁶ See Loux 1991, 80 for an approach that has some similarities with mine.

³⁷ This strategy is in line with the central chapters of vii. I explore this point in my section 6.

³⁸ Cf. 1032b32-1033a5: Aristotle suggests that a hylomorphic *definiens* account is grounded on teleological relations between matter and form as constituents of a substance.

³⁹ Cf. 1034b20-32, 1036a26-31: Aristotle’s underlying concern is to know how elements of substances must be taken as parts in their *definiens* account, and one of his focuses is on the relations between these parts.

⁴⁰ Cf. 1037b11ff.: Aristotle’s question is how genus and *differentia* (as elements of the *definiens* account of a natural kind like human) are related to each other so that they constitute a unity much stronger than the unity of accidental compounds or the unity of things that are one ‘by participation’.

⁴¹ The subject of the sentence ‘*ara esti ti en einai ti ê holôs*’ is ‘*to himatioi einai*’ found in the last sentence of the previous section, at 1030a2 (with Bekker’s text). It is not necessary to adopt Bonitz’s and Ross’s punctuation to see this point, since even with Bekker’s text (which I prefer) the thought is clear enough. For different interpretations, see Woods 1974-75, 175-176, Loux 1991, 78-81, Bostock 1994, 88-90. For a construal similar to mine, see Cohen 1996, 101-106. There is no need for bracketing the first η at 1030a3: if the second ‘*ti*’ at 1030a2 is taken in the sense I suggest—‘an instance of the relevant sort’— η might be taken as introducing another phrasing for the same question: ‘*holôs*’ might be equivalent to ‘fully’, in the sense of ‘being of the most relevant sort’. The two η do not have the same sense in 1030a3, but that should not bother anyone used to Aristotle’s style.

⁴² This use of *gar* is absolutely common in Greek (see Denniston 1954, 73-74) and in Aristotle’s texts.

About question (i), I argue that ‘*ti*’ is equivalent to ‘*tode ti*’ in this context even if one does not accept Bonitz’s emendation, which actually is not required, since there are many examples of ‘*ti*’ being used for ‘*tode ti*’ in Aristotle’s works.⁴³ Question (iv) will be addressed in my next sections. Questions (ii) and (iii) closely depend on each other and so I start addressing them connectedly. In general, *tode ti* introduces something associated with the category of substance, but it is the context that determines whether *tode ti* introduces the notion of an individual (Socrates) or the notion of a substantial kind (human).⁴⁴ It is incorrect to assume without argument that *tode ti* introduces the notion of an individual (see Burnyeat *et al.* 1979, 22). In order to catch what Aristotle means by ‘*tode ti*’ in this context, one must consider the contrast between *tode ti* and the accidental compound white human in the next step of vii 4. It is hard to know what *tode ti* is, but it is clear that it cannot be the same as an accidental compound.

Question (ii) amounts to the following: does the relative pronoun ‘*hoper*’ (at 1030a3, a4, a5) work as subject or as predicate of *ti* or *tode ti*? If ‘*hoper*’ works as subject, the sentence will be simply an emphatic way of saying that ‘essence is *a this*’, i.e., ‘essence consists precisely in what is *a this*’. Aristotle’s claim would be that there is some equivalence between two concepts, the concept of essence and the concept of *tode ti*: being an essence amounts to being *a this*, as some scholars seem to have understood (Bostock 1994, 89-90; Wedin 2000, 207-210).⁴⁵ However, we get a much better understanding of the text if we take ‘*hoper*’ as predicate and *tode ti* as subject in the relative clause: essence is that which *a this* is. This amounts to saying that essence tells us what *a this* is, i.e., that essence is what is reported in the *definiens* account of *a this* (see Ross 1924, 167, 170 and Loux 1991, 79).

The notion of essence was taken as that which is presented in a *definiens* account that satisfies some logical features such as non-circularity etc. (1029b13-22). Now, in 1030a2-3, Aristotle examines whether being-for-cloak consists in an essence of the relevant sort. ‘Cloak’ was stipulated as a name for the accidental compound white human at 1029b27-28, and the expression ‘being-for-cloak’ designates that which is reported in the *definiens* account of cloak, namely, white human. Aristotle had suggested at 1029b29-34 that cloak can be defined as white human at the logical level. When he now says that essence is what tells us (as

⁴³ In lists of categories, we find ‘*ti*’ and ‘*tode ti*’ used interchangeably for referring to the category of substance: ‘*ti*’ in *Meta.* 1026a36, 1045b33, ‘*tode ti*’ in 1028a12, and ‘*ti*’ and ‘*tode*’ in 1069b9, b11. Wedin 2000, 208-210, argues that Bonitz’s emendation is necessary because ‘*hoper ti*’ (referring to an item in whatever category) is not equivalent to ‘*hoper tode ti*’ (which is peculiar to substances), and vii 4’s argument requires a strict reference to substances. But one cannot assume that the meaning of ‘*hoper ti*’ and ‘*hoper tode ti*’ can be determined independently of context. See for instance ‘*hoper tode ti*’ in *Topics* 116a23 applied to ‘*agathon*’, which is not a substance.

⁴⁴ The only exceptions, which do not affect my discussion, are *Meta.* 1020a8 and *APr.* 48a38.

⁴⁵ A correct answer for ‘what is *a this*?’ is ‘a substance is *a this*’, while ‘a quality is *a this*’ is an incorrect answer. One might argue that Aristotle is relying on the connection between essence and *a this* in order to establish that substance is essence. But I argue that this is not Aristotle’s point at this juncture.

definiens) what *a this* is, he disqualifies white human as an essence of the relevant sort: ‘when something A is said of something B, which is distinct from A (*allo kat’ allou legetai*), [the resulting compound AB] is not precisely that which *a this* is; for instance, white human is not precisely that which *a this* is, since this is ascribed only to substances’ (1030a3-6).

As a sort of test, ‘being-for-cloak’ replaces ‘essence’ in the same syntactical structure, ‘E is that which *a this* is’, and with this move Aristotle shows that being-for-cloak does not satisfy stricter conditions for being an essence: it does not tell what *a this* is. Accordingly, in the sentence ‘*ouk estin hoper tode ti*’ at 1030a4, the implied subject is ‘white human’—a composite description that results from ‘one thing being said of another’—which is the *definiens* account of cloak and can be used interchangeably with ‘being-for-cloak’. Aristotle’s next sentence makes it explicit that ‘white human’ was the implied subject in 1030a4. Consequently, the expression ‘white human’ at 1030a5 is intended as the *definiens* account that replaces ‘being-for-cloak’, which was initially used (or implied, if one sticks with Bekker’s punctuation) at the beginning of the section in 1030a2. These points make it clear that the pronoun ‘*hoper*’, at 1030a3-5, works as a predicate. Aristotle is arguing that ‘white human is not precisely that which *a this* is’ (1030a 4-5), and this is a ground for denying that being-for-cloak counts as a genuine instance of the relevant sort of essence. An essence—in the stricter sense now introduced—consists precisely in a *definiens* predicate that states what *a this* is, i.e., that takes something which is *a this* as *definiendum*. Now, white human, which is equivalent to being-for-cloak, is a *definiens* predicate of cloak from a *logikôs* point of view, but it does not state what *a this* is, i.e., it does not have as *definiendum* something that is *a this*, for white human is not *a this*.

Now, it would be too trifling if Aristotle’s only reasons for disqualifying being-for-cloak as essence were that only substances have essences and cloak is not a substance. But Aristotle has a better reason for this move: ‘white human’ does not point to an essence of the relevant sort because its elements, namely, ‘white’ and ‘human’, are so related that ‘one is said of the other’.

The important question here is what the formula ‘one thing being said of another’ (*allo kat’ allou legesthai*) means. It introduces a criterion for priority of *definienda*, of course. But it does not refer to the form of whatever predication: P is said of S. There is such a relation between the two items in the *definiens* account of cloak: white is said of human. But a little further Aristotle introduces species of a genus as a sort of *definiendum* that satisfies the condition of being primary in the relevant sense (1030a10-13). This implies that there is no relation of ‘one being said of the other’ between the elements of a species, since the requirement for being primary is exactly to be constituted of elements between which there is no relation of ‘one being said of the other’. Now, Aristotle could never have said this if the formula ‘one being said of the other’ had only the meaning of P being said of S in any predicative sentence, since the genus can be truly predicated of the *differentia* (at least if the division proceeds according to the conditions

advanced in vii 12) as well as be taken as a subject of which the *differentia* is predicated. In fact, sentences like ‘all bipeds are animals’ and ‘some animal is biped’ are true.⁴⁶ White is predicated of human as well as biped is predicated of animal. But these two predications do not have the same logical and semantic features. The expression ‘one being said of the other’ in 1030a4, a10-11 picks up only the first kind of predication, in which an accident like white is said of an underlying thing like human. In contrast, there are other sorts of predication, which relate two elements mentioned in the *definiens* account of an item that qualifies as primary, such as the predications in which animal is said of biped or vice-versa. Let us examine this contrast more closely.

In his next move, Aristotle concludes that ‘there is essence of everything of which the account is a definition’ (1030a6-7). Since the statement ‘cloak is white human’ is at least a *logikôs* definition that satisfies the minimal requirements advanced in 1029b19-20, it is clear that Aristotle has in mind a stricter sort of definition in 1030a2-14. The restrictions come in his next sentences: ‘(i) an account is a definition not if a name signifies the same as a description’ (1030a7-8),⁴⁷ (ii) ‘but if it is an account of a thing that is primary’ (1030a10); (iii) ‘a thing is such [i.e., primary] if it is not said [what it is] by the fact that one thing is said of the other (*allo kat’ allou legesthai*)’ (1030a10-11).⁴⁸

‘Signifying the same’ in step (i) refers back to 1029b19-20: a *definiens* account has to satisfy not only the coextensiveness requirement, but also a stronger requirement of coextensiveness-with-elucidativeness (with ‘*semainêi*’ in a stronger sense, see 1030a15).⁴⁹ Aristotle is now adding that the fulfillment of these requi-

⁴⁶ I thank a referee for observing that my argument can also rely on the *differentia*’s being predicated of the genus. It is a terrible mistake to believe that Aristotle’s notion of *differentia* must refer to bipedality rather than to biped, and then infer that it is wrong to say that the genus is predicated of the *differentia*. Of course, ‘bipedality is an animal’ is not a true statement, but rather sounds like a category mistake. Now, ‘diaphora’ can refer to such properties like bipedality (see *Topics* 144a31-36), but in many contexts ‘diaphora’ means the class of things that is set apart from others (in the same genus) by possessing some property (see *Parts of Animals* 642b6, b31, 643a11, a14, b9, *APo.* 97a37ff.), e.g., the class of biped animals. It is true (and enough for my present purposes) to say that the genus is predicated of the *differentia* in this sense. Yet I do not believe that the confusing argument at *Meta.* 998b25-26 challenges my view: the argument is a piece of diaporetical discussion and does not tell Aristotle’s final thesis (on this, see Code 2010, 89n28).

⁴⁷ I have omitted (1030a8-9), for the central case is not the *Iliad*. Aristotle’s point is this: if coextensiveness between a term and a description were enough for qualifying that description as a definition of that term, all descriptions would turn out to be definitions, since it is possible to stipulate a term with the same extension. Now, *Iliad* is not a description, but is mentioned because Aristotle’s phrasing for the coextensiveness requirement could be taken in such a broader sense that even the strings of words (*logos*) that composes the poem *Iliad* would count as a definition of ‘*Iliad*’. See more on the *Iliad* case in section 5.

⁴⁸ In 1030a10, ‘*legetai*’ means ‘to be said what it is’ and its subject is the thing to be called primary, whereas in the sentence construed with ‘*tôi + legesthai*’ at 1030a11, which introduces the ground on which something is said to be what it is, the subject of ‘*legesthai*’ is each of the elements in the *definiens* account of that primary thing. It is simple-minded to assume that the subjects of ‘*legetai*’ and ‘*legesthai*’ must be the same.

⁴⁹ That coextensiveness is a necessary but not sufficient condition for every definition is also

rements is only a necessary but not sufficient condition for an account to be a definition in the stricter sense. In step (ii) Aristotle says what is the additional criterion for a definition in the stricter sense: its *definiendum* must be primary. But this is not very enlightening, so that in step (iii) Aristotle elucidates this additional condition with the jargon ‘one thing being said of the other’ (*allo kat’ allou legesthai*). Now, this expression does not focus on any relation between *definiendum* and *definiens* (like coextensiveness), but on the elements of the *definiens* account.

As I have said, the expressions ‘*allo kat’ allou legetai*’ at 1030a4 and ‘*allo kat’ allou legesthai*’ at 1030a11 do not refer to the mere fact that B is predicated of A in any sort of predicative statement, since they pick up the case of ‘human is white’ but do not pick up the case of ‘biped is animal’ (or ‘animal is biped’). Now, the relevant difference between these two kinds of sentence is that in the first one, but not in the second, the subject (human) is given as some underlying thing that does not depend any way on the predicate (white), that is, an underlying thing that can be what it is (as well as can be identified) independently of the property of being white and does not contribute to what it is to be white.⁵⁰ Yet the relation between biped and animal is very different. It is not true to say that biped is what it is independently of being animal.⁵¹ On the contrary, being biped consists in a further differentiation of being an animal. Thus, when animal is said of biped, we do not have a case of ‘one thing being said of the other’ (*allo kat’ allou legesthai*), because the term ‘other’ (*allo*) in that jargon has the strong sense of something that is distinct from a given item in the sense that its being what it is does not depend on the other item’s being what it is.⁵² Therefore, in the *definiens* account of a primary thing, its terms cannot be such that one of them is an underlying thing that neither depends on the other for being what it is nor contributes to the other’s being what it is. Obviously, these terms are such that one is said of the other in a broader sense of this expression, i.e., in the sense that their relation can be expressed in the form of predications. But the predicative tie between them cannot be such that one is an underlying thing independent of the other.

Aristotle then identifies which things are the ‘primary’ items that satisfy this stricter criterion for essence and definition: ‘essence will not belong to anything

clear from *Topics* 102a13-17, as well as from 139a31-32.

⁵⁰ This is what Aristotle means when he uses the jargon ‘being said/ predicated of an underlying thing’ (*kath’ hypokeimenou legesthai*). But it does not affect my point if the reader is skeptical about this further claim of mine.

⁵¹ A similar story will be true in the case of biped being predicated of animal. The latter cannot be understood as an underlying thing that could be what it is independently of its *differentiae*. It is true to say that animal can be what it is independently of being biped, but the relevant point here is that animal cannot be what it is independently of all its *differentiae* (see vii 12.1038a5-8). Besides, being an animal is something that by its own nature contributes to something’s being biped.

⁵² See similar views in Furth 1988, 239; Burnyeat *et al.* 1979, 24-25; Peramatzis 2010, 146-157, as well as Gill 1989, 138-144 (although she is talking about vii 12 and only mentions 1030a2-17 in a footnote).

that is not species of genus, it will belong only to these' (1030a11-13). He is not recommending that a substance must be defined by proximate genus and specific *differentia*, he is just saying that the criteria advanced in 1030a10-12 are satisfied by things that are species of a genus. His justification for this point is enlightening about the sense of the expression '*allo kat' allow legesthai*': 'it is agreed that species are not said by participation, nor by affection, nor as accident' (1030a13-14). Since species are primary items that are not said in virtue of 'one thing being said of the other', it is sound to infer that 'one thing being said of the other' is equivalent to 'one thing participating in the other' and to 'one thing being an affection of the other' and to 'one thing being an accidental property of the other'. In all these cases, Aristotle is talking about the relation between elements of a *definiens* account (the same is true about 'participation' at vii 12.1037b18ff.). His point is that a primary item like a species is what it is because there is the relevant sort of relation between the elements of its *definiens* account: the *differentia* is not said of the genus as an underlying thing (nor vice-versa); genus and *differentia* do not participate in each other; one is not an accidental property of the other.

Take in contrast the case of cloak defined as 'white human'. The elements of the *definiens* account of cloak are so related that 'one is said of the other' in the relevant sense at stake. An accidental attribute (like white) does not depend on the underlying thing of which it is predicated (human)—or perhaps does not depend in the relevant sense—nor does it give any contribution to that thing's being what it is, as well as the underlying thing (human) does not depend on the property of being white nor contributes to that attribute's being what it is. The unity that results from the relation between an accidental attribute (white) and an underlying thing (human) contrasts with the unity that results from the relation between genus and *differentia* (Aristotle will return to this point in vii 12).

Therefore, the contrast between white human and *tode ti* leads ultimately to a contrast between, on the one hand, a sort of *definiens* account in which the terms are merely lumped together with no relation of dependency between them, and, on the other, a sort of *definiens* account in which (at least) one of the terms cannot be what it is without the other's being what it is. This comparison between different sorts of *definiens* account goes beyond the logical features of them: the argument at 1030a2-14 goes beyond the *logikōs* level in introducing stricter requirements for essences and definitions. Aristotle's underlying concern at vii 4 is to know how the *ousia* of a substance is related to its essence. For the sake of this concern, he must go further than the formal requirements for essences and definitions (non-circularity, coextensiveness, etc.) established at the *logikos* level: he argues that a definition, being the *definiens* account of a primary item, cannot be composed of heterogeneous elements. In turn, items that are not primary can be described by an account that elucidates the meaning of the *definiendum* term (or of the description that designates them), but this kind of account will not be a definition by the stricter criteria: 'for everything else as well, if it has a denomination, there will be a formula of its meaning—viz., that this attri-

bute belongs to this subject; or instead of a simple formula there will be a more accurate one; but there will be no definition nor essence' (1030a14-17).

In the next section, I discuss whether this stricter account of essence and definition is compatible with the logical approach.

V. 1030a17-32

The next step in vii 4, which seems to be a reconsideration, runs as follows:

'Or 'definition', as well as 'what a thing is', is said in several ways? 'What a thing is' in one case denote substance and *a this*, in another case one or other of the categories... For as 'is' belongs to all things..., so too 'what a thing is' belongs simpliciter to substance, but in some other way to the other categories. For even of a quality we might ask what it is, so that quality also is a 'what a thing is',—not simpliciter, however, but just as, in the case of that which is not, some say, from a logical standpoint, that that which is not is—not is simply, but is not-being' (1030a17-27, Ross trans.).

Aristotle begins his point with the notion of 'what-it-is' (*to ti esti*), but he soon extends it to the notion of essence (*to ti en einai*): '[s]ince what we mean is actually clear, essence also will belong, just as 'what-it-is' does, primarily and in a simple sense to substance, and in a secondary way to the other categories too' (1030a28-31, Ross trans.).

The occurrence of the word '*logikôs*' at 1030a25 has blighted discussions about the logical standpoint announced at 1029b13. One might argue that the occurrence of '*logikôs*' at 1030a25 is evidence that this hierarchy of definitions is framed on a logical standpoint too.⁵³ But such an argument is faulty. The criteria on which the hierarchy rests are not the minimal ones that characterize the logical standpoint. The hierarchy rests on some considerations about the status of the *definienda* as beings that depend or do not depend on some more basic elements—in other words, the hierarchy depends on the priority requirement advanced in 1030a10-11. The use of '*logikôs*' at 1030a25 is just pointing out that the hierarchy is not incompatible with the logical standpoint developed before. According to the stricter criteria, essences and definitions of, say, non-substantial properties (like whiteness) only count as secondary essences and definitions. Nevertheless, they still count as essences and definitions according to the broader criteria of the logical standpoint.⁵⁴

⁵³ Such an argument is implied by Ross 1924, 168 when he says: 'it is in 1030a28 that the real as opposed to the verbal inquiry begins'. See also Ross 1924, 171. There is no reason to believe that the *logikôs* standpoint ends at 1030a27—actually, the discussion at 1030a2-17 goes beyond the *logikôs* level, while the conclusion at 1030b3-13 combines the stricter view with the logical standpoint. I cannot understand why Frede and Patzig 1988, 59, 68 have taken both occurrences of *logikôs* (at 1029b13 and at 1030a25) as if they were on different levels and have different senses.

⁵⁴ Similarly, non-being does not count strictly speaking as a being in the most relevant sense, but nevertheless a non-being still is in some sense, inasmuch as it is something of which one can say that

Passage 1030a17-32 must be considered together with *Topics* 103b27-35 (quoted at the end of section 4), in which Aristotle remarks that the ‘what-it-is’ is distributed in all categories of being. I am not saying that both texts claim exactly the same points. There is no hierarchical approach in *Topics*, nor is there anything about primary or secondary ways of having essences and definitions. But the point of view of the *Topics* is somehow related to the *logikôs* standpoint in vii 4. When Aristotle says that the ‘what-is-it’ question can be satisfactorily answered in any category, he is not concerned with the ontological status of the *definiendum*, nor with the explanatory relevance of the *definiens* account: he only relies on minimal requirements for being a definition.⁵⁵

Now, the hierarchy introduced at 1030a17-32 does not rest on these minimal requirements. First, the coextensiveness requirement is absolutely necessary for every definition in such a way that does not admit to be more or less fulfilled. There could be no hierarchy according to ‘levels’ of coextensiveness.⁵⁶ An attempted *definiens* account must be coextensive with its *definiendum*, otherwise it does not count as a definition. There is no third option left. Yet, it makes sense to talk about ‘levels of adequacy’ in relation to the elucidativeness requirement. There can be two (or even more) definitions of the same thing, one of them being more elucidative than the other, as we can find in *Posterior Analytics* ii as well as in the *Topics*. In scientific research, one definition can be more promising than another as a tool for a successful investigation of causes. And there is a clear distinction between definitions that tell the cause of its *definiendum*’s being what it is and definitions that do not (see *APo.* 93b38ff.; *DA* 413a13-20; for a detailed account, see Charles 2000, 276ff.). In dialectical discussion, one definition can be more useful than another as a tool for clarifying the meaning of the terms, e.g., if it uses terms more familiar to the interlocutor (see *Topics* 141b3-14). However, this is not the point of view of the vii 4 hierarchy. Definitions differently ranked in vii 4 are definitions of respectively different objects—i.e., definitions of substances, of qualities, and so on—whereas definitions in the rankings suggested at *Posterior Analytics* ii and the *Topics* are definitions of the same object.

The vii 4 hierarchy is rather built on the requirement advanced at 1030a10-11: primary definitions (or definitions in the most relevant sense) are primary because their *definienda* are primary beings, since they are what they are without reference to more basic elements.⁵⁷ Primary beings do not involve elements that

it is not a being. See *Phys.* 187a5-6 and *Meta.* 1003b10, as well as 1089a16-19.

⁵⁵ I disagree with Frede 1987, 45-46, who argues that vii 1 as well as vii 4 restricts *ti esti* to the category of substance.

⁵⁶ To talk about ‘levels of coextensiveness’ seems to be non-sense. For brevity’s sake, I will assume that the same is true about the non-circularity requirement. An attempted definition is either circular or not. There is no third option left.

⁵⁷ I take ‘*haplôs*’ at 1030a23, a25, a30, b5 as equivalent to ‘*prôtôs*’ at 1030a22. It would be wrong to claim that ‘*haplôs*’ has the same meaning all around. In some contexts ‘*haplôs* F’ means ‘F in the proper way’ as opposed to qualified ways that ultimately do not count as legitimate instances of F (see, e.g., *Topics* 109a20), but this is not the case in vii 4. As ‘*haplôs*’ in *APo.* 71b9 marks a special and most relevant usage of ‘*epistasthai*’, so in vii 4 ‘*haplôs*’ marks a special, primary and most rele-

are ‘said one of the other’. But definitions of non-substantial properties as well as definitions of accidental compounds are not primary because their *definienda* are not primary, since their being what they are depends on the being of more basic elements. The being of non-substantial properties depends on the being of a proper subject in which they occur, (which, ultimately, turns out to be a substance), and they must be defined with reference to this subject (see 1028a35-36; 1003b6-11; 1045b29-31). Accidental compounds are what they are because two independent items, a substance and a non-substantial property, happen to be together.⁵⁸

Now, at *Topics* i 9.103b27-35, Aristotle notes that, in answering a ‘what-is-it’ question, one may be talking about a substance, about a quality, and so on. The categorical rank of the *definienda* does not affect the fact that all answers will count as definitions. Aristotle is well aware of ontological differences between substances and non-substances, but he does not pay any attention to them, since his concerns in *Topics* i 9 do not require him to take them into account. The logical standpoint in vii 4 is similar to *Topics* i 9: Aristotle rests on some minimal requirements that are non-committal about which entities are taken as *definienda*. Thus, the hierarchy of definitions in 1030a17-32 does not belong to the logical standpoint, but is rather an attempt to show that the logical standpoint is compatible with the stricter view advanced in 1030a2-17.

This compatibilist approach is also clear from the concluding remarks of the chapter: ‘definition and essence primarily and simpliciter belong to substances; still they belong to other things as well, only not primarily’ (1030b5-7). Aristotle has said in 1030a14-17 that, if there is a denomination (*onoma*), i.e., the use of a term (or description) to refer to some kind of object, there can be an account (or a more precise description) that elucidates that the thing so denominated is this attributed to that (1030a15-16). He has said that these accounts are not definitions, but he has promptly corrected himself in the hierarchy: definitions that meet only these requirements are not in the first rank, but they still count as definitions on the logical level.

Aristotle stresses this point at the end of vii 4: ‘for it does not follow, if we claim this, that the definition of a given thing is what denotes the same thing through an account—it must denote the same thing through a specific sort of account’ (1030b7-8).⁵⁹ Aristotle is only being careful regarding eristic tricks. The

vant usage of ‘*to ti en einai*’ and ‘*horismos*’.

⁵⁸ Accidental compounds are one level below in comparison with non-substantial properties: whereas the definition of such properties must make reference to just one more basic element, definition of accidental compounds must refer to two, and Aristotle probably has this in mind when he has phrased the last sentence of vii 4.1030b12-13 as well as when he has suggested that accidental compounds cannot be defined because they are not even *per se* entities (1029b28-29). The kind of *per se* entity involved seems to be the *per se*₃ in *APo*. 73b5-10 (see Peramatzis 2010, 159-165), which does not depend on more basic factors. I thank a referee for highlighting this point.

⁵⁹ I read Bekker and Ross’s text. Jaeger’s addition ‘*onoma*’ at 1030b8 is unnecessary: *logôi* can be taken as instrumental dative attached to ‘*sêmainêi*’ (see a parallel case with ‘*eirêkôs*’ at *Topics* 143a25) rather than as complement of ‘*to auto*’. The referents of ‘*touto*’ and ‘*toutou*’ at 1030b7 are not the same: the first picks up Aristotle’s claim about essences and definitions (stated in the previous

term ‘*Iliad*’ is used to designate a set of chants attributed to Homer. This set can be denominated by the Greek term ‘*logos*’ (which can mean ‘account’ as well as ‘story’). One might then be tempted to conclude that this set of chants is the *definiens* account of the term ‘*Iliad*’, since ‘*Iliad*’ refers to the same thing that corresponds to this *logos*, i.e., the strings of words that make up the chants. Against this sophistical claim, Aristotle reminds us that there will be a definition if a term is coextensive with a certain kind of description (*tini logoi*, 1030b8), namely, a description that gives a relevant elucidation for the meaning of the term. For an account to be a definition, not only the *definiendum* term, but also the account itself must be a linguistic item that by its very nature claims to refer to something or to pick up something—this is the force of ‘*sêmeinei*’ at 1030b12. Now, this requirement is not fulfilled in the *Iliad* case: whereas the term ‘*Iliad*’ refers to a group of chants that tell the story about Ilion, those chants themselves do not even intend to pick up something in the same way as the term ‘*Iliad*’ or the description ‘white human’ picks up. The moral of Aristotle’s remarks is that the coextensiveness-elucidativeness requirements could be distorted by the eristic argument about the *Iliad*. But the requirement still stands on its place,⁶⁰ so that: ‘[t]here can be an account or definition even of white human, but not in the way in which there is a definition either of white or of a substance’ (1030b12-13).

Thus, the hierarchy of definitions do not belong to the logical standpoint because the latter does not consider the ontological aspects of the *definienda*. In the next section I try to show that the logical standpoint does not pay attention to the explanatory relevance of a definition.

VI. The coherence of vii 4

Further discussions in *Metaphysics* vii-viii take the essence of a substance as its *ousia* (or at least as the expression of its *ousia* in a *definiens* account).⁶¹ Aristotle explicitly ascribes to the *ousia* of a substance the role of explaining why this substance is one single thing,⁶² and why this substance has the relevant properties that make it what it is.⁶³ Most contexts of *Metaphysics* vii-viii are concerned with compounded substances as *definienda*. The fact that a substance of this sort, being composed of many elements, is one self-subsisting thing must be explained by an essence captured in a *definiens* account that, being composed of many terms, is one unified formula. The relation between the composite character of the *definiendum* and the composite character of the *definiens* is the central issue

sentence), the second introduces the notion of a *definiendum* X. There are many cases in which Aristotle uses twice the same pronoun with respectively different referents. See conspicuous cases in *APr.* 25b24; *APo.* 92b33-4, 75a22-3; *Meta.* 1006a32, 1033b2-3.

⁶⁰ It might seem that Aristotle was rejecting the coextensiveness (with elucidativeness) requirement, especially if one accepts Jaeger’s unnecessary emendation ‘*onoma*’ at 1030b8.

⁶¹ See 1035b15-16, 1032b1-2. All I need here is the claim that essence corresponds to at least one of the uses of the notion of *ousia* in Aristotle’s theory.

⁶² See at vii 12 the whole argument that concludes at 1038a25-26 that what makes a *definiens* account be one unified account is the *ousia*.

⁶³ See at vii 17 the whole argument that reaches its conclusion at 1041b8-9.

that opens chapter 10 (1034b20-24). Given that the *definiendum* is a structured composition of parts and its *definiens* account must explain why it is unified in this way, Aristotle seems to expect that the explanatory role of a *definiens* account somehow *depends on the mutual relationship between its elements*.⁶⁴ This same issue seems to be underlying the one explicitly addressed in vii 12.1037b11-13: ‘why is one thing that of which the account is a definition?’ The answer depends on the mutual relationship between the elements mentioned in a *definiens* account: this relationship cannot be the mere accidental tie between, say, white and human. Consequently, a *definiens* account cannot be one (or unified) in the extrinsic way that applies to white and human (see Code 2010, 79-81).

Now, lack of intrinsic unity involves lack of explanatory power. The *definiens* account of cloak as ‘white human’ is not capable of explaining why white and human are combined in such a way as to constitute one single thing. Such an account just reports that white and human happen to be combined. From the definition ‘cloak is white human’, one can infer that cloak is white as well as that cloak is a human. But the explanatory power of such an account vanishes if one comes to more sophisticated questions, such as this: why cloak, being a white thing, is a human and could not be a wall or a stone? The only available answer would be ‘because “cloak” was stipulated as the name for white human, rather than for these other things’. Essences of substances, however, do have intrinsic unity and are able to give satisfactory answers to such questions. It does not matter for my argument whether these essences are interpreted in terms of *genus-differentia* relation or in terms of matter-form relation. The point I wish to stress applies to both cases. Let us take the definition of human as ‘biped animal’: why a human, being biped, is an animal of such and such a sort? The right answer does not consist in saying that ‘human’ just happens to be the denomination for an extrinsic combination of biped and animal. On the contrary: a human, being biped, must be an animal of such and such a sort because bipedality involves the notion of an animal of such and such a sort and requires some features that make every biped (and hence every human) an animal of such and such a sort.⁶⁵ Expla-

⁶⁴ When Aristotle examines which parts must be included in the *definiens* account of a composite substance at vii 11.1036a31 ff., one of the most important criteria is the relation (of separability or inseparability) between form and matter as presumed elements in the account of a substance. The same issue underlies 1037a18-20, where Aristotle asks why a *definiens* account is one and unified, and this is related to the question about what makes the *definiendum* a unified thing. Aristotle expects that what makes the *definiendum* a unified thing must be expressed in the *definiens* account of that thing and also be counted as what makes the *definiens* account itself a unified formula.

⁶⁵ In hylomorphic terms, which are not present in *Meta*. vii 4, the same will be true. House is defined as ‘shelter [against weather conditions, burglars etc.] composed out of bricks and stones disposed in such and such a way’. Why is a house, being a shelter, composed of such materials as bricks and stones rather than paper or wax? The answer is that a house, being a shelter, cannot be so composed because its form (i.e., its function, which is one of the elements in its *definiens*) imposes strict requirements on the acceptable materials that can constitute a house (which count as the other element in its *definiens*).

nations of this sort will not work in the case of ‘cloak is white human’.

In stressing these points, my aim is to highlight some features of the vii 4 discussion in comparison with *Topics* i 9 and with what follows in *Metaphysics* vii-viii. These features will give us a better understanding of what Aristotle means with his *logikôs* standpoint in vii 4.

I have claimed that the logical standpoint for the discussion of essences and definitions in *Metaphysics* vii 4 is only concerned with minimal requirements such as coextensiveness, non-circularity, and elucidativeness. The logical standpoint is not concerned with the ontological status of the *definienda*, nor does it consider the explanatory relevance of a *definiens* account. From this point of view, one might define substances, qualities, quantities, and so on—even accidental compounds. This is the standpoint we find in *Topics* i 9 and in part of *Metaphysics* vii 4, namely, from 1029b13 to 1030a2.

In turn, concerns with the ontological status of the *definienda* as well as with the explanatory relevance of a *definiens* account is found in further discussions of essence and definitions in *Metaphysics* vii-viii. Now, the passage 1030a2-17 is peculiar in this picture. It introduces stronger criteria for essences and definitions and so disqualifies accidental compounds as *definienda*. But talk of explanatory relevance is not found at this passage. Nonetheless, its stronger criteria focus on the relationship between the elements of a *definiens* account: these elements cannot be independent one of the other, otherwise the thing to be defined will not count as a primary thing. A further development of this point is found in *Metaphysics* vii 12, where Aristotle takes up the contrast between substances (*tode ti*, *a this*, 1037b27) and accidental compounds like white human in order to show how the definitions of substances are able to explain why their *definienda* are one unified thing in a way that definitions of accidental compounds cannot explain. I need not discuss the details of the argument of *Metaphysics* vii 12, since my point is just the following: the passage 1030a2-17 is a forward-looking step that goes beyond the logical standpoint and clears the way for the introduction of explanatory concerns in Aristotle’s discussion of essence and definition (see 1037b14-18 together with 1030a3-5, a13-14). This step helps the introduction of explanatory talk inasmuch as the explanatory power of a *definiens* account depends on the internal relationship between its elements. In the logical approach, the criteria (coextensiveness etc.) focus on the relationship between *definiendum* and *definiens*. But in 1030a2-17, the focus shifts to the *definiens* account itself: what most matters now is the relationship between its components. This shift clears the way for the introduction of explanatory talk, whereas the remaining part of *Metaphysics* vii 4, namely, 1030a17-b13, is designed to explain how the forward-looking, stricter notion of essence and definition is compatible with the logical standpoint developed in 1029b13-1030a2.

Scholars have argued that the logical standpoint in *Metaphysics* vii 4 is somehow related to a strategic avoidance of hylomorphic talk.⁶⁶ My claims are not

⁶⁶ Burnyeat 2001, 21-25. Perhaps Burnyeat’s view would constrain him to take vii 12 as logical

incompatible with this view. But the main feature of the logical standpoint is rather the fact that it has no explanatory concern at all. As hylomorphic talk is just one way of talking about explanatory relevance of essence and definitions, I submit that the logical standpoint is marked not only by the absence of hylomorphic considerations, but also by absence of any explanatory consideration at all. This is why the logical standpoint is a good introduction for the discussion of essence and definition and at the same time is a mere preliminary account, which must be complemented and supplemented by the further discussions we actually find in the subsequent chapters of *Metaphysics* vii-viii.

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too.

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