

Aristotle, *Metaphysics* Λ 26, 1023 b 26–7: *The First Definition of Whole*

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Abstract

This is a textual note on the first definition of whole formulated by Aristotle in *Metaph.* Λ 26, 1023 b 26–7. I argue that the text transmitted by both families of the tradition is problematic, discuss an alternative reading which is present in some manuscripts and derives from Alexander’s commentary, and finally advance a conjecture that aims to solve all problems.

In book Λ of the *Metaphysics*, chapter 26 is devoted to the notion of $\delta\lambda\omicron\nu$, *whole*. Aristotle opens the chapter with two definitions. Here is the text of the initial sentence, 1023 b 26–7, as printed in the editions of William David Ross and Werner Jaeger:¹

“Ὀλον λέγεται οὐ τε μηθὲν ἄπεστι μέρος ἐξ ὧν λέγεται ὅλον φύσει, καὶ τὸ περιέχον τὰ περιεχόμενα ὥστε ἓν τι εἶναι ἐκεῖνα.

This is the Revised Oxford Translation:²

We call a whole (1) that from which is absent none of the parts of which it is said to be naturally a whole, and (2) that which so contains the things it contains that they form a unity.

The subject matter of this note is the text of the former definition, which is transmitted by both families of the manuscript tradition.³ There are two problems with it.

* It is an honour to be allowed to present to Concetta Luna this small token of admiration and friendship. Many thanks to Lorenzo Salerno for invaluable help at various stages and to Marwan Rashed and an anonymous reader for searching comments on previous versions.

¹ See W.D. Ross, *Aristotle’s Metaphysics*, 2 vols, Clarendon, Oxford 1924; Aristotelis *Metaphysica*, ed. W. Jaeger, Clarendon, Oxford 1957.

² J. Barnes (ed.), *The Complete Works of Aristotle. The Revised Oxford Translation*, 2 vols, Princeton U.P., Princeton 1984, vol. 2 p. 1616. Reeve’s translation is similar: “Something is said to be a whole if: [1] None of the parts of which it is said to be by nature a whole is absent from it. [2] It is what encompasses the things it encompasses in such a way that they are one” (C.D.C. Reeve, *Aristotle: Metaphysics*, Hackett, Indianapolis and Cambridge 2016, p. 93).

³ On the textual transmission of the *Metaphysics* and on the relations between the two families of manuscripts α and β see D. Harlfinger, “Zur Überlieferungsgeschichte der *Metaphysik*”, in P. Aubenque (ed.), *Études sur la Métaphysique d’Aristote*. Actes du VI Symposium Aristotelicum, Vrin, Paris 1979 (repr. 2009), pp. 7–36; O. Primavesi, “Aristotle, *Metaphysics* A: A New Critical Edition with Introduction”, in C. Steel (ed.), *Aristotle’s Metaphysics Alpha: Symposium Aristotelicum*, Oxford U.P., Oxford 2012, pp. 385–516; S. Alexandru, *Aristotle’s Metaphysics Lambda*, Brill, Leiden–Boston 2014 (*Philosophia Antiqua* 135), pp. 23–79; M.E. Kotwick, *Alexander of Aphrodisias and the Text of Aristotle’s Metaphysics*, Berkeley U.P., Berkeley 2016.

The first problem is that it is blatantly circular, because it defines what it is to be a whole by reference to the very notion of a whole. Most commentators do not mention this problem at all, probably on the grounds that the circularity might have been easily avoided by a more accurate formulation and therefore is ultimately innocuous. But the formulation is awkward none the less, as is confirmed by the fact that in the whole of book Δ there seems to be no comparable case in which the definiendum is repeated as part of the definiens.⁴

The second problem is that it is unclear how exactly the expression ἐξ ὧν, literally “out of which”, is to be construed. One possibility is represented by Kirwan:⁵

We call a *whole* both that of which no part is absent out of those of which we call it a whole naturally; and what contains its contents in such a manner that they are one thing.

Kirwan seems to construe ἐξ ὧν = ἐξ ἐκείνων ὧν, where ἐξ ἐκείνων is supposed to be partitive with μηθὲν. That is to say, μηθὲν ... μέρος ἐξ ὧν λέγεται ὅλον φύσει = “no part out of [ἐξ] those [ἐκείνων, understood] of which [ὧν] it is said to be a whole by nature”. However, although generally speaking ἐκ/ἐξ can be used in Greek to introduce a partitive phrase,⁶ it is unnatural to suppose that this is the case here. Indeed, if you run a TLG search for occurrences of οὐδεὶς or μηδεὶς (-μία, -έν) within five words from the preposition ἐκ/ἐξ in Aristotle, you get no results at all where the preposition introduces a partitive.

It is, by contrast, very natural, in a context such as that of our passage,⁷ to understand ἐξ ὧν as expressing the *composition* of a whole “out of” its parts. If we want to explore this possibility, however, we need to parse the syntax differently and suppose that ἐξ ὧν = ἐκείνων ἐξ ὧν, where the understood pronoun ἐκείνων is partitive with μηθὲν and ἐξ ὧν expresses composition. That is to say, μηθὲν ... μέρος ἐξ ὧν = “no part of those [ἐκείνων, understood] out of which [ἐξ ὧν] ...”

⁴ The anonymous reader for *Studia graeco-arabica* objects that regarding the circularity as problematic “disregards the fact that the so-called ‘definitions’ of *Book Delta* often count as examples taken from the natural language which are valid only to a first approximation” and wonders whether the “admittedly awkward presence of ‘whole’ both in the definiendum and in the definiens shows that we are faced with a meaning commonly ascribed to the term, rather than with a real definition”. Even if the reader were right about the purpose of Book Δ , however, it is far from obvious that circularity would then no longer be a problem: dictionary definitions are not supposed to be circular. Moreover, the definitions or distinctions in Δ are not just “examples taken from the natural language”: on any interpretation, they are for the most part genuinely philosophical accounts of different meanings or applications of terms, encapsulating theories held by Aristotle or other philosophers. Thus Ch. 8, on οὐσία, does not include the meaning “wealth”, although that is the primary meaning of the term in ordinary Greek. What is controversial is whether Book Δ is meant as a relatively neutral, “endoxastic” philosophical lexicon or it has a more constructive role to play in the project of the *Metaphysics* (as argued by S. Menn, “Aristotle on the Many Senses of Being”, *Oxford Studies in Ancient Philosophy* 59 (2021), pp. 187–263, part. pp. 190–6). This issue, however, is irrelevant for our present purposes.

⁵ C. Kirwan, *Aristotle: Metaphysics Γ , Δ , and E* , 2nd edn, Clarendon, Oxford 1993² (Clarendon Aristotle Series), p. 60.

⁶ See *LSJ* ἐκ I.4, citing among other passages Hdt., V 87.2: κείνον μόνον ἐξ ἀπάντων σωθῆναι (“that he alone among all should have been saved”) and Plat., *Gorg.* 525 525 E 5–526 A 1: ἐκ τῶν δυναμένων εἰσι (“are among the powerful ones”).

⁷ Just a few lines above, in the previous chapter, devoted to the notion of part (μέρος), Aristotle claimed that, in one sense of “part”, parts are “those into which the whole is divided or out of which it is composed” (εἰς ἃ διαρεῖται ἢ ἐξ ὧν σύγκριται τὸ ὅλον, Δ 25, 1023 b 19–20). See also, in our chapter, 1023 b 29 ἐκ τούτων τὸ ἐν (“the one is composed out of these”), b 33 ὅταν ἓν τι ἐκ πλείονων ᾗ (“when something one is composed out of these”). And cf. Ch. 24 on uses of the phrase ἐκ τίνος (“out of which”).

We must now understand how the syntax unfolds from ἐξ ὧν – understood as expressing composition – to λέγεται ὅλον φύσει. Consider Bonitz’s translation:⁸

Ein Ganzes nennt man dasjenige, welchem keiner der Theile fehlt, aus welchen bestehend es als Ganzes von Natur bezeichnet wird.

The translation by Bodéüs and Stevens is similar:⁹

(a) *Le composé complet*

On appelle un tout, à la fois ce à quoi ne fait défaut aucune des parties réputées le constituer avec la nature d’un tout,

(b) *Ce dont les parties englobées forment une unité*

et ce qui englobe les choses qu’il contient de telle sorte que celles-ci forment une certaine unité.

Like Bonitz, Bodéüs and Stevens take ἐξ ὧν in a syntactically pregnant way, in which we have to understand a participial clause: “[by being composed] out of which”.¹⁰ So both construals could be rendered or paraphrased in English as follows: μηθὲν ... μέρος ἐξ ὧν λέγεται ὅλον φύσει = “no part of those [by being composed] out of which it is said to be a whole by nature”. While this may not be very natural, it is not impossible.

A problematic aspect of this construal is that both Bonitz and Bodéüs and Stevens tie ὅλον very closely to φύσει (“als Ganzes von Natur”, “avec la nature d’un tout”). This makes φύσει almost pleonastic, whereas it should be doing more substantial work and qualify, not the whole in itself, but the relation between the whole and its parts. The idea should be that the parts which have to be all present for something to be a whole are only those that belong to it “by nature”. E.g. a hand is part of a man “by nature”, whereas a beard is not; a man without a hand, unlike a man without a beard, is no longer a whole man. This is actually Bonitz’s own interpretation in his commentary, where he claims that on the present definition a whole is that “cui pars naturalis nulla desit”.¹¹

Bodéüs and Stevens¹² also raise the issue of the circularity of the definition:

D’apparence circulaire, cette définition pourrait bien vouloir dire que la complétude, impliquée dans la nature d’un tout, quel qu’il soit, n’est pas à elle seule ce qui fait le tout ... le tout doit être un composé qui, à la différence du nombre, ajoute à la simple pluralité de ses parties une certaine forme d’unité qui permette de le définir autrement que par cette

⁸ Aristoteles, *Metaphysik*, übersetzt von H. Bonitz, Reimer, Berlin 1890, p. 114.

⁹ Aristote, *Métaphysique, Livre Delta*, introd., trad. et comm. R. Bodéüs – A. Stevens, Vrin, Paris 2014, pp. 69–70.

¹⁰ Berti’s translation (Aristotele, *Metafisica*, a cura di E. Berti, Laterza, Roma-Bari 2017), “«Intero» è detto ciò a cui non manca nessuna parte di quelle grazie alle quali esso è detto essere intero per natura”, is a watered-down version of this in which the more generic and smoother “grazie alle quali” replaces the more specific and clumsy “by being composed of which”.

¹¹ Aristotelis *Metaphysica* recogn. et enarr. H. Bonitz, Marcus, 2 vols, Bonn 1848–1849, vol. II p. 272, p. 235. The next chapter, about what it is for a whole to become “mutilated” (κολοβόν), suggests that the “natural” parts whose presence is necessary for the whole include, but do not coincide with, “those that have control of the substance” (τὰ κύρια τῆς οὐσίας, Δ 27, 1024 a 24), i.e. those whose removal destroys the substance’s identity. In other words, the two chapters together suggest that something can stop being a whole X but still be an X, albeit an incomplete one. I will not pursue this distinction.

¹² Bodéüs–Stevens, *Métaphysique Delta* (above, n. 9), pp. 197–8.

pluralité. S'il en est ainsi, il faut peut-être considérer que l'indication (*b*) dont il est question ensuite est moins une autre signification de "tout" que l'énoncé d'une autre condition, qui s'ajoute toujours à celle de la complétude, pour définir ce qu'est un tout. La forte conjonction (τε ... και) qui, dans le texte, unit les deux énoncés, s'oppose à la disjonction qui signale ailleurs des façons différentes de comprendre une chose (ἔνα μὲν τρόπον ... ἄλλον δὲ τρόπον; cf. 25, 1023 b 12–15, etc.), et plaide en faveur de cette interprétation.

Now, they are right that not lacking any parts is not a sufficient condition for something to be a whole. They are also right that the two definitions are not contrasted with each other and are mutually compatible. Nevertheless, these seem to be two separate definitions, not just two parts of a single one, and φύσει in the former, once we understand it as I have suggested, is probably enough to express the requirement of unity which is made explicit in the latter. In any case, none of this can make the second occurrence of the adjective ὅλον any the less redundant and thus remove the circularity of the former definition.

It is time to consult the ancient commentators. Alexander of Aphrodisias, *In Metaph.*, p. 425.5–7 Hayduck,¹³ has the following paraphrase to offer:

ὅλον γὰρ φησι λέγεσθαι οὗ τε μηδὲν ἄπεστι μέρος ἐξ ὧν λέγεται {τῶν} φύσει τὸ ὅλον συνεστάναι.
Whole, he says, is called that [ὅλον ... φησι λέγεσθαι] from which no part is absent [οὗ ... μηδὲν ἄπεστι μέρος] of those [ἐκείνων, understood] out of which the whole is said to be naturally composed [ἐξ ὧν λέγεται {τῶν} φύσει τὸ ὅλον συνεστάναι].

There are two interesting points to make about this paraphrase. First, clearly Alexander takes ἐξ ὧν to express composition, as I have suggested we should do. Secondly, he adds an article to the second occurrence of ὅλον, makes the resulting τὸ ὅλον into the grammatical subject of λέγεται, and takes it to be followed by an understood εἶναι which is equivalent to 'be composed' and which he paraphrases as συνεστάναι.¹⁴

Alexander is followed by Asclepius, *In Metaph.*, p. 350.16–17 Hayduck:¹⁵

ὅλον λέγεται οὗ μηδὲν ἄπεστι μέρος, ἀλλὰ τὸ πᾶν τέλειόν ἐστι, ἐξ ὧν λέγεται τὸ ὅλον φύσει, ὡς ὁ τέλειος ἄνθρωπος.

We call a whole that from which no part is absent (but which is complete in every respect) of those out of which the whole is said to be naturally (such as a complete human).

If we ignore Asclepius' awkward insertions, this is basically the same as what we read in Alexander, on whose commentary Asclepius depends. The only difference is that Asclepius,

¹³ Alexandri Aphrodisiensis *In Aristotelis Metaphysica commentaria* ed. M. Hayduck, Reimer, Berlin 1891 (CAG I).

¹⁴ Two more points can be made about Alexander's paraphrase. One is that it seems to begin as a literal quotation: this explains why it preserves the τε after οὗ, which makes sense only in the Aristotelian context and here has become inert. Another is that the τῶν before φύσει clearly has to be deleted, as Bonitz (*Alexandri Aphrodisiensis Commentarius in libros metaphysicos Aristotelis*, ed. H. Bonitz, Berlin 1847) and then Hayduck (*Alex. Aphrod., In Metaph.*, see above, n. 13) saw. τῶν is the reading of mss. A (*Par. gr.* 1876, 13th century) and O (*Laur. Plut.* 85.1, 1283–1289); mss. L (*Laur. Plut.* 87.12, 13th century = A^b in the editions of the *Metaphysics*) and F (*Ambros.* F 113 sup., 14th century) read τῷ. On these mss. and on the textual transmission of Alexander's commentary see P. Golitsis, *Alexander of Aphrodisias: Commentary on Aristotle, Metaphysics (Books I–III)*, De Gruyter, Berlin - Boston 2022 (CAGB 3.1), pp. XLVII–CXXXVI.

¹⁵ Asclepii *In Aristotelis Metaphysicorum libros A–Z commentaria*, ed. M. Hayduck, Reimer, Berlin 1888 (CAG VI.2).

rightly, does not think it necessary to add a verb specifically meaning composition, i.e. *συνεστάναι*.

After Alexander and Asclepius, τὸ ὅλον is found in the text of our passage in several mss. belonging to the so-called α family of the transmission of the *Metaphysics* (whereas it is absent from the mss. of the β family which I have been able to check, i.e. *Laur. Plut.* 87.12 = A^b, 12th century, the main representative of β in this part of the text; *Ambros.* F 113 sup. = M, 14th century; and *Vat. gr.* 115 = V^k, 15th century). The oldest ms. in which I have traced its presence is the *Vat. gr.* 255 (V^d, 14th century). From there, τὸ ὅλον was copied into the *Vindob. phil. gr.* 64 (J^a, 1457); from there, into the *Par. gr.* 1848 (Q^c, written around 1470). From the *Parisinus*, τὸ ὅλον entered the text of two influential modern editions: the Aldine (1497) and then that by Sylburg (1585).¹⁶ There it was found by Bonitz,¹⁷ who recorded it as a variant in the apparatus of his edition, adding “fort. Alex.” to suggest that perhaps the reading was already attested by Alexander.¹⁸ Afterwards, τὸ ὅλον was ignored by both Ross and Jaeger¹⁹ and disappeared from the philological radars.

Bonitz’s suspicions were partly right and partly wrong. He was right in so far as Alexander is indeed likely to be the source of the reading which we find in V^d and which ended up in the Aldine. But Bonitz was also wrong, in so far as there is no particular reason to suppose that Alexander actually read τὸ ὅλον in the text of the *Metaphysics* he had before him. Alexander is just paraphrasing, as is shown by his introduction of the verb *συνεστάναι*. He senses something odd about the syntax of ἐξ ὧν λέγεται ὅλον φύσει and finds it natural to rearrange the syntax in this way.

Interestingly, indeed, Alexander, probably because he feels some lingering sense of uneasiness, whether this is due to his rearrangement of the syntax or to the persistent redundancy of (τὸ) ὅλον, which still affects the passage, immediately after the paraphrase we have just read proceeds to give another one (p. 425.7 Hayduck):

ὧν γὰρ φύσει συνεστῶτων μηδὲν ἄπεστι μέρος, ὅλα ταῦτα κυρίως.

For the things naturally constituted from which no part is absent are wholes in the proper sense.

In this second paraphrase everything is straightened out: ὅλον occurs only once, without any circularity, and is in predicate position, without the article. Alexander writes it in the plural, ὅλα, but the word he is picking up in Aristotle’s text is the first occurrence of the adjective, the initial definiendum: ὅλον λέγεται ... etc. Another advantage of this second paraphrase is that it makes much clearer than it is in our current editions of the *Metaphysics* that φύσει qualifies the composition of the parts to constitute a whole.

¹⁶ See [Aristotelis *Opera*] vol. 4.2, Aldus Manutius, Venice 1497, and ΑΡΙΣΤΟΤΕΛΟΥΣ ΚΑΙ ΘΕΟΦΡΑΣΤΟΥ ΤΑ ΜΕΤΑ ΤΑ ΦΥΣΙΚΑ – Aristotelis et Theophrasti *Metaphysica*, ed. F. Sylburg, Wechel, Frankfurt 1585. I owe the information about M and V^k respectively to Marwan Rashed (who consulted a digital reproduction in his possession) and Tommaso Salvatori (who kindly inspected V^k for me in the Vatican Library); the other mss. I checked on digital reproductions available online. My knowledge of the relations between the various witnesses mentioned in this paragraph derives from Harlfinger, “Zur Überlieferungsgeschichte” (above, n. 3), and Alexander, *Aristotle’s Metaphysics Lambda* (above, n. 3), pp. 23–79.

¹⁷ Aristotelis *Metaphysica*, (above, n. 11), vol. I, p. 108 Bonitz.

¹⁸ Bonitz was followed by Christ (Aristotelis *Metaphysica*, ed. W. Christ, Teubner, Leipzig 1886, repr. 1906).

¹⁹ Ross, *Metaphysics* (above, n. 1); Jaeger, *Metaphysica* (above, n. 1).

Now, the text with τὸ ὅλον might be regarded as at least partly superior to that with ὅλον, in so far as its syntax is more straightforward. Therefore, although it probably did not originate as a genuine reading (and certainly not as an intentional conjecture), it might nonetheless, by a stroke of serendipity, happen to be the correct text. I believe, however, that we have a much better alternative. We should delete the second ὅλον in Aristotle's text:

“Ὄλον λέγεται οὗ τε μηθὲν ἄπεστι μέρος ἐξ ὧν λέγεται {ὄλον} φύσει.

This removes at one blow all sources of trouble: the definition is no longer circular and φύσει clearly qualifies the composition of the parts, as in Alexander's second paraphrase.²⁰

There are two subtly different ways in which the text could now be translated, depending on what exactly we take to be understood with λέγεται.

- (a) Whole is said to be that from which no part is absent [of those] out of which it is naturally said [to be].

That is to say, something is a whole if, and only if, it lacks none of the parts out of which it is naturally *composed*.²¹

- (b) Whole is said to be that from which no part is absent [of those by being composed] out of which it is naturally said [to be what it is].

That is to say, an F (e.g. a cat or a house) is a whole if, and only if, it lacks none of the parts out of which it is naturally *composed as an F*.²²

Construal (a) is plainer; (b) is more pregnant and preserves something of Bonitz's original idea. Both seem to me to give Aristotle – at a modest price – a definition that is better than any of the existing alternatives. “Ὄλον might easily have crept into the text since a very early stage of the tradition: the fact that λέγεται lacks an explicit subject complement governing ἐξ ὧν might have encouraged someone to add ὄλον under the influence of the initial “Ὄλον λέγεται.”²³

²⁰ To be clear, of course Alexander's second paraphrase does not constitute *evidence* in favour of this conjecture. Its role is at most to lend some defeasible confirmation to the view that this is what Aristotle *should* have written. If we suppose (as I am doing) that this is also what he in fact wrote, this is entirely on us.

²¹ There is a possible parallel in *Metaph.* Z 5, 1030 b 17–18 *σιμότης τὸ ἐκ τοῖν δυοῖν λεγόμενον τόδε ἐν τῷδε*, if that literally means “snubness is what is said [to be] out of both as a this in a this” (though other construals are also possible). Generally speaking, anyway, given an expression of the form X λέγεται εἶναι Φ (where Φ stands in for a complement that may take any form, including a prepositional phrase), it should always be possible for εἶναι to be understood.

²² For a parallel to the (b) construal of λέγεται as “is said [to be what it is]” see Arist., *Metaph.* Γ 2, 1003 b 17: *δι’ ὃ λέγονται*.

²³ The addition would have come especially easy to a reader who, like Kirwan (*Aristotle: Metaphysics Γ, Δ, and Ε* [above, n. 5] and text thereto), misconstrued *μηθὲν ἄπεστι μέρος ἐξ ὧν* as “no part is absent out of those of which” – where ἐξ (*ἐκείνων*) is meant to be the partitive phrase – and missed a subject complement for λέγεται to govern the simple genitive ὧν: “Whole is said to be that from which no part is absent out of those of which it is naturally said ...” and now the most obvious completion that comes to mind in Greek is precisely “... (to be) a whole”.