Noetic Thinking in Aristotle’s *De Anima* III.6

A DISSEPTION

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In *De Anima* III.6, Aristotle announces a kind of thinking that is true and not false. He describes this thinking as a “contemplation of what is undivided” and contrasts it with the thinking that involves “some synthesis of thoughts.” The brevity of this description of contemplative or noetic thinking leaves many questions unanswered: how can thinking be true and not false? what does the subject do when thinking what is undivided? what kinds of things are sufficiently unified to be thought in this way?

Aristotle touches on these issues throughout his corpus, but nowhere offers an integrated account. To date, no commentator has undertaken an extended examination of III.6 and its related texts in pursuit of effecting this integration. Such is the aim of this dissertation.

Chapter One establishes, as a preliminary task, the narrative structure and internal coherence of the argument of III.6. Subsequent investigation of the truthfulness, activity, and objects of noetic thinking is situated within this framework.

Chapter Two displays the nature of noetic thinking’s truthfulness, locating the achievement of this truth in the simplicity of both the activity of the thinking subject and the nature of the things thought. The truth of noetic thinking, like that of proper sensation, is opposed neither to falsity nor to deception but to ignorance, and is actual and non-trivial in character.
Chapter Three inquires into the simplicity of noetic thinking as a psychological act. It argues that the subject who thinks infallibly is neither merely passive nor active in a synthetic way. What the subject does to render noetic thinking actual is to divide in a non-synthetic way. The subject “touches” and “rests” with a thing’s intelligibility by focusing on it, and not on any other potentially intellected form.

Chapter Four draws upon Aristotle’s accounts of unity to argue that only essences of material composites are sufficiently unified to be thought by non-synthetic division. The cognitive act that is supremely one thus corresponds to the beings that are, for us, supremely one. The dissertation concludes by highlighting noetic thinking’s indispensable and foundational role for the life of the mind.
This dissertation by Sr. Anna Wray fulfills the dissertation requirement for the doctoral degree in Philosophy approved by Jean De Groot, Ph.D., as Director, and by Robert Sokolowski, Ph.D., and Ignacio De Ribera-Martin, Ph.D., as Readers.

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INTRODUCTION

In *De Anima* III.6, Aristotle distinguishes between two kinds of thinking. Synthetic thinking, on the one hand, is marked by the mind’s discursive activity of synthesis. We think synthetically when we think a unity through, whether this unity is constituted by a putting together (σύνθεσις) or by a taking apart (διαίρεσις).\(^1\) Since a synthesis of thoughts (σύνθεσις νοημάτων) may either succeed or fail to be in accord with the syntheses in things, our acts of synthetic thinking can be either true or false.\(^2\) Noetic thinking, on the other hand, is marked by the absence of synthesis and falsity. We think in a noetic or non-synthetic manner when, rather than thinking a unity through (διανοεῖσθαι), we simply think (νοεῖν) it as a unity, whole and undivided (ἀδιαιρέτον).\(^3\) Since both the unity that is thought noetically and the act of noetic thinking are undivided, there is here no possibility of falsity. To think something noetically is to think it infallibly.\(^4\)

A survey of Aristotelian scholarship of the last century suggests that this portion of the *De Anima* is worthy of no more than passing consideration. Some scholars say nothing about the

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\(^1\) Throughout the dissertation, I use ‘synthetic thinking’ to refer to any intellectual act that is discursive. An act is discursive, in turn, if it requires the subject to move between unities, attend separately to each. I favor the phrase ‘synthetic thinking’ rather than the more technical ‘dianoetic thinking,’ both because Aristotle employs ‘συντίθημι’ but not ‘διανοεῖσθαι’ in *DA* III.6, and because the intended meaning of ‘διάνοια’ and ‘διανοεῖσθαι’ must be discerned at each appearance.

\(^2\) *DA* III.6 430a27-28; 430b26-27.

\(^3\) I use ‘non-synthetic thinking’ to refer to any intellectual act that is non-discursive. I describe this act alternately as ‘non-synthetic,’ ‘non-discursive,’ and ‘noetic.’ The phrase ‘noetic thinking’ is appropriate, both because Aristotle employs ‘νοεῖν’ several times throughout *DA* III.6, and because the sense required for each of these appearances is narrow, referring to a particular kind of thinking rather than to thinking in general.

\(^4\) *DA* III.6 430a26-27; 430b27-28.
chapter at all, or restrict their commentary to a single footnote.\(^5\) The near silence of these scholars implies that III.6 is either incomprehensible or insignificant, its inquiry being of value neither in itself nor for other passages in the Aristotelian corpus.

Other scholars comment more substantially on *De Anima* III.6, but limit the scope of their attention to the text’s interpretive challenges.\(^6\) Difficulties with the argument of III.6 arise on multiple levels and appear to compound one another. On the most basic level, the manuscripts of III.6 are at variance in several places, with as many emendations being challenged as proposed. Insofar as these textual puzzles are situated at seemingly significant places, they contribute to the obscurity of the chapter’s argument, already sparse in explicit structure and signposts. Even if the argument’s structure could be discerned, moreover, one would still be faced with difficulty on the level of translation. How one renders the inherently ambiguous Greek term ‘ἀδιαιρέτον,’ for example, makes no small difference to the meaning of the argument.\(^7\) In light of these


\(^6\) W. D. Ross, *De Anima* (Oxford: Oxford University Press, 1961), 300, for example, declares III.6 to be a “first sketch,” which Aristotle “would undoubtedly have much improved if he had revised it.” Christopher Shields, *De Anima: Translated with an Introduction and Commentary* (Oxford: Clarendon Aristotle Series, 2016), 330, 333, 334, characterizes the chapter as “a bit scrappy,” “troubled” and “patchy,” showing “signs of incompleteness.” Carlo Biondi, *Aristotle: Posterior Analytics II.19: Introduction, Greek Text, Translation and Commentary* (Saint-Nicolas, Québec: Les Presses de l’Université Laval, 2004), 241n33, notes that “this part of the chapter poses many problems of interpretation, both philological and philosophical.” Paul Shorey, “Aristotle’s *De Anima,*” *The American Journal of Philology* 22 (1901): 157, attributes the chapter’s difficulties not merely to the haste of the Stagirite or the loss of manuscripts, as Ross and Shields imply, but to a “fundamental inconsistancy that runs through [Aristotle’s] entire system.” A similar view is expressed by A. C. Lloyd, “Non-Discursive Thought: An Enigma of Greek Philosophy,” *Proceedings of the Aristotelian Society* 70 (1969): 263: “the concept whose validity we may wish to examine is on the face of it so bizarre, unplausible [sic], unintelligible, that one can do nothing else but start from what somebody says it is.” Lloyd hesitatingly attributes to Aristotle the “unintelligible” doctrine that is textually routed in *De Anima* III.6 and its parallels. Both Shorey and Lloyd omit an interpretation of III.6, presumably on the grounds that the *prima facie* reading of the text offers little hope for coherence.

\(^7\) In abstraction from context, the term ἀδιαιρέτον can mean either ‘indivisible’ – incapable of being divided – or ‘undivided’ – not actually divided, but potentially so.
challenges, the likelihood of commentary on III.6 advancing beyond mere conjecture seems slim at best.

A third deterrent from further inquiry into III.6 is the apparent saturation of scholarship regarding the chapter’s allegedly problematic distinction between synthetic and non-synthetic thinking. The dialogue is strongly polarized along the lines of whether non-synthetic thinking is the grasp of essence that follows dialectical inquiry, or the intellectual awareness of essence that underlies all other thought. Scholars on either interpretive side have asserted and reasserted their arguments, but have not advanced them. It is tempting to conclude from this situation that little more remains to be said about the account of noetic thinking in III.6.

The purpose of the present introduction is to counter the three aforementioned objections to serious examination of *De Anima* III.6 and the character of noetic thinking expressed therein. Sustained inquiry of the text, beyond the contributions of recent scholarship, is not only possible, but necessary and worthwhile.

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INQUIRY INTO III.6 IS POSSIBLE: COMPLEMENTARY TEXTS

To the claim that III.6’s interpretive challenges render convincing commentary impossible, two responses may be made. First, the chapter is not entirely obscure, as exclusive attention to manuscript variances and unorthodox grammar might suggest. The overall purpose of the chapter and its basic line of argumentation are clear: there are two kinds of thinking, distinguished according to the role synthesis plays in each and the truth value proper to each. In most places where the grammar is unworkable, moreover, the meaning of the text, even beyond its basic argument, does not appear to suffer. Similarly, where manuscripts differ, the resulting variations in meaning are ancillary to the chapter’s main distinction.

Second, where the meaning of III.6’s argument is genuinely obscure, significant progress toward clarity can be made by attending to the argument’s logical requirements, as well as by consulting other texts in which Aristotle purportedly discusses noetic thinking (most notably, De Interpretatione 16a9-18, Metaphysics IX.10, and Posterior Analytics II.19). Assuming that Aristotle is consistent both throughout III.6 and across his works, comparative analysis can determine at least what interpretations of III.6 such consistency permits and excludes.
INQUIRY INTO III.6 IS NEEDED: THE INADEQUACY OF SCHOLARSHIP TO DATE

A synoptic examination of the character of noetic thinking in III.6 as described above has not previously appeared in print. Although some cross-textual studies of noetic thinking exist, these studies fall short in at least one of two ways: first, by failing to bring together all relevant texts; and second, by orienting themselves almost exclusively toward exposition of the merits and demerits of various post-dialectical interpretations of noetic thinking. Non-dialectical interpretations, while not entirely unrepresented in scholarship, have suffered relative neglect, standing in need of both textual grounding and substantive defense against the claims of post-dialectical interpretations.

INQUIRY INTO III.6 IS OF VALUE

The philosophical promise of inquiry into the character of noetic thinking far outweighs the anticipated difficulty of its investigation. In addition to the value of understanding the doctrine in its own right, a fuller development of Aristotle’s account of noetic thinking would illuminate several other aspects of his account of knowing.

For one, a grasp of the truth that pertains to noetic thinking is crucial to a complete understanding of Aristotle’s account of truth. Although Aristotle speaks most often of the truth whose opposite is falsity and that follows from propositional thought, his account of truth is not limited thereto. One can appreciate neither the breadth of this account of truth as a whole nor the peculiarity of the truth proper to synthetic thinking until each of these is seen in light of the truth that attends the eminently receptive act of “thinking what is undivided.”

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10 For a representative list of these cross-textual studies, see note 8.
Another set of questions that would benefit from a fuller grasp of the character of noetic thinking in III.6 is that concerning Aristotelian epistemic justification and explanation. The possibility of a kind of thinking that is unfailingly true is relevant, for example, to discussions regarding Aristotle’s account of knowledge and the claims of radical skepticism, as well as the extent of his supposed epistemic coherentism, foundationalism, or reliabilism.\footnote{For recent considerations of noetic thinking and skepticism, see Iakovos Vasiliou, “Perception, Knowledge, and the Sceptic in Aristotle,” *Oxford Studies in Ancient Philosophy* 14 (1996): 83-131, and Nathan Colaner, *Aristotle on Knowledge of Nature and Modern Skepticism* (Lanham, MD: Lexington Books, 2014). For a recent consideration of noetic thinking and justification, see Owen Goldin, “Circular Justification and Explanation in Aristotle,” *Phronesis* 58 (2013): 195-214.}

Lastly, inquiry into the nature of noetic thinking in III.6 is indispensable for the completion of the task Aristotle himself sets forth in *De Anima*, namely, to account for the nature of the soul – a task he does not hesitate to call “of first importance.”\footnote{DA I.1 402a5.} In Book II, he announces the method by which his account of soul will proceed: since a soul is known through its powers, powers through their activities, and activities through their proper objects, the study of the soul must begin with the study of objects.\footnote{DA II.3 415a12- II.4 415a22. Throughout the dissertation, I shall use the term ‘object’ to refer to what Aristotle ambiguously calls ‘τὸ νοητόν.’ Both ‘object’ and ‘τὸ νοητόν’ – literally translated ‘the intelligibility’ – are ambiguous between the intelligible thing itself and the thing’s intelligibility, with which the mind is potentially identical. Where it is necessary to distinguish between these two meanings, I shall refer to the first as ‘thing’ and the second as ‘thought.’} A cautionary corollary of this practical principle, tailored to the issue at hand in III.6, might run as follows: ignorance of the object and activity of noetic thinking yields ignorance of the intellectual power and, in turn, of the soul itself.\footnote{The primary aim of the dissertation is the explication of the infallible activity of noetic thinking in terms of its objects. Although examination of the power from which this activity issues would be the next step in the program set forth in *DA* II.3-4, such an examination falls outside the scope of the dissertation. My reasons for excluding from the dissertation a direct consideration of νοῦς as a power are twofold. First, *DA* III.5 in general and the mind “which makes all things [ὁ δὲ τῷ πάντα ποιεῖν]” (430a15) in particular have not suffered from want of commentary in any era. Second, the progression of study outlined in *DA* II.3-4 and displayed throughout the *De Anima* suggests that powers are to be examined indirectly, namely, through an investigation of their activities. In the...}
OUTLINE OF THE DISSERTATION'S CHAPTERS

The general purpose of the present dissertation is to examine the character of noetic thinking in *De Anima* III.6 according to the manner and spirit outlined above. A further, particular purpose is to display the philosophical promise, coherence, and strength of the interpretation of noetic thinking as a rudimentary grasp of essence that underlies all other thinking. This task will be carried out in five chapters, by sustained textual analysis of *De Anima* III.6, both as a part of that work as a whole and in light of standard texts relevant to the nature of noetic thinking.

While beginning our inquiry with truth rather than with objects departs in one sense from Aristotle’s recommended method laid out in II.4, the departure is faithful to the recommendation’s underlying principle: inquiry must begin with what is most evident to us. Since the present inquiry concerns Aristotle’s account of the object, activity, and truthfulness of noetic thinking, rather than the things themselves, we must begin with the aspects of his account that are least obscure.

Chapter One consists in a translation and initial exposition of *De Anima* III.6 as a contained account. It identifies the overall structure and intent of the argument, seeking to resolve textual difficulties and peripheral scholarly disagreements within this framework. Special attention is given to the foundation of the distinction between synthetic and non-

synthetic thinking, as well as to what Aristotle does and does not disclose in III.6 about the object, activity, and truthfulness of non-synthetic thinking.

Chapter Two surveys the kinds of truth that commentators have attributed to noetic thinking. It argues that Aristotle’s intention in III.6 with respect to the veridicality of noetic thinking differs from that in the opening lines of *De Interpretatione*, which posit that terms by themselves are not yet true or false. Neither, however, is it Aristotle’s intention merely to ascribe to noetic thinking a kind of truth common to all thinking. The parallel with the sensation of proper sensibles suggests that Aristotle ascribes to noetic thinking a distinct kind of inerrancy.

Chapter Three targets for consideration the nature of the activity of noetic thinking, understood from the standpoint of the psychology of the *De Anima* as a whole. This chapter argues that, in order to achieve the kind of truth articulated in Chapter Two, noetic activity must be neither synthetic nor exclusively passive in nature. The activity by which a potentially thought noetic object is made actually present to a subject, rather, is what might be called *non-synthetic division*. In contrast to *synthetic division*, in which a subject actually thinks two parts as a unified whole, in non-synthetic division, the subject merely separates or abstracts a single whole from the background of all other potential unities. This kind of division is non-synthetic, insofar as it asserts no relationship between one unity and another, but merely focuses on the one.

Chapter Four extends the findings of the previous chapters to the object of noetic thinking. Drawing primarily from *Metaphysics* IX.10, the chapter explores the ontology of the things that are noetically thinkable, critiquing various accounts of unity in light of the established requirement that noetic thinking include no synthesis whatsoever.
Chapter Five concludes the dissertation by suggesting how the account of noetic thinking previously set forth might assist in undoing certain knots in our understanding of νοῦς. If we regard noetic thinking as an act of non-synthetic division, we can distinguish not only between νοῦς as a capacity, habit, and excellence, but also between the nature and truthfulness of νοῦς and ἐπιστήμη.
CHAPTER ONE:
TRANSLATION AND INITIAL EXPOSITION OF DE ANIMA III.6

The natural way to become acquainted with the principles of an inquiry, Aristotle declares in the opening lines of the Physics, is to begin with “the things which are more knowable and obvious to us,” and to advance toward “what is clearer and more knowable by nature.”1 It is appropriate, therefore, that we begin our inquiry into the principles of noetic thinking set forth in De Anima III.6 with an account of what is most obvious to us in this text: the overall argument it makes, and the many interpretive challenges it contains.

The present chapter will thus assist our subsequent analysis and synthesis in two ways: first, by setting forth certain claims about noetic thinking that are foundational for the questions pursued in later chapters; and second, by attending to textual concerns that might otherwise distract us from pursuing questions more overtly philosophical in character: in what way is the thinking of what is undivided true? how does the activity of thinking of what is undivided differ from the activity of synthesis? what kind of unity is required for a thing to be thinkable without synthesis?

The argument of III.6 and its attendant interpretive challenges will be presented in five parts. Each part will be comprised of the relevant lines of the Greek text and an exegetical commentary on the argument’s difficulties and development.2

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2 Except where noted, the Greek text presented here follows W. D. Ross, De Anima (Oxford: Clarendon Press, 1961), in frequent consultation with the critical apparatus of Aristotle, Tractatus De Anima: Graece et Latine, ed. Paulus Siwek, S.J. (Roma: Desclée & C. Editori Pontifici, 1965), and the notes of R. D. Hicks, Aristotle’s De Anima: with Translation, Introduction and Notes (Salem, NH: Ayer Company Publishers, 1907). For an overview of the manuscripts and commentaries relevant to De Anima, see Martha C. Nussbaum, “Introduction,” in Essays on...
In order to provide a framework within which the details of these five parts can be situated, I shall begin by offering a complete English translation of the Greek text and a narrative overview of the conclusions to be argued throughout the commentary. It is these conclusions, rather than the dialectical arguments leading to them, that will be foundational for the arguments of subsequent chapters.

TRANSLATION OF III.6

[A] The thinking of what is undivided, then, is among those things concerning which there is no falsehood. In those things concerning which there is both falsehood and truth, there is already some synthesis of what is thought, as forming a unity. Just as Empedocles said, “where heads of many grew up without necks,” next [he said] that they were put together by Love; so also these [thoughts], being separate, are put together, such as the incommensurable and the diagonal. If [what is thought concerns] what has been or will be, then [one], adding in time, synthesizes it also. For falsehood always involves a synthesis. For even if one says that white is non-white, one still synthesizes [white and] non-white. It is possible to call all these ‘division,’ also. Certainly, falsehood or truth concern not only that Cleon is white, but also that he was or will be. In each case, what makes this one is mind.

3 John Dewar Denniston, The Greek Particles, 2nd ed. (Oxford: Clarendon Press, 1959), 444, suggests that ἀλλὶν … γε should be rendered, ‘but still.’ I render this phrase at 430b4 ‘for even,’ since the sentence beginning at 430b4 is an explanation rather than a qualification of the preceding assertion about falsity.
[B] But since ‘undivided’ is in two ways, either as potential or as actual, nothing prevents one from thinking what is undivided when one thinks a length (for it is actually undivided), and from thinking it in an undivided time. For time is divided and undivided in the same way as length is. Accordingly, it is not possible to say what one was thinking in each half [of the time], for if [the time] is not divided, the half [time] does not exist, except potentially. But by thinking each of the halves apart from the other, one divides the time along with it as well. And then it is as if the half-times were lengths. But if one thinks a length as made of both [halves], one also thinks it in time corresponding to both [halves].

[C] But what is undivided not in quantity but in form, one thinks in an undivided time and by an undivided [act] of the soul. But [what is undivided in form] [is divided] accidentally, and not in the way in which those of which one thinks and the time in which [one thinks them] are divided, but in the way in which [they, one’s thinking of what is undivided in quantity and the time in which one thinks what is undivided in quantity] are undivided. For even in these [one’s thinking of what is undivided in quantity and the time in which one thinks what is undivided in quantity] there is something undivided, though perhaps not separate, which unifies the time and the length. And this is similarly the case in everything continuous, whether time or length.

[D] But the point and every division, and whatever is in this way undivided, is made known just as the privation is. And a similar account applies to other cases, for example, how one recognizes evil or black. For, in a way, one recognizes each of these by its contrary. But it is necessary for the knower potentially to be [the contrary], and for one [of the contraries] to be in the knower. But if there exists something without a contrary, then one knows it itself, and [it] is actual and separable.

[E] On the one hand, every assertion, like every affirmation, concerns something about something and is true or false. On the other hand, this is not the case with every [act of] mind; but the [thinking] of what-is in the sense of essence\(^4\) is true, and does not concern something about something. But just as seeing a proper object is true, while [seeing] whether the white thing is a man or not is not always true, so it holds with as many things as are without matter.

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\(^4\) The interior dynamism of ‘τὸ τί ἔστιν εἶναι’ is lost by translating this phrase as ‘essence.’ I use this translation, nonetheless, since it is more customary and less cumbersome than ‘the what it was to be.’ The temptation to associate Aristotle’s ‘τὸ τί ἔστιν εἶναι’ with ‘essence’ in the scholastic sense should be resisted.
NARRATIVE OVERVIEW OF III.6

In the opening section of III.6, Aristotle announces the distinction he will undertake to examine throughout the chapter: the thinking of what is undivided (τῶν ἀδιαιρέτων νόησις) cannot be false, while the thinking that involves some synthesis of thoughts (σύνθεσις τις ἡδη νοημάτων) can. Aristotle commences his examination by listing a series of observations about the second, fallible kind of thinking. What the subject does when thinking fallibly, he tells us, is to put thoughts together. We think ‘the diagonal is incommensurable,’ for example, by putting ‘diagonal’ together with ‘incommensurable.’ It is on account of this activity of putting together that thinking can be false. Additional possibility for falsity arises when we add time into our syntheses: the thought ‘Cleon was white’ can be false, even if the thought ‘Cleon is white’ is true. Aristotle concludes his initial consideration of synthetic thinking by noting that what he has been calling ‘syntheses’ can also be called ‘divisions.’ These two names target different aspects of any given act of fallible thinking: putting thoughts together in some relation (synthesis) requires that we distinguish between two different thoughts (division).

In Section B, Aristotle turns his attention to the infallible kind of thinking – to the thinking of what is undivided. In contrast to synthetic thinking, which involves both two divided thoughts and their synthesis, the thinking of what is undivided is constituted by an act of division alone. The kind of division associated with noetic thinking (νοεῖν) differs from the kind associated with synthetic thinking (συντίθημι) in this respect: while synthesis requires that we distinguish two wholes, one from the other, noetic thinking requires that we attend to only one whole, considering its relation neither to the background from which it was divided nor to the internal parts into which it might be divided. Unlike synthetic thinking, which is at once
internally divided and synthesized, noetic thinking is internally undivided; in any given act of noetic thinking, there are only potential articulations.

Having focused in Sections A and B on what the subject contributes to synthetic and noetic thinking, in Sections C and D, Aristotle directs his attention to the objects that can be thought in each of these ways. He identifies three kinds of objects, noting the respect in which each is undivided. The purpose of this categorization is to show that not every object that is called ‘undivided’ is capable of being thought noetically. We can think noetically whatever is undivided in form (ἀδιαιρετὸν τῷ εἴδει) and undivided in quantity (ἀδιαιρετὸν κατὰ τὸ ποσόν), but we think synthetically what is undivided as the point or division (τὸ οὕτως ἀδιαιρετὸν). We think noetically when we think of a goat or of a goat’s magnitude, for example, since in both these cases, actual thinking requires nothing more than dividing form from matter. We think of points and privations synthetically, however, since we cannot think of these apart from that to which they are relative: it is impossible to think of a point without thinking of a line, or to think of evil without thinking of good.

In Section E, Aristotle revisits his opening contrast between fallible and infallible thinking, focusing this time on truth rather than falsity. While every thought of something about something (τι κατὰ τινος) is either true or false, the thought of what-is in the sense of essence (τί ἐστι κατὰ τὸ ἣν εἶναι) is true. The chapter concludes with a brief but argumentatively significant analogy between the truth of noetic thinking and the truth of the sensation of proper sensibles.
SECTION A (430a26-430b6)

GREEK TEXT

a 26 [A] Ἡ μὲν οὖν τῶν ἁδιαφρέτων νόησις ἐν τούτοις περὶ ἀ ούκ
27 ἐστὶ τὸ ψεῦδος ἐν οἷς δὲ καὶ τὸ ψεῦδος καὶ τὸ ἀληθὲς, σύν-
28 θεσις τις ἣδη νοημάτων ὁσπέρ ἐν ὑντον, 5 καθάπερ Ἐμπεδο-
29 κλῆς ἔρη "ἵππολων μὲν κόρσαι ἀναψυχες ἐβλάστησαν;" 6
30 ἐπείτα συντίθεσθαι τῇ θυλίᾳ, οὔτω καὶ ταύτα κεχωρισμένα
31 συντίθεται, οἶνον τὸ ἀσύμμετρον καὶ ἡ διάμετρος. ἃν δὲ γενο-

b 1 μένων ἢ ἐσομένων, τοῖν χρόνον προσεννοῦν 8 καὶ συντίθησι. 9 τὸ γὰρ
2 ψεῦδος ἐν συνθέσει ἀεί· καὶ γὰρ ἀν τὸ λευκὸν μὴ λευκὸν νφῇ, τὸ
3 λευκὸν καὶ> 10 τὸ μὴ λευκὸν συνέθηκεν 11. ἐνδέχεται δὲ καὶ 12 διαίρεσιν
4 φάναι πάντα. ἀλλ.` οὖν ἐστὶ γε οὐ μόνον τὸ ψεῦδος ἢ ἄλη-
5 θές ὅτι λευκὸς Κλέον ἐστίν, ἀλλὰ καὶ ὅτι ἡν ἢ ἐσται. τὸ δὲ ἐν
6 ποιοῦν τούτο ὁ νοῦς ἐκαστον.

COMMENTARY

THE PURPOSE OF SECTION A

With respect to the whole of De Anima III.6, Section A serves two purposes: first, to introduce a contrast between two kinds of thinking; and second, to give an account of the truth, activity, and objects proper to one of these kinds.

Aristotle dispatches the first of these purposes with customary brevity: while in the thinking of what is undivided (τῶν ἁδιαφρέτων νόησις) there is no falsehood, the kind of thinking

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5 Hicks, De Anima, 512, observes that this phrase, “is practically equivalent to ἐνυψωμένων, ‘being unified.’”
6 Fragment DK 31B57.
7 The grammatical purpose of the infinitive, presumably, is to introduce indirect speech.
8 Translating προσεννοῦν as a contraction of πρός ἐν νοοῖν, as manuscripts LXL attest.
9 Accepting Torstrik’s conjecture of συντίθησι for καὶ συντίθησις, but retaining καί. Understanding an unnamed subject for προσεννοῦν and συντίθησι.
10 Accepting Ross’ addition and rejecting as unnecessary Torstrik and Vahlen’s restoration of a second example of false judgment.
11 The reason for the aorist is unclear.
12 Retaining the δὲ. It is omitted only by manuscript U¹. The καί is emphatic.
in which there is a synthesis of thoughts (σύνθεσις νοημάτων) involves both falsehood and truth. The clear point of contrast between these two kinds of thinking, however else they may be seen to differ, is the relationship each bears to falsity (ψεῦδος).

Aristotle’s purpose in giving this contrast is more to tell us that the two kinds of thinking differ with respect to falsity than to tell us anything about the nature of these activities – how or why each kind of thinking is so situated. Nevertheless, the contrast cannot help but provide an initial glimpse of the nature of each kind of thinking. Since the remainder of Section A will focus on the nature of the thinking that involves synthesis, let us turn our attention briefly to what the contrast reveals about the nature of the thinking of what is undivided.

“THE THINKING OF WHAT IS UNDIVIDED, IN WHICH THERE IS NO FALSEHOOD” (430a26-27)

The Greek phrase, τὸν ἀδιαιρέτων νόησις, considered apart from the qualifying phrase, “in which there is no falsehood,” is ambiguous in multiple ways. In what follows, we shall survey the meanings permitted by the phrase, both in light of the grammar and its immediate context. Once we designate the sense in which the phrase may be understood, we will settle upon appropriate English translations. These steps will serve the further end of introducing complexities surrounding this phrase that appear at every turn of the argument of III.6.

The ambiguity relating to ‘νόησις’ can be traced to the noun’s verbal root, νοεῖν. ‘Νοεῖν’ has both a broad or generic meaning, referring to all thinking whatsoever, and a narrow or specific meaning, referring to a particular kind of thinking.\(^\text{13}\) The broad meaning distinguishes

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\(^{13}\) Cf. Jonathan Lear, *Aristotle: the Desire to Understand* (Cambridge: Cambridge University Press, 1988), 121n68: “Aristotle used the verbs *theorein* and *noein* widely to cover a whole range of cognitive activities, much as we use ‘to think.’ However, he also used the verb narrowly to designate the exercise of man’s capacity for theoretical understanding: the highest activity of mind.” Cf. Ronald Polansky, *Aristotle’s De anima* (Cambridge:
thinking in general from mere sensation, on the one hand, and from mere imagination, on the other. ‘Noetic,’ in this sense, distinguishes the properly intellectual aspects of an act of cognition from those aspects that are merely sensory or imaginative.\(^{14}\) The narrow meaning distinguishes νοεῖν, non-synthetic thinking, from the kind of thinking that involves synthesis (συντίθημι).

‘Noetic,’ in this narrow sense, singles out what is at once intellectual – νοεῖν in the broad sense – but not synthetic.\(^{15}\)

The meaning of the phrase here in Section A is noetic in the narrow sense. We see this from the role the phrase plays in the opening contrast, namely, to designate the kind of thinking “in which there is no falsehood.”\(^{16}\) Henceforth, we shall use ‘noetic thinking’ in its narrow sense.

\(^{14}\) Cf. \textit{DA} III.3 427b27-428a5. Cf. Christopher Long, \textit{Aristotle on the Nature of Truth} (New York: Cambridge University Press, 2011), 171n39: “At \textit{DA} III.3 437b8-9, Aristotle uses τὸ νοεῖν to refer to the sort of thinking that can be true or false. Later in that chapter, 428a3-5, he lists νοεῖν as one of the powers or active conditions by which we discern and speak truly or falsely. This echoes the presentation of the so-called intellectual excellences in \textit{NE} VI.3, 1139b17. This tendency to deploy νοεῖν in contexts which, strictly speaking, διάνοια might be more proper is understandable if we take νοεῖν as a more generic name for a variety of kinds of thinking.”


\(^{16}\) Although the sense of the phrase as a whole is narrow, the sense of νόησις, as a part of the phrase, must be broad, lest the qualification, “in which there is no falsehood” be redundant.
The ambiguity pertaining to the term ἀδιαιρετόν is twofold. One ambiguity concerns the sense in which the alpha privative negates ὁδιαιρετός. There are three ways in which we can understand what it means to be not ὁδιαιρετός. Two senses of ἀδιαιρετόν are narrow, inasmuch as they specify whether something must be without division, or simply is without division. An indivisible thing (ἀδιαιρετόν) is without division because it lacks the potential for being divided. An undivided thing (ἀδιαιρετόν), in contrast, is without division simply because its potential for being divided has not been actualized. A third, broad sense of ἀδιαιρετόν asserts the absence of division without specifying whether division is possible or impossible. This broad or underdetermined meaning of ‘not actually divided’ is better conveyed by the English term ‘undivided’ than ‘indivisible,’ for, logically speaking, ‘not divided’ is more inclusive than ‘not possibly divided’: what is impossible to divide cannot be potentially divided, but what is not potentially divided may yet be indivisible. Admitting ‘undivided’ to signify this broad sense in addition to its narrow sense, of course, will require specifying, at each use, which sense is intended.

17 Cf. Meta IX.8 1050b8-11. Some commentators (Shields, Sachs, Apostle, Hett, and Hicks) employ ‘indivisible’ to connote not the narrow meaning of ‘impossible to divide,’ but a broad or underdetermined meaning of ‘not actually divided.’ They implicitly acknowledge that ‘indivisible’ carries with it the narrow meaning, however, when they alter their translations to ‘undivided’ at 430b8. The explanation for why ‘indivisible’ connotes the narrow meaning of impossibility may be rooted more in custom than grammar, but it is worth noting that the suffix -ible, present in ‘impossible,’ is present in ‘indivisible’ and not in ‘undivided.’ Polansky, De Anima, 475n4, expresses the connatural association between ‘indivisible’ and its narrow meaning in a comment on 430b8: “Of course it seems impossible that anything can be divided in actuality and indivisible in potentiality, though it could be divided in actuality but undivided in potentiality. The notion of indivisibility in potentiality is a most strange notion. We should hardly wish to say of something necessarily indivisible that it is indivisible in potentiality.”

18 Ross and Smith, recognizing the need for an English term that conveys mere absence of division, respectively translate 430a26 as ‘unitary’ and ‘simple,’ bypassing ‘indivisible’ or ‘undivided’ as incapable of supporting the broad sense of ‘not actually divided.’ I find two significant difficulties with ‘unitary’ and ‘simple’ as translations of the term ἀδιαιρετόν. First, neither term is capable of even partially reflecting the complex grammatical structure of the Greek ἀ-διαιρετόν: an adjective (-τον), formed from a verb (διαιρέω), itself compounded from a preposition and a root verb (δια-αιρέω), is negated (ἀ-). Insofar as each of these steps of grammatical composition represents an aspect of meaning, it is worthwhile selecting an English term with similar
Neither grammar nor context assists us in determining whether to understand the ἀδιαιρετα of 430a26 as ‘undivided’ (in the narrow sense) or as ‘indivisible.’ The subsequent argument of III.6 will reveal that the intended meaning is the latter. Nevertheless, since the opening lines do not reveal which meaning is intended, it is appropriate to select the meaning and translation that retains the ambiguities. I shall use ‘undivided,’ both here and throughout III.6. Although doing so will require the additional labor of specifying which sense is intended at each use, this labor is required by the Greek.

A final question might be raised concerning the phrase ‘τῶν ἀδιαιρετῶν νόησις’: what is the being of the ἀδιαιρετα? Is Aristotle speaking of objects as existing independently of the subject (tà οντα) and possessing the capacity to exist in the subject (tà νοητά), or as having actualized this capacity to exist in the subject (tà νοηματα)? Since neither grammar nor immediate context point to one manner over the others, it is best to select a translation that complexity of composition and meaning. The second difficulty is related: the meaning of ‘not actually divided’ differs from that of either ‘unitary’ or ‘simple.’ Aristotle’s selection of ‘τὸ ἀδιαιρετον,’ rather than ‘τὸ ἀπόλον’ or ‘τὸ ὄν,’ or even ‘τὸ ἀμερές,’ indicates that he was not insensitive to the ontological differences represented by these terms.

19 In Phys VI.10 241b3-5, at least, Aristotle is alert to the difference between the non-actuality and impossibility of division: “But since that which cannot be cut [τὸ ἀδύνατον τιμηθῆναι] (in the sense that it is inconceivable that it should be cut [μὴ ἐνδέχεσθαι τιμηθῆναι], the term ‘cannot’ [τὸ ἀδύνατον being used in several senses) …”

20 One could also make this argument on the basis of Aristotle’s choice of ‘ἀδιαιρετον,’ rather than ‘ἀδύνατον διαιρθῆναι’ or ‘τὸ διαιρέτον.’ Cf. Meta IX.10 1051b9, XIII.1 1076b5; GC I.10 328a16. For the use of ‘ἀδύνατον’ in the sense of impossible, see Meta V.12 1019b21-1020a6. For the distinction between ‘ὅ ὄνεορετόν’ and ‘ἀδιαιρετον,’ see Phys III.6 206a10-12.

21 Smith takes the opposite approach, attempting to reflect in his English translation the sense required at each use. He uses ‘simple’ (when signifying generically either undivided or indivisible), ‘undivided’ (when signifying potency), ‘indivisible’ (when signifying impossibility). The danger of this is that the translator attributes to the passage a meaning that Aristotle himself did not intend.

preserves ambiguity and permits specification at each appearance. ‘What is undivided,’ notwithstanding its awkwardness, suits this purpose.\textsuperscript{23}

**SYNTHETIC THINKING: “SYNTHESIS, IN WHICH THERE IS FALSEHOOD AND TRUTH” (430a27-28)**

Immediately after the opening contrast between the thinking in which there is no falsehood and the thinking in which there is both falsehood and truth, Aristotle begins his account of the latter of these kinds of thinking. Having stated that the two kinds of thinking differ with respect to falsehood, he proceeds to explain how these differences are founded in the nature of the thinking activities.

The words Aristotle selects to describe the thinking in which there is both falsehood and truth indicate not only complexity but movement in thought. The term συντίθημι and its associated noun, σύνθεσις, which appear six times (a27, 30, 31, b1, 2, 3) throughout Section A, signify a putting together separate things (σύν-τίθημι) in thought. The participle προσεννοῶν (b1) similarly suggests thinking as a motion that gathers things that are separate because they have been or will be; we think time in addition to the νοήματα we are already combining. While the noun διαιρέσις (b3), from the verb διαιρέω, suggests the opposite movement than that of συντίθημι and προσεννοῶν, it nevertheless signifies movement; when one divides, one grasps (αἱρέω) so as to move through (διά).\textsuperscript{24} In light of the grammar in Section A alone, therefore, we

\textsuperscript{23} The English translations ‘things’ (Shields, Sachs) and ‘objects of thought’ (Hett, Smith) respectively suggest that Aristotle is discussing τὰ ὄντα and τὰ νοητά. ‘Objects’ (Hamlyn, Ross), ‘indivisibles’ (Apostle), and ‘unitary wholes’ (Hicks) preserve ambiguity.

\textsuperscript{24} The grammatical and semantic relationship between ‘σύνθεσις’ and ‘συντίθημι,’ as well as between ‘διαιρέσις’ and ‘διαιρέω,’ follows that of ‘νόησις’ and ‘νοεῖν’: the verbal noun can signify the activity either as a process or as a product.
will be justified in referring to the thinking in which there is both falsehood and truth as synthetic (i.e., discursive), indicating motion between thoughts.

SYNTHETIC THINKING: “A SYNTHESIS OF νοήματα INTO A UNITY” (430a28)

In the same breath as Aristotle tells us that the thinking in which there is both falsehood and truth contains synthesis, he also tells us that the synthesis is of νοήματα. Aristotle’s use of this term is relatively rare, even in here, in the portion of the De Anima that examines the objects, activity, and power of νοεῖν. The more commonly used term is νοητά. The difference between the terms, although subtle, is significant for revealing the nature of synthetic thinking. Νοητά, on the one hand, are intelligibles that are not presently being intellected. As a term, ‘νοητά’ ambiguously signifies forms as they exist in things and forms as they exist in phantasms. The form of a sphere is a νοητόν, for example, whether the form exists in the sphere itself or in the phantasm of the sphere. Νοήματα, on the other hand, exist in the subject only as actually thought. In our passage, Aristotle’s choice of ‘νοήματα’ rather than ‘νοητά’ indicates that synthetic thinking joins together what is already thought, that is, what is already actualized or


26 Shields, De Anima, 293, describes the νοητόν as an “object of reason,” carrying alternately a factive sense (actually thought) or modal sense (potentially thought).

27 Aristotle distinguishes between what exist as actual objects of sense, imagination, and mind (Cf. DA III.7 431a15; III.3 428a1; III.8 432a12). Although Aristotle does not observe a strictly technical vocabulary, he tends to use ‘νοητόν’ (albeit rarely) in reference to a thing’s intelligibility as a potential object for mind and ‘νόημα’ in reference to this intelligibility as an actual object of mind. The same, mutatis mutandis, may be said regarding his use of ‘αἰσθητόν’ and ‘αἰσθήμα.’ There is no “objective” correlate to a φάντασμα in the Aristotelian account of cognition, and according no term for it, either. (The closest thing to an objective correlate for imagination, I assume, would be an αἰσθητόν: whatever is sensible is potentially imagined. What is potentially imagined, however, is certainly not limited to the sensible. It is precisely this difference between sensation and imagination which Aristotle takes care to emphasize.) Cf. Debora K. Modrak, Aristotle: the Power of Perception (Chicago: University of Chicago Press, 1987), 116.
present in the subject. In his discussion of synthetic thinking, Aristotle does not mention how these νοήματα arise in the subject. We may conclude from this silence that the presence of an unsynthesized νόημα in the soul is not a properly synthetic achievement.

The achievement of synthetic thinking, rather, is the formation of unities by synthesis. If the verbs surveyed above – συντίθημι, προσεννοεῖν, and διαιρέω – connote movement, they do not connote movement alone. Synthetic thinking does not consist simply in moving through νοήματα in succession, but in uniting or holding together successive νοήματα. If this synthesizing into unities did not exist, we would not be capable of thinking anything in relation to another.

The nature of these synthetic unities, as arising from what are capable of separate (κεχωρισμένα, b30) existence, is accidental. Aristotle suggests the limited nature of this unity by the phrase ἐν ὄντων, “a one of beings.”

**EMPEDOCLES’ FRAGMENT (430a28-31)**

By way of introducing the kind of thinking that can be false or true, Aristotle quotes Empedocles’ account of Friendship (φιλία) putting together (συν-τίθημι) many heads (κόρσατ) with necks (αὐχένες). Curiously, Aristotle’s only comment on this fragment, before presenting it as an analogy for synthetic thinking, is that heads without necks (ἄναυχένες) were initially separate (κεχωρισμένα, “things that are separated,” from χωρίς, “separate”) from necks.

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28 In *DA* I.3 407a6–10, Aristotle describes mind as unified by its activity of successively thinking unities: “mind [νοῦς] is one and continuous [εἷς καὶ συνεχής] just as is thinking [ἡ νόησις], and thinking is [one and continuous just as are its thoughts [τὰ νοήματα]. For these [τοιαῦτα] are one in succession [τὸ ἄμα καὶ τὸ χωρίς]. I mean such that there is no succession [μὴ τὸ ἄμα] but that they become a unity [ἐν τῷ γένεσθαι].”

29 Cf. *Meta* IV.4 1006b10: “it is impossible to think [οὐθέν γὰρ ἐνδέχεται νοεῖν] if we do not think of a unity [μὴ νοοῦντα ἐν].”
Aristotle passes up the opportunity to comment on the fittingness that heads be joined to necks, perhpas in order to draw attention to the paradigmatic movement of synthetic thinking: two things, once separate, are put together by the action of something external to the things combined.

**THREE EXAMPLES OF SYNTHETIC THINKING (430a31-b6)**

Immediately after presenting the Empedoclean synthesis of heads and necks, Aristotle provides three examples of synthetic thinking: the synthesis of the diagonal and incommensurable (a31), the synthesis of white and not-white (b2-3), and the synthesis of time with Cleon and white (b5).

Aristotle does not give an explicit rationale for the particular combination of examples he provides. It may be that he had no more rationale in mind than to remain faithful to the examples used previously throughout the *De Anima*. It is worth noting, nonetheless, the respects in which these examples are similar and different.

The examples hold in common several of the features mentioned in *De Interpretatione*: each is a single affirmative judgment, involving two names and a verb. Naturally, the examples are also alike in exemplifying that of which they are examples, namely, in being a synthesis of thoughts (b27-28) and in being either false or true (b27).

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31 Hicks, *De Anima*, 514, argues that Aristotle treats not-white as a single notion, much as he treats the negation of ‘commensurable’ as a single notion (ἀσύμμετρον) rather than complex (οὐ σύμμετρον).

32 It is perhaps the failure to distinguish between which of these common features are essential and accidental to synthetic thinking that has led several commentators to regard as synthetic only propositional syntheses, and not synthetic thoughts.
The examples appear to differ in four significant ways. One difference concerns truth value: one judgment is true (a31), another false (b2-3), and a third false or true (b5). A second difference concerns the varying degrees of abstraction represented by the thoughts undergoing synthesis: as thoughts, ‘diagonal’ and ‘incommensurable’ are mathematical universals, abstracting from physical matter; ‘white’ and ‘not-white’ are physical universals, abstracting from particular matter; and ‘Cleon,’ while universal in some respect, does not abstract from the accidents that distinguish Cleon from Diares or their sons. A third difference concerns the quality of the terms in the judgments, assuming that each judgment is an affirmation: both ‘the diagonal is incommensurable’ and ‘white is not-white’ synthesize a positive term with a negative term, while ‘Cleon is white’ (or its temporal variants, ‘Cleon was white’ or ‘Cleon will be white’) synthesizes two positive terms. Lastly, two of the examples are syntheses of notions that differ in intelligible content, while the intelligible content of ‘white’ and ‘not-white’ differ only as contradictories.

If these observations of the differences among the three examples have been accurate, we can dismiss several features as accidental to synthetic thinking. First, the truth value of thinking is not the cause of synthetic character; synthetic thinking may be true, false, or not yet true or false. Second, the synthesis present in synthetic thinking is not precluded by various levels of abstraction, nor is a particular level of abstraction required for any given thought. Third, it is not

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33 One might suggest, on more tenuous grounds, that the synthesis of the temporal dimension of Cleon’s being white (i.e., ἔστιν, ἦν, ἔσται) is metaphysical in character. Although I have not found this suggested elsewhere, both Michel Fattal, “La composition des concepts dans le De Anima (III, 6) d’Aristote: commentaires Grecs et Arabes,” Revue des Études Grecques 108 (1995): 378, and Hicks, De Anima, 510, draw attention to the representation of the other theoretical sciences, mathematics and physics, throughout III.6. Understandably, both Aristotle and his commentators hesitate to draw attention to metaphysical themes here in the De Anima, a physical treatise.
essential to synthetic thinking that either of the two terms be of a certain quality or simplicity; the terms may be simple, such as ‘white,’ or complex, such as ‘not-white.’ Synthetic thinking, in other words, can occur between terms that have, or have not been, previously synthesized.

“For falsehood always involves a synthesis” (430b1-2)

Aristotle’s discussion of examples of synthetic thinking is interrupted with what, grammatically speaking, appears to be the continuation of an argument: “For [γάρ] falsehood always involves a synthesis” (b1-2). The closest claim of which this could be an explanation is none other than the opening contrast between synthetic and non-synthetic thinking: “In those things concerning which there is both falsehood and truth, there is already some synthesis” (b27-28). Having initially asserted that synthetic thinking can be both false and true, Aristotle here identifies synthesis as the cause of falsehood.

It is in keeping with the purpose of III.6, namely, to distinguish between noetic and synthetic thinking with respect to their truth values, that Aristotle emphasizes falsity rather than truth; thus far, Aristotle has said that noetic thinking cannot be false, and synthetic thinking can. This emphasis on falsity can be seen in the order in which the truth values are listed: at both a27 and b4, we are told that synthetic thinking involves “falsehood and truth,” not “truth and falsehood.” Again, the explanation presently under consideration – “For falsehood always involves a synthesis” – makes no such restriction on truth.

Given the centrality of the notion of falsehood (ψεῦδος) to the argument of III.6, it is surprising that Aristotle does not name the measure by which synthetic thinking is, and noetic

34 For other instances of this inversion, also in the context of comparing two kinds of thinking, cf. De Int 16a5; Meta VI.4 1027b25.
thinking is not, judged false. Perhaps Aristotle intends us to apply, here in Section A, the same measure he has explicitly identified in *De Interpretatione* and *Metaphysics*: the measures of the truth or falsity of syntheses in thought are the syntheses in things, τὰ ὄντα. The measure of logical analysis of thoughts, at the very least, would be difficult to use in determining the falsehood or truth of ‘Cleon was white.’

The centrality of falsehood to the argument of III.6 suggests that we regard the explanation that “falsehood always involves a synthesis” less as an interruption of the examples of synthetic thinking than as occasioning them. Indeed, the variety of features among the examples, previously noted insofar as they reveal what is inessential to the nature of synthetic thinking, are similarly helpful for revealing what is and is not involved in the synthesis that can give rise to falsity. The example ‘white is not white’ indicates that falsehood can arise because of a synthesis of two νοήματα. The example ‘Cleon is white,’ with its temporal variations, further indicates that falsehood can arise not because of a synthesis between two νοήματα alone, but because of an additional synthesis of these with time, signified grammatically by the time of the verb. Thus, while it may be true that the synthesis of two νοήματα, ‘Cleon’ and ‘white,’ is true, the synthesis of past time or future time with these νοήματα may render the resulting

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35 Cf. *Meta* IX.10 1051a34-1051b17; *De Int* 18a34-35. A possible objection to this assumption, that τὰ ὄντα are the intended measure of the falsity and truth in Section A, points to the examples ‘the diagonal is incommensurable’ and ‘white is not white,’ each of which could be judged true or false on logical grounds, by analyzing the concepts and locating (or not locating) a contradiction between them. In response to this objection, one may note that Aristotle regards contradiction not only as a logical matter, but as a kind of non-being: in the being that is white, there is no being that is not-white, and *a fortiori* no synthetic being, white-and-not-white. We can accordingly judge the two noted examples as true and false on metaphysical grounds, namely, because the synthesis in thought does or does not correspond to the syntheses in τὰ ὄντα.

36 Cf. *De Int* 16b6-7. The discussion of time, here in Section A, should be distinguished from what appears in Section C. The present discussion includes time as part of the matter of the synthesis, while the later discussion considers the time in which the activity of thinking occurs.
complex synthesis false. The thought, ‘Cleon is white’ may be true, for example, but not the thought, ‘Cleon was white.’

“IT IS POSSIBLE TO CALL ALL THESE ‘DIVISION’” (430b3-4)

At b3-4, Aristotle interrupts the nearly complete discussion of falsehood and synthesis with a perplexing terminological remark: “it is possible to call all these ‘division.’” Although the source of the perplexity is twofold – the intended referent of ‘all these’ (πάντα) and the intended meaning of ‘division’ (διαίρεσις) – the resolution of the first leads to that of the second.

The scope of our search for possible referents of ‘all these’ should extend to 430a27, immediately after the initial introduction of noetic thinking. Our attention should be on synthetic thinking, rather than on noetic thinking, both because noetic thinking concerns what is undivided (ἀδιαίρετον), and because discursive thinking concerns movement – of which dividing (διαιρέω), in addition to synthesizing (συντίθημι), is a species.

Within the discussion of Section A, we can find two possible antecedents of ‘πάντα.’ Aristotle could be referring to the immediately preceding examples of synthesis, ‘the diagonal is incommensurable’ and ‘white is not-white,’ each of which involve negative terms. Alternately, he could be referring to synthesis of either quality, whether the terms are negative or positive.

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37 At first glance, Aristotle’s assertion, “falsehood and truth concern not only that Cleon is white, but also that he was or will be” (b4-5) appears to contradict his argument in De Int 9 that future propositions are not yet true or false. The apparent contradiction is resolved if we distinguish between Aristotle’s intention in each text: his concern in De Int 9 is with the time when truth values apply to future propositions; his concern in III.6 is merely to include future propositions among those things to which falsehood and truth applies – regardless of when this application is actual.

38 Jaakko Hintikka, “Time, Truth, and Knowledge in Ancient Greek Philosophy,” American Philosophical Quarterly 4 (1967): 3, emphasizes that Aristotle’s concern is with the truth of thinking as opposed to the truth of a disembodied proposition: “[Aristotle] would not have been worried about the consequence that one and the same sentence may be true at one time and false at another. He would have rejected the notion of a proposition and would have stuck instead to the actual thoughts of the people who uttered the sentence.” Emphasis mine.
The argument for regarding the negative-termed syntheses as the referents of ‘πάντα’ appeals to logical form: it seems that we can represent the two affirmative propositions, ‘the diagonal is incommensurable’ and ‘white is not-white,’ as negative ones. The affirmative proposition ‘S is not-p,’ in other words, can be represented as a negative proposition, ‘S is not p.’ If the sense of both ‘synthesis’ and ‘division’ in b3-4 is narrow, namely, referring respectively to affirmative and negative propositions, then Aristotle is simply observing that ‘the diagonal is incommensurable’ can also be represented as ‘the diagonal is not commensurable.’ Against this argument, one might appeal to De Interpretatione, in which Aristotle insists on maintaining the distinction between affirmative and negative propositions. Our ability to represent a complex unity either as an affirmative proposition or as a negative proposition does not entitle us to ignore the difference between the two representations. This objection could be dismissed, however, if we take ‘φάναι’ to mean, not scientific identification, but casual consideration.

The same argument could be proposed in favor of taking, as referents of ‘πάντα,’ not merely affirmative propositions with negative terms, but all affirmative propositions, with negative or positive terms: just as ‘S is not-p’ can be represented as ‘S is not p,’ so ‘S is p’ can be represented as ‘S is not not-p.’ All affirmative propositions, that is, can be phrased as negative propositions. However, the same objection of logical confluence, as well as the same rejoinder, can be levied against this argument as against its narrower version.

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39 Hicks, De Anima, 514, offers two more reasons for rejecting this proposal: up to this point in the text, ‘synthesis’ has clearly not been used only in a narrow sense; and the requisite narrow senses “would unduly restrict ‘πάντα.’” In addition to Hicks’ reasons, we might add a third: the meanings of ‘S is not p’ and ‘S is not-p’ are not in every case identical: ‘not-white’ refers to everything other than white, but ‘not being white’ refers to the absence of white, specifically.

40 Additionally, it may be objected against both the narrow and broad versions of this argument that Aristotle’s logic does not acknowledge negative terms such as not-p. In light of this, the negation ‘S is not p’ could
Perhaps the irresolution of these arguments can be escaped by attributing different senses to both ‘synthesis’ and ‘division’ – senses drawn less from Aristotle’s logical works as from the psychological context of III.6 and the De Anima as a whole. If the meaning of these terms can be gleaned from such contexts, it is possible that ‘synthesis’ is nothing other than the psychological activity of thinking two notions together in some relation, and ‘division’ nothing other than the psychological activity of distinguishing one notion from the other. On this assumption, the thinking of every synthesis would entail division; the joining of any two notions – whether in negative propositions, affirmative propositions, negated or compounded notions – requires a prior separating of one notion from the other. ‘Division,’ in this sense, is not identical to ‘synthesis,’ but an aspect or part thereof: we cannot synthesize two unities unless we intend each unity as distinct from the other; perhaps this recognition of unities as defined over and against other unities is what may be called ‘division.’

“IN EACH CASE, WHAT MAKES THIS ONE IS νοῦς” (430b5-6)

The concluding sentence of Section A presents us with a twofold ambiguity, parallel to the one most recently explored in b3-4. “In each case,” Aristotle says, “what makes this one is νοῦς.” Again, without knowing the intended referent of ‘in each case’ (ἐκαστον), it seems impossible to identify which of the several meanings (and translations) of ‘νοῦς’ Aristotle

not be converted to the affirmation ‘S is not-p.’ See Jan Łukasiewicz, Aristotle’s Syllogistic from the Standpoint of Modern Formal Logic (New York: Oxford University Press, 1951), 72: “Singular, empty, and also negative terms are excluded as values [in the Aristotelian system of non-modal syllogisms].”

41 In support of this “psychological” interpretation of b3-4, one might note that Section B begins with a clarification of the notion of ‘what is undivided,’ and that this notion is not associated with synthesis. Although none of the suggested readings of b3-4 could be dismissed on the basis of this subsequent clarification, the fact that this clarification of ‘what is undivided’ is associated with noetic thinking suggests that the previous notion of ‘division’ was associated with synthetic thinking.
intended. Arguments can be made for two ways of correlating the referent of ‘ἕκαστον’ and ‘νοῦς.’

One reading takes ‘νοῦς’ to refer to the thinking power as a whole, without specifying either synthetic or non-synthetic activity. Here, ‘ἕκαστον’ would refer not only to the synthoses mentioned throughout in Section A, but also the noetic “thinking of what is undivided” mentioned at the chapter’s outset (a26). In synthetic thinking, νοῦς “makes one” both by division – by distinguishing one notion over and against another – and by synthesis. In noetic thinking, presumably, νοῦς “makes one” not by synthesis, but by a different kind of division, concerning only one νόημα. It is this different kind of division that appears to be explained in Section B, immediately following this claim about νοῦς.

Another reading takes ‘νοῦς’ to refer to the thinking power specifically in its association with synthetic activity. The term ἔκαστον, correspondingly, refers to the immediately preceding examples and descriptions of synthetic thinking. Having just announced that each synthesis may be called ‘division,’ Aristotle turns again to the activity of unification: it is νοῦς that makes the two separate notions one. This reading is strong on several points. First, Aristotle’s use of the

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42 English translations of ‘νοῦς,’ both here and at 430b27, vary widely, as do the arguments in support of each. Ross and Shields opt for ‘reason,’ Hamlyn, Apostle, and Sachs, for ‘intellect,’ and Hicks, Hett, and Smith, for ‘mind.’ Shields, *De Anima*, 292, recognizing the noetic connotation of ‘intellect,’ suggests that ‘reason’ as a more inclusive term for the power in question. Joe Sachs, *Aristotle’s On the Soul and On Memory and Recollection* (Sante Fe, NM: Green Lion Press, 2001), 33, cautions that “the use of the word ‘mind’ can muddle things beyond repair. The idea of mind is an orphan left behind by the Cartesian shift in the conception of body.” While I am sympathetic to Sachs’ warning and do not wish to enlist Aristotle as a Cartesian, where it is necessary to distinguish in English between νοῦς as a power, habit, and excellence, I shall employ ‘mind’ as signifying the power. ‘Mind,’ in English, is nearly as versatile as ‘νοῦς’ in Greek: with my mind, I can mind my business, remind myself to set the alarm, and exercise in either a mindful or unmindful manner.

Debora K. Modrak, “Aristotle on Thinking,” *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 2 (1986): 217, observes that Aristotle employs ‘νοῦς,’ ‘διανοητικόν,’ and ‘νοητικόν’ as synonyms throughout the *De Anima*, but that, “since διάνοια (thought) does not have the epistemic connotations of νοῦς, the use of διανοητικόν also signals the presence of the broader conception of a faculty for thinking.”
phrase ‘to make one’ (Ἕν ποεῖν), rather than the familiar ‘synthesize’ (συντίθημι), draws attention to the active power by which a synthesis comes about, as well as to the fact that this unity must be made. Second, the only active power previously mentioned in Section A, Friendship, is clearly enacting syntheses; as Friendship unites separate necks and heads, so does νοῦς make separate νοήματα one. Third, interpreting b3-4 as referring exclusively to synthetic thinking lends additional support to the opening contrast of III.6: synthetic and non-synthetic thinking differ not only with regard to falsity, but also with regard to the source of the unity of what is thought. The unities of synthetic thinking are made by νοῦς. The unities of noetic thinking, seemingly, require no such making.

**THE ARGUMENT OF III.6 IN SECTION A**

With respect to the overall argument of III.6, Section A accomplishes several things. In addition to introducing a difference between two intellectual activities, namely, the relation each bears to falsity, the section begins to address the cause of this difference. On the one hand, noetic activity, in which there is no falsehood, consists in the thinking of what is undivided. On the other hand, synthetic activity, in which there is both falsehood and truth, consists in the thinking together what is separate, whether thoughts (νοήματα) alone, or, in addition to these, the variable of time. The activity of synthesis itself, rather than the peculiar nature of the things or the time synthesized, is the source of potential falsity in synthetic thinking. The power of νοῦς, in turn, is the source of this synthetic activity, whether the activity is regarded as such or as division.

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43 The examination of synthetic and non-synthetic activities in light of their objects is in accord with the order of inquiry urged in *Diogenes Laertius* II.6 418a 24-25.
SECTION B (430b6-14)

GREEK TEXT

b 6 [B] τὸ δ’ ἀδιαίρετον ἐπεὶ διχῶς, ἥ
7 δυνάμει ἡ ἐνεργεία, οὐθέν κολύει νοεῖν τὸ ἀδιαίρετον, ὅταν
8 νοῆ τὸ μῆκος (ἀδιαίρετον γὰρ ἐνεργεία), καὶ ἐν χρόνῳ ἀδιαι-
9 ρέτῳ ὁμοίως γὰρ ὁ χρόνος διαιρεῖτο καὶ ἀδιαιρετὸ τῷ
10 μήκει. οὐκουν ἐστιν εἰπεῖν ἐν τῷ ἡμίσει τί ἑνόει δ’ ἐκατέρρῃ.
11 οὐ γὰρ ἐστὶν, ἂν μὴ διαιρεθῇ, ἄλλ’ ἥ δυνάμει. χωρὶς δ’
12 ἐκάτερον νοεῖν τῶν ἡμίσεων διαιρεί καὶ τὸν χρόνον ἂμα τότε
13 δ’ οἰονεὶ μῆκη’ εἰ δ’ ὡς έξ ἀμφότεροι, καὶ ἐν τῷ χρόνῳ τῷ
14 ἐπ’ ἀμφότεροι.

COMMENTARY

THE PURPOSE OF SECTION B

After having discussed the nature of synthetic thinking throughout Section A, Aristotle
turns his attention in Section B to the nature of noetic thinking. Since the purpose of the chapter
as a whole is to contrast synthetic and non-synthetic thinking on the basis of their relation to
falsity, and since the cause of falsity in fallible thinking was identified in Section A, it remains to
be established how this cause, namely, synthesis, is not present in noetic thinking. Section B
appears to take up such a task, discussing the activity not of synthesizing but of dividing.

The purpose of Section B can also be more broadly construed as providing an explanation
of the chapter’s initial definition of noetic thinking. “The thinking of what is undivided” can
hardly be a definition for us, if we do not know what ‘undivided’ means. 45 The discussion of

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44 Retaining the imperfect tense, rather than the present (ἐννοεῖ) suggested by Siwek.
45 There are two grammatical indications that Aristotle’s intention in Section B is to develop the initial
definition of noetic thinking given in 430a26: first, the section opens with ‘but’ (δ’), a reference to a preceding
discussion; second, ‘ἀδιαίρετον,’ which is identified as the focus of Section B’s inquiry, appears previously only in
the initial definition (430a26).
noetic thinking’s immunity from falsity is accordingly set aside until the nature of the thinking itself has been clarified.

“‘UNDIVIDED’ IS IN TWO WAYS, EITHER AS POTENTIAL OR AS ACTUAL’ (430b6-7)

The opening phrase of Section B presents two challenges for translation. The first of these concerns the referent of ‘διχῶς.’ While the Greek clearly indicates that a duality (διχῶς) pertains to what is undivided (ἀδιαίρετον), it is not clear whether the bearer of this duality is an undivided thought (νόημα), the term ‘ἀδιαίρετον,’ or both. However, since both potential referents of ‘διχῶς’ are bearers of meaning, and since the clarification of meaning is Aristotle’s concern in this section, it is acceptable to let the ambiguity stand, both in understanding and in translation.

The second, more substantial challenge concerns the translation of ‘ἀδιαίρετον’ as it appears in combination with ‘δύναμις’ and ‘ἐνεργείᾳ.’ The basic intent of the phrase containing these terms is clear: ‘potential’ and ‘actual’ are the two ways (διχῶς) that pertain to what is undivided. The logical structure of the phrase also is clear: ἀδιαίρετον δύναμι is the contrary of ἀδιαίρετον ἐνεργείᾳ. The difficulty concerns identifying which of the two possible contraries of ‘actually undivided’ Aristotle intended. Is the intended contrast between what is potentially undivided and what is actually undivided, or between what is impossible to divide and what is possible to divide? Since the contrast is at the heart of Section B, it is worth considering each interpretation in turn.

46 The translations of Sachs and Apostle indicate that Aristotle is discussing things, while Ross, Smith, Shields, Hicks, and Hett indicate that his concern is with terms or words. Hamlyn’s translation preserves the ambiguity.
Among translators, Ross, Sachs, and Smith are alike in understanding 430b6-7 as a contrast between possibility and impossibility. They translate ‘ἀδιαίρετον ἐνεργείᾳ,’ accordingly, as ‘undivided,’ ‘actively undivided,’ or ‘not actually divided,’ and ‘ἀδιαίρετον δυνάμει’ as ‘indivisible,’ ‘incapable of division,’ or ‘not capable of being divided.’ However, such a contrast is problematic on grammatical, logical, and contextual grounds.

The grammatical difficulty concerns the distribution of the alpha privative of ἀδιαίρετον to the two terms of the contrast, δυνάμει and ἐνεργείᾳ. The difficulty here is twofold. First, Aristotle’s use of ἀδιαίρετον indicates that what he intends to negate are not the adverbs ‘potentially’ and ‘actually,’ but the adjective ‘divided.’ Second, even if the distribution of the alpha privative to the adverbs were to be granted, distribution in one case but not the other would remain grammatically indefensible. The grammar of b7, that is, does not support such translations as, “incapable of division or actively undivided.”

47 Hippocrates Apostle, Aristotle’s On the Soul: Translation with Commentaries and Glossary (Grinnell, IA: Peripatetic Press, 1981), 169, translates 430b6-7 ambiguously, but explains that “a thing is said to be potentially indivisible if it cannot be divided; and if so, then it is also actually indivisible.”

48 An additional, less significant grammatical difficulty can be raised against the different translations of ‘ἀδιαίρετον ἐνεργείᾳ’ in its two appearances (b7 and b8) in Section B. Ross and Smith, for example, respectively translate the same phrase as it appears in the same sentence as “undivided … actually undivided” and “not actually divided … actually undivided.” Having distributed the alpha privative at b7 in order to present the contrast as between what is capable and incapable of division, the translators find the distribution untenable at b8, since the phrase in that place describes the thinking of a line (τὸ μῆκος). The fact that the distribution of the negation in the latter part of the sentence suggests that the distribution was not intended in the former part, either. Neither Ross nor Smith defend the inconsistency of their translations, although Ross, 301, offers his interpretation of b7 with some qualification: “There is something to be said for reading τὸ δὲ διαιρετὸν, on which ἡ δυνάμει ἡ ἐνεργείᾳ would follow rather more easily; but the change is not absolutely necessary.”

49 An alternate construction, ‘διαιρέτον οὐ δυνάμει,’ could have expressed the opposite intention. I am grateful to John Matthews for his comments on this construction.

Similar difficulties with the possible-impossible interpretation of 430b6-7 appear in the logical domain. One difficulty concerns the difference in logical form between the distributed and undistributed alpha privative of ἀδιαιρέτον: while one might argue that the difference in meaning is slight between ‘actually undivided’ and ‘not actually divided,’ as well as between ‘potentially undivided’ and ‘not potentially divided,’ the difference in form is significant.\(^{51}\)

A second logical difficulty concerns the difference in extension between the literal translation of ἀδιαιρέτον δύναμις, ‘potentially undivided,’ and the translation required by those who present the contrast as between what is possible and impossible, namely, ‘incapable of division.’ The difference between the meaning of ‘potency’ and ‘possibility’ – the first is dynamically ordered to what is actual, while the second is a static description, opposed to impossibility – is reflected in different things that these terms pick out.\(^{52}\) All potencies are possibilities, but not all possibilities are potencies. Similarly, not all non-potentialities are non-possibilities, although all non-possibilities are non-potentialities. As we shall see in our examination of the second way of interpreting 430b6-7, the immediate and remote contexts of these lines require not the opposition between possibility and impossibility, but between potency and actuality.

Translating 430b6-7 as an opposition between what is potentially and actually undivided not only avoids grammatical and logical difficulties, but also fits the context of the De Anima as

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51 Aristotle’s logic, of course, is not a logic of terms, but of propositions. Term logic might symbolize the relevant difference thus: (◊ ~ D) and (~ ◊ D).

52 The difference is also grammatically evident. The use of ἀδύνατον or οὐ δύνατον, rather than ἀδιαιρέτον δύναμις, would indicate impossibility of division, rather than potency for being undivided.
a whole, of III.6, in particular, and of Section B. Taking up first the broadest of these contexts: at the beginning of his works, Aristotle is careful to distinguish the nature of his inquiry from those with which it might be confused. The opening chapter of the De Anima, for example, clarifies the nature of the forthcoming discussion by distinguishing between the objects examined by the physicist, on the one hand, and the mathematician and first philosopher, on the other. A similar distinction appears in the initial lines of De Interpretatione: after tracing the genealogy of signs back to “affections of the soul,” Aristotle promptly dismisses examination of these affections as inappropriate for his present logical inquiry. A remark corresponding to these would have been appropriate at 430b6-7, if Aristotle had thought that ‘ἀδιαιρέτον ἦ δύναμις ἦ ἐνεργεία’ would be construed as contrasting logical possibility and impossibility. The inquiry of the De Anima, he might have said, is not logical, but psychological in character, and while potency is proper to the soul, possibility is not.

The context of III.6 likewise confirms the aptness of understanding 430b6-7 as an opposition between potency and actuality rather than between possibility and impossibility. Throughout the chapter, δύναμις appears in two places other than 430b7. On each of these appearances, the term refers to a potency that is actualized in the soul, whether the potency is described from the side of the object (b11) or from the side of the subject (b23). These

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53 Those who translate 430b6-7 as a contrast between potency and actuality include Shields, Hamllyn, Hicks, and Hett. Hicks and Hett alter their translation of ‘ἀδιαιρέτον ἐνεργεία’ from “indivisible in potency” at b7 to “actually undivided” at b8, presumably because ‘indivisible’ connotes impossibility.

54 In scholastic terms: Aristotle is concerned to distinguish between the formal objects of sciences having the same material object.

55 Cf. DA I.1 403b12-16.

56 De Int 16a3-9.

57 Cf. Meta V.12 1019b21-1020a6, wherein Aristotle expressly notes that certain senses of possibility (τὰ δύναμεν) do not have reference to potency (οὐ κατὰ δύναμιν).
perspectives are not at odds; the potential in things to be thought is answered by the soul’s potential to think these things. The actuality of both potencies, moreover, is one and occurs in one place, the subject.

Section B’s discussion of length and time, both of which are continuous and thus divisible καθ’ αὑτό, also supports translating 430b6-7 as a contrast between potency and act; the distinction between what can and cannot be divided is hardly helpful for discussing what is inherently divisible.\(^{58}\) The distinction between what is undivided in potency and act, however, is intimately related to the discussion of lengths.\(^{59}\) If the distinction between what is possible and impossible to divide in thought were appropriate anywhere in the argument of III.6, it would appear not at 430b6-7, which introduces how we think of lengths, but at 430b20, where the thinking of points is briefly discussed.\(^{60}\)

**Noetic Thinking is of What is Actually Undivided (430b7-8)**

Having established in 430b6-7 that ‘undivided’ may exist either in potency or in act, Aristotle proceeds in the subsequent lines to illustrate how these terms are manifest in the thinking of a length (μῆκος). Unlike Section A, whose three examples of synthetic thinking

\(^{58}\) Cf. D.W. Hamlyn, *De Anima, Books II and III, with Passages from Book I*, 2nd ed. (Oxford: Clarendon Aristotle Series, 1993), 143: “Most of the trouble [with 430b6ff] stems from translating διαιρετός (diairetos) and ἀδιαίρετος (adiairetos) as ‘divisible’ and ‘indivisible’ respectively; for how can one suppose a length to be indivisible?”

\(^{59}\) It is likely that a question about lines – brought to mind, perhaps, by the mention of the diagonal at 430a31 – served as the particular motivation for Section B’s distinction between what is undivided in potency and act. (The ambiguity of ‘what is undivided’ at 430a26 provides a general motivation.) The reasoning of the questioner might have run thus: given that ‘the diagonal is incommensurable’ is a synthesis, and given that noetic thinking contains no synthesis, perhaps the two parts of the synthesis, ‘diagonal’ and ‘incommensurable,’ are objects of noetic thinking. But since a diagonal is a line, and since lines are infinitely divisible, a diagonal is not ‘undivided’ in all senses.

\(^{60}\) As discussed below, both in Section D and in Chapter Three of this dissertation, the notion of ‘what is impossible to divide in thought’ is inapplicable to points, since a point can only be thought synthetically, as the limit of a line.
include the notions of incommensurable, diagonal, white, not-white, Cleon, and past, present, and future time, Section B discusses simply the thinking of a length.

Prior to examining how the discussion of length in b7-8 relates to Aristotle’s distinction between the two ways of being undivided, we should note two ambiguities concerning the terms ‘ἀδιαιρέτος,’ ‘διαιρετός,’ and various forms of ‘διαιρέω’ that appear in these lines. One ambiguity concerns the direction, as it were, of the dividing in question: we may say a length is divided or undivided, either with respect to a larger whole of which the length is a part, or with respect to smaller wholes which are themselves parts of the length. In other words, division or its absence can be considered as either from a larger whole, or into smaller wholes. Although the irresolution of this ambiguity would not present an obstacle to the coherence of Section B, the argument is clarified by specifying one or the other “direction” at the appearance of each of the terms.

A second ambiguity concerns whether Aristotle intends us to understand each division, whether potential or actual, as located in the subject who divides or in the object divided. If our focus is on division in the subject, Section B appears to emphasize the activity of dividing and to give an account of how things are thought by means of such activity. Assuming this vantage point allows us to see both the potency and the actuality of dividing (or un-dividing, as it were) as active and as located in the subject. A focus on division in objects, alternately, presents the section as emphasizing the product corresponding to the activity and points to what things are thought by division. From this vantage point, we can locate both the passive potency and actuality of being divided (or being undivided) in the object itself. For our present examination
of 430b7-8, it suffices to note that the perspectives do not conflict with the other, and that both merit consideration.

Aristotle’s discussion of the division of lengths can itself be divided into three moments, each of which provides a foundation for the next. His presentation of the dynamism of thinking – of the movement from potency to act – is itself dynamic, beginning in the first moment with actual thinking and, in the second moment, introducing potential thinking in relation to its actualization.

The first and simplest moment describes the actual thinking of a length. Whenever we are thinking a length, we are thinking what is actually undivided (b7-8). As long as we are thinking segment AC, for example, we are not thinking of the points between A and C that could serve for further division. Although AC is potentially divided into segments AB and BC, when we are simply thinking AC, we are thinking it insofar as it is not divided into these segments.

The second moment describes the movement by which an undivided length, potentially divided into half-lengths, becomes actually so divided: “by thinking (νοῶν) each of the half lengths apart from the other, one divides (διαιρεῖ”) (b11-12). As long as we are thinking AC as a whole, the segments AB and BC are potential, but not actual objects of our thinking. The principle by which these potentially thought half-segments become actually thought is none other than the subject’s activity of thinking, which Aristotle equates with dividing. Actuality and potentiality in the subject and in the object are thus correlative: a half-length exists potentially as long as the subject is potentially thinking it; the half-length exists actually only in the mind of the subject actually thinking it.
Prior to considering the third moment, which is synthetic in character, we should note that Aristotle’s attention in Section B thus far has been fixed exclusively on noetic thinking. There are three textual indications of this focus. First, the verb ‘συντίθημι,’ which appears no fewer than six times in Section A, is replaced in Section B by ‘νοεῖν’ (b7,8,10, and 12). Second, in contrast to Section A’s focus on the activity of thinking together two νοήματα, Section B details what appears to be simply the formation of a single νοητόν. If Section A examines objects of thought in their potential to be synthesized, Section B examines their potential to exist in thought at all. Lastly, since the cause of falsehood is synthesis, falsehood need not be mentioned where synthetic thinking is not discussed.

An objection to our ascribing a purely noetic character to Section B might run thus: at the end of Section A, Aristotle declared that syntheses could also be called divisions (b3-4). Could the divisions mentioned here in Section B, then, not also be called syntheses? If so, it seems that the discursive character of synthesis is summoned with each appearance of διαιρέω or διαίρεσις. In response to this objection, we should distinguish between the characters of the division discussed by the same name in each of the two sections. The division discussed in Section A, on the one hand, is clearly discursive. We can call a synthesis a division because synthesizing requires that we distinguish one thing, as a whole, as differing from another thing, as a whole. This is discursive inasmuch as it is a motion between two notions. The kind of division in Section B, on the other hand, is noetic. As the first (b7-8) and second (b11-12) moments make clear, our actually thinking AC precludes any actual division of AC into AB and BC. Yet what

61 Although Aristotle uses νοεῖν throughout his corpus in both a broad and narrow manner (see note 12 above), the seemingly technical use of the verb in Section B suggests that his usage here is narrow.
these two moments in the text presuppose is that AC has itself been actually divided out from the continuous length of which it is a segment. This division is noetic inasmuch as it does not move between two things, namely, between the whole that is made discrete by the dividing out and the continuous length out of which the whole is divided, but rests with the divided whole, AC. Noetic thinking of an actually undivided length thus precludes one kind of division and requires another. Otherwise stated: noetic thinking cannot be analyzed into division and synthesis, as discursive thinking can; to divide noetically just is to think.62

SYNTHETIC THINKING: “BUT IF ONE THINKS A LENGTH AS MADE OF BOTH HALVES” (430b13)

Having displayed in the first and second moments of his example the noetic dynamism of thinking segments AC, AB, and BC in succession, Aristotle proceeds in the third moment to describe how these segments are thought as a synthesis. The third moment thus suggests how noetic thinking is at once different from and yet foundational for synthetic thinking: although we may divide without synthesizing, we can only synthesize what we have divided.

Aristotle represents this synthetic dynamism as thinking “a length as made of both halves” (b13). Whereas noetic thinking divides AC into AB and BC, synthetic thinking synthesizes AB and BC into AC. Thought separately, AB and BC were potentially synthesized. The principle that brings this potency to act is the subject’s synthesizing activity.

“TIME IS DIVIDED AND UNDIVIDED IN THE SAME WAY AS LENGTH IS” (430b9-10)

Throughout Section B, Aristotle intersperses each of his comments on the division of lengths with parallel comments on the division of time. The division of length and the division of time can be examined in this manner because “time is divided and undivided in the same way

62 I develop this point in Chapter Three.
as length” (b9-10). The cause of this similarity is subsequently revealed to be the continuous nature (τὸ συνεχεῖ) of time and length (b19-20).

While Aristotle’s comments on the division of time appear at once to interrupt his account of the division of lengths, they also serve to confirm it. Time, like length, is undivided either potentially or actually. Again, the principle that makes what is potentially undivided actually so is, both with length and time, the subject’s dividing activity. Lastly, the noetic and synthetic character of thinking is expressed in the divisions of time just as it is expressed in the divisions of length.

When we think AC noetically, as an actually undivided whole, the time of our thinking is also an actually undivided whole. That is to say, the time, like the segment AC, which is potentially divided into smaller wholes AB and BC, is not actually divided because the subject has not performed any such division. As long as this division into AB and BC is not actual, there is only a resting with AC. It is thus not possible for the subject to distinguish between nows of the time during which AC is being considered; because there is no actual movement in thought from part to part, there is nothing actual by which time itself could be measured. This is not to say that noetic thinking occurs in an indivisible now, but rather that the nows potentially serving for the division of time have not been actualized by the subject’s cognitive activity.

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64 Berti, “Intellection,” 151 and “Encore sur l’intellection des ‘indivisibles’ selon Aristote, De anima III 6,” in Realtà e ragione: studi di filosofia antica, ed. Antonina Alberti (Firenze: L.S. Olschki, 1994), 127, argues against those who propose that noetic thinking occurs “instantaneously.” Berti cites, as advocates of this “instantaneous” interpretation, Hicks, De Anima, 516 and 519, Ross, De Anima, 300. Although Hicks’ and Ross’ translations and commentaries permit the interpretation Berti attributes to them, it is not clear that Berti’s interpretation accurately conveys the intention of these authors. They, as well as Biondi, Posterior Analytics II.19, 237-38, seem to use the term ‘instantaneous’ and ‘indivisible’ merely to convey the absence of actual division in time, rather than impossibility of division.
The same principles pertain to synthetic thinking. Since thinking AC as a synthesis of AB and BC requires that we actually divide AC into AB and BC, the time of our thinking is also actually divided. Yet because thinking AB and BC as AC requires not only successive divisions, but syntheses, we must also add that the time of thinking AB and BC as AC is a synthesis. In the case of synthetic thinking, therefore, it is possible to “say what one was thinking in each of the half-times” (b11-12).

Aristotle’s intent in discussing time, here in Section B, should be distinguished from the intent of his previous remarks in Section A. Recall that Section A discusses time as a component, as it were, of the synthesis, and that synthesis is identified as the cause of falsehood. Section A’s discussion of time, therefore, is subordinated to Aristotle’s concern to account for falsity in synthetic thinking.65 Section B, in contrast, discusses time not as component of thought, but as what attends the subject’s thinking, whether this thinking is noetic or synthetic. The concern here is not truth or falsity, but the subject as the principle of division.

**The Argument of III.6 in Section B**

Section B turns our attention sharply to noetic thinking, to the side of the contrast introduced but only obliquely described in Section A as “the thinking of what is undivided” and as containing no syntheses (430a26). Aristotle begins his development of this initial description of noetic thinking by clarifying the meaning of ‘what is undivided.’

The clarification serves to further distinguish both the object and activity of noetic thinking from their synthetic counterparts. The object of noetic thinking is revealed to be not

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65 *Meta* IX.10, with its discussion of the truth of judgments over time, should be considered in connection with Section A.
only what is not synthesized – what is potentially synthesized – but what is actually undivided.

The activity of noetic thinking, similarly, is not merely a non-synthesis, but an act of division.

The absence of synthesis cannot be equated with the sheer absence of activity.

The distinction between ‘potentially undivided’ and ‘actually undivided’ also confirms of noetic thinking what holds for all cognition: objective and subjective potencies and actualities are correlative. What is potentially or actually undivided is potentially or actually undivided by a subject, and every potential or actual division is a division of such an object.

Without dismissing this correlativity, Section B places greater emphasis on the activity of dividing than on the divided objects, for it is the dividing activity of the subject that renders what is potentially undivided, actually so. Aristotle’s selection of length to feature in his initial example of noetic thinking is strategic for this focus on the subject as the principle of actuality; length, being divisible καθ’ αὑτό, presents no obstacle to the subject’s dividing activity.

In Section B’s third and final example of the thought of lengths (430b13), however, we find an intimation of something whose nature does present an obstacle to the subject’s potential to divide. When we synthesize AB and BC, we designate point B as a terminus in two ways. Points, unlike lengths, are by definition not potentially divided. Points, then, seem not to qualify as noetic objects, for precisely the opposite reason that syntheses do not qualify. The question of how the natures of objects affect the subject’s potential to divide is taken up explicitly in Section C.
SECTION C (430b14-20)

GREEK TEXT

\[\begin{align*}
\text{b 14} & \quad [C] \text{ τὸ δὲ μὴ κατὰ τὸ ποσὸν ἀδιαίρετον ἀλλὰ τῷ εἰ-} \\
\text{b 15} & \quad \text{δεῖ νοεῖ ἐν ἀδιαίρετῳ χρόνῳ καὶ ἀδιαίρετῳ,}^{66} \text{ τῆς ψυχῆς.}^{67} \\
\text{b 16} & \quad \text{κατὰ συμβεβηκὸς δὲ,}^{68} \text{ καὶ οὕχ ἦ ἐκεῖνα, διαιρετὰ ὁ ἰ ἐνὶ νοεῖ} \\
\text{b 17} & \quad \text{καὶ ἐν ὧ χρόνῳ, ἀλλὰ ἦ ἀδιαίρετα: ἐνεστὶ γὰρ κἂν τούτοις} \\
\text{b 18} & \quad \text{τι ἀδιαίρετον, ἀλλὰ ἰσως ὡς χωριστον, ὃ ποιεῖ ἕνα τῶν χρό-} \\
\text{b 19} & \quad \text{νὸν καὶ τὸ μήκος, καὶ τοῦθ᾽ ὡμοίως ἐν ἄπαντὶ ἐστὶ τῷ συνεχεῖ,} \\
\text{b 20} & \quad \text{καὶ χρόνῳ καὶ μήκεi.}
\end{align*}\]

COMMENTARY

THE PURPOSE OF SECTION C

Section C introduces a new way of being undivided. The meaning of this new way of being undivided is displayed through a series of contrasts. What is *undivided in form* (ἀδιαίρετον τῷ εἴδει) is first contrasted with synthetic thinking, and subsequently with the way of being undivided that was discussed in Section B, named here as what is *undivided in quantity* (ἀδιαίρετον κατὰ τὸ ποσὸν).\(^{70}\)

Introducing a new way of being undivided serves to clarify the account of Section B and thus the argument of III.6 as a whole. By introducing a new way of being undivided, Aristotle

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\(^{66}\) The article τῷ, and perhaps a dative pronoun such as μέρει or τινί, should be understood to precede ἀδιαίρετον. Cf. Hicks, *De Anima*, 519.

\(^{67}\) Rejecting Ross and Bywater’s transposition of lines b14-15 (τὸ δὲ μὴ … τῆς ψυχῆς) to b20, after μήκει.

\(^{68}\) The grammar is ambiguous regarding the predicate modified by κατὰ συμβεβηκός.

\(^{69}\) Accepting Ross and Siwek’s substitution of ὁ in place of ὃ. Cf. Apostle, *On the Soul*, 170: “If we are not correct, perhaps ‘that by which it thinks’ signifies the soul, for ‘soul’ appears in line 430b15.”

\(^{70}\) English translators are nearly unanimous in rendering ‘ἀδιαίρετον κατὰ τὸ ποσὸν’ as ‘quantitative indivisibles’ or ‘undivided in quantity.’ (The exceptions, Ross and Sachs, respectively supply ‘size’ and ‘amount.’) Less agreement is found among translations of ‘ἀδιαίρετον τῷ εἴδει,’ but even here, translations fall roughly into two groups: Shields, Hamlyn, and Siwek supply ‘in form,’ the broader meaning of ‘εἴδος,’ in contrast to the narrow meaning ‘in species’ (Hicks and Ross) or ‘in kind’ (Sachs and Apostle). Outliers Hett and Smith translate ‘τῷ εἴδει’ as ‘qualitative.’ Although this contrast is not entirely alien to Aristotle’s texts – cf. *Meta* X.1 1053ab4-8 – the contrast does not appear in the Greek in III.6. The difference between ‘τῷ εἴδει’ and ‘κατὰ τὸ ποιὸν’ should be respected.
indicates that Section B’s account of noetic thinking as the dividing of a length is incomplete. Moreover, if both these ways of being undivided pertain to noetic thinking rather than to synthetic thinking, the achievement of III.6 is not merely to distinguish between noetic and synthetic thinking, but to display various aspects of noetic thinking in its own right.

**WHAT IS UNDIVIDED IN FORM, LIKE WHAT IS UNDIVIDED IN QUANTITY, DIFFERS FROM SYNTHETIC THINKING (430b14-15)**

The first lines of Section C accomplish a great deal by the comparatively simple act of naming two ways of being undivided: “But what is undivided not in quantity but in form” (b14-15). The naming is significant, both because only two names are supplied, and because the names are not used elsewhere, either in III.6 or the *De Anima* as a whole. The first name, what is undivided in quantity (ἀδιαίρετα κατὰ τὸ ποσόν), is new as a name but not as a notion; the acts of noetic thinking discussed throughout Section B are the name’s clear referents. The second name, what is undivided in form (ἀδιαίρετα τῷ εἴδει), is new in both terminology and meaning. Its introduction, moreover, points the reader not only forward to the name’s explanation, but also backward, to a revision of the notion of being undivided gleaned from Section B: being undivided includes but is not restricted to being undivided in quantity.

The meaning of the newly named way of being undivided is unveiled through a series of contrasts. The first contrast shows how what is undivided in form, like what is undivided in quantity, differs from synthetic thinking. Recall that Section B revealed that what is actually undivided is thought in an actually undivided time and by the subject’s dividing activity; the

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71 The nearest anticipation of the ‘ἀδιαίρετον κατὰ τὸ ποσόν’ and ‘τῷ εἴδει’ pairing in the *De Anima* is DA III.4 429b10-22. This text considers the activity of thinking under the aspects of abstraction proper to mathematics and to physics. Chapter Four considers the meaning of these terms as they appear independently throughout Aristotle’s corpus.
subject’s actual dividing renders what is potentially undivided, actually so, whether this refers to length or to time. Recall, too, Section B’s corresponding observations about synthetic thinking: what is actually divided (i.e., AC, as composed of AB and BC) is thought in a divided time and by divided acts of the subject. In the opening lines of Section C, Aristotle replicates this same juxtaposition of noetic and synthetic thinking with respect to time and subjective activity: after grammatically signaling a contrast with the immediately preceding remark about synthetic thinking (ὅε, b14), he declares that what is undivided in form is thought “in an undivided time and by an undivided [act] of the soul” (b15). Having thus shown the similarity between what is undivided in form and undivided in quantity, Aristotle proceeds in the subsequent lines (b16-17) to show how they differ.

**THE PLACEMENT OF 430b14-15**

The preceding account of the progression of Section C requires that b14-15 remain in its current position, after the contrast between what is undivided in quantity and synthetic thinking in Section B, and prior to the contrast between the two kinds of noetic objects. Ingram Bywater, either rejecting or failing to notice the coherence of this progression, transposes b14-15 from the beginning of Section C to its conclusion at b20. Ross and Hamlyn, following Bywater on this point, supply two motives for accepting the transposition. One motive is to preserve the continuity of Aristotle’s discussion of what is undivided in quantity: leaving b14-15 and its introduction of what is undivided in form in its current placement “seriously interrupts the

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72 The grammar of the Greek text at b15 is troubling. Since a literal translation, ‘of an undivided of the soul,’ obviously is untenable, we must supply a noun to stand between and be modified by ἀδιαιρέτω and τῆς ψυχῆς, whether ‘something’ (Sachs), ‘part’ (Shields, Hamlyn), ‘element’ (Ross), or ‘act’ (Apostle, Hett, Hicks, and Siwek’s Latin ‘operatione’).
discussion of quantitative ἀδιαιρετα,” begun in b6 and ostensibly extending to b20. A second motive for accepting Bywater’s transposition is to lessen the difficulty of translating b16-17, whose grammar requires that a preceding line supply both “a predicate which κατὰ συμβεβηκός may qualify and a subject for that predicate.” Transposing b14-15 to a later place in the text opens up a new set of predicate and subject candidates in b13-14.

Ross and Hamlyn have demonstrated that a coherent account can be formed if one accepts the Bywater transposition. They have neglected, however, to demonstrate either the necessity or utility of the transposition for the central contrast of III.6 between noetic and synthetic thinking. Both of the difficulties referenced in support of the transposition can be resolved by other means. As shown above, it is possible to read b14-15 not as a disruption but as a continuation and development of the account of what is undivided in quantity. As will be shown below, the subject and predicate required for b16-17 can indeed be located in b14-15 in its current placement.

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73 Ross, De Anima, 300.
74 Hicks, De Anima, 519.
75 Hamlyn, De Anima, 144.
76 If we accept Ross’ translation of ἀδιαιρετον as ‘indivisible,’ the transposition indeed appears necessary. The translation ‘indivisible,’ connoting impossibility, obscures what the two kinds of noetic objects have in common, namely, their being actually undivided. This obscurity inclines Ross to read b14-15 as highlighting the difference rather than the similarity between the two kinds of noetic objects.
Ross’ belief that the point is a quantitative indivisible also heightens the appeal of Bywater’s transposition. Since the point is discussed at b20, the newly transposed b14-15 would mark a shift, but not a departure, from the discussion of what is undivided in quantity, stretching from b6 to b21.
77 Berti rejects Bywater’s transposition for reasons different than those already mentioned. Berti understands b14-15 to contrast what is undivided in form not with synthetic thinking, but with what is undivided in quantity. This interpretation preserves the continuity of b6-b20 as a discussion of what is undivided in quantity, thus rendering the transposition unnecessary. Cf. Berti, “Encore,” 128.
78 I am of the opinion that Bywater’s transposition should not be accepted. The rationale behind my opinion is this: the primary motive for transposing b14-15 is that the original placement renders the chapter’s
**How what is undivided in form and what is undivided in quantity differ: accidental and potential division (430b16-17)**

Aristotle’s capacity for notionally ambiguous yet grammatically lucid composition is on full display in 430b16-17. Literally translated, the line reads, “But accidentally, and not as those, one’s thinking and in which time, are divided, but undivided.” We face two areas of challenge when attempting to articulate the meaning of this line, that is, to supply the referents Aristotle intended but failed to make explicit.

The first challenge is to identify the intended predicate and subject of the adverbial phrase κατὰ συμβεβηκός. If Bywater’s transposition is rejected, the immediately context of b16-17 supplies us with two possible predicates. One candidate, ἀδιαίρετον or ἀδιαιρέτῳ, appears explicitly in the preceding line, b14-15. Alternately, we may take the δὲ that follows κατὰ συμβεβηκός as signaling the opposite of ἀδιωρίζετον, namely, διωρίζετον. Our two possible predicates, then, permit us to understand either that something is accidentally undivided or accidentally divided.  

The identity of this “something” – of the subject that is accidentally either undivided or divided – is supplied, as before, by the preceding line, b14-15. Again, we are faced with two subject candidates, taken from the first and second parts of the sentence: what is undivided in form, or the thinking and the time of thinking what is undivided in form.

Since both of the possible subjects of κατὰ συμβεβηκός are contrasted with what is undivided in quantity, and since what is undivided in quantity is divisible καθ’ αὐτό, we may

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79 Cf. Hicks, *De Anima*, 519.
dismiss the first predicate candidate, ἀδιαίρετον, on grounds of contradiction; neither what is undivided in form (the first subject candidate) nor the act and time of thinking what is undivided (the second subject candidate) are accidentally undivided.  

The second task we encounter in our attempt to specify the meaning of b16-17 is to identify the intended antecedent of ἐκεῖνα. To what ‘those’ is Aristotle directing us? While we must again make recourse in our search to b14-15, the portion of b16-17 that is unambiguous, as well as the portion that we have already discerned, provides us with some direction. From the unambiguous portion of b16-17, we know that the referents of ἐκεῖνα must be, in some sense, both divided and undivided, and also that ἐκεῖνα are that which (ὅ) one thinks. Furthermore, from the portion of b16-17 we have already discerned, we know that the manner in which ἐκεῖνα are divided and undivided is contrasted (καὶ οὖχ ἐκ) with the manner in which what is undivided in form is accidentally (κατὰ συμβεβηκός) divided. Turning, then, to b14-15, we find two grammatically feasible referents of ἐκεῖνα: what is undivided in form and what is undivided in quantity. Since the first of these is untenable – Aristotle cannot be contrasting what is undivided in form with itself – we can conclude that ἐκεῖνα refers to what is undivided in quantity.

80 For the opposing view, see Thomas De Koninck, “La noesis et l’indivisible selon Aristote.” In La Naissance de la Raison En Grèce: Actes du Congrès de Nice, Mai 1987, ed. Jean-François Mattéi (Paris: Presses Universitaires de France, 1990), 220. De Koninck, accepting ἀδιαίρετον as the intended predicate and the thinking of what is undivided in form as the subject, argues: “Penser successivement chacune des parties ne fait pas problème, puisque cela a lieu dans le temps. Mais penser le tout indivisible et ses parties hétérogènes, également indivisibles, en un seul instant et un seul acte indivisible de l’âme, comme l’avancéait la phrase précédente, voilà bien ce qui a lieu mais kata sumbebêkos (b16).” A crucial difference between De Koninck’s reading and the one presented here concerns whether the thinking of what is undivided in form involves an actually undivided whole or an actually divided whole. De Koninck envisions noetic thinking of what is undivided in form to require motion between heterogeneous parts – the parts, as it were, of an essence. Since these parts can be thought on their own, but are not actually thought in this manner, their unity is accidental.
Having identified both the implicit subject and predicate of κατὰ συμβεβηκός and the referent of ἐκεῖνα, we can now render b16-17 as a contrast between the two ways of being undivided, with respect to the divisibility of our thinking and the time of this thinking. Unlike what is undivided in quantity, which is potentially divided καθ’ αὐτό, what is undivided in form is only potentially divided κατὰ συμβεβηκός. Perhaps Aristotle is reflecting on what would occur if we were thinking each of these not noetically, as an actually undivided whole, but synthetically, as divided into its potential parts. When we divide a length or time, what remains is of the same nature as what was divided, possessing the same potency for being divided. When we divide something undivided in form, by contrast, what remains is not of the same nature. The potential parts of what is undivided in quantity, we might say, are homogeneous, while those of what is undivided in form are heterogeneous.81

The remainder of b16-17 offers two further specifications of how what is undivided in form is divided. Aristotle first specifies that what is undivided in form is not divided in the way in which one’s thinking of what is undivided in quantity is divided. The actual division of a length occurs both because the subject possesses the potency to divide and because the object possesses the potency to be divided. Aristotle seems here to have the latter in mind: what is undivided in form is not divided as lengths are, namely, according to a καθ’ αὐτὸ divisible nature. Such a reading would support the initial statement, that what is undivided in form is potentially divided only κατὰ συμβεβηκός.

81 The parts of a whole that is thought as actually undivided, of course, are only potentially thought. Once we identify the heterogeneous parts of what is undivided in form, we have made a division.
A second specification completes the contrast: what is undivided in form is divided in the way in which one’s thinking of what is undivided in quantity is undivided. That is to say: what is undivided in form is divided κατὰ συμβεβηκός, while what is undivided in quantity is undivided κατὰ συμβεβηκός. Although lengths are potentially divided καθ’ αὑτό, they are actually undivided – that is to say, discrete – only κατὰ συμβεβηκός, by the action of the subject. In contrast, what is undivided in form are undivided καθ’ αὑτό undivided and are divided only κατὰ συμβεβηκός, only by the action of something outside of themselves.

This reading of b16-17 makes for a neat unfolding of the contrast between the two kinds of noetic arguments. After first showing how the two kinds of noetic objects are alike, namely in being thought by an act and in a time that is actually undivided, Aristotle next shows how the two objects differ. What is undivided in quantity is καθ’ αὑτό divisible, while what is undivided in form is κατὰ συμβεβηκός divisible. Having stated how the two noetic objects differ, Aristotle concludes the section by explaining why they differ. Lines b17-19, accordingly, consider the causes of division and unity.

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82 Hicks, De Anima, 520, fills out the contrast: “Formerly, when the object was a quantum, the act and time of thinking, like the object, were per se divisible and only per accidens indivisible; now that the object is an infima species, the act and time of thinking it are per se indivisible and only per accidens divisible.” Hick’s commentary would be less misleading if he specified that ‘per accidens’ does not signify an impossibility, but rather a lack of potency in the nature of the object being divided or unified. In other words, ‘per accidens’ signifies that the cause of the division or unity is outside the nature of the object being divided or unified.
WHY WHAT IS UNDIVIDED IN FORM AND WHAT IS UNDIVIDED IN QUANTITY DIFFER: OBJECTIVE PRINCIPLES OF UNITY (430b17-19)

Section C concludes the contrast between what is undivided in form and what is undivided in quantity by considering the cause of the unity previously discussed. This final step in the “contrast” between the two ways of being undivided focuses exclusively on what is undivided in quantity, presumably because we are not likely to be confused about the cause of the unity of what is undivided in form.

Since the phrase ‘what is undivided in quantity’ does not explicitly appear in b17-19, however, it is worthwhile to note the reasons why we may conclude that this is Aristotle’s intended focus. One indication is his use of ‘γάρ’ at the beginning of b17-19, signaling an explanation of a preceding notion. The final notion of b16-17, namely the manner in which the act of thinking and the time of thinking quantitative unities is undivided, not only wants for explanation, but also appears to be explained by the subsequent portion of b17-19: “in these there is something undivided.” A second indication that the intended focus of b17-19 is what is undivided in quantity is the line’s explicit reference to the unification of time and length, the two quantitative unities previously discussed and subsequently classified as ‘continuous’ (συνεχές) in b19-20.

A third and final reason for regarding b17-19 as a discussion of the unity of what is undivided in quantity is Aristotle’s claim that the principle of unity is “perhaps not separate (χωριστόν).” The question alluded to here, whether form may exist apart from the matter it

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83 Chapter Four takes up in greater detail the notions and arguments introduced in this section.

84 Cf. *Meta* X.1 1052a24-26: “But it has in itself the cause of its being continuous [ἄλλα ἔχει ἐν αὐτῷ τὸ αἰτίον αὐτῷ τό συνεχές εἶναι]. It is this way as one in movement and undivided in place and in time [τοιοῦτον δὲ τῷ μίαν τὴν κίνησιν εἶναι καὶ ἀδιαιρέτου τόπῳ καὶ χρόνῳ].”
informs, arises throughout the *Metaphysics* with respect to both mathematics and substance. His answer in that text, as well as earlier in the *De Anima*, contends that form is not separate in being, but only in thought. Lines b17-19 confirm this answer in the particular case of length: form, as the principle of unity that exists in length, can be thought as separate from length, but cannot exist separately as such.85

Aristotle is not to be blamed either for the brevity or for the inclusion of his comment about the separability of form. Since the *De Anima* is a physical inquiry, it properly treats of form only insofar as it exists in a material composite. The sustained study of forms in their separability belongs rather to the sciences of mathematics and metaphysics.86 Yet since form is a principle of material composites, and since a complete understanding of a material composite – such as an act of cognition – includes knowledge of its principles, it is understandable that Aristotle looks to metaphysics to complete his psychological inquiry.87

If it is clear, then, that b17-19 discusses the principle of unity in what is undivided in quantity, it remains to be seen why such a discussion is needed for the completion of the contrast between the two ways of being undivided. Perhaps Aristotle is merely following his customary progression, noting first that something is the case (ὅτι) and then explaining why it is so (διότι).88

85 For Aristotle’s rejection of the separate existence of forms, see *Meta* VII.14 103924-26; XIV.4 1092a5-8. For his assertion that forms are separable in thought or formula, see *Meta* V.8 1017b23-26; VIII.1 1042a26-32, and especially X.1 1052b15-20.

86 Cf. *DA* I.1 403b12-16. Aristotle distinguishes between the objects of physics, mathematics, and first philosophy on the basis of the separability (χωριστόν) from body (σώματος), whether by abstraction (ἀφαρέσεως) or by being separate (κεχωρισμένα). Cf. *Meta* XII.1 1069a30 -1069b2.

87 This present foray into metaphysics, as providing the first principles of psychology, is anticipated in *DA* III.4 429b10-22, and especially in b21-22: “On the whole, just as things are separate from matter [ὅλως ἄρα ὡς χωριστά τὰ πράγματα τῆς ὕλης], so also are those things concerning mind [ὄντω καὶ τὰ περὶ τὸν νοῦν].”

88 Cf. *DA* II.2 413a13-16, where Aristotle extols this progression, and *Posterior Analytics* I.13 77b32-79a16, where he notes that ὅτι and διότι syllogisms differ with respect to the science that investigates them.
The omission of any explanation of the unity of what is undivided in form, however, suggests that Aristotle’s explanation is less motivated by custom than by a particular misunderstanding about unity. The supposed misunderstanding evidently involved the belief that what is undivided in quantity lacks a principle of unity. It would be easy to arrive at this misunderstanding from b16-17: what is undivided in quantity, since it is potentially divided καθ’ αὐτό, appears to be without any objective principle of unity – a principle that would limit the subject’s capacity to divide further. This misunderstanding about the absence of an objective principle of unity would not extend to what is undivided in form, since Aristotle identifies what is undivided in this way as potentially divided κατὰ συμβεβηκός. The misunderstanding, thus, sees a false contrast between what is undivided in form, as having an objective principle of unity, and what is undivided in quantity, as lacking such a principle.

If this reading of b17-19 is right, the whole of Section C takes on a corrective character. Aristotle has shifted from discussing the subject’s activity as the principle of noetic division (in Section B) to the object’s form as the principle of noetic unity (in Section C). Form does not prevent the activity of intellectual division altogether, but it does determine whether each level of division reveals the form (as with what is divided καθ’ αὐτό) or not (as with what is divided κατὰ συμβεβεκός).

Section C’s closing reference to the principle of unity in noetic thinking should be considered alongside the similar claim in Section A regarding the principle of unity in synthetic thinking. In noetic thinking, what makes one (ποιεῖ ἑνα) is the form, existing in the undivided object. In synthetic thinking, the principle of unity is subjective: what makes one (ἐν ποιούν) is νοῦς, the subject who synthesizes. With respect to the principles of division, we see a reversal
between the two kinds of thinking: in noetic thinking, it is the subject’s dividing activity that makes an object actually undivided, while in synthetic thinking, the principle of division is the distinction (κεχωρισμένα) between the two objects, νοήματα.

**THE ARGUMENT OF III.6 IN SECTION C**

With respect to the argument of III.6, Section C serves both to specify and to ground the contrast between noetic and synthetic thinking set forth in the preceding sections. Section A distinguishes between fallible and infallible thinking in terms of synthesis, aligning infallible thinking with what is undivided, and fallible thinking with the synthesis of what is separate. In the course of clarifying the manner in which noetic objects are undivided, Section B introduces the possibility that actually undivided objects can be divided into yet more actually undivided objects.

By introducing a second way of being undivided, Section C prevents us from erroneously concluding that everything undivided is accounted for in Section B. What is undivided in quantity, being καθ’ αὑτό potentially divided, can be further sub-divided without lessening its potential for division. What is undivided in form, however, does not possess a potential for further division, except κατὰ συμβεβηκός; not the form, but only the subject who divides, is the principle of division for what is undivided in form.

The introduction of what is undivided in form similarly prevents us from regarding the subject’s capacity to divide as absolute. Although our thinking is indeed the principle by which noetic division becomes actual, the manner of its division is determined by an objective principle, form, residing in both what is undivided in quantity and what is undivided in form.
Thus, while the ways of being undivided are alike insofar as each is undivided, they differ insofar as their forms are καθ’ αὑτό and κατὰ συμβεβηκός divisible.

Distinguishing in this manner between the two ways of being undivided allows us to place in greater relief the difference between synthetic and noetic thinking: for noetic thinking, form is the principle of unity and the subject’s activity is the principle of division; for synthetic thinking, form is the principle of division and the subject’s activity is the principle of unity.

SECTION D (430b20-26)

GREEK TEXT

b 20 [D] ἢ δὲ στιγμὴ καὶ πᾶσα διαίρεσις, καὶ
21 τὸ οὕτως ἀδιάρετον, δηλούται ὡσπερ ἡ στέρησις, καὶ ὄμοιος
22 ὁ λόγος ἐπὶ τῶν ἄλλων, οἷον πῶς τὸ κακὸν γνωρίζει ἡ
23 τὸ μέλαν· τὸ ἐναντίον γὰρ πρὸς γνωρίζει. δεῖ δὲ δυνάμει
24 εἶναι τὸ γνωρίζον, καὶ ἐν εἶναι ἐν αὐτῷ.  ἐι δὲ τινὶ μηδὲν ἐστὶν
25 ἐναντίον ἡ τῶν αἰτίων, ἀυτὸ ἐαυτὸ γινώσκει καὶ ἐνέργεια ἐστὶ
26 καὶ χωριστὸν.

COMMENTARY

THE PURPOSE OF SECTION D

In Section D, Aristotle introduces a third way of being undivided. Unlike what is undivided in quantity and what is undivided in form, this new way of being undivided does not receive a name. It is made known only by means of the things in which it is instantiated, namely, “the point and every division.” Section D’s description of “whatever is undivided as the division” serves two purposes within the argument of III.6.

89 This is the only appearance of ‘τὸ γνωρίζον’ throughout the Aristotelian corpus.
90 Reading ἐνείναι as ἐν εἶναι, as attested by manuscripts LXVKCECmL2.
91 Bracketing these words as most likely a later interpolation.
First, the introduction of this new way of being undivided corrects a potential misunderstanding about the genus, as it were, of being undivided. If Aristotle had curtailed his account of what is undivided at the end of Section C, we would likely have attributed to the genus of being undivided any features that the two species have in common. In particular, we would have assumed that something’s being actually undivided depends upon the thinking subject’s making it so, and that something’s being potentially undivided is coextensive with its being noetically thinkable. Section D disabuses us of these assumptions by introducing a kind of undivided object that is actually undivided apart from a thinking subject and that is not noetically thinkable: the point and the division are actually undivided even apart from the subject’s activity, and, when the point is actually thought by a subject, it is thought synthetically. This diversification of our notion of being undivided permits a refinement of our initial grasp of what the “thinking of what is undivided” (a26) means: noetic thinking does not concern just anything undivided, but something which, when thought, does not require discursion in the activity of thinking.

Second, discussing the indivisibility of the point completes a gradation begun by the accounts of what is undivided in quantity (in Section B) and what is undivided in form (in Section C). A natural course of reasoning, beginning from either of these sections, leads to questions about points. These questions, like the entirety of III.6, concern both the object and activity of thinking. Section B’s discussion of how lengths can be thought as undivided focused our attention on the subject’s act of dividing. Further examination of this act of dividing would lead us to that by which the subject divides, namely, the point. Since the point or division lacks
extension, it can clearly not be thought in the same manner as length. How, then, do we think the point?

A similar line of reasoning follows from Section C’s discussion of what is undivided in form. Unlike what is undivided in quantity, what is undivided in form is not potentially divided καθ’ αὑτό. What is undivided in form resists, as it were, the dividing activity of the subject. The point or division is like what is undivided in this respect: neither possesses the potential for further sub-division. Is the point, then, thought in the same manner as what is undivided in form? Aristotle’s implicit response to these questions about the point – what it is and how we think it – completes his inquiry into the nature of what is undivided.

“THE POINT AND EVERY DIVISION AND WHATEVER IS IN THIS WAY UNDIVIDE” (430b20-21)

In the opening line of Section D, Aristotle identifies “the point (στιγμή) and every division (διαίρεσις)” as members of a new class of what is undivided. Since we are given no further description of the division as an undivided object, it is worthwhile to consider how the meaning of division, here in Section D, differs from the meanings it assumes in sections A and B.

In Section A, the meaning of διαίρεσις is closely aligned with the activity of synthesizing (συντίθημι). Whether we identify the referents of πάντα in “all this may be called division” as negative syntheses only or negative and positive syntheses alike, division here involves at least two νοήματα. More pointedly, ‘division’ in Section A signifies the subjective activity of differentiating two wholes. In contrast, when Aristotle speaks of division in Section B, his concern is no longer exclusively with the activity of dividing (διαιρέω), but encompasses also the
object or product of this activity: the division or what is undivided (ἀδιαίρετον). This object, moreover, is not a composite of two νοῆματα and time, but is essentially one – undivided.

In distinction from its meaning in Section A, ‘division’ in Section D does not signify the activity of dividing, but the means by which the activity of dividing occurs.92 The division, moreover, is examined not as a principle of the activity of dividing, but as an object of thought in its own right.93 At first glance, moreover, the point or division as an object of thought does not appear to be composite after the fashion of the syntheses (or divisions) of Section A. The meaning of ‘division’ in Section D is, in these respects, kindred to its meaning in Section B. Section D, however, does not focus on the undivided length AB or BC as an object of thought, but on the principle by which these lengths are lengths.

The difference between the meanings of ‘division’ across the sections of III.6 also bears on the respective meanings of ‘undivided.’ Since the lengths discussed in Section B depend on the dividing activity of a subject in order to become actually undivided, the meaning of ‘undivided’ in that place denotes subjective activity. The same meaning cannot be attributed to ‘undivided’ in Section D because Aristotle in no way suggests that points are known by subjective dividing activity.

“WHATEVER IS IN THIS WAY DIVIDED IS MADE KNOWN AS THE PRIVATION IS” (430b21-23)

Having introduced the point or division as a member of a new class of undivided objects, Aristotle next announces how the members of this class are made known. The discussion of

92 The point is the end of one segment and the beginning of another, e.g., point B for segments AB and BC. Cf. DA III.2 427a9-12; Meta V.17 1022a3-4.

93 If we take the specification ‘and whatever is in this way undivided’ (b21) as a statement about the subject’s inability to divide, we must also take it as a statement about the object’s inability to be divided. This specification, therefore, does not indicate a focus on subjective activity.
these objects is noteworthy both for its indirect manner and for the confusion to which such a manner can give rise. We shall examine each of these facets of b21-23 in turn: first, how the discussion’s indirect manner reveals the obscurity of the nature of the division; second, what claims Aristotle does and does not make throughout this discussion.

The examination of what is undivided as the privation reverses the order pursued in the cases of what is undivided in quantity and what is undivided in form. With these two kinds of noetic objects, we inquired into the subjective activity of thinking on the basis of what we knew about the objects involved. Here, we seem to be inquiring into the nature of the object involved – a division – on the basis of what we know about how this object is known. Seemingly, in the case of what is undivided as the division, what is most familiar to us is the subjective activity, not the object’s nature.

The manner of Aristotle’s inquiry in b21-23 indicates in another way the apparent obscurity of the nature of the division: rather than giving a direct account of how we come to know a division, Aristotle instead recounts how we come to know a privation. Our knowing a privation is homologous (ὁμοίος ὁ λόγος) to our knowing a division, and the former is more familiar to us.94

The obscurity of the nature of the division is revealed in a third way by Aristotle’s use of the middle voice, ‘δηλοῦται,’ rather than the active, ‘νοεῖν.’ When speaking of what is undivided in quantity and in form, Aristotle always and only employs the verb νοεῖν; we think a length and think what is undivided in form. The active voice is perhaps reflective of the role that

94 Shields, De Anima, 334, does not recognize the order of this progression: “He first introduces points, which are not only actually undivided, but in fact indivisible, because of their lacking magnitude, but he then segues without obvious warrant to a consideration of privations and opposites more generally.”
the subject’s activity plays in making the object actual. In this respect, to divide (διαιρέω) is to think (νοεῖν). Aristotle’s use of the middle voice in speaking of our knowledge of divisions, accordingly, indicates a different relationship between the subject and the actualization of the object’s being undivided. A division is actually undivided regardless of the activity of the subject; here, the act of dividing is not identical to the act of thinking.

The indirectness of b21-23 should incite in us a particular care for distinguishing between what Aristotle does and does not attribute to divisions and privations. Specifically, we should note that Aristotle does not note any ontological similarities between divisions and privations. The similarity to which he directs our attention, rather, is how these objects are manifested to us.

We must also avoid attributing to this new class of undivided objects the same noetic character previously seen in what is undivided in quantity and in form. It is tempting to assume that divisions are noetically thought, if only because the same term, ‘undivided,’ appears here as in the initial description of noetic thinking (a26) and in Sections B and C. Final judgment on the noetic or synthetic character of what is undivided as the division should be reserved until the description of how divisions are thought is examined. It should be noted, nevertheless, that Aristotle continues to employ verbs other than νοεῖν throughout his discussion of divisions and our thought of them. One does not think (νοεῖν) divisions, but recognizes (γνωρίζει) them (b22, 23, 24). Thinking is dividing, but since divisions themselves cannot be divided, it seems that they cannot be thought noetically.95

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95 Among contemporary commentators, only Pritzl, “Cognition of Indivisibles,” 144-46, drawing upon the discussion of unity in Meta X.1, argues that the discussion of the point introduces complex thinking, and not a third iteration of simple or noetic thinking. Shields, De Anima, 334-35, might be counted as an adherent of this conclusion, as well; Shields discusses only two kinds of undivided objects – those things actually undivided but
“ONE RECOGNIZES EACH OF THESE BY ITS CONTRARY” (430b23-24)

After declaring that our knowledge of divisions is like that of privations, Aristotle next observes how such knowledge comes about. Although Aristotle mentions neither points, divisions, nor privations throughout the remainder of III.6, his two observations in b23-24 – that we recognize a privation by its contrary, and that the subject must potentially be this contrary – retain the homologous character announced in the section’s outset: we are examining the conditions for our knowledge of a privation with a view to understanding divisions and our knowledge of them.

We recognize a privation, then, “in a way, by its contrary (τῷ ἐναντίῳ).” This declaration is not followed by elaboration or explanation; Aristotle evidently intends it to serve as a reminder of his more complete explanations elsewhere. One salient detail of such explanations concerns the quality of the relevant contraries: we recognize a privation by its positive contrary.96 Privations such as the two mentioned in this passage, evil (κακόν) and black (μέλαν) are not known directly, but by means of the qualities of which they are the absence. Each recognition of evil or black, in other words, is a circumlocution: we recognize the absence of good or the

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96 Cf. *Meta* VII.71032b2-4; XII.7.1072a30-32. Cf. *DA* I.5 411a2-7, especially: “By means of the straight we know both itself and the curved—the carpenter’s rule enables us to test both—but what is curved does not enable us to distinguish either itself or the straight.” Aristotle seems to be alert to the question of how we come to know negative opposites throughout the *De Anima*. In addition to this passage in I.5 and to the exclusive naming of negative opposites in III.6, knowledge of a negative opposite is also examined in *DA* III.2 427a6-9 and III.4 429b10-22.
absence of color.\textsuperscript{97} The epistemological relationship, however, is asymmetrical. We do not come to know a positive contrary, such as color, by means of its negative contrary, black.\textsuperscript{98}

Inquiry into the reason for this asymmetrical relationship deepens our accounts of the nature of both the object and the knowing subject. “In a way (πῶς),” the intelligibility of a privation just is the intelligibility of its positive contrary.”\textsuperscript{99} What we know, whenever we know, is form (εἶδος), and a privation is, by definition, the absence of a form.\textsuperscript{100} Just as a sense power discerns (κρινεῖν) both its proper object and the absence thereof, so does the knowing power discern both form and its absence.\textsuperscript{101}

In b24, Aristotle turns his attention more overtly to the subjective conditions for recognizing a privation: “the knower (τὸ γνωρίζον) must potentially (δυνάμει) be the contrary and the contrary must be (potentially) in the knower.” This observation, like the previous one, appears to serve as a reminder of fuller explanations, previously given in the De Anima. The primary theme of b24 and its likely antecedent discussions is that actual knowing involves a

\textsuperscript{97} Cf. St. Thomas Aquinas, Summa Theologica Ia q. 85 a. 8: “And this indivisible is known secondarily, through the privation of divisibility.”

\textsuperscript{98} Cf. De Koninck, “La noesis et l’indivisible,” 223: “Il est évident, d’après ce qui précède, que l’indivisible «absolu», quelle que soit sa nature, ne nous est pas accessible directement, pas plus qu’un contraire négatif. La négation par laquelle je l’atteins présuppose son opposé, déjà connu, donc déjà en moi.”

\textsuperscript{99} Cf. Meta VII.7 1032b2-7: “For even contraries have in a sense (τρόπον τινα) the same form (τὸ αὐτὸ εἰδός); for the substance (οὐσία) of a privation is the opposite substance, e.g. health is the substance of disease (for disease is the absence of health); and health is the formula (λόγος) in the soul or the knowledge of it.” The qualifier in this passage of the Metaphysics, ‘τρόπον τινα,’ seems to serve the same function as πῶς in our present text in the De Anima.

\textsuperscript{100} It is significant that what underlies Aristotle’s remarks at b23-24 is ontological, not logical in character. A logical consideration of evil and good – as terms – reveals no qualitative difference and thus would not explain why we come to know one of these terms through the other. DA III.6 has a clear affiliation with Aristotle’s ontological, not logical inquiries.

\textsuperscript{101} Cf. DA II.10 422a19-23.
single actualization in the subject of both the subject and object’s correlative potencies. The term ‘potentially’ further suggests that knowing is a progression – a movement of sorts – from potential to actual identity. Just as we can distinguish between our potentially thinking a half-length and its actualization, so can we distinguish between our potentially thinking of evil and our actually doing so. The subjective potency for thinking a half-length, however, differs from that required for thinking of evil: no form need pre-exist in the subject in order for him to potentially think the half-length; in order potentially to think of evil, however, the form of good must exist in him. Although Aristotle says nothing in b24 about what would be required to actualize the subject’s potency for thinking a privation, it is evident that such an actualization would differ from the actualization required for thinking a half-length. Again, unlike our potential to think (νοεῖν), in order to actualize our potential to recognize (γνωρίζω), it does not suffice for us merely to divide (διαιρέω).

Recall that Aristotle’s intention in describing the conditions for coming to know privations was to make clear how we know divisions. Since b23-24 makes no mention of divisions, it falls to the reader to extract from the account of our knowledge of privations what applies to our knowledge of divisions. The crucial feature, common to privations and divisions alike, to which Aristotle seems to draw our attention, is epistemological complexity. A point does not have a positive contrary in the same way that evil has as its contrary good. What a point and evil have in common, however, is derivative intelligibility; neither a division nor a privation can be recognized apart from our knowing that to which it is relative – something that

102 Cf. DA II.2 414a11-12; III.2 425b26-27; III.2 426a2-11; III.7 434a1-2. It is also noteworthy that b24 describes knowing as a way of being. Cf. DA III.7 431b17. The being of the subject differs with each act of knowing. Cf. DA I.3 407a6-10.
is not, itself, derivative. From this perspective, the point’s positive contrary, as it were, is that to which it is relative, namely, a line: we cannot recognize a point as a point unless we first think of the line of which the point is a division. We cannot actually think of point B, for example, unless we first think of AC as divided into AB and BC.103 This kind of thinking can only occur in an actually divided time.104

We might also express this crucial feature of privations and divisions in ontological terms: the reason we cannot recognize a point apart from our thinking of a line is that points, like privations, have form only in a derivative manner. Privations and divisions, in other words, are derivative rather than primary beings.105

The foregoing analysis of b23-24 confirms what Aristotle signals in his use of γνωρίζω rather than νοεῖν: our recognition of points and privations – of whatever is τὸ ὁ��τὸς ἀδιάφρετον – is synthetic, not noetic, in character. In order to think of what is undivided as the division, we must move in thought between a length – what the division is not – and the negation of this length. These two relata, additionally, must not be thought only in succession, but together (συντίθημι).106

103 Cf. Phys VIII.8 263a23-25; DA III.2 427a9-16, especially: “So far forth then as it takes the limit as two, it discriminates two separate objects with what in a sense is divided [δόο κρίνει και κεχωρισμένα, ἢστιν ὡς κεχωρισμένος]: while so far as it takes it as one, it does so with what is one and occupies in its activity a single moment of time [ἐν και ἄμα.].” The thought of the point is divisible into two thoughts, just as the time of this thinking, though actually undivided, is potentially divided.

104 Cf. DA III.2 426b29-427a9; Meta IX.9 1051a10-13. Since it is not possible for a cognitive power to be black and white at the same time, cognition of opposites must occur at distinct times.

105 Cf. Meta XI.2 1060b16-19; XIV.3 1090b5-10. Cf. Lear, Desire to Understand, 70: “Points, for Aristotle, do not actually exist independently of our ‘probing’ for them, yet they are not of our own making. A point, for Aristotle, exists only in a derivative sense: it is, so to speak, a permanent possibility of division.”

106 Cf. De Koninck, “La noesis et l’indivisible,” 227: “Connaissant ainsi le contraire dans son contraire, notre intelligence se porte vers ce dernier comme vers quelque chose d’intelligible à partir de quoi elle passe à la
We are hence not entitled to associate just any manner of being undivided with noetic thinking. The manner in which divisions are undivided differs from the manner in which either lengths or species are undivided. More generally: as the object itself is divided and undivided in its being, so is the subject’s activity of thinking this object. In the case of what is undivided in quantity, the subject’s thinking is potentially divided into homogeneous parts. In the case of what is undivided in form, the subject’s thinking is accidentally divided into heterogeneous parts. In the case of what is undivided as the division, the subject’s thinking, like the object, is potentially divided into heterogeneous parts. Presumably, the reason why many commentators fail to achieve this distinction between noetic and synthetic thinking of what is undivided is because they fail to make the more fundamental distinction between ways of being undivided.

The point’s unity is not a potential that can be actualized by subjective activity. Its unity, rather, is an incapacity.

Before examining the concluding lines of Section D, we should make a final observation about the apparent redundancy of the two halves (b23-24), respectively detailing the subjective and objective conditions for recognizing a privation. If we assume that Aristotle is discussing ordinary knowers and ordinary objects of knowledge, the two halves indeed appear redundant; since an object’s potential to be thought is correlative to the thinker’s potential to think,

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107 Cf. Hicks, De Anima, 522; Hamlyn, De Anima, 142; Berti, “Intellecction,” 145-46, and “Encore,” 127; Polansky, De Anima, 476; and Shields, De Anima, 333. These commentators erroneously read the distinction between synthetic and non-synthetic thinking as falling along the lines of judgments and non-judgments, rather than along the lines of discursion and non-discursion. They accordingly regard the thinking of all concepts, regardless of the manner of their divisibility, as noetic.

108 Cf. Meta III.5 1002b4; V.6 1016b29-31. Lear, Desire to Understand, 303, also makes the inverse point: “the indivisibility of a thought ought not to be considered as due solely to the indivisibility of the object of thought.”
mentioning either of these potencies suffices for mentioning the other. It is not possible, in other words, for a knower to possess the potential to be a contrary, without the contrary having the potential to be in the knower. Nor is it possible for a contrary to have the potential to be in the knower, without the knower having the potential to be that opposite. The mind is potentially all things, after all.

This apparent redundancy can be explained by looking backward in the text for what b23-24 might clarify or confirm. It is possible, for example, that Aristotle’s primary intention in these lines is to address the subjective requirement for knowing a privation, and that the objective remark serves a secondary purpose. The remark that the contrary must be “in the knower,” for instance, could easily be understood as providing emphasis for the immediately preceding claim, namely, that we know black by means of white, and not white by means of black. Since black is not a form but the absence of form, it does not, of itself, possess the potential to be known. The contrary that must be in the knower – the contrary which possesses intelligible potency of itself and not through another – is the positive contrary.

We might also explain the redundancy of b23-24 by looking backward in the text to Aristotle’s previous use of the term ‘potentially’ for both subject and object. It is possible that b23-24 is merely affirming, for the thinking of divisions, the same interplay between potency and act that appeared in Section B. So understood, b23-24 would declare that potency and act, in both subject and object, apply to synthetic as well as noetic thinking.

109 Cf. DA III.7 431a7-9; III.8 431b21. Cf. Lear, Desire to Understand, 106: “Perception, then, is a single activity which has a subjective and an objective aspect. The sense power is a ‘subjective’ potentiality: a potentiality for becoming aware of sensible forms that exist in the world. The perceptible form of a physical object is an ‘objective’ potentiality: a potentiality for making a perceiver aware of this form.”

110 DA III.4 429a22-24; III.4 429b31-32.
The apparent redundancy of b23-24 can alternately be explained by looking forward in the text to that for which b23-24 might be preparatory. Supposing that b24-26 presents us with yet another object of thought, we could read b23-24 as preparing for such an introduction. As will be analyzed in detail below, commentators read b24-26 alternately as discussing human knowledge of substance or divine self-knowledge.\(^\text{111}\) Lines b23-24 are not helpful for discerning which of these readings is correct, since their declaration of the subjective and objective conditions for knowing privations could serve for a fruitful contrast with either reading. In other words, b23-24 presents us with conditions that we find neither in human knowledge of substance nor in divine self-knowledge. Since neither substance nor the unmoved mover have contraries, neither can be known in the indirect manner that privations are known. A definitive reading of b23-24, then, appears to hang on further analysis of b24-26.

\(^{111}\) De Koninck, who understands b24-26 to introduce the unmoved mover not only as another knowing subject, but also as another object of human thinking, is an exception. De Koninck argues that the unmoved mover, as an object of knowledge for us, is like the point in two ways. First, both of these become actual objects of thought only in the “negative” manner by which we come to know privations, namely, through opposites. (De Koninck rightly regards these objects as known discursively.) Second, both the point and the unmoved mover are causes (αἰτία), and are named as such at b25 (De Koninck, “La noesis et l’indivisible,” 225-26). In support of this way of rendering b24-26, De Koninck offers only the presence of the aforementioned phrase, ‘among the causes’ in b25. Further support might be found in an earlier passage of the De Anima which likens the manner in which a particular sense discriminates both the absence and super-abundance of its proper sensible. Cf. DA II.10 422a22-23: “darkness is invisible and yet is discriminated by sight; so is, in a different way, what is over brilliant.”

Berti, “Encore,” 131, concurs with De Koninck in regarding the objects mentioned in Section D as a class of causes. He departs from De Koninck, however, in reading b24-26 as an account of human knowledge of substance and in characterizing his resulting class of causes as noetic, not synthetic objects. Berti’s reasons for rejecting the “divine reading” of b24-26 are flawed on two counts. First, Berti incorrectly reduces the divine reading to De Koninck’s curious brand, thus dismissing the possibility that Aristotle is discussing divine self-knowledge and not another object of human knowing. Second, Berti fails to acknowledge De Koninck’s classification of the unmoved mover and the point as synthetic objects. Berti’s fear that the divine reading of b24-26 would necessarily “include the divine substances among the indivisibles” and therefore fall “into Platonic intuitionism” is thus ill-founded (Berti, “Intelection,” 146).
“IF SOMETHING EXISTS WITHOUT A CONTRARY …” (b24-26)

The closing line of Section D appears to tie together, or at least to mention, several strands that run throughout III.6. Three strands in particular merit our attention. First, the line begins with the customary δέ, signaling a contrast or clarification of the preceding comment, and thus continuing the series of distinctions that articulate the chapter’s opening thesis. Second, the appearance of a different knowing verb, γιγνώσκω (b25), similarly extends the array begun at the chapter’s outset. If the difference among knowing verbs can be taken to indicate a difference among objects known, then we have no fewer than four distinct objects of thought, corresponding to συντίθημι (Section A), νοεῖν (Section B, C), γνωρίζω (previously in Section D), and now γιγνώσκω.¹¹² Lastly, three features previously attributed to other objects resurface in b24-26. The subject of b24-26 differs from privations, as objects, and from the subject who knows them, insofar as it lacks a contrary. The subject of b24-26 also differs from the principle of unity in what is undivided in quantity: the unifying principle in a length is “perhaps not χωρίστον (b18),” while the subject of b24-26 is χωρίστον without qualification. Finally, the theme of actuality and potentiality in both subject and object – raised in Section B and continued in Section D – culminates in b24-26 with a being that is simply actual, ἐνέργεια (b25).

There are two significantly different ways that the “strands” of b24-26 may be arranged: b24-26 is portrayed by the “divine reading” as a description of divine self-knowledge, and by the “substance reading” as an account of human knowledge of substance. Since accepting one of

¹¹² Most English translations reflect the difference between ‘νοεῖν’ (think), ‘γνωρίζω’ (recognize), and ‘γιγνώσκω’ (know). Shields, Apostle, and Hett are exceptions, translating both ‘γνωρίζω’ and ‘γιγνώσκω’ as ‘know.’
these readings over the other makes no small difference to how we understand the argument of
Section D, we shall examine each in some detail.

The dominant interpretation understands b24-26 to describe an act of divine self-
knowing: “But if there is anything without a contrary, it knows it itself [αὐτὸ ἐαυτὸ] and is actual
and separate [χωριστόν].” The grammar of b24-26 presents no difficulties for this translation:
we may understand both αὐτό and ἐαυτό to be in the accusative case, and we may take χωριστόν
as signifying actual separation in being (i.e., “separate”) rather than potential separation in
thought (i.e., “separable”).113

The meaning of the line, too, is coherent, both in itself and with respect to what Aristotle
says elsewhere about God as the subject and object of his knowing. As an object of knowledge,
God is unlike privations and divisions insofar as he is not a negative contrary. He is not known
by means of something outside of himself, a positive contrary that possesses form more properly
than him.114 There is no potential in him that must be actualized in order for him to be actually
known.115 He is an actual object of knowledge, moreover, insofar as he is actually separate from
matter, and not merely separable by means of an act of abstraction.

Correlatively, as subject of knowing, the unmoved mover knows not by means of
contraries but directly. There is in him no kind of potency; his knowing neither proceeds

‘χωριστόν’ “to signify either (1) the characteristic or ability of existing apart from other things, independently of
them …; or (2) the ability not only to exist apart from other things, but to exist apart from matter altogether …; or
(3) the capability of being thought of or perceived apart from matter.” Ryan also observes that Liddell-Scott-Jones
“cites only Aristotle as the source for the word [χωριστόν]” (213n10).

114 Cf. DA I.1 402b11-16. The intelligible object (νοητόν) is the opposite (ἀντικείμενον) of the mind.
Thus, to deny that opposites are present in the unmoved mover, as subject or object, is identify the subject and object
of thought.

successively, from object to object or from part to part, nor develops or improves or changes in any way. Just as the object of God’s knowing is complete actuality, so is he, as a knower. And just as God, as an object knowledge, is separate (χωριστόν) from matter, so is he, as a knower and thus a principle of knowledge, separable from all other knowers.

Neither does the coherence of the argument of Section D suffer by our accepting the divine reading of b24-26. On the contrary, the divine reading allows us to regard Section D as a contrast between both the subjective and objective conditions of human and divine knowing. Our knowing is both noetic and synthetic, characterized by successive progressions from potency to act and successive syntheses. The objects of our knowledge are similarly limited, having varying degrees of potency and act, both in their being (e.g., privations) and in their being known (e.g., what is potentially undivided in quantity). In contrast, divine knowing is in no way synthetic, containing neither actual nor potential change. The object of divine knowing, too, is without potentiality of any kind.

116 Cf. Meta XII.9 1075a5-10.
117 Cf. Meta XII.9 1074b27-28; XII.9 1074b34-35.
118 Cf. DA III.5 430a22-23: “being separate [χωρισθείς], it is itself alone, as it is [ἐστὶ μόνον τοῦ ὁπερ ἐστί].”
119 Cf. De Koninck, “L’intellection des indivisibles,” 782n32: “Mais le contraste qu’il trace est éclairant, puisqu’il marque justement à quel point nous ne sommes justement pas des substances séparées, puisque nous connaissons toutes choses sous la dépendance de formes qui sont autres que nous-mêmes, eu égard auxquelles nous sommes dès lors en puissance (dunamei, 430b23).” Cf. Lear, Desire to Understand, 301: “Aristotle’s point is that humans, by contrast to God, can only become active thinkers in response to the world. This asymmetry allows us to fill out the picture of God thinking himself. Our active thinking is a single actualization of two distinct potentialities: our capacity to think and an embodied essence. God, by contrast, requires no interaction with anything external to be in his active state. Since in his case as well subject and object of thought are identical, there is no objection to saying that he thinks himself.”
In spite of the grammatical and argumentative coherence of the divine reading, many commentators who adhere to the reading draw attention to the discontinuity it effects in Aristotle’s account of human knowing, whether III.6 in particular or *De Anima* as a whole. R. D. Hicks, for example, sees “no reason why at this point we should pass to consider the causes and principles of things.” Christopher Shields says that b24-26 “bears only a tangential connection to the rest of the chapter,”¹²⁰ and Thomas De Koninck suggests that Aristotle “risks” a remark about divine knowing, even though it is out of place.¹²¹ Ronald Polansky, who opposes the divine reading of b24-26, points to the difference between these lines and the description of divine self-knowledge in the *Metaphysics*: “he would rather inappropriately say that God knows himself [ἕαυτὸ γνώσκει] rather than is thinking thinking of thinking [η νόησις νοήσεως νόησις].”¹²² Polansky might have raise a further concern about attributing to the unmoved mover γιγνώσκω rather than νοεῖν; Aristotle does not customarily use γιγνώσκω to denote noetic, as opposed to synthetic, thinking.

Presumably, the reason why commentators retain the divine reading of b24-26 even in the face of its inappropriateness is because such inappropriateness is both typical of Aristotle’s writings and signaled by him in the text. On several other occasions throughout the *De Anima*, Aristotle broaches the topic of separate substances – both their existence and our knowledge of them.¹²³ At the same time, Aristotle is under no illusion that a physical treatise is not properly

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¹²⁰ Hicks, *De Anima*, 523.


¹²² Polansky, *De Anima*, 477n6, in reference to *Meta* XII.9 1074b34-35.

concerned with the study of the existence or nature of separate substances. Even in the beginning of b24-26, “but if (εἰ) there exists,” Aristotle seems to indicate that his claim about divine knowing remains hypothetical within the purview of the study of the soul.

Some commentators – those whose concerns for the integrity of Aristotle’s account of human knowing are evidently not allayed by the preceding considerations – read b24-26 as discussing human knowledge of substance: “But if it is something without a contrary, then one knows it itself [αὐτὸ ἐαυτό], and [it] is actual and separable.” The grammar presents no obvious difficulty for this way of reading of b24-26: the line’s opening contrast, “but if [εἰ δὲ]” may be taken to denote a shift away from the preceding discussion of privations as objects of thought. Here, as with the divine reading, we may take ‘αὐτὸ ἐαυτό’ as an accusative. Unlike the divine reading, however, ‘αὐτὸ ἐαυτό’ here signifies an object that is not in every way identical with the subject of ‘γινώσκει,’ namely, a human thinker.

The substance reading of b24-26 also is coherent of itself and with respect to the Aristotelian corpus: substance, as an object of knowledge, has no contrary, but possess form of itself. And although our knowledge of substance passes from potential to actual, substance itself is actual insofar it is separated from matter. A human subject, accordingly, does not know substance by means of any other form, but directly knows the thing itself.

With respect to the argument of Section D, the substance reading establishes a contrast between two kinds of human knowing. Our knowledge of privations and divisions, on the one hand, is by means of contraries. When the positive contrary is present in the soul, the privation

124 Cf. DA I.1 403b12-16; III.8 432a3-6.
125 Cf. Oehler, Die Lehre, 217; Berti, “Intellection,” 146; and Polansky, De Anima, 477.
126 Cf. Cat 3b24-32; 5b11-15; 10b12-17; Meta XII.10 1075b21-23.
is potentially known. To pass from this potency to act requires discursion in thought. Our knowledge of substance, on the other hand, is not discursive. Here, our passing from potential to actual knowing involves nothing outside of substance itself. If the substance reading is correct, Section D thus presents us with two cases in which the quality of the subject’s activity reflects the ontology of the objects known: privations, as derivative beings, can be thought only synthetically, while substance, as primary being, is thought noetically.127

We are in a curious position with respect to how to translate and understand b24-26. The arguments for both the divine and substance readings are strong, with no definitive evidence against either. A possible resolution to this apparent stalemate is to assume that the Stagirite, in penning these lines, had both in mind. Perhaps Aristotle, desiring to incorporate into his account the benefits of both readings, wrote b24-26 in such a way that neither could be dismissed. In other words, we encounter difficulty when attempting to decide between one reading or the other, precisely because Aristotle intended them to be taken together. More broadly, we might say, Aristotle intends our examination of human knowledge of substance to provide us with a glimpse into the unmoved mover’s self-knowledge, and vice versa. Not unlike how the same account (λόγος) applies to our knowledge of both privations and divisions, an imitation of the logos in divine self-thinking is present in human thought of primary being.128

127 Polansky, De Anima, 477, understands b24-26 to refer primarily to substantial essences, although secondarily to accidental essences.

128 Cf. DA II.4 415b3-7; NE X.7 1177b26-1178a3.
THE ARGUMENT OF III.6 IN SECTION D

Section D contributes to the argument of III.6 by introducing yet another undivided object, namely, what is undivided as the division. This third and final way of being undivided differs from the previous two ways, the undivided in quantity and undivided in form, both in its ontology and in the manner in which it is thought. Because divisions do not possess form in their own right, but only in relation to the magnitudes of which they are divisions, they cannot be thought apart from these magnitudes. Points, privations, and whatever is ‘τὸ οὐ̂τος ὀδυρέτον,’ therefore, are synthetic objects.

The synthetic character of this third way of being undivided is confirmed through the contrast provided by the closing lines of Section D, b24-26. These lines describe noetic thinking, whether we understand them to refer to human thought of substance or to divine self-knowledge. As objects, both substance and the unmoved mover are alike in being intelligible in themselves. Knowledge of these objects, accordingly, neither requires nor permits movement in thought.

The introduction and specification of this third way of being undivided develops the argument of III.6 in two ways. In one way, the account of what is undivided as the privation completes the array begun at the chapter’s outset. Our first notion of ‘being undivided’ was comprised of only what is undivided in quantity. Since what is undivided in quantity is divided καθ’ αὐτό, potential for division exists both in these objects and in the subject who thinks them. Our notion of ‘being undivided’ was subsequently refined by the introduction of what is undivided in form. Although these objects, being divided κατὰ συμβεβηκός, lack the potential for being divided, since the subject still possess the potential to divide them, we can say that it is possible to divide what is undivided in form. Lastly, our notion of ‘being undivided’ was
completed by Section D’s description of what is undivided as a division. Since neither divisions, as objects, nor thinking subjects possess the requisite potential for division, we must say that what is undivided as the division is impossible to divide.

Section D additionally develops the argument of III.6 by specifying the conditions of both the subject and object of noetic thinking. In the subject, noetic thinking is characterized by the absence of movement, whether this movement is described as synthesis or division, and whether it occurs between thoughts (νοήματα) or between a contrary and its negation. Only those objects that possess the potential to be thought in this manner – only those objects whose unity is not derivative – can rightly be called noetic.

**SECTION E (430b26-30)**

**Greek Text**

b 26 [E] ἐστι δ’ ἡ μὲν φάσις τι κατά τινος, ὀσπερ καὶ ἡ κατάφασις ἀπόφασις. ἐκακαὶ ἀληθῆς ἢ ψευδῆς πάσας ὀ ὄ νοος οὐ πάς. 27 ἀλλ’ ὁ τοῦ τύ τι ἐστι κατὰ τὸ ὑν εἶναι ἀληθῆς, καὶ οὐ τι κατά 28 τινος ἀλλ’ ὀσπερ τὸ ὁρᾶν τοῦ ἰδίου ἀληθῆς, εἰ δ’ ἀνθρώπος 29 τὸ λευκὸν ἢ μή, οὐκ ἰδίου ἀληθῆς ἀεί, οὔτως ἐχεῖ ὅσα ἄνευ ἀληθῆς. 30

**Commentary**

**The Purpose of Section E**

Section E returns to the theme of truth and falsity – a theme explored in Section A but eclipsed ever since. The return is abrupt, lacking either introduction or evident segue from the concluding notions of Section D. Aristotle displays this theme at first through a complex
contrast between different kinds of thinking and then through an analogy between sensation and intellection.

As befits its position as the conclusion of III.6, Section E does not introduce any new ways of being undivided. Neither, however, does the section merely restate what has been put forth in previous sections. The purpose fulfilled here, rather, is to confirm the thesis of III.6 by presenting an articulated version of the thesis introduced at the chapter’s beginning: there is no falsehood in the νόησις of what is undivided, but there is both falsehood and truth in the synthesis of νοήματα. What stands in need of final articulation in Section E is, once again, ‘what is undivided.’

“EVERY ASSERTION, LIKE EVERY AFFIRMATION, CONCERNS SOMETHING ABOUT SOMETHING, AND IS IN EVERY CASE TRUE OR FALSE” (430b26-27)

Aristotle opens Section E with yet another of his customary contrasts. The contrast at b26-29 is complex, involving a relationship between not two terms but two relationships. We shall examine each side of the contrast in turn. The first side predicates of two kinds of thinking two features: first, that they always say “something about something (τι κατά τινος),” and second, that they are “true or false.” Although the meaning of each of these predicates is clear enough, the meaning and translation of the two subjects poses some difficulty.

We run into difficulty discerning both the meaning of the first kind of thinking, φάσις, and whether Aristotle intended the second kind of thinking as κατάφασις or ἀπόφασις. The first of these terms, φάσις, can be employed in either a broad sense, signifying equally positive and
negative assertions, or a narrow sense, signifying positive (κατάφασις) as opposed to negative assertions (ἀπόφασις).\footnote{Hicks, \textit{De Anima}, 524. Cf. Apostle, \textit{On the Soul}, 171. Fattal, “Intellecction,” 435n37, posits a different set of broad and narrow meanings of ‘φάσις.’ The broad sense of ‘φάσις,’ Fattal contends, refers to any kind of thinking, while its narrow sense refers only to the thinking that is neither an ἀπόφασις nor a κατάφασις. Fattal identifies this narrow sense with noetic thinking, citing for support the contrast in \textit{DA} III.7 431a8-10 between ἀπόφασις and κατάφασις, on the one hand, and φάναι μόνον, on the other. While I am sympathetic to Fattal’s concern to properly distinguish noetic thinking, I do not believe his two senses of ‘φάσις’ are either discernible in or helpful for understanding Section E. It seems to me, moreover, that Fattal has overlooked differences in meaning that might arise between ‘φάσις’ and ‘φάναι.’ For a detailed examination of these differences, cf. Lambertus Marie De Rijk, \textit{Aristotle: Semantics and Ontology}, vol. I (Leiden: Brill, 2002), 101-2.}

The immediate context provides us with little assistance in deciding which of these meanings Aristotle intended. Looking to the second kind of thinking does not help, since we have yet to determine whether this kind of thinking is ἀπόφασις or κατάφασις. Neither can the meaning of ‘φάσις’ be discerned by consulting previous sections of III.6, since we find there no comparisons between κατάφασις and ἀπόφασις. (Aristotle does claim in Section A that synthoses can be called divisions, but the terms ‘synthesis’ and ‘division’ do not carry with them the affirmative and negative qualities signified by ‘κατάφασις’ and ‘ἀπόφασις.’)

Translators render b26-27 in two ways, corresponding to the broad and narrow senses of ‘φάσις.’ One way assumes the narrow sense of ‘φάσις’ and, accepting the substitution of ἀπόφασις for κατάφασις in the manuscripts, presents the lines as a comparison between positive and negative propositions:\footnote{Cf. Hamlyn, \textit{De Anima}, 145. In addition to Hamlyn, Shields, Sachs, and Ross interpret b26-27 in this way.} “every affirmation, like every negation, concerns something about something and is true or false.” Another way assumes the broad sense of ‘φάσις’ and retains κατάφασις in the manuscripts. Ordered in this way, b26-27 presents us with a distinction not between contrary sub-classes within the same class, but between a class
and one of its sub-classes: “every assertion, like every affirmation, concerns something about something.”

Thankfully, the coherence of the argument in Section E does not hang on the choice between these two translations, for, in either case, it is clear that the two predications are made universally, of assertions of either quality. Nevertheless, there are contextual reasons for preferring the broad translation of ‘φάσις’ (assertion) to the narrow (affirmation). One reason is that Aristotle has previously discussed κατάφασις (affirmation) in Section A’s examples of synthesis. Granting that his intention in b26-27 is to attribute to the former term (φάσις) something that he has already attributed to the latter (ἀπόφασις or κατάφασις, as the narrow and broad translations respectively hold), we can only understand the latter term to be κατάφασις.

Another reason for opting for the broad sense of ‘φάσις’ is that this translation, unlike the narrow sense of ‘φάσις,’ opens up a transition between Section D and Section E. The apparent abruptness of Section E’s initial contrast, in other words, is merely apparent. If the first side of the contrast confirms that what was previously attributed only to positive assertions (κατάφασις) applies to all assertions (φάσις), the implicit focus of the other side of the contrast is on negative assertions (ἀπόφασις) – that these, too, are both a τι κατά τινος and either true or false. Section D’s consideration of how we think divisions is a likely context from which a question about...

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133 Apostle, Hett, Smith, and Hicks adhere to this interpretation of b26-27. Cf. Paolo Crivelli, *Aristotle on Truth* (Cambridge: Cambridge University Press, 2004), 102n13: “The text handed down by most manuscripts could be defended if φάσις could be taken to mean ‘predicative assertion’ (one would then take ‘hosper’ to mean ‘as for instance’: for this usage cf. APo. 2.10, 93b36; II, 94b32; 95a1; 16, 98a36-7. Some commentators (e.g. Torstrik (1862), 196; Rodier (1900), 11 488) claim that Aristotle elsewhere uses φάσις to mean ‘predicative assertion’, but their evidence (Int. 12, 21b19) is far from clear cut.”
negations would arise: we think what is undivided as the division by thinking the *negation* of a positive contrary.\(^{134}\)

But if Section D’s discussion of the thinking of divisions indeed gives rise to Section E’s clarification about the features of all assertions, it seems that Aristotle regards the thinking of a division as an assertion, or at least as like an assertion in being a τι κατά τινος and as being either true or false. Perhaps the unpredictability of this way of regarding the thought of divisions is precisely what gives rise to b26-29; if the features of being a τι κατά τινος and being true or false were restricted to the judgments named in Section A, there would be no need to reaffirm the attribution here. The question as to how our thinking of the division can be regarded as a φάσις forms a background for the second side of the contrast.

“THIS IS NOT THE CASE WITH EVERY [ACT OF] νοῦς, BUT [THINKING] OF WHAT-IS IN THE SENSE OF ESSENCE IS TRUE, AND DOES NOT CONCERN SOMETHING ABOUT SOMETHING” (430b27-29)

The interpretive challenges we face in the second side of the contrast are strikingly similar to those just encountered. Like the first side, the second side opens with an ambiguous phrase: “this is not the case with every act of νοῦς.” The difficulty here, as above, involves discerning between the broad and narrow senses of a phrase. Broadly, the phrase ‘ό δὲ νοῦς’ refers to all acts of thinking whatsoever, including both those just mentioned, φάσις and κατάφασις. Narrowly, the phrase refers to all acts of thinking other than those just mentioned, φάσις and κατάφασις. Favoring one or the other of these senses again appears insignificant for the section’s argument; what is crucial is that we take ‘every act of νοῦς’ to designate a broader class than that designated by the subsequent phrase. (Since Aristotle’s attention in b27-29 is on

\(^{134}\) Pritzl, *Unity of Knower and Known*, 209.
the phrase that follows ‘ὁ δὲ νοῦς,’ it matters little if we understand this phrase to be
distinguished from a lower or higher genus.)

But here the similarities between the two sides of the contrast come to an end. Unlike the
first side, which predicated equally of two kinds of thinking both being a τι κατὰ τινὸς and being
true or false, the second side singles out one kind of thinking against all others: “the thinking of
what-is in the sense of essence” is not a τι κατὰ τινὸς and is not true or false, but only true.

What is signified by “the thinking of what-is in the sense of essence” merits special
attention. It is important, in particular, for us to be clear about what is signified by ‘what-is’ (τί
ἐστι), on the one hand, and by ‘what-is in the sense of essence” (ὁ τοῦ τί ἐστι κατὰ τὸ τί ἦν
εἶναι), on the other. Between these two phrases, ‘thinking what-is’ designates the broader
class, as it were. We might define this class in distinction from, say, thinking whether it is in
such a way, why it is in such a way, or whether it is (at all). We should not distinguish
‘thinking what-is’ from the “thinking something about something,” since Aristotle opposes this
latter kind of thinking to the sub-class, “thinking what-is in the sense of essence.”

Aristotle examines the various sub-classes of the ‘what-is’ class throughout the
Metaphysics, and particularly in VII.3. In response to the question, ‘what is X,’ we may point

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135 Interestingly, b28 marks the third time in Section E that Aristotle presents first a broad class and then,
immediately thereafter, one of its sub-classes. The first occasion is at b26-27 (φάσις … κατάφασις), the second at
b27-28 (ὁ δὲ νοῦς … ἀλλ’ ὁ τοῦ τί ἐστι), and the third, with an implied doubling, here (ὁ τοῦ τί ἐστι … ὁ τοῦ τί ἐστι
cατὰ τὸ τί ἦν εἶναι).

136 AnPo II.1 89b23-25: “the things we search for are four in number [ζητοῦμεν δὲ τέτταρα]: the ‘that,’ the
‘why,’ the ‘whether,’ and the ‘what’ [τὸ ὅτι, τὸ διότι, εἰ ἐστὶ, τί ἐστιν].”

137 It is perhaps this error that inclines commentators to conflate the class, ‘thinking what-is’ with the sub-
class, ‘thinking what-is in the sense of essence.’ The result of this conflation is problematic for the argument of
III.6; if Aristotle asserts, here in Section E, that the thinking of all concepts whatsoever is true, then his distinctions
between ways of being undivided is merely an academic exercise, having nothing to do with the difference between
synthetic and noetic thinking. As noted below, we arrive at the same problematic consequence if we regard the
thinking of divisions as noetic.
either to X’s matter, form, or the composite of these, or else to the universal of which X is an instance – its species or one of its genera.\textsuperscript{138} Which of these sub-classes is designated by the phrase, ‘the thinking of what-is in the sense of essence’? Working in the opposite direction of the text, as it were, we can arrive at three features possessed by the sub-class in question: first, it must be thinkable as essence; second, the thought of it must be true (and not false); third, the thought of it must not be a τι κατά τινος. By application of these criteria, we can eliminate all but one of the proposed ways of thinking what-is.\textsuperscript{139} The thought of matter, as unintelligible apart from form, clearly requires some synthesis in thought and thus cannot be thought infallibly. Thinking a composite \textit{as such} also cannot be infallible, since this, too, requires synthesis between what one first thinks – a thing’s form – and the phantasm in which the form was thought.\textsuperscript{140} For the same reason, namely, the presence of synthesis, thinking a universal as such, whether genus or species, cannot be infallible.


\textsuperscript{139} The elimination could proceed effectively with only the second or third criterion alone. Presumably, Aristotle lists both infallibility and non-discursion in answer to Section A’s associating falsity and synthesis.

\textsuperscript{140} Cf. \textit{DA} III.7 431a16; III.8 432a8-13.
Only the thought of form meets the three criteria. To think a thing’s form is not merely to think a part of its what-is, but the thing itself, its τὸ τί ἦν εἶναι. When we think of form in this manner, moreover, we do so without synthesis – not as a τι κατά τινος – and thus without falsity.

THE INTENDED CONTRAST (430b26-29)

Up to this point, we have only examined in isolation the relationships on either side of Section E’s contrast – first the relationship between φάσις and κατάφασις, and then the relationship between the acts of mind in general and the particular act of thinking form. It remains for us now to determine how and why the two relationships are thus contrasted.

As noted above, b26-29 cannot be reduced to a simple contrast between two kinds of thinking, A and B. The structure of the contrast, rather, is that of a four-term disanalogy: C is not related to D as A is related to B. That is, the relationship between assertions and affirmations differs from the relationship between all acts of the mind and the particular act of thinking form. We can predicate universally of all assertions the features of being a τι κατά τινος and being true.

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141 Is the infallible thinking of form-as-essence restricted to substantial form? Commentators who address this issue at all argue in the negative. Cf. Polansky, De Anima, 477; Apostle, On the Soul, 168; Berti, “Intellection,” 147. In evaluating our response to this question, we must take into account two hypotheticals: first, if the thinking of accidental form requires thinking that of which the accident is an accident, it is synthetic; second, if we translate b24-26 as a reference to human thought of substance, the context for b28-29 suggests that substance only, and not those accidents that have opposites, is intended. I address this issue in greater detail in Chapter Four.

142 Victor Kal, On Intuition and Discursive Reasoning in Aristotle (New York: E.J. Brill, 1988), 44. Cf. Crivelli, Aristotle on Truth, 107: “A ‘what it is’ according to the ‘what it was to be’ (430b28) is an essence. Since essences do not contain matter, the phrase ‘what is without matter’ (430b30-1) probably refers to essences.”

143 It is clear, at any rate, that a contrast is intended. In addition to the μὲν … δὲ construction at b26-27, we find three pairs of contraries distributed across the two sides: every (πᾶσα) assertion says something about something (τι κατά τινος) and is true or false (ἀληθὴς ἢ ψευδὴς); but not every (οὐ πᾶς) thought, for one kind of thought does not say something about something (οὐ τι κατά τινος), and is true (ἀληθὴς).

Two observations should be made about the third pair of terms, ἀληθὴς ἢ ψευδὴς … ἀληθὴς. First, the terms are only contraries if we regard each side as reflecting all of truth values attributable to a given kind of thinking, or if we regard each side only with respect to the presence or absence of falsehood. Second, it appears that Aristotle has shifted from his initial emphasis on falsehood in Section A to an emphasis on truth, here in Section E.
or false, but we cannot predicate these features of thought in general. It is important that the exception Aristotle makes to this generalization is not the thinking of what is undivided in any way whatsoever (a26), but only the thinking of form. The net effect of the contrast at b26-29, then, is to single out the noetic and infallible quality of the thinking of form, whether this is the form present in what is undivided in quantity or what is undivided in form.

We can return now to the previously posed question about what is undivided as the division: where in the four-term disanalogy does the thinking of divisions belong? It is surely not an option to omit the thinking of divisions from the contrast altogether, for this would render b26-29 no longer jointly exhaustive, as it would render Section D discontinuous with Section E. Since the thought of a division cannot be identified with the thinking of what-is in the sense of essence, we are left to conclude that this kind of thinking either is identical with or is like a φάσις. In either case, the thinking of divisions is among those things that are a τι κατά τινος and that can be true or false.

Where the thinking of divisions falls in the disanalogy is hugely significant for the coherence of the argument of III.6. Those who fail to acknowledge the synthetic character of the thinking of divisions reduce the chapter’s distinction between synthetic and noetic thinking to the distinction between judgments and non-judgments. Such an interpretation carries with it two devastating implications for the argument of III.6. First, it renders useless the examination of different ways of being undivided in Sections B, C, and D; if the only qualification for being thought noetically is that something be a non-judgment, we are left without motive for making

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144 Cf. Sorabji, Myths, 298; Polansky, De Anima, 478-79. Pritzl, Unity of Knower and Known, 209: “the distinction between the grasping of universals and the formation of propositions by the mind is not a major problematic for the De Anima treatment of thinking.”
distinctions among non-judgements. Second, the reductive interpretation renders Sections A and E redundant. If the intervening sections have not revealed anything of the “why” behind the distinction between synthetic and noetic thinking, the contrast at b26-29 can do nothing more than repeat the initial contrast of Section A.

If we regard the thinking of divisions as synthetic, however, the argument of III.6 is preserved from both these sad fates. Under this supposition, Section A proposes a distinction between the thinking of what is undivided and the synthesis of thoughts. While we might take this initial distinction as deciding between judging and the thought of a judgment’s components, the subsequent discussions disabuse us of this assumption: not just any thought, but only the thought of what is undivided in quantity or in form, is devoid of falsity (Sections B, C). Although a division is something undivided, this way of being undivided differs from the previous ways, such that our thinking of divisions requires reference in thought to something else (Section D). Section E gathers together these refinements in a representation of the initial distinction: noetic thinking is the thought of form; all else is a τι κατά τίνος and is liable to falsity.

THE ANALOGY BETWEEN SENSATION AND INTELLECTION (430b29-30)

Aristotle brings to a close Section E and indeed the whole of III.6 with an analogy that is at once familiar and also new. On the one hand, the analogy echoes the refrain of the earlier chapters of Book III: as the sensible power is related to the sensible, so is the intellect related to the intelligible. On the other hand, the analogy in Section E uniquely highlights not merely the similarity between the activities, objects, and faculties of sense- and intellectual cognition,

145 Cf. DA III.4 429a17-18.
but the similarity between their truth values. In other words, the closing analogy of Section E places in an explicit four-term relationship what elsewhere has been said separately about the truth values of the activities of sensation and intellection.

Prior to examining each of the analogy’s sides, we should note the continuity between the analogy as a whole and the preceding sections of III.6. One point of continuity is the psychological rather than logical perspective from which truth values are discussed; the bearers of truth and falsity in both Section E and throughout III.6 are not propositions or terms but activities. A second point of continuity concerns the examples Section E employs for the two activities of sensation. White, the paradigmatic proper sensible, was alluded to in Section D’s discussion of contraries, while the example of incidental perception, Cleon’s being white or not, appeared first in Section A.\textsuperscript{146} Lastly, the contrast between what can and cannot be false, introduced in Section A and revived in the earlier lines of Section E, is present also in the closing analogy. The continuity of this theme across the sections is not perfect, however. As the chapter draws to a close, the focus so shifts from falsity to truth that, in the closing analogy, falsehood is not even named, but only signified in relation to truth (οὐκ ἀληθὲς ἂεί).

The side of the analogy concerning sense cognition is unremarkable, save for its tight recapitulation of earlier examinations of proper and accidental objects of sense: “seeing a proper object is true, while seeing whether the white thing is a man or not is not always true.”\textsuperscript{147} The side of the analogy concerning intellectual cognition, with its extreme brevity, requires more

\textsuperscript{146} Cf. \textit{DA} III.2 426b10-11.

\textsuperscript{147} On the truth of value of sensation of proper sensibles, cf. \textit{DA} II.6 418a11-18; III.3 428a11-12; III.3 428b18-19; \textit{De Sensu} IV 442b7-10. The second of these texts asserts that sensation of proper sensibles is always true (ἀληθῆς ἂεί). The third text is more restrained: sensation of proper sensibles is true, or admits the least amount of falsity (ἀληθῆς ἐστιν ἢ ὅτι ἀλήπετον ἔχουσα τὸ ἑξώοσα). Section E’s analogy seems more aligned with the unqualified assertion. On the truth value of incidental perception, cf. \textit{DA} II.6 418a22-23; III.1 425a30-b3.
elaboration. If we replicate the truth values mentioned explicitly in the sense cognition side of the analogy, the claim, “so it holds with as many things as are without matter,” could be expanded as follows: thinking what is without matter is true, while thinking something about what is without matter is not always true. Thus, sensing a proper sensible and thinking what is without matter are alike in being always true, just as sensing something about this proper sensible and thinking something about what is without matter are similarly not always true. How this extended analogy relates to the terms in the preceding contrast should be evident: sensing a proper sensible and thinking form are true, while sensing something about a proper sensible and thinking that is a τι κατά τινος are not always true. Presumably, the likeness invoked by this analogy extends not only truth values, but also the reason why the truth values are such: in both sensation and intellection, each power is infallible only with respect to its proper object.\textsuperscript{148} The truthfulness of the synthetic kinds of cognition, moreover, is grounded in the noetic kinds.

We turn our attention, finally, to the curious manner in which Aristotle refers to intellectual cognition. Regarding the phrase, ‘whatever is without matter’ (ὅσα ἀνευ ὄλης), two questions might be asked. First, in what manner does Aristotle intend us to take ‘without matter’: as existing, or as thinkable apart from matter?\textsuperscript{149} As noted in the parallel examination of the meanings of χωριστόν, Aristotle does not hold to the separate existence of forms apart from material composites. We can conclude, then, that ‘without matter’ signifies separation in thought. This separation, of course, does not imply that the process of thinking involves no

\textsuperscript{148} In Aristotle’s account of cognition, the notions of infallibility and being one are intimately related. On the identity between thinking and thought, cf. \textit{DA} III.7 431a1-2; on the identity between sensation and sense object, cf. \textit{DA} III.2 425b26-27.

\textsuperscript{149} Cf. \textit{DA} III.4 430a4-6 and III.4 429a15-16.
matter, for, while the process of thinking is inextricably tied to phantasms, phantasms are not always what are thought, but that by which we think.\textsuperscript{150}

Our second question concerns the referent of ‘whatever is without matter.’ Of the many things that can be thought apart from matter, to which does Aristotle direct our attention? In answering this question, we must be mindful of the other features of ‘whatever is without matter’ supplied by the analogy. We are not looking simply for anything that can be thought apart from matter, but only for those things that, being thought apart from matter, are true in the way that the sensation of proper sensibles is true. It thus appears that ‘whatever is without matter’ is precisely what Aristotle has identified two lines above: only form, whether of what is undivided in quantity or in form, is immaterial in the requisite way.\textsuperscript{151}

\textbf{The Argument of III.6 in Section E}

It is paradoxical that Section E’s primary contribution to the argument of III.6 – in which fallible and infallible thinking are distinguished with respect to the presence of synthesis – is the work of synthesis. In this concluding section, the distinctions wrought in separate sections are themselves brought together and distinguished.

In Section E’s opening four-term contrast, the relationship between synthesis and falsity is joined not only with the distinction between assertions and non-assertions, but also between thoughts in general and the particular act of thinking form, that is, what-is in the sense of

\textsuperscript{150} Cf. \textit{DA} III.7 431a12-18; III.8 432a3-14.

\textsuperscript{151} Shields’ failure to see the connection between Section E’s disanalogy (b26-29) and analogy (b29-30) prevents him from narrowing down the possible referents of the ‘objects without matter’ in even the slightest way. Shields, \textit{De Anima}, 335: “It is unclear whether he is thinking of those objects which exist without matter in abstraction, including the points and lines already discussed in the chapter, or has in mind the prime mover of Met. \Lambda 6-10, which exists permanently without matter, and thus stands in no need of abstraction. Perhaps he has both in view.”
essence. Our ability to recognize this last term, the thinking of form, is the culmination of earlier sections’ distinctions between what is divided καθ’ αὐτό or κατὰ συμβεβηκός, as well as between objects that depend on subjective activity for their unity and those that do not. We have progressed from an unrefined understanding of τῶν ἀδιαιρέτων νόησις (a26) as perhaps encompassing all things undivided, to the present formulation: only the thinking of form is not a τι κατά τινος and is not subject to falsehood (b28).

In the closing four-term comparison between sensation and intellection, we find a similar synthesis of distinctions previously posited. Having established in Section A that synthesis is the cause of falsity, and in Sections B through D that synthesis is present in the thinking of divisions but not in the thought of form, Aristotle does not in Section E conclude merely that the thought of form is true and the thinking of divisions is not always true. By presenting these two intellectual activities alongside their sensitive correlates, he gestures at a more fundamental explanation for the infallibility heretofore associated with the absence of synthesis: noetic activity is infallible because it is nothing other than a union between a power and its proper object.

CONCLUSION

The stated purpose of this first chapter has been to prepare for subsequent chapters’ inquiries, both by setting forth the general context within which more particular questions about noetic thinking can be raised, and by addressing detailed textual and interpretive concerns. It was necessary initially to pursue both of these means in tandem, addressing difficulties as they presented themselves with each turn of the argument. In order to draw attention to the coherence
of DA III.6 and its key methodological moves, however, it is helpful to close the present chapter with a summary of the reading of the argument that I am proposing in abstraction from its difficulties and details. The viability of this reading, given here without defense, will be tested by the inquiries in the chapters to come.

Aristotle’s primary objective in DA III.6 is to distinguish between two kinds of thinking. The chapter opens with the assertion that the “thinking of what is undivided” (noetic thinking) and the “synthesis of thoughts” (synthetic thinking) are two activities that differ with respect to the relation each bears to falsity: noetic thinking cannot be false, but synthetic thinking can be either false or true. For the remainder of the chapter, Aristotle devotes himself to explaining and refining the difference between the two ways in which thinking can be related to falsity. He locates the causes of fallibility and infallibility alike in the natures of the two activities and their objects.

Aristotle embarks upon his explanatory task by identifying the cause of potential falsity in synthesis. In Section A, he argues that synthetic thinking can be false precisely because it is possible for the mind to synthesize a subject and predicate either in accord with or contrary to the syntheses and divisions in things.

In Section B, Aristotle turns aside from his account of synthesis to consider the thinking in which there is no falsity. Rather than displaying this kind of thinking in terms of what it is not (viz., synthetic), Aristotle offers an account of what the activity is in its own right (viz., an act of division). We think noetically, Aristotle implies with his discussion of dividing lengths, when we divide or separate a whole apart from a larger whole of which it was a part. This kind of division is not synthetic, since the subject who divides does not focus on two wholes, but only on
one. Noetic thinking, in other words, is as non-synthetic as is focusing on a single portion of a
length.

In Section C, Aristotle distinguishes between two ways that noetic thinking can be
undivided in itself. Something is a potential object of noetic thinking either if it is undivided
according to quantity or undivided in form. The kind of unity enjoyed by each potential object
of noetic thinking – whether undivided in quantity or in form – determines the unity of the act of
thinking and the time of thinking alike. Thus, in contrast to synthetic thinking, which possesses
the same unity regardless of the nature of its objects, noetic thinking’s unity is limited by and
expressive of the unity possessed by its objects.

Not all objects possess the unity requisite for being thought noetically. Points and
privations, Aristotle observes in Section D, cannot be thought by means of dividing alone, but
only by means of their positive contraries. The fact that our thinking of points and privations is
not undivided – we must first think a positive contrary and then negate this thought – suggests
that points and privations are not undivided in the manner relevant to noetic thinking.

Aristotle concludes his contrast between two kinds of thinking by returning, in Section E,
to the question of truthfulness. Whereas the initial contrast between the two kinds of thinking
was drawn along the lines of falsity, the closing emphasis here is on truth: synthetic thinking,
which thinks “something about something,” is true or false, but the kind of thinking that is not a
“something about something” is true. The truthfulness of noetic thinking, Aristotle explains,
diffs from the truthfulness of synthetic thinking, just as the truthfulness of proper sensation
diffs from that of incidental sensation. In this closing comparison, Aristotle prompts us to
examine the truth claims of DA III.6 in the context of his broader account of truth.
CHAPTER TWO:
THE TRUTHFULNESS OF NOETIC THINKING

In *DA* III.6, Aristotle says just enough about noetic thinking’s truthfulness to incite curiosity, and not quite enough to bring about curiosity’s resolution. From *DA* III.6, we learn that noetic thinking is true (430b28-30) and not false (430a26-27), but not why it is so, and certainly not what it means for an activity to be potentially true without being potentially false.¹

In the face of such a slender account of noetic thinking’s truthfulness, it is understandable that commentators turn to other discussions of truth to fill out what is wanting in *DA* III.6. It has become common practice, in particular, to read *DA* III.6 through the lenses of Aristotle’s clearer and evidently more complete discussions of truth – *De Int* 1 and *Meta* VI.4.² This practice has given rise to two dominant interpretations of the truthfulness that Aristotle attributes to noetic thinking in *DA* III.6. According to one interpretation, when Aristotle says that noetic thinking is true and not false, what he means is that noetic thinking is not actually either true or false, but merely potentially so. According to another interpretation, Aristotle means that, although noetic thinking is not actually either true or false, it is actually true in a way common to all intentional acts: it is trivially true of every actual intentional act that it has an intentional object. I shall refer to these two dominant interpretations respectively as the merely potential (MP) and merely trivial (MT) accounts of noetic thinking’s truthfulness. The interpretations are alike in insisting that Aristotle attributes to noetic thinking merely the kind of truth they articulate.

¹ Perhaps the absence of an explicit discussion of truth values is what prompts this comment from Kal, *On Intuition and Discursive Reasoning in Aristotle*, 67: “Psychology does not speak in terms of error and truth, of the particular and the universal, of concept and reality, of the relation between discursive reasoning and intuition.”

² Shields, *De Anima*, 332, insists that *DA* III.6 must be read in conjunction with these two chapters.
In the present chapter, I argue against both the MP and MT interpretations of noetic thinking’s truthfulness and in favor of an alternate one. In the first part, I critique the two dominant interpretations, noting first how each conflicts with the text of DA III.6, and then tracing the cause of this tension to three methodological assumptions held by adherents of both interpretations. In the second part, I propose an alternate interpretation of noetic thinking’s truthfulness, based not on Aristotle’s explicit discussions of truth, but on texts in which Aristotle’s “truth speech” more closely approximates that of DA III.6. According to this alternate interpretation, the truth Aristotle attributes to noetic thinking is opposed neither to falsity nor deception but to ignorance, and is actual and non-trivial in character.

I. CRITIQUE OF TWO DOMINANT INTERPRETATIONS OF NOETIC THINKING’S TRUTHFULNESS

The purpose of this part is to examine and critique the two dominant interpretations of noetic thinking’s truthfulness. In the first and second sections, I consider respectively MP and MT. In each of these sections, I begin by noting what texts adherents look to as support for their interpretation. I then critique each interpretation according to its ability to render coherent the text and argument of DA III.6. In the third section, I locate the cause of the conflict between DA III.6 and the two dominant interpretations in three methodological assumptions common to both. I propose that the resolution of the conflict begins by turning elsewhere than to Aristotle’s explicit accounts of truth for supplying what DA III.6 omits.
A. **Noetic Thinking as Merely Potentially True or False**

MP’s central claim is that the truth Aristotle affirms of noetic thinking in *DA* III.6 is merely a *potential* for being either true or false. This central claim has both a negative and positive aspect: while any given act of noetic thinking is *not* actually true or false, it is potentially so. The negative aspect of the claim requires no explanation, since Aristotle states as much outright: “every assertion, like every affirmation, concerns something about something and is true or false [ἀληθὴς ἢ ψευδὴς]. But this is not the case with every act of mind [ὁ δὲ νοῦς οὗ πᾶς]” (430b26-27).

The affirmative aspect of the claim requires some nuanced interpretations of particular phrases in the text of *DA* III.6. First, it requires that we understand ‘not false’ to mean, ‘neither true nor false.’ Thus, W. D. Ross and Christopher Shields wrongly assert, against their own commendable translations, that Aristotle literally says that the thinking of what is undivided is ‘neither true nor false.’ D. W. Hamlyn, while recognizing the literal wording of the text as it is, argues that Aristotle should, “strictly speaking, say here that with respect to thought of undivided

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3 Seidl, *Der Begriff des Intellekts*, 56, holds to this interpretation explicitly. Many others fall into the interpretation on occasion, or ascribe to a modification of it: Ross, *De Anima*, 300, curiously inattentive to his own commendable translation, declares in his commentary that *DA* III.6 concerns “the formation of concepts, in which there is no question of *truth* or falsity” (emphasis mine). Shields, *De Anima*, 331-32, similarly conflates a concept’s being ‘not yet true or false’ with its being ‘never false,’ and declares that “concepts are simple in the sense of not yet being true or false.” So, too, Franz Brentano, *On the Several Senses of Being in Aristotle*, ed. and trans. Rolf George (Los Angeles: University of California Press, 1975), 15: “There is indeed another kind of mental cognizing which is not judging, and through which we grasp the undivided, the simple, and conceptually represent to ourselves the nature of things. But neither truth nor falsity belong to it as he consistently claims in the *Categories*, in *De Interpretatione*, in the third book of *De anima* and in the sixth book of the *Metaphysics.*”

4 Ross, *De Anima*, 300, emphasis mine; Shields, *De Anima*, 331. See also 332: “concepts are simple in the sense of not yet being true or false.”
objects there is no room for either truth or falsity.”

Second, support for the affirmative aspect of MP’s central claim requires that we understand ‘true’ to mean ‘potentially either true or false.’

In support of understanding ‘not false’ as ‘neither false nor true’ and ‘true’ as ‘potentially true or false,’ adherents of MP point to other texts in which Aristotle uses the disjunctive phrase more explicitly than in DA III.6. Seemingly, the rationale for transferring to DA III.6 the meanings of phrases explicitly present only in other texts is that these texts share other significant similarities with DA III.6. If DA III.6 and these other texts are analogous through and through, in other words, it is acceptable to supply from one side of the analogy what is omitted in the other. In what follows, I shall note the similarities between DA III.6, De Int 1, and Meta VI.4 which constitute the ground of MP’s reading these texts together.

**Support for the “merely potential” interpretation: Meta VI.4 and De Int 1**

Aristotle’s argumentation in DA III.6, Meta VI.4, and De Int 1 appear similar in three ways. First, in all three texts, Aristotle distinguishes between complex and simple entities on the basis of synthesis or combination. In DA III.6, we find Aristotle distinguishing between complexity and simplicity with respect to the activity of thinking as well as with respect to its results. Synthetic thinking is complex with respect to noetic thinking (τῶν ἀδιαιρέτων νόησις) (430a26): the former concerns something about something (τι κατά τινος) and the latter does not (οὐ τι κατά τινος) (430b26-29). A synthesis in thought (σύνθεσις), similarly, is complex with respect to its constituent thoughts (νοήματα) (430a27-28). In De Int 1, of course, Aristotle’s concern for simplicity and complexity is limited to linguistic expressions rather than extending also to the activities that produce them: a statement (ἀποφαντικός, ἀπόφασις), which declares

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5 Hamlyn, *De Anima*, 142.
what does or does not hold (τινὸς κατὰ τινὸς … τινὸς ἀπὸ τινός), is complex with respect to its constituent entities (17a23-26). These simple entities, names and verbs (ὄνόματα, ῥήματα), are simple insofar as they do not of themselves (ὡτά) declare something about something (16a13; 17a11-12). In Meta VI.4, Aristotle similarly begins by discussing the truthfulness of affirmation (κατάφασιν) and negation (ἀπόφασιν), where there is respectively combination (ἔπὶ τῷ συγκειμένῳ ἔχει) and separation (ἔπὶ τῷ διημημένῳ) (1027b21-22). He later makes clear that he is discussing what is complex in thought (ἐν διανοίᾳ) rather than in speech or in things (b25-27). He subsequently raises a question about simples (τὰ ἄπλα), by which he presumably means what is neither combined nor separated (b27-28).

Second, all three texts associate the disjunction ‘true or false’ with complex entities, and begin their accounts with this kind of “complex” truth. In DA III.6, Aristotle initially attributes the opposed truth values (430a27, b4-5) to synthetic thinking (430b1-2). Later he ascribes the disjunction (430b27) explicitly to whatever asserts something of something (430b26), and implicitly to incidental perception (430b29-30). We find the same pattern in the De Interpretatione: in the opening chapter, Aristotle declares that “falsity and truth concern synthesis and division [σύνθεσιν καὶ διάρεσιν]” (16a12-13; cf. 16a10, 15-16). Subsequent chapters associate the opposed truth values with syntheses and divisions on the level of

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6 Cf. Pritzl, "Being True," 182. Pritzl contends that, throughout his corpus, Aristotle employs διάνοια in both a broad and narrow sense. The broad sense refers to thinking without regard to the distinction between discursive and non-discursive thinking, and in distinction from either the sensible (αἰσθητικός), ontological (πραγματικός), or ethical (ἠθικός). The narrow sense refers to discursive thinking in distinction from its non-discursive counterpart. The sense of ‘διάνοια’ at b27 could be broad or narrow, but, since ‘ἐν διανοίᾳ’ is contrasted with ‘ἐν τοῖς πράγμασιν,’ the broad sense is probably intended.

7 I refer to the disjunction or conjunction containing both ‘true’ and ‘false’ as ‘complex truthfulness,’ both because Aristotle regards this kind of truth to be a property of complex acts and expressions (i.e., syntheses and assertions), and also because the disjunction or conjunction itself contains more than one term.
Meta VI.4, too, begins with descriptions of the true and the false, precisely in terms of complex thinking: the true is to affirm what is combined and to deny what is separated; the false is to do otherwise.

Aristotle’s argumentation in *De Int* 1 and *Meta* VI.4 appears to be similar in a third way—a way not explicitly present in *DA* III.6: truth, as a property of what is either linguistically or psychologically simple—single words or thoughts—is discussed in terms of the truth proper to what is linguistically or psychologically complex—assertions and syntheses. Thus, in *De Int* 1, Aristotle asserts that some spoken sounds are “neither true nor false” (16a9-11). In *Meta* VI.4, he says, concerning the thinking of simples and essences, that “falsity and truth do not exist even in thought [οὐδὲν διανοίᾳ]” (b27-28). presumably on the basis of the previous two similarities, this third similarity is imputed to *DA* III.6: since Aristotle associates synthetic thinking with being false or true, he must, according to the analogy, associate the thinking of what is undivided with being neither false nor true (430a26-28). Undivided thoughts, moreover, although actually neither true nor false, are potentially true or false insofar as they are potential parts of synthetic judgments.

**CRITICISM OF THE “MERELY POTENTIAL” INTERPRETATION FROM THE STANDPOINT OF DA III.6**

While this account of noetic thinking’s truthfulness is a more complete account than what Aristotle offers in *DA* III.6, there are two ways in which MP and *DA* III.6 are not entirely consistent: with respect to individual phrases, and with respect to the argument as a whole.

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8 Ross’ original translation of b26-27, as “simple concepts and essences” (my emphasis), unnecessarily restricts Aristotle’s claim to psychological truthfulness. The revised Oxford translation, “simple things and essences” is an improvement, although it fails to preserve the ambiguity in the Greek.
The first phrase with which MP comes into conflict is the opening definition of the thinking of what is undivided. This kind of thinking, Aristotle says, “is among those things concerning which there is no falsity” (430a26-27). Although ‘no falsity’ does not logically exclude ‘neither falsity nor truth,’ and although Aristotle subsequently attributes ‘falsity and truth’ to synthetic thinking, Aristotle nonetheless defines noetic thinking with respect to the absence of falsity alone.9 In so doing, Aristotle signals that the difference between the two kinds of thinking cannot be construed in terms of the disjunction ‘falsity or truth’ alone; the initial account of noetic thinking, at least, makes no reference to complex truthfulness.10 The difference between ‘not false’ and ‘neither true nor false’ is significant: ‘not false’ implies actual infallibility, but ‘neither true nor false’ implies merely potential truth value.

MP similarly runs into conflict with what Aristotle says in the chapter’s concluding section. While the interpretation proposes that Aristotle affirms only that noetic thinking is potentially true or false, what Aristotle actually says is that noetic thinking is true. In the two places where he says this, moreover, he contrasts ‘true’ (430b28, 29) with ‘true or false’ (b27) and with ‘not always true’ (b30).11 Aristotle so targets the difference between ‘true’ and ‘true or false’ that we cannot be expected to conflate them, much less to assume that Aristotle overlooked the difference.12 Neither can we assume that Aristotle is here discussing merely potential truth.

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10 Siwek, De Anima, 335n682, criticizes a different manner of resolving the conflict between this passage and the interpretation we are considering: “Quidam codices graeci recentiores (m Wc Zc ) omittunt phrasim ἐν οἷς δὲ καὶ ψεῦδος. Est evidentissimus error. Nam introduct in textum incohaerentiam.”
12 D.W. Hamlyn, “Aristotle’s Account of Aesthesis in the De Anima,” Classical Quarterly 9 (1959): 12, regards DA III.6 as characteristic of Aristotle’s transitional stage between viewing perception as a suffering (τὸ πάσχειν), on the one hand, and as a judging (τὸ κρίνειν), on the other. Biondi, Posterior Analytics II.19, 244.
For, while Aristotle is concerned throughout \textit{DA} III.6 to identify the truth values for which the two kinds of thinking have potential, this meaning of ‘potential’ differs from the meaning required by the interpretation: Aristotle seeks to identify the truths for which noetic thinking has a potential in its own right; the interpretation imputes potential truthfulness to noetic thinking only as a component of synthetic thinking.

MP is also problematic for the argument of \textit{DA} III.6 as a whole. In \textit{DA} III.6, Aristotle distinguishes between two kinds of thinking on the basis of two kinds of truthfulness, one of which is proper to each kind of thinking. Synthetic thinking is true or false, and thus is not always true. Noetic thinking is not true or false, but is always true. Reducing the second kind of truthfulness, being true or always true, to a mere potentiality for the first kind of truthfulness, being true or false, not only weakens the chapter’s central distinction between noetic and synthetic thinking, but renders its middle passages argumentatively nugatory: why should Aristotle distinguish between ways of being undivided, if all ways of being undivided are equal in being only potentially true-or-false? Similarly, if Aristotle’s only purpose in \textit{DA} III.6 were to say of psychological simples what \textit{De Interpretatione} says of linguistic simples – namely, that they are not actually, but only potentially true in the manner of their complex counterparts – then \textit{DA} III.6 is redundant with \textit{Meta} VI.4.

\textbf{B. \textit{Noetic Thinking as Merely Trivially True}}

Unlike adherents of the MP interpretation, adherents of the merely trivial interpretation (MT) attempt to retain the \textit{prima facie} meanings of the phrases ‘not false’ and ‘true.’ According similarly supposes either “that Aristotle’s views on the simple noetic object changed over time, or perhaps, varied according to the context and preoccupations of each treatise.”
to this second dominant interpretation, ‘not false’ does not mean ‘actually neither false nor true,’ but ‘infallible.’ Similarly, ‘true’ does not mean ‘potentially true’ or ‘potentially true or false,’ but ‘actually true.’ The truth that Aristotle attributes to noetic thinking, in other words, is like the truth that he attributes to synthetic thinking in being actual, but unlike it in being infallible. What is in no way actual cannot be false.¹³

As the name of this interpretation suggests, adherents of MT understand noetic thinking to be true in a manner that is merely trivial. To say that noetic thinking is true just is to say that noetic thinking is actual. An act of noetic thinking is actual, they say, if the thinking subject is actually related to an object.¹⁴ To call an act ‘true’ in this sense is trivial insofar as it tells us nothing more about the noetic act than the fact that it is actual – nothing, for example, about the nature of the object or the quality of the thinking. Mario Mignucci gives this description of MT: what Aristotle believes to be true of every noetic thought is that the activity of thinking (νόησις) constitutes an object (νόημα).¹⁵ Simon Noriega-Olmos provides a similar account of MT by way of an example:


¹⁵ Mario Mignucci, “Truth and thought in the De anima,” in Realtà e ragione: studi di filosofia antica, ed. Antonina Alberti (Firenze: L.S. Olschki, 1994), 153. Mignucci’s defense would be stronger if the two relata of simple psychological truthfulness were identified as the activity (νόησις) or object (νόημα), on the one hand, and the thing thought (νοητόν, ὅντος), on the other. Identifying the relata in this way is more in accord with Aristotelian realism.
[T]he thought of AB or 1.618 is said to be true in the sense that the intellect has a thought of the object AB or 1.618, whose content is precisely AB or 1.618. Yet, it would not be proper to talk of a false thought of AB or of 1.618, because a thought of AB or of 1.618 that does not contain AB or 1.618 is not a misconception or improper grasp of AB or 1.618, but rather a thought of a different object and therefore a completely different thought.\textsuperscript{16}

\textbf{SUPPORT FOR THE “MERELY TRIVIAL” INTERPRETATION: DE INT 1, DA III.3}

\textit{De Interpretatione.} One text to which adherents of MT turn for support of their interpretation is \textit{De Interpretatione}. As with MP, the rationale for MT’s appealing to this text is its argumentative similarity to DA III.6.

One similarity between \textit{De Int} 1 and DA III.6 is the extent and manner that Aristotle attends to truth as a property of what is either linguistically or psychologically simple: in neither text is Aristotle content with merely denying that simples are ‘true or false.’ In Section E of DA III.6, for example, Aristotle twice attributes truthfulness to noetic thinking – that is, to the thought of what is psychologically simple: “the [thinking] of what-is in the sense of essence is true” (430b28), and “just as seeing a proper object is true, … so it is with the thinking of what is without matter” (430b29-30). Throughout \textit{De Interpretatione}, Aristotle carefully avoids attributing to linguistic simples either the disjunction ‘true or false’ or either of its members.\textsuperscript{17}

\textsuperscript{16} Simon Noriega-Olmos, \textit{Aristotle’s Psychology of Signification: A Commentary on De Interpretatione} 16a3-18 (Berlin: De Gruyter, 2013), 89.

\textsuperscript{17} The nearest possible exception to this is \textit{De Int} 20a35-36, in which Aristotle declares that one who says, ‘not-man’ has said something less true or false (ἡλθθευκέ τι ἢ ἐψευσται, ἐὰν μή τι προστεθή) than one who says, ‘man.’ The kind of truthfulness at issue here does not appear to be logical, but ontological; perhaps this is why Aristotle offers no explanation of this truthfulness here, in a logical work. The missing explanation of ontological truth seems to be as follows: ‘not-man’ is less true or false than ‘man’ because the being signified by the former (namely, a negation) is less primary than the being signified by the latter (namely, substance). Deborah Modrak, \textit{Aristotle’s Theory of Language and Meaning} (Cambridge: Cambridge University Press, 2001), 52: “Aristotle’s starting point is a conception of truth-functional entities that are compounds. These compounds are constructed from meaningful (but not independently truth-functional) linguistic units.”
What he does attributes to these simples, however, is significance. Thus, as often as Aristotle denies that linguistic simples such as ‘goat-stag’ or ‘animal’ are sufficiently complex to be true or false (16a17; 16b21-22; 16b28-29), he affirms that they are yet meaningful as conventional signs (16a16-17; 16a20; 16b28).

A second similarity between De Interpretatione and DA III.6 concerns Aristotle’s manner of discussing truth at some level of abstraction. In DA III.6 and throughout most of De Interpretatione, Aristotle abstracts not only from the particular conditions of the thinking subject, but also from the particular meaning of what is thought. In other words, without denying that every act of thinking is actualized by a particular subject and is about some particular thing, Aristotle focuses on what holds for all instances of a given kind of thinking, regardless of subjective or objective particularities. His discussion of psychological truthfulness, correspondingly, targets what can be said universally about the relation between a certain kind of thinking, on the one hand, and the corresponding things, on the other. The kind of truthfulness

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18 Cf. Noriega-Olmos, Psychology of Signification, 91: “De an. displays a notion of truth that applies to simple thoughts and consists in the actual grasp of an undivided object of thought, while in the De int. no equivalent notion of truth is attributed to the linguistic counterparts of simple thoughts.”

19 Cf. Leo Keeler, “Aristotle on the Problem of Error,” Gregorianum 13 (1932): 246: “Aristotle’s usual point of view, in his utterances on truth and falsity, is strictly objective. The synthesis he is concerned with is not the mental act itself, but its object or result.”

In evidence of Aristotle’s abstracting from the condition of the subject with respect to time, contrast the manner in which DA III.6 and De Int 9 discuss the truthfulness of future propositions: in DA III.6, Aristotle draws no distinctions between how falsity and truth pertain to ‘Cleon is white,’ ‘Cleon was white,’ and ‘Cleon will be white’ (430b4-5); in De Int 9, on the contrary, he distinguishes between the truthfulness of propositions about the present or past, which are actually true or false (18a28-29), and propositions about the future, which are not yet true or false (19b2-4).

20 Cf. Ross, De Anima, 276: “From the very fact that it is simple, it follows that there cannot be truth or falsity about it of the same kind as truth or falsity about composites.”
with which Aristotle is concerned in *DA* III.6 is the potential truthfulness of a given kind of thinking; he leaves aside all concern for the actual truth values of particular acts of thinking.\footnote{Cf. De Rijk, *Semantics and Ontology*, 124; “The phrase ‘the cases in which both ‘false’ and ‘true’ apply’ (430a27) does not bear, I take it, on framing (on the apophatic level) a fully-fledged assertion by means of the assertoric functor, but merely on the formation (on the onomastic level) of an assertible, which, unlike an assertion that is actually made, by itself (i.e. unapplied to the outside world) is susceptible ‘both of being false and of being true.’”}

It is on the basis of these two textual similarities that adherents of MT posit that noetic thinking’s being true is trivial. Just as it is trivial to say that a sign signifies, so is it trivial to say that noetic thinking has an object. Three characteristics of the property of ‘having significance’ are pertinent to filling out the meaning of ‘true’ in *DA* III.6.

First, since nothing can be a sign without being in relation to what it signifies, the truth of linguistic simples is relational: for anything that is a sign, it is true that this sign is related to something signified. Mignucci articulates the relational quality of simple linguistic truthfulness thus: “Being true for a term simply means having a meaning, in the sense that a term which is true is able to convey a piece of information of some sort.”\footnote{Mignucci, “Truth and Thought,” 153.}

Second, although calling a name or verb ‘significant’ implies that there is a relation between sign and signified, it implies nothing about the quality of this relation or about the particular nature of what is signified. For any given name, in other words, the property of having significance is a trivial property; it applies equally to all signs with respect to their being signs, and not with respect to the nature or existence of the things they signify. The term ‘goat-stag,’ for example, is no less true than the term ‘man,’ since what is meant by ‘true’ is nothing more than ‘being a sign of something.’\footnote{Biondi, *Posterior Analytics* II.19, 246.}
Third, what ‘has significance’ cannot signify falsely. Since nothing can at once exist as a sign and yet fail to signify, there can be no false signs. A sign that failed to signify, *per impossibile*, would not be a sign but a mere noise or mark.24 While there is a kind of failure associated with the use of terms, this is not a failure of the sign’s signifying. For example, if my understanding of the sign ‘father’ is not in accord with what has been established by convention, I might wrongly employ ‘father’ to signify someone who is not a father.25 The bearer of error in this example, however, is not the sign itself, which is still true insofar as it signifies something, but my use of the sign. The use of a sign is a kind of assertion, and the truthfulness that applies to it is accordingly non-trivial and fallible. Since the sign itself, simply as a signifying something, is not an assertion, these features of complex truthfulness do not apply.

Adherents of the “merely trivial” interpretation transfer these two features of linguistic significance to psychological truthfulness as follows: noetic thinking is true insofar as it is relational, trivial, and infallible: every thought is true insofar as it is actually related to that of which it is a thought – insofar as it has an object.26 It is trivial insofar as it affirms only the fact of cognition and not the quality of cognition or the quality of the thing cognized. The particular nature of the thing thought, in other words, has no bearing on whether the thought is true. The thought of ‘goat-stag’ is no less true than the thought of ‘man,’ since both thoughts are equally thoughts of something.27 Again, since being related to an object of thought is coextensive with

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24 Cf. Crivelli, *Aristotle on Truth*, 115: “The contrary of the property expressed by ‘true’ … is (not falsehood, but) lack of content, i.e. the ‘blank’ condition of a simple linguistic expression which fails to signify any object.”


actual thinking, this kind of truth is infallible. Every thought is infallibly true, since nothing can exist as a thought and fail to be about something. “What is opposed to being true for a concept,” Mignucci writes, “is not being false, in the sense of being inadequate, but simply not being.”

**Texts on proper sensation.** I would like to briefly mention how the “merely trivial” interpretation might look for support to Aristotle’s texts on the veracity of proper sensation. I have not found any commentators taking this route to explicate noetic thinking’s truthfulness. The route nonetheless seems worthwhile to pursue, at least because it promises an account of noetic thinking’s truthfulness that is integrated with other parts of Aristotle’s psychological texts.

The rationale for appealing to Aristotle’s texts on proper sensation in support of understanding noetic thinking’s truthfulness is twofold. First, within the *De Anima*, Aristotle attributes infallibility exclusively to proper sensation and noetic thinking. There is at least a surface parallelism between the truthfulness of the two kinds of simple cognition. Second, in attempting to explicate the truthfulness of noetic thinking, Aristotle himself alludes to the truthfulness of proper sensation. This allusion appears in the closing section of *DA III.6*: noetic thinking is true just as (ὥσπερ) proper sensation is true (b29).

The case for regarding noetic thinking’s truth as merely trivial is as follows: it seems that what Aristotle means when he says that sensation is “always true” and “never deceived” with respect to its proper object is that actual sensation always has an object. To call proper sensation

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29 Noetic thinking is represented under the description, ‘the thinking of what is without matter’ (b30). Chapter Four discusses how the objects of noetic thinking are without matter, in a sense distinct from the manner in which all objects of thought are without matter. For the purpose of the present inquiry, it suffices to say that ‘the thinking of what is without matter’ cannot refer to something different from noetic thinking; this would undo the contrast that Aristotle has maintained throughout III.6 between two kinds of thinking, distinguished on the basis of their truthfulness.
true,’ then, is trivial, insofar as having an object is synonymous with being actual. Since Aristotle clearly presents the truthfulness of proper sensation and noetic thinking as analogous, we can conclude that noetic thinking’s truth, too, is merely trivial.

**CRITICISM OF THE “MERELY TRIVIAL” INTERPRETATION FROM THE STANDPOINT OF DA III.6**

Even if this interpretation is not in open conflict with the truth claims of the text’s opening and closing passages, it is problematic nevertheless for the argument of the text as a whole. Recall that Aristotle’s objective in *DA* III.6 is to distinguish between two kinds of thinking on the basis of the truthfulness that is proper to each. In Section A, he establishes that complex truthfulness is proper to thinking in which there is some synthesis of thoughts (430a28). If there is a kind of thinking that does not involve synthesis, complex truthfulness would not apply to it. In Section E, it remains for Aristotle to identify the simple truthfulness proper to non-synthetic thinking. In order to be proper, this truthfulness must not only apply to non-synthetic thinking; it must not apply to the synthetic kind. The coherence of the text’s central distinction thus requires that noetic thinking be true in a way that is proper to it. The meaning of

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Polansky, *De Anima*, 408, presents a different account of proper sensations’ infallibility that arguably supports MT: proper sensation is infallible because “as a class the proper senses … are authoritative in their fields.” I understand Polansky to mean that the senses cannot be proven wrong precisely because there is nothing more foundational than them, by which the object can be an object for a sensing subject. Polansky subsequently suggests that this rationale does not apply to intellection, since “thought can be checked by sense perception.” I believe the parallelism does follow, insofar as there is nothing more foundational within the realm of intellect than noetic thinking.
‘true’ suggested by MT is precisely the opposite of proper: it is not only any given act of noetic thinking that is trivially true, but any given intentional act whatsoever.

The conflict between the MT meaning of truth and the meaning required by the argument of *DA* III.6 can also be seen from a consideration of Section E. Here, Aristotle contrasts proper sensation with other kinds of cognition with respect to complex truthfulness (430b26-30). In order for this contrast to be effective, both sides of the contrast should be interpreted from the same perspective, namely, as both trivial or both non-trivial. It is clear, however, that Aristotle regards the truthfulness of other kinds of cognition (i.e., incidental perception) as non-trivial. We see this, first, insofar as the examples of incidental perception make reference to the particular natures of things, such as white and man. The non-trivial perspective also can be established on the basis of the truth values Aristotle’s attributes to complex sensation: complex sensation can be false, but nothing actual can be trivially false. If the contrast is to be effective, therefore, Aristotle must evaluate proper sensation from a non-trivial perspective, just as he does for complex truthfulness.

Furthermore, if Aristotle had wanted in Section E to affirm trivial truthfulness of noetic thinking, he would have confused his argument by singling out for the comparison proper sensation, as over against other kinds of perception. Aristotle’s selection of proper sensation

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31 Block, “Truth and Error,” 3, makes a similar point concerning the kind of truth at stake in Aristotle’s comparison between proper sensation, on the one hand, and common and incidental sensation on the other: “if Aristotle means by, ‘I see the white colour truly’ simply, ‘I am now seeing a white colour,’ … why could not the seeing of the shape or the motion of that colour be just as true in the same sense? … In other words, our perception of the common sensibles should be just as true or incorrigible as is our perception of the specific sensibles.”

Cf. Charles, *Meaning and Essence*, 123n200, who describes the infallibility of proper sensation as trivial: “Aristotle’s claim of inerrancy need come to no more than this: the visual system cannot be mistaken as to whether there is some colour which it discriminates (since it can only operate if some colour affects it). This claim does not require that the visual system is infallible about which colour it discriminates.”
for comparison to noetic thinking, in other words, is strategic.\textsuperscript{32} The contrast, too, between proper and incidental sensation is strategic.\textsuperscript{33} Incidental perception is synthetic: seeing whether the white thing is a man or not requires not merely seeing white and seeing a man, but also seeing these \textit{as one}.\textsuperscript{34} Because of its synthetic character, incidental perception “is not always true [οὐκ ἄληθες ἀεὶ]” (b30). The non-trivial character of incidental perception’s truthfulness is also evident from consideration of the example: the perception “that the white thing is a man” is true just in case the white thing \textit{is} a man.

\textsuperscript{32} On the significance of attributing non-trivial truthfulness to some instance of cognition, cf. Hamlyn, “Aristotle’s Account of Aesthesis,” 12-13: “the necessary connexion between sense and sensible, where there is one, says nothing in fact for incorrigibility. What is necessarily true is that if I am hearing I am hearing a sound; but nothing follows from this as to the possibility of making mistakes.”

\textsuperscript{33} Cf. \textit{DA} II.6 418a20-25, where the example of incidental perception is the association of white and the son of Diates; III.1 425a14; 21-27, which associates white and the son of Cleon; and III.3 428b21-22, where the example is “whether the white is this or that.” It is impossible to translate ‘ἀίθοθης κατὰ συμβεβηκός’ into English without emphasizing some aspect of the signified act over others. Aristotle employs the same word, and only this word, αἰθοθης, to signify both sensation and perception. In a few contexts, one translation must clearly be chosen over the other: when predicated of intellection, ‘ἀίθοθης’ must be translated ‘perception,’ while when contrasted with intellection, it must be translated ‘sensation.’ In the context such as appears in \textit{DA} III.6 430b29-30, however, there is no such necessity. Aristotle here is not contrasting sensation and intellection, but distinguishing among sensation’s kinds. To call a kind of αἰθοθης ‘sensation’ emphasizes its sensory character, as over against an intellectual character. To call it ‘perception’ suggests a character that is not exclusively sensory. On the question of whether Aristotle observes the distinction between perception and sensation in spite of common terminology, I am in agreement with Hamlyn, “Aristotle’s Account of Aesthesis,” 6. Aaron Ben-Zeev, “Aristotle on Perceptual Truth and Falsity,” \textit{Apeiron} 18 (1984), 119, presents the opposing view.


\textsuperscript{34} The synthetic character of incidental perception might be understood either as ‘seeing \textit{that} X is Y’ or ‘seeing X \textit{as} Y.’ For accounts of incidental perception as propositional, see Cashdollar, “Incidental Perception,” 158 and 161; and Polansky, \textit{De Anima}, 261.
C. FOUNDATIONAL ERRORS OF THE DOMINANT INTERPRETATIONS

Having shown in the preceding two sections that MP and MT conflict with *DA* III.6, I want in this third section to present what I take to be the methodological causes of the conflict. My reasons for making this diagnosis are twofold. First, I want to extend my criticism of MP and MT beyond their practical failures with respect to *DA* III.6 to their approach to Aristotle’s account of truth as a whole. Second, I wish to identify the methodological errors common to MP and MT so as to avoid falling into them in Part Two of the present chapter, in which I propose an alternate interpretation. In what follows, accordingly, I observe and briefly describe three methodological tendencies manifested in adherents of MP and MT.

ARISTOTLE’S EXPLICIT ACCOUNT OF TRUTH ALONE MERITS ATTENTION

Adherents of MP and MT include in their accounts of noetic thinking only those texts in which Aristotle expressly reflects on the meaning of ‘true’ and ‘false.’ Texts of this kind, such as *De Int* 1 and *Meta* VI.4, as well as *Meta* V.6 and IX.10, constitute what has been called Aristotle’s “explicit account of truth.” Although these texts discuss truth of different kinds – as a property of speech, thought, or things, and of each of these as simple or complex in nature – they are alike in how they speak of truth, namely, explicitly. Adherents of MP and MT, on the other hand, tend to ignore a different kind of text, in which Aristotle merely implies the meaning of ‘true,’ ‘false,’ and the like by how he uses these words. I take the abundance of references to

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35 I propose that this narrow selection of texts is one reason why modern commentators tend to reduce truthfulness to a matter of terms and propositions. John Sisko, “Aristotle’s ‘Nous’ and the Modern Mind,” *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 16 (2000): 198, suggests another reason which is compatible with my own: “we have long since given up on the notion of explaining cognition in terms of exemplification [of the features of things in the cognitive power or organ]. We now take a different approach and explain cognition in terms of encoding. But this difference … is precisely the root cause of the differences between Aristotle’s νοῦς and the modern mind.”

and discussions of Aristotle’s explicit accounts of truth, as well as the sheer absence of
references to his implicit accounts, as evidence that adherents of MP and MT take the former, but
not the latter, as helpful for discerning the nature of noetic thinking’s truthfulness.

This methodological tendency would be harmless if it had been shown that the meanings
of certain “truth words” in Aristotle’s implicit accounts differed in no way from those in his
explicit accounts. If there is a difference in meaning between these two kinds of accounts, an
interpretation constructed by attending exclusively to one will be partially true at best.

**Truth is univocal across domains, differing only in truth-bearers**

It has become commonplace in recent discussions of Aristotle’s account of truth to
distinguish between “truth bearers,” in which the property of being true or false inhere, and
“truth makers,” which cause this inherence.\(^37\) Although this terminology is absent from
Aristotle’s corpus, the distinction itself is not.\(^38\) Aristotle seems to employ the notion of a truth-
bearer, in fact, in distinguishing between different meanings of truth. In *De Int* 1, for example,

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\(^37\) See, for example, Charles and Peramatxis, “Truth-Bearers,” 111, who outline the distinction; Crivelli, *Aristotle on Truth*, 235-36, who criticizes the use of a common terminology for different truth-bearers; and Long, *Aristotle on Truth*, 173n45, who cautions against giving separate accounts of noetic, aesthetic, and logical (or linguistic) truth.

\(^38\) In *Meta* IX.10, for example, Aristotle makes it clear that, even if our synthetic thinking is what is called ‘true’ or ‘false,’ the particular truth value that inhere as a property in any given act of thinking is determined by the combinations and divisions in things. Similarly, in *De Int* 9, Aristotle argues that assertions about the future are, at present, neither true nor false, since truth-makers – how things are, at a future moment – do not yet exist.
he distinguishes between the truthfulness of what is ἐν τῇ ψυχῇ and ἐν τῇ φωνῇ. In Meta VI.4, he distinguishes between truth ἐν διανοίᾳ and ἐν τοῖς πράγμασι.  

The notion of truth-bearers is relevant to the current inquiry into methodology in this way: adherents of MP and MT supplement Aristotle’s discussion of noetic thinking’s truthfulness by drawing upon his discussion of linguistic truthfulness. This supplementation is justified if Aristotle’s accounts of psychological and linguistic truthfulness are analogous in all ways other than the identity of their truth-bearers. We can turn to De Interpretatione to supply for what is missing in Aristotle’s account of noetic thinking in DA III.6, in other words, if truth as a property of νοήματα is identical to truth as a property of ὀνόματα and ῥήματα, with the exception that one truth-bearer is psychological and the others are linguistic.  

Adherents of MP and MT do not outright assume that the likeness between linguistic and psychological truthfulness is thoroughgoing. They conclude that the likeness is thoroughgoing, rather, on the basis of a few observed similarities. Thus, on the grounds that Aristotle says in both texts that complex truthfulness does not pertain to simples, MP transfers to DA III.6 the

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39 De Int 16a3, 6-7. Aristotle gives several indications that he is alert to the difference between truth-bearers. He uses ‘soul’ three times when distinguishing his current project from that of the De Anima (16a3, 7, 8-9); once when noting a similarity between the truthfulness of linguistic and psychological simples (16a9-11); and once in the closing lines of the final chapter, seemingly as a reminder of how the work began (24b1-4). Aristotle includes these psychological references not because he regards psychological truthfulness as proper to the inquiry of De Interpretatione, but because he excludes them.  


41 Cf. Berti, “Encore,” 125; Butler and Rubenstein, “Aristotle on Noôς of Simples,” 330; Hicks, De Anima, 510; and Shields, De Anima, 333. Cf. Noriega-Olmos, Psychology of Signification, 91, a notable exception: “truth as the actual grasp of an undivided object of thought is a psychological notion, and as such it is not to be applied to linguistic or logical categories such as names, verbs, and non-assertive sentences. It is actually perfectly consistent and correct to say that names lack truth value, and that their psychological counterparts, i.e. simple thoughts, are true in the sense that they are an effective and actual grasp of an undivided object of thought.”
notion that simples are merely potentially true or false.\textsuperscript{42} Again, on the grounds that both texts discuss simples in their own right, MT transfers to DA III.6 the notion of signification.

If Aristotle’s accounts of psychological and linguistic truthfulness are not alike in all respects save the nature of the truth-bearers, any interpretive clarity gained by supplementing the account of DA III.6 with that of De Int I is misleading at best. That is to say: if MP and MT have overlooked any significant differences between psychological and linguistic truthfulness, they are problematic as interpretations of DA III.6. In what follows, I note one difference that each interpretation overlooks.

MP adherents, on the one hand, ignore the implication that a difference in truth-bearers has for truth as a relation. Since the truth-bearer is that in which truth inheres as a relation, a difference in truth-bearer implies a difference in relation. Relations differ in kind if one or both of the \textit{relata} differ in kind. In \textit{De Interpretatione}, Aristotle suggests that the \textit{relata} of linguistic truthfulness are sign and signified, whether what is signified is a thought or the thing of which the thought is a likeness (16a3-9). In the same work, he also suggests that the \textit{relata} of psychological truthfulness are thought and thing, related by way of likeness.\textsuperscript{43} Neither in \textit{De Interpretatione} nor in DA III.6 is there any mention of thoughts as \textit{signifying} things. While

\textsuperscript{42} Mignucci, “Truth and thought,” 138, summarizes this position well, although he is not in sympathy with it: “it is rather natural to identify the indivisibles, \textit{ta adiaireta} we are looking for, with thoughts or concepts, \textit{ta noemata}, which are connected to truth and falsity only because they are parts of propositions.”

\textsuperscript{43} Cf. Berti, “Intellection,” 144: “The difference, then, between the ‘notions’ of the \textit{De anima} and the notions or sounds talked about in the \textit{Categories} and the \textit{De interpretatione} lies in the fact that the former are considered as cognitions of real entities, that is provided with being, and therefore necessarily true, while the latter are considered in themselves, independently of the fact that the things to which they refer may be real or imaginary.” Cf. Biondi, \textit{Posterior Analytics} II.19, 256n70: “It is plausible to maintain that logic studies truth arising in the act of predication whereas psychology studies truth arising in the noetic assertion and contact with simple substance; therefore, there are two types or degrees of truth.”
words (ὀνόματα) are related to thoughts (νοηματα) or things (πράγματα) as signs to things signified, thoughts (νοηματα) are incapable of being signs of anything.\textsuperscript{44}

MT adherents, on the other hand, ignore the implication that a difference in truth-bearers has for the notion of simplicity. In his discussions of both linguistic and psychological truthfulness, Aristotle distinguishes between what is simple and what is complex. In both kinds of discussions, moreover, Aristotle identifies what is simple by a negative criterion: it is the absence of synthesis that qualifies an entity as either linguistically or psychologically simple. What MT adherents overlook is that the kind of synthesis required for linguistic complexity differs from that of psychological complexity.

A linguistic simple is any name or verb, significant by convention, that does not assert something about something. Thus, a name or a verb alone is simple, but if one of these is added to the other, the resulting entity will be complex (16a15, 18; 16b30; 17a12; 20a36).\textsuperscript{45} Neither ‘man’ nor ‘runs’ nor ‘is’ are complex, but ‘man runs’ and ‘man exists’ are (16b22-25). What is interesting about this negative criterion is that Aristotle does not regard every kind of synthesis as relevant to linguistic complexity. ‘Goat-stag,’ ‘not-man’ and the definition of man, for example, are not absolutely simple inasmuch as they are composed of parts, but they are logically simple inasmuch as their parts do not constitute an assertion of something about

\textsuperscript{44} On knowledge as a relative, see DA I.1 402b11-16; Meta X.6 1057a7-8.

\textsuperscript{45} In De Interpretatione, Aristotle conveys combination both by ‘προστίθημι’ and ‘συντίθημι.’ Cf. Cat 2a8-10: “Sayings which are in no way composed are neither true nor false [τὸν ἓ δὲ κατὰ μηδεμίαν συμπλοκὴν λεγομένον οὐδὲν οὔτε ἄληθὲς οὔτε ψεῦδος ἔστιν].” Cf. DA III.8 432a11: “for what is true or false is a composite of thoughts [συμπλοκὴ γὰρ νοημάτων ἔστι τὸ ἄληθὲς ἢ ψεῦδος].”
something (16a16-17; 20a34-36; 17a9-15). Only a certain kind of synthesis qualifies an entity as linguistically complex.\footnote{Noriega-Olmos, \textit{Psychology of Signification}, 84, observes this distinction from the side of \textit{De Interpretatione} rather than from \textit{DA} III.6: “since νοηματα in the De int. are of two kinds – simple νοηματα and compound νοηματα that consist in the predicative combination of simple νοηματα – it appears that νοηματα in the De int. cannot be limited to simple notions, concepts, universals, or the apprehension of first principles.”}

What of the negative criterion for psychological simplicity? In \textit{DA} III.6, Aristotle indicates that, although psychological simplicity requires the absence of “saying something about something,” this absence is not sufficient. The objects of noetic thinking are not just any νοηματα, but only those that are undivided in quantity or in form.

**TRUTH WHOSE OPPOSITE IS FALSITY IS EXPLANATORILY PRIMARY**

A third methodological commitment prevalent among adherents of MP and MT is the tendency to regard complex truthfulness – what is either true or false – as explanatorily primary. Practically speaking, this tendency manifests itself as disregard for or neglect of those texts that do not explicitly mention ‘truth’ and ‘falsity’ in conjunction or disjunction.\footnote{This pairing is commonplace throughout the \textit{Metaphysics}. Cf. \textit{Meta} IV.7 1011b25-28, where the members of ‘ἀλήθευσι ἢ ψεύσεται’ are presented as opposites; \textit{Meta} IV.7 1012a2-5, where the members of ‘ἀλήθεια ἢ ψεύδηται’ are associated with the opposite activities of ‘κατάφησι ἢ ἀπόφησι’; and \textit{Meta} V.7 1017a31-35, which defines being as true and non-being as false in terms of the opposites ‘καταφάσεως καὶ ἀποφάσεως.’}

Richard Sorabji, for example, complains that it is “hard to see how contemplating something in isolation, without thinking anything about it, could lead to truth, as Aristotle says that non-discursive thinking does.”\footnote{Sorabji, “Myths,” 297. Sorabji’s account of noetic thinking’s truthfulness approximates MT, with this difference: Sorabji believes that the objects of noetic thinking are definitions, and that noetic thinking is accordingly synthetic.} Josef Moreau, in spite of devoting considerable attention to
the truth of simples, calls it “prepredicative,” indicating that its value extends no further than its contribution to complex truth.\textsuperscript{49}

The tendency to disregard alternate meanings of truth is also evident in the work of translators. Smith’s Oxford translation, for example, repeatedly translates ‘ἀεὶ ἀληθής,’ – always true – as ‘never in error.’\textsuperscript{50} Presumably, the conviction motivating this translation is that nothing is true, in the full sense of the word, unless it can be false. In speaking of proper sensation, therefore, Aristotle must not mean to say that sensation is true, but that it is not in error – and therefore neither erroneous or true.

CONCLUSION

In closing, I would like to note that the three methodological tendencies seem to support one another, as follows: if we attend exclusively to Aristotle’s explicit accounts of truth, and, among these, to his clearest accounts, we will focus on his discussions of linguistic truthfulness. In these discussions, the truth of linguistic simples appears to be defined in terms of complex truth: a linguistic simple is only potentially either true or false. If we believe, however, that truthfulness of linguistic and psychological truth-bearers is essentially the same, we will end up explaining the truthfulness of psychological simples in terms of complex truth, as well.

\textsuperscript{49} Josef Moreau, “Aristote et la vérité antéprédicative,” in Aristote et les problèmes de méthode: Symposium Aristotelicum (Louvain: Publications Universitaires, 1961), 23. Moreau believes that the presence of the notion of prepredicative truth in Aristotle’s corpus is obscured by Aristotle’s emphasis on judgment.

II. PROPOSAL OF AN ALTERNATE INTERPRETATION OF NOETIC THINKING’S TRUTHFULNESS

Having identified two plausible but impracticable interpretations of noetic thinking’s truthfulness, we return anew to the questions posed at the chapter’s beginning: when Aristotle calls noetic thinking ‘true’ and ‘not false,’ what is the nature of this truth, and why does this kind of truth pertain to noetic thinking? The aim of this second part will be to construct an answer to these questions that avoids the difficulties of the two dominant interpretations. Toward this end, we shall avoid the dominant interpretations’ tendency to take as explanatorily primary Aristotle’s explicit account of complex truth. Since it remains necessary to look elsewhere than DA III.6 to discern the meaning of Aristotle’s claims about noetic thinking, however, we shall begin by looking to texts in which Aristotle’s truth speech, whether explicit or not, is closest to that of DA III.6.

With a view to understanding what Aristotle means by a truth that cannot be false, in the first section, we shall consider Aristotle’s discussion of the thinking of simples in *Meta* IX.10. Since Aristotle employs in this text two key terms that he nowhere defines – θηγεῖν and ἀπατάω – we shall proceed in the second and third sections to determine the meanings of these terms based upon Aristotle’s use thereof.

A. *METAPHYSICS IX.10: THE THINKING OF SIMPLES AS TOUCHING WITHOUT DECEPTION*

The second half of *Meta* IX.10 (1051b17-1052a4) is of particular interest to our present inquiry for two reasons. First, Aristotle here discusses the truthfulness of the thinking of simples, not only in distinction from complex truthfulness, but also in its own right. Second, Aristotle conducts his discussion of the truthfulness of the thinking of simples in terms of the
nature of the simple object. That is to say: his discussion of psychological truthfulness – truth as a property of thinking – occurs within the context of his discussion of ontological truthfulness – truth as a property of things.\(^{51}\) Although much could be said about how Aristotle portrays the relationship between psychological and ontological truthfulness, we are concerned here only with what he reveals about the truthfulness of the thinking of simples in its own right.\(^{52}\) We are concerned in particular with two of Aristotle’s remarks about the thinking of simples: first, that it is a touching (\(\thetaιγέ\ιν\)) that is opposed to ignorance; second, that it involves no deception (\(\alpha\piά\tauη\)).

**Νοείν AS θιγέιν, OPPOSED TO IGNORANCE**

At 1051b17-18, Aristotle poses anew the chapter’s opening question: “what is truth and falsity,” concerning not what is combined and separated, but what is simple or uncomposed

\(^{51}\) Paradoxically, the distinction between ontological and psychological truthfulness is clearer in the text where Aristotle defers his discussion of ontological truthfulness (Meta VI.4 1027b28-29: \(\thetaεωρήσατα … \ ϊστερον\)) than where he announces its present examination (Meta IX.10 1051b1-2: \(τά \ δὲ \ κυριάτα \ όν \ αληθές \ ή \ ψεύδος\)). I depart from Crivelli, *Aristotle on Truth*, 51, who understands 1052a1-2 to apply to what I am calling complex ontological truthfulness. It seems to me that it is not just ontological truth, but ontological truth of simples that Aristotle regards both as most proper to metaphysics, and as true in the most proper sense. There are two indications of this: first, in Meta VI.4, Aristotle mentions the need to defer examination of a certain kind of truth immediately after he discusses the truth of simples; second, he picks up this discussion only after he has identified the kind of \(\οικία\) that is primary. The intervening chapters between VI.4 and IX.10, in other words, distinguish between what is complex and what is simple in being. Only now can this distinction be reflected with respect to ontological truth. Cf. Edward Halper, *One and Many in Aristotle’s Metaphysics: The Central Books* (Columbus: The Ohio State University Press, 1989), 218.

\(^{52}\) Aristotle observes at 1051b3-5 that complex psychological truthfulness is caused by the complexities in things. The point also holds for simples, although Aristotle does not say so. John Thorp, “Aristotle on Being and Truth,” *De Philosophia* 3 (1982): 3, criticizes Aquinas and others who posit this causal relationship as an explanation of Aristotle’s earlier declaration that ontological truth is \(τά \ δὲ \ κυριάτα \ όν \ αληθές \ ή \ ψεύδος\) (1051b1-2): “A problem with this is that there are occasions in which ontological truth causes logical falsity. And that undermines the whole idea that ontological truth is so called by metonymy for its effect.”

Psychological truthfulness is more familiar to us, at least insofar as Aristotle discusses it with more frequency than he does ontological truthfulness. Cf. Brentano, *Senses of Being*, 22: “The basic concept of truth is always the agreement of the cognizing mind with the cognized object.” Meta IX.10 is not the only place in which Aristotle discusses ontological truth. In Meta V.29, Aristotle calls things “false.” Cf. Keefer, “Problem of Error,” 244: “The purpose of the passage [Meta V.29] is merely to account for the popular use of the words. Aristotle has no theory of ontological truth and falsity.”
Aristotle’s answer begins with the observation that complex truthfulness does not apply in the case of simples: truth and falsity (τὸ ἀληθὲς καὶ τὸ ψευδὸς), he says, “will not obtain in the same way for these cases as for the previous ones” (b21-22). This merely negative characterization of simple truthfulness, alongside the familiar reference to the two truth values in conjunction, is unsurprising. What is surprising is that Aristotle ventures to provide a positive rather than merely negative characterization of the thinking (νοεῖν) of simples. He does not say that we believe truly when we think a simple to be neither combined nor divided. The language of belief (οἴομαι), in fact, as well as any further reference to the two truth values in conjunction, is entirely absent from his discussion of simples.  

Aristotle likens the thought of simples, rather, to touching (θιγεῖν) and saying (φάναι) (b24). Although Aristotle offers no explicit explanation of what it means to touch, the simple nature of this psychological activity is clear from the contrast with synthesizing and dividing, both of which are complex: in the case of simples, we do not put together, but only touch.

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53 Concerning the translation of ‘ἀσύνθετα’: ‘uncomposed’ is preferable to ‘incomposite,’ as a reflection of the Greek’s ambiguity between what is not actually and not potentially composed. Chapter Four examines in greater detail the meaning of ἀσύνθετον and its relation to the ἀδιαίρετο of DA ΙΙ.6. For the present purpose, it suffices to know that what is ἀσύνθετον lacks both the ontological and psychological complexities previously discussed. Aristotle says as much at 1051b18-21, where he refers to both synthesis (συγκέντρω) and division (διαιρέων) as σύνθετον (composition).

54 Aristotle uses ‘οἴομαι’ no fewer than nine times throughout his discussion of complex psychological truthfulness. In discussing simples, Aristotle abandons ‘οἴομαι’ in favor of ‘νοεῖν’ (b32, a1).

55 Ross, Metaphysics II, 275, complains in such a way as to reveal that he has missed the crux of Aristotle’s project: “He says in this chapter [Meta IX.10] clearly enough that there can be no falsity with regard to them (l. 25), but he does not say as clearly as he might that there can be no truth either.”

56 This contrast would be further strengthened if the etymology of διαιρέω could be traced to ‘χείρ,’ hand: what is complex we grasp with the hand (δια + αἰρέω, from χείρ), but what is simple we only touch (θιγγάνω). Cf. NE VI.6 1141a7-8: “it is mind that grasps the principles [λείπεται νοεῖν εἰπα τὸν ἄρχον].” It would be interesting to explore Aristotle’s uses of λήψις (λέιπω) through the lens of the distinction suggested here, between simple and complex touch.
Aristotle is more helpful in explicating the simple nature of saying: “for affirmation [κατάφασις] and saying [φάσις] are not the same” (b25-26).57

We can glean something more about what it means to touch from noting what Aristotle presents as touching’s opposite. The opposite of νοεῖν and θιγεῖν is not falsity, but ignorance: “to be ignorant [ἄγνοεῖν] is to not touch [μὴ θυγγάνειν]” (b25). (Fittingly, the negation of φάναι, namely, ‘not saying,’ is left unsaid.) The etymological opposition between knowing (νοεῖν) and ignorance (ἄγνοεῖν), in conjunction with the identification between ignorance and not touching, suggests the identity between knowing (νοεῖν) and touching (θίγειν) (1051b25, 1052a2). While, in the case of what is complex, the opposite of believing truly is believing falsely, in the case of simples, the opposite of knowing is not-knowing.

Aristotle subsequently elaborates upon the nature of this not-knowing. Our ignorance of a simple is “not the sort of ignorance like blindness [τυφλότης]. For blindness is like the case in which someone doesn’t have [μὴ ἔχοι] the power of thinking [τὸ νοητικόν] at all (a2-4).”58 The reason we might be ignorant of a simple is not because we lack the power to know, but because exercise is lacking to the power. We fail to see, as it were, not because we are blind, but because we have not opened our eyes, or, perhaps, have opened our eyes but not looked.59

57 Pritzl, “Being True,” 187: “A phasis is the smallest significant unit of speech contained in a statement. …This contact with a simple thing is like saying or speaking the most elemental units of significance among things.” Note that the argumentative context in which Aristotle employs ‘φάσις’ here (1051b26) differs from that of DA III.6 430b26: in the present text, a φάσις is contrasted with a κατάφασις as something simple (a saying) to something complex (saying something about something); in DA III.6, a φάσις as well as a κατάφασις is identified as complex (saying something about something).

58 Aristotle cannot make this point about the difference between intellectual contact and non-contact using the sense of touch because we have no word – and, indeed, no concept – for ‘sentient being not possessing the power of touch.’ We lack this concept because it is a contradiction: if man were not to have the power of touch, Aristotle says, he would not be sentient at all (DA III.12 434b22-25; III.13 435b4-7).

59 There are several passages that Aristotle might have in mind, in connection with the ignorance that is not blindness: the distinction between possession and exercise (DA II.1 412a22; III.4 429b5-9); the necessity of
Nοεῖν AS FREE FROM DECEPTION (ἀπάτη)

After stating that the thinking of simples is opposed to ignorance, Aristotle next notes that it is not opposed to falsity or deception. The importance of this denial is evidenced by its frequency; no fewer than four times does Aristotle state that, concerning simples, there can be no deception (ἀπατηθήναι) (1051b25-26, 27-28, 31, 1052a1). The frequency of these denials, as well as the manner in which Aristotle refers to deception, indicates that Aristotle is not merely repeating his standard claims about complex truthfulness and simple entities. Rather, having previously denied that complex truth and falsity (τὸ ἀλήθες καὶ τὸ ψεύδος) pertain to simples (1051b18; 21-22; 22-23), Aristotle here denies that any kind of deception can be attributed to them. Aristotle signals this shift in emphasis from complex truthfulness to other kinds of error by repeatedly using ‘ἀπατάω’ rather than ‘ψεύδος.’

Aristotle nonetheless does not present the thinking of simples as infallible in every respect. In his first articulation of the relation between simples and deception, he allows that deception might apply to simples accidentally (κατὰ συμβεβηκός) (b25-26). Although Aristotle subsequently repeats the denial three times in an unqualified form, he unfortunately offers no explanation of his initial qualified remark.

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phantasms for knowing (DA III.7 431a14-20: οὐδέποτε νοεῖ ἀνευ φαντάσματος ἡ ψυχή; De Mem 449b31-450a2: καὶ νοεῖν οὐκ ἔσταν ἀνευ φαντάσματος); and the prevention of actuality by some barrier (DA II.5 417a27-28: ὁ δ’ ὁτί βουληθεῖς δυνατὸς θεωρεῖν, ἄν μή τι κολλήσῃ τῶν ἐξωθήκεν; Phys VIII.4 255b3-4: ὅταν δ’ οὕτως ἐχθῇ, ἄν τι μή κολλήη, ἐνεργεῖ καὶ θεωρεῖ. Meta IX.7 1049a5-12: ὅταν βουληθήσῃς γίγνηθαι μηθενὸς κολλώσθης τῶν ἐκτός … ὅταν μηθῇ κολλήη … εἰ μηθῇν κολλώσθῃ.) He may also have in mind not the absence of objects from experience, but the superabundance: “For as the eyes of bats are to the blaze of day, so is the reason in our soul to the things which are by nature most evident of all” (Meta II.1 993b9-11). In this passage, like Meta IX.10, Aristotle discusses things that are always true (993b28-29), and treats of truth in consort with being: ὅσο’ ἐκαστὸν ὡς ἐχει τοῦ ἐκαστοῦ, οὕτω καὶ τῆς ἀληθείας (993b30-31).

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60 Meta IX.10 1051b27-28, 31, 1052a1. Chapter Four considers whether the non-composite entities (τὰς μὴ συνθετάς), the subject of Aristotle’s denial at b27-28, are identical with the uncomposed entities (ἀσύνθετα) or a sub-class of them.
Commentators have put forth two possible explanations of the manner in which deception might apply κατὰ συμβεβεκός to the thinking of simples. Both explanations meet the text’s requirement that deception originate not in the activity of thinking itself, καθ’ αὑτό, but in something to which the activity is related.

One explanation locates the source of deception in what is “below” the thinking of noetic simples, namely, in the formation of phantasms. Recall that thinking never occurs without a phantasm. Recall, also, that Aristotle likens the phantasm to the medium in sensation. Just as it is possible for deception to enter into sensation because of some condition of the medium, so too, is it possible for deception to enter into intellection because of some condition of the phantasm. If the conditions under which the phantasm was formed were not ideal, the phantasm would fail to contain all and only those features present in the thing of which it is a phantasm. In this case, the failure of a thought to correspond to a thing would not originate with the intellect’s acting upon the phantasm, but with the phantasm itself. If the visible medium were distorted the first and only time I saw a goat, for example, my thought of a goat would be accidentally deceived, the deception being due not to the activity of thinking, but to the phantasm on which my thinking acts.⁶¹

The explanation of accidental deception from below (i.e., from sensation) has two points in its favor. First, this explanation corresponds to the explanation of deception in proper sensation: in both cases, deception originates in the material aspect of cognition. In sensation, deception can occur in virtue of the medium or the organ. In intellection, deception can occur in

⁶¹ Cf. *Meta* V.29 1024b23-24, where Aristotle includes, among his list of those things called ‘false,’ “things which exist … but are not the things the appearance of which they produce in us [οὐχ ὃν ἐμποίει τὴν φαντασίαν].”
virtue of the phantasm. Second, the explanation “from below” accords with Aristotle’s general tendency to attribute deception to what is, or serves as, matter.

Another explanation locates the source of deception in what is “beyond” the thinking of noetic simples. Deception could be accidentally related to the thinking of a νόημα if this νόημα were either wrongly predicated of something or if something were wrongly predicated of it. The deception, in other words, would be due to the synthesis of νοηματα rather than to the thinking of either νόημα in its own right, whether this synthesis constitutes an assertion or a definition. Thus, in thinking that “a goat has uncloven hooves,” my thought of a goat is deceived only accidentally, namely, with respect to this synthesis.

This second explanation of accidental deception fits the context of Meta IX.10 particularly well. Throughout the chapter, Aristotle is intent to distinguish simple and complex truthfulness. It is possible to explain the qualified and unqualified remarks about simples as Aristotle’s attempt at completeness: although complex truthfulness does not apply καθ’ ἀὑτό to the thought of simples, it does apply κατὰ συμβεβεκός, insofar as thoughts of simples are the

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62 DA III.4 429a22-27.
63 Keeler, “Problem of Error,” 250: “From a purely metaphysical standpoint, Aristotle himself very likely conceived the problem of error as analogous to that of chance and contingency in the sublunary world; both being ultimately due to a certain resistance and waywardness in ὦλη.”
64 Several variations of this explanation have been put forth in recent commentaries on Meta IX.10. Butler and Rubenstein, “Aristotle on Nous of Simples,” 351-52, describe synthesis in general fashion: “we can be said to be in error accidentally about a simple, by virtue of a per se cognition of something else.” Keeler, “Problem of Error,” 245, and Myles Burnyeat and G. E. L. Owen, Notes on Eta and Theta of Aristotle’s Metaphysics (Oxford: Sub-faculty of Philosophy, 1984), 159, characterize the synthesis as a failure to define, by incorrect combination of genus and difference. Brentano, Senses of Being, 21, and Burnyeat et al., Notes on Eta and Theta, 155, also suggest that the synthesis is the wrong combination of a name and a definition. Cf. Meta V.29 1024b32-1025a1.
65 Keeler, “Problem of Error,” 246, suggests a modified version of this explanation from ‘below,’ but then rejects it. Keeler proposes that phantasms might be the source of error, not because of distorted media, but because of some error in the construction of phantasms from other phantasms, as elements. Keeler then rejects this proposal, since, both in Meta IX.10 and in DA III.6, “the ἄσυνθετα seem to be comparatively simple intuitions of reality, so that it is unsafe to maintain that he was thinking of the construction of concepts.”
elements of synthetic thoughts. This explanation is also suggested by the chapter’s closing
distinction between knowing a thing and searching for it: we cannot err in thinking of a goat, but
we can err in attempting to define it.  

The next two sections will expand the preceding account of the truthfulness of the
thinking of simples by discerning the meaning of two words crucially employed in *Meta IX.10:
ἀπατάω and θιγείν. Since Aristotle nowhere explicitly defines these terms, their meaning must
be gleaned from examining how he uses them.

B. WHAT ARISTOTLE MEANS BY ‘DECEPTION’ (ἀπατάω)

In this section, I first examine the meaning of ‘ἀπατάω’ as Aristotle employs this term
throughout his corpus as a whole. I then narrow the examination to the term’s meaning in his
discussions of proper sensation. I defer the final step – considering how these examinations
illuminate how noetic thinking is not false – to the conclusion of the present part of the chapter.

THE GENERAL MEANING OF ‘ἀπατάω’

For Aristotle, ‘ἀπατάω’ signifies not merely the event of deception, but the deceptive
power an object has upon a thinking subject. The term ἀπατάω, in other words, signifies both
the fact of deception and also deception’s causes. Thus, while Aristotle calls judgments “false”
and syllogisms “sophistical,” he calls one who is reasoning “deceived” about the meaning of
term or the terms’ arrangement.

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66 *Meta IX.10* 1052a32-33: “concerning [what exists and is actual], one does inquire into what they are,
whether they are such-wise or not.”

67 Aristotle defines proper sensation at *DA II.6* 418a11-17 and discusses its truthfulness at *DA III.3* 427b11-
12; 428b21-22; *DS IV* 442b7-10; and *Meta IV.5* 1010b1-3.

68 *AnPo* I.17 80a5, 80b31; 81a15-16; 81a5; *Sophistical Refutations XI* 171b7-11.
Aristotle’s use of ἀπατάω reveals that deception involves a subject’s being partially ignorant about a given object. We call an error in syllogizing ‘deception’ when something about a predicate has escaped our notice (λεληθέναι), but not, presumably, when we intentionally ignore it.69 This association between deception and ignorance is confirmed by Aristotle’s account of how knowledge (ἐπιστήμη) does and does not pass away: knowledge passes away not into ignorance, but into deception (ἀπάτη).70 The reasoning behind this claim seems to be as follows: ἐπιστήμη is knowledge of a whole that has been articulated into its parts; when ἐπιστήμη passes away, it passes away part by part, rather than whole and entire. At any stage of this passing away, then, the thinking subject is partially ignorant, and partially not. Aristotle calls this partial ignorance, which is possible only for objects that have parts, ‘deception.’

In Topics VI.9, Aristotle suggests that ἀπατάω is both distinct from and related to another similar term, ἁμαρτάω: we fall into error (ἁμαρτία), Aristotle says, when we are ignorant, that is to say, when we are deceived (διηπατημένον).71 This brief remark, taken alongside the previously surveyed remarks about deception, suggests the following genetic account of error: we fall into error when we are deceived or partially ignorant, and this deception or partial ignorance arises only when we encounter an object whose nature is complex.

Other discussions involving ἁμαρτάω confirm both the similarity and difference between this term and ἀπατάω. Aristotle uses ἁμαρτάω to signify an activity’s departure from its end (ἕνεκά του). It is possible to err, Aristotle says in the Physics, wherever a final end exists,

69 AnPr II.21 66b18-27.
70 On the Length and Shortness of Life II 465a19-22.
71 Topics VI.9 148a2-9.
whether in art (ἐν τοῖς κατὰ τέχνην) or in nature (ἐν τοῖς κατὰ φύσιν). 72 In the Eudemian Ethics, Aristotle implies that the agent is a cause of this departure: an agent is able to use any given item either according to nature or otherwise (ὡς πέφυκε καὶ ἄλλως), that is to say, either truly or erroneously. 73 Aristotle further suggests that an agent’s departing from a final end could be due to ignorance, injustice, or bad luck. The cause of error he mentions most often is ignorance. 74 In Meta I.1, for example, Aristotle notes that a man will err (διαμαρτήσεται) in attempting to cure, if he knows the universal (τὸ καθόλου μὲν γνωριζῃ) but is ignorant of the individual (ἐκαστὸν ἀγνοη). 75

This brief survey of texts indicates that, although the meanings of ἀπατάω and ἁμαρτάνω differ, they are by no means unrelated: where ἀπατάω primarily signifies something about the object in relation to the knowing subject, ἁμαρτάνω primarily signifies something about an activity in relation to its end. The two terms are related through the notion of partial ignorance, which Aristotle mentions in connection to each: a thinking subject is deceived insofar as he is ignorant of one or more parts of an object; when this object is an object of action, the agent’s partial ignorance prevents his activity from reaching its intended end.

**The Meaning of ‘ἀπατάω’ in Aristotle’s Accounts of Sensation**

In this section, I wish to bring the preceding examination of Aristotle’s use of ἀπατάω closer to our inquiry into noetic thinking’s truthfulness. I propose to do this by narrowing the

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72 Phys II.8 199a33-b4.

73 EE VII.13 1246a26-b7. Aristotle gives the example of compressing the eye so that one thing will appear as two. Cf. NE II.6 1106b25.

74 Topics V.5 134a25; VIII.12 162b16-23; Politics VII.4 1326a8-10.

75 Meta I.1 981a21-23. Cf. NE V.8 1135b8-16, where Aristotle specifies the various aspects of an act, the ignorance of which leads to error.
examination to Aristotle’s use of ἀπατάω in his discussions of sensation. Aristotle himself seems to justify this path in two ways: explicitly, by likening the truthfulness of noetic thinking to that of proper sensation in DA III.6; and implicitly, by using ἀπατάω in connection with both thinking and sensing, in Meta IX.10 and throughout the De Anima.

In his discussions of the truthfulness of sensation, Aristotle neither avoids nor restricts himself to the terms ‘true’ (ἀληθές) and ‘false’ (ψεῦδος). Although he never employs the term ‘error’ (ἀμαρτάνω) in these discussions, he uses ‘deception’ (ἀπατάω) with greater frequency even than ‘falsity.’ By comparison, in discussing the truthfulness of imagination, Aristotle opts in every case for ‘falsity’ and never for ‘error’ or ‘deception.’

We find Aristotle using ἀπατάω in two ways: first, he affirms that deception is present in incidental sensation and in the sensation of common sensibles; second, he denies that deception is present in the sensation of proper sensibles. Many explanations have been put forth regarding why Aristotle makes these claims. Rather than exploring any of these, I would like to articulate the explanation that can be derived exclusively from the meaning Aristotle attributes throughout his corpus to ‘ἀπατάω.’

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76 Aristotle uses ψεῦδος at DA III.3 428b18-19, III.3 428b21-22, and Meta IV.5 1010b1-3. He uses ἀπατάω at DA II.6 418a11-12, II.6 418a15-17, and DS IV 442b7-10.

77 Aristotle’s remarks concerning imagination’s truthfulness are found at DA III.8 432a10-12, DA III.3 428a11-12, III.3 428a16-18, and DA III.3 427b23-24. Cf. Meta V.29 1024b21-26; V.29 1025a5-6. In imagination, the movement ‘originates’ in the phantasm, whereas in sensation, the movement ‘originates’ in the object and acts through the phantasm, as a sword through a shield.

Various accounts of what it means for imagination to be true or false have been put forth. Joyce Engmann, “Imagination and Truth in Aristotle,” Journal of the History of Philosophy 14 (1976), 262, construes the veracity of imagination merely as a matter of presence: “the truth or falsity of imagination is instead determined by whether or not what is being imagined is at present in the field of perception.” This is similar to Block, “Truth and Error,” 4: “when Aristotle says that imagination is false, he has a representative notion in mind, for what is meant is that the image does not correspond with the original sensation.” Stephen Everson, Aristotle on Perception (Oxford: Clarendon Press, 1997), 198, offers a more refined account, distinguishing between mere pictures, on the one hand, and pictures that are also likenesses, on the other. A likeness “stands in some relation to another object” and can be true by correspondence, whereas a picture cannot.
Recall that ἀπατάω is possible only where an object has parts; in order for a cognizing subject to be partially ignorant, the cognized object must in some sense be complex. From Aristotle’s declaration that deception is possible in the cases of incidental sensation and the sensation of common sensibles, we can conclude that incidental and common sensibles, as objects (αἴσθηματα), have parts. Correlatively, from Aristotle’s declaration that deception is impossible in the case of proper sensation, we can conclude that a proper sensible, as an object (αἴσθημα), is without parts.

Recall, too, that ἀπατάω either involves or is constituted by partial ignorance. It follows from this that, if it is possible for a cognizing subject to be deceived concerning a certain object (αἴσθητον), then the truth proper to the cognizing activity is opposed to falsity. Conversely, if it is impossible for a cognizing subject to be deceived concerning a certain object, then the truth proper to the cognizing activity is opposed to ignorance.

There is one passage in the De Anima that might be raised as an objection to this manner of reading proper sensation’s truthfulness. In DA III.3, Aristotle presents proper sensation not simply as true or as having no falsity or error, but as admitting “the least amount of falsity [ὀλίγιστον ἔχουσα τὸ ψευδός].” This would be problematic for the preceding account, since a partless object concerning which we are only mostly free from deception leaves room for partial deception and thus partial ignorance.

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78 The ‘multiplicity’ of incidental discussion appears to be described at DA III.1 425a30-425b3: “whenever sense is directed at one and the same moment to two disparate qualities.” The multiplicity of the common sensibles seems to me to originate in the multiplicity of individual senses, focusing, as it were, on the same object. Cf. DS IV 442b7-10.

79 DA III.3 428b19.
I propose to respond to the objection in this way: the slight possibility for falsity in proper sensation is due to what sensation has but intellection lacks, namely, a necessary association with matter. If the slight possibility for error Aristotle refers to in 428b19 is due to some failure in the matter of the sense organ or its medium, Aristotle is justified in DA III.6 in asserting both that proper sensation and noetic thinking have the same truthfulness, and that noetic thinking is unqualifiedly ‘not false.’

C. WHAT ARISTOTLE MEANS BY ‘TOUCHING’ (θιγγάνω AND ἅπτομαι)

In Meta IX.10, Aristotle calls noetic thinking a ‘touching.’ The present section explores the meaning of this use of ‘θιγγάνω’ in two stages. First, it discerns the meaning Aristotle attributes to θιγγάνω and ἅπτομαι when he uses these verbs elsewhere in discussing intellection. Second, it considers what aspects of sensible touch would best assist the argument of Meta IX.10, if the sensible and intellectual meanings of touch were indeed analogous.

WHAT KIND OF THINKING DOES ARISTOTLE CALL ‘ΘΙΓΓΑΝΩ’?

Throughout his corpus, Aristotle employs “touching” words – θιγγάνω or ἅπτομαι – in discussions concerning sensation, intellection, and mere physical interaction. Our present interest is with the meaning these words assume in Aristotle’s discussions of intellection. Aristotle employs this meaning of ‘touch’ (θιγγάνω or ἅπτομαι) in only ten passages: eight times...
in the *Metaphysics*, once in the *Physics*, and once in the *Politics*. I note two features that these uses have in common.

First, Aristotle employs these verbs to refer exclusively to the activity of thinking simple objects – the most basic elements of thought, as it were. What we touch are principles (ἀρχή) and causes (αἰτία), and especially the natures (φύσεις) of these. The particular principles and causes Aristotle names, moreover, are not just any kind of principle or cause, but *first* principles and causes – metaphysically simple things: form, matter, truth, essence, and unity. Neither the texts nor their contexts suggest that the activity of ‘making contact’ with these principles involves making judgments about them; the activity that Aristotle has in mind, rather, when he uses these verbs is precisely that: *having* (ἔχειν) or *holding* simple things in mind.

Second, in all but three of Aristotle’s uses of θιγγάνω and ἅπτομαι, the verbs signify merely the *fact* of thinking. To clarify my use of the word ‘merely’: the verbs do not signify the mere fact of thinking *and* something else – such as the thinking’s truthfulness or falsity or its degree of articulation – but the fact of thinking, and this alone. θιγγάνω and ἅπτομαι signify simply whether the intellective power has been “made one” with an incomposite object or not.

When Aristotle employs θιγγάνω and ἅπτομαι to intellection, however, he consistently specifies *adverbially* either a low quality or low degree of articulation in this thinking. Various

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82 ‘θιγγάνω’ is used in *Meta* I.7 988a20-23; I.7 988b17-19; II.1 993a31; IX.10 1051b17-33; XII.7 1072b21; ‘ἀπτομαί’ is used in *Meta* I.5 986b19, b23; I.7 988a32; XIII.4 1078b20; and *Phys* II.2 194a21.

83 All three of the exceptions concern ‘ἀπτομαί’: *Meta* I.7 988a32, XIII.4 1078b19-25; *Phys* II.2 194a21.

84 Why does Aristotle associate non-articulation with a low degree of articulation? Perhaps because the question of whether or not we have made contact arises only at the very beginnings of articulation. The higher the degree of articulation, the more evident is the fact of contact.
thinkers make contact, for example, vaguely (ἀμυδρῶς), not adequately (μῆτ’ ἀξίως), not clearly (οὐθὲν διεσαφήνισεν), and very slightly (ἐπὶ μικρὸν).  

Two conclusions should be drawn regarding Aristotle’s use of these adverbial specifications of the quality of acts of thinking. First, the need to specify the quality of thinking adverbially confirms, rather than undermines, the previously mentioned meaning of θιγγάνω and ἅπτομαι: these verbs signify merely the fact of thinking, the actualization of the power of thought. Second, none of the adverbs Aristotle employs signify falsity or error, but only an absence of articulation.

**What meaning of physical θιγγάνω is analogous to intellectual θιγγάνω?**

Aristotle could have made the distinction between the fact of an activity and the activity’s degree of articulation using any of the five senses. For any given act of seeing or smelling, for example, we can distinguish between the *fact* of seeing or smelling and the degree of clarity or strength with which one sees and smells. We might consider, then, whether Aristotle’s use of ‘touch’ words in describing intellection invokes a feature peculiar to the sense of touch, or common to sensation in general.

Aristotle’s selection of the sense of touch, as opposed to sensation in general or to another individual sense, does not seem to me to be arbitrary. My primary reason for believing this is that *Meta* IX.10 is a far stronger account of the features of the thinking of simples if this kind of thinking is viewed as a touching rather than as any other form of perceiving.  

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85 These qualifications are found respectively at *Meta* I.7 988a24; *Meta* II.1 993a31; *Meta* I.5 986b22-23; and *Meta* XIII.4 1078b19, *Phys* II.2 194a20.

86 Cf. Stanley Rosen, “Thought and Touch: A Note on Aristotle’s De Anima,” *Phronesis* 6 (1961): 129, who argues that the touch analogy is in fact a disanalogy for Aristotle’s most fundamental claims regarding the nature of the intellect.
there are two features peculiar to touch, the noetic analogates of which Aristotle wishes to draws our attention, both in Meta IX.10 and in other texts.\textsuperscript{87}

The first feature is that touch alone plays a founding role for other senses, both on the levels of sense activities, sense faculties, and even sensible organism. Without the power of touch, Aristotle tells us, the animal would not exist. To be a sensitive agent is nothing other than to be capable of touch. Touch, so understood, is the capacity of a material composite subject to be made one with a material composite object, in such a way as to produce awareness of the object, as sensible.\textsuperscript{88} In this role of founding both sense activities and capacities, touch is not a particular sense, but the subjective ground of sensibility itself.

The second feature is that touch illustrates with greater clarity than any other sense the nature of sensation as the unity of an active object and a receptive subject. In the Physics, Aristotle identifies touch as one of the ways that distinct things can be a unity. Two things – in our case, an object and a subject – touch when their extremities are together.\textsuperscript{89} Although this

\textsuperscript{87} I depart here from Berti, “Intellecction,” 154 and “Encore,” 134, as well as from Richard Sorabji, \textit{Necessity, Cause, and Blame} (New York: Cornell University Press, 1980), 218. Berti contends that Aristotle selects touch, as over and against other senses, in order to convey the difference between searching for a definition, on the one hand, and thinking that definition, on the other. We grope, as it were, before we grasp. Sorabji similarly argues that Aristotle invokes sensible touch because its “all or nothing” feature illustrates the “all or nothing” manner in which we think definitions. We either touch the definition, or we do not. Cf. Biondi, \textit{Posterior Analytics} II.19, 252: “The act of noesis as touch merely indicates a form of intuitive understanding that is rationally uninformed and somewhat sensible, whereas the act of noesis as sight indicates rational understanding, a rational intuition.”

\textsuperscript{88} Rémi Brague, \textit{Aristote et la question du monde: Essai sur le contexte cosmologique et anthropologique de l’ontologie}. Paris: Presses universitaires de France, 1988, 260: “Le contact en question n’est que la capacité des choses à affecter les sens, la présence des choses, antérieure à toutes leurs qualités particulières.”

\textsuperscript{89} \textit{Phys} V.3 226b23; cf. VI.1 231a22-23, b1-3; \textit{Meta} VIII.6 1045a10-12; XI.10 1067a15-18; XI.12 1068b26-27.
union – this fundamental touch – is present in all actual sensation, the union is most evident to us in the particular sense of touch.  

D. *De Anima* III.6: Noetic Thinking as a Touching Without Deception

Having examined in the preceding sections the meanings Aristotle attributes to \( \theta \gamma \gamma \acute{a} \nu o \) and \( \acute{a} \pi \alpha \tau \acute{a} w \) by his use of these terms throughout his corpus, it remains for us in this concluding section to extend the gains of these examinations to noetic thinking’s truthfulness.

From *Meta* IX.10, we learn that noetic thinking is free from both falsity and deception. We learn that the truth that is proper to noetic thinking is opposed to ignorance, and that the activity of noetic thinking either *is* or *is like* touching.

From the study of \( \theta \gamma \gamma \acute{a} \nu o \), we learn that noetic thinking is like physical touching in being foundational; noetic thinking is foundational not only for all other thinking acts, but also for constituting the subject as capable of being touched by intelligible things.

From the study of \( \acute{a} \pi \alpha \tau \acute{a} w \), we learn an objective explanation for why noetic thinking is ‘not false.’ Since deception is partial ignorance, and since partial ignorance is possible only where the cognized object has parts, it must be the case that noetic thinking’s objects are partless.

The contribution that any one of these three studies makes to clarifying and completing the argument *DA* III.6 is impressive. Even more impressive is that the three studies, taken together, conflict neither with one another nor with *DA* III.6. I believe this coordination is a sign of a deeper coherence of Aristotle’s implicit account of truth.

\(^{90}\) It would be futile, of course, both to define knowing in terms of touching, and touching in terms of knowing. At some point, we must take one or the other notion as basic. I believe that, for Aristotle, touch is basic not only for our exercise of other senses and of intellection, but also for our understanding these things.
CONCLUSION

The present chapter opened with a description of a textual problem: in *DA* III.6, Aristotle states, but does not adequately explain, what it means for noetic thinking to be true and not false. Part One examined attempts to resolve this problem by interpreting noetic thinking’s truthfulness either as a mere potential for being either true or false, or as true merely in the sense of actually intending an object. Both interpretations were found inadequate on the grounds that they introduce incoherence into the argument of *DA* III.6. Although noetic thinking is indeed both potentially true or false and true in the sense of actual, it is of neither of these meanings of ‘true’ that Aristotle speaks in *DA* III.6.

Part Two constructed an alternate resolution to the textual problem, drawing its interpretation of noetic thinking’s truthfulness not from Aristotle’s explicit account of complex truth, but from texts in which he uses language similar to that of *DA* III.6. The examination of *Meta* IX.10, in conjunction with texts in which Aristotle employs ‘θιγγάνω’ and ‘ἀπατάω,’ yielded the following interpretation of noetic thinking’s truthfulness: noetic thinking is true in the sense that the thinker has contact with a simple object, whereby deception, that is to say, partial ignorance, is impossible (except accidentally, in relation to some other synthetic activity).

The achievement of this chapter leads naturally to the inquiries of Chapters Three and Four. Having here established what it means to call noetic thinking ‘true’ and ‘not false,’ we proceed in subsequent chapters to inquire into the subjective and objective grounds of this truthfulness. Chapter Three will examine the nature of the activity that cannot be deceived, and Chapter Four will examine the kind of object that cannot deceive.
CHAPTER THREE:
NOETIC THINKING AS A PSYCHOLOGICAL ACTIVITY

The previous chapter concluded that the truth proper to noetic thinking is opposed neither to falsity nor to deception, but only to total ignorance. The present chapter seeks to ground this conclusion by inquiring into the nature of the activity to which infallible truthfulness is proper. The inquiry will focus, in particular, on what the thinking subject does that is sufficient to render potential noetic thinking actual.

Since Aristotle’s overall aim in DA III.6 is to distinguish between the activities of synthetic and noetic thinking, we would expect to find him giving ample accounts of each activity in its own right. With respect to the activity of synthetic thinking, we are not disappointed; the opening section (430a27-b6) is replete with examples and explanations of the subject’s activity of synthesizing and its relation to falsity. With respect to the activity of thinking what is undivided, however, our expectations appear to be unfulfilled; in Section B (430b6-12), where we hope to find a similarly extensive account of the thinking of what is undivided, we find only a discussion of the division of lengths.

Commentators respond to Aristotle’s apparent lack of attention to the activity of noetic thinking in DA III.6 in one of two ways. According to the “object interpretation” (OI), Aristotle omits any discussion of the activity of noetic thinking in DA III.6 because he has already supplied a discussion of the activity of thinking in general in the preceding passages of the De Anima.1 If we are interested in knowing what causes potential noetic thinking to become actual,
therefore, we must look to this general account, rather than to DA III.6.² When we turn to this general account, we find Aristotle describing the transition from potential to actual thinking in terms of an active object and a passive subject. The response OI provides to our target question about noetic thinking, therefore, is that the subject contributes to the transition from potential to actual noetic thinking only by being passive in the face of an active object.

Adherents of the “definition interpretation” (DI) contend that, contrary to appearance, Aristotle does display the nature of noetic activity in DA III.6. The display is easily overlooked because it is indirect: by describing fallible thinking as that in which there is “already some synthesis of νοηματα” (a27-28), Aristotle implies that infallible thinking pertains to those νοηματα potentially joined in synthesis. If the objects of fallible thinking are predicational syntheses such as ‘the diagonal is incommensurable,’ and ‘Cleon is white,’ the objects of infallible thinking must be the parts of these syntheses, such as ‘white’ and ‘diagonal.’ What the subject does to render each of these objects of thinking actual differs according to the nature of the objects: in order to render ‘the diagonal is incommensurable’ an actual thought, the subject must predicate ‘incommensurable’ of ‘diagonal’; but to render ‘diagonal’ an actual thought, the subject must define ‘diagonal.’ According to DI, therefore, what the subject does to render potential noetic thinking actual is to synthesize the parts of a definition. Noetic thinking, so understood, is an infallible species of synthetic thinking.

² What I am calling “Aristotle’s account of cognition in general” is constituted primarily by passages from DA II.4-5 and III.3-4. It is the set of claims that pertain to both sensation and to intellection, whether or not these claims are phrased as such. The grounds for including Aristotle’s claims about sensation in our inquiry into intellection are as follows: Aristotle recognizes a fundamental similarity between sensation and intellection as acts of discrimination following the same general structure (Cf. DA III.3 427a17-21; III.4 429a13-18; II.4 415a14-22). In those respects in which sensation and intellection differ, Aristotle is quick to draw our attention (DA II.5 417b19-23; III.3 427b6-428a5). Aristotle devotes a significant portion of his discussion of sensation to the subject’s role of discriminating its object, and he gives no indication that a similar role is not played by the thinking subject.
Parts One and Two of the present chapter argue that both OI and DI are inadequate not only as interpretations of the text of DA III.6, but also as answers to the target question, namely, what the subject does that is sufficient for actualizing an infallible act of thinking. Part Three proposes an alternate interpretation that avoids the inadequacies of OI and DI by taking as central what these interpretations overlook, namely, Section B’s description of the division of lengths. The resulting interpretation, drawn from Section B and a variety of corroborating texts, argues that what the subject does to render noetic thinking actual is to divide in a non-synthetic way.

I. NOETIC THINKING AS THE ACT OF AN OBJECT

The purpose of this first part is to display and critique the “object interpretation” (OI) of the activity of noetic thinking. OI, as I shall present it here, is compatible with the writings of many commentators, although it is expressly articulated and espoused by none. I regard as tacit adherents of OI all who comment on DA III.6, saying nothing about the activity of noetic thinking, except that it must not be synthetic.

A. THE RATIONALE FOR THE OBJECT INTERPRETATION (OI)

OI has two central claims. The first is that Aristotle nowhere explicitly answers the question, “what does the subject do to render potential noetic thinking actual?” The second claim is that Aristotle provides the means to answering this question in his general account of cognition; it remains for the reader to apply what Aristotle states about cognition in general to noetic thinking in particular.
This approach is promising for two reasons. First, several of the terms that Aristotle employs in DA III.6 are discussed at greater length and with greater precision in the general account. Second, it is evident from Aristotle’s language in DA III.6 that he regards noetic thinking as a genuine kind of thinking, and thus as included in his account of cognition in general. Since Aristotle’s general account of cognition does not expressly discuss what the subject does to render noetic thinking actual, it will be necessary first to formulate the question about noetic thinking as a question about thinking in general; second, to answer this question from the general account; and lastly, to tailor this answer to noetic thinking in particular.

B. OI’S ARTICULATION OF THE QUESTION

In the chapters preceding DA III.6, Aristotle inquires into the relation between the cognizing subject and cognized object in both potential and actual cognition. In order to discern how our target question can be expressed in these terms, we shall briefly review what Aristotle says about these relations. We shall take up his description of the roles of the subject and object in actual cognition first, and proceed backwards, as it were, to the roles in potential cognition.

**Actual Cognition**

Throughout his general account, Aristotle describes actual cognition as a single actuality of both the cognizing subject and the cognized object. He describes this single activity at times as a *likeness* between subject and object, but most often as the subject’s *identification* with its

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3 Aristotle introduces noetic thinking as a ‘νοησις’ (430a26) and employs ‘νοεῖν’ six times to this kind of thinking (430b7, 8, 10, 12, 15, 16).

4 In this respect, at least, cognition is like a κίνησις: the actuality of the mover as mover is one with the actuality of the moved as moved. Cf. Phys III.3 202a14-16,18: “there is one activity of both alike [όμοιος μία ἡ ἁμφοῖν ἐνέργεια].”
Three remarks should be made about Aristotle’s characterization of actual cognition as an identification between subject and object.

He notes, first, that the identification occurs with respect to form, as opposed to matter. Actual cognition, in general, is the subject’s identification with the form (εἴδος) of a thing (πρᾶγμα) apart from its matter. Actual thinking, in particular, is the subject’s identification with the form of a thing insofar as the thing is being contemplated (νόημα), and actual sensation is the subject’s identification with form insofar as the thing is being sensed (αἰσθημα).

Second, the identification occurs in such a way that the distinction between the subject and object is not obliterated. The subject, without ceasing to be a subject, becomes, as other (τῷ ἄλλῳ ὑπάρξαι), what the object actually is. The activity (ἐνέργεια) of the subject and object, he says, are one and the same (ἡ αὐτὴ ἐστὶ καὶ μία), but the difference between the being of the subject and object remains (τὸ δ’ εἶναι οὗ τὸ αὐτὸ αὐταῖς).

Two expressions of this identity-

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5 Charles, Meaning and Essence, 144n183, points out that the language of ‘likeness’ appears with respect to the object, the subject, and the resulting state in the subject’s soul: the agent makes the patient like itself (τὸ ποιητικὸν ὁμοιοῦν); the patient is made like (ὁμοίου) the agent; and the resulting states are likenesses of things (ὅμοιώματα πρᾶγμα). GC I.7 324a10-14, DA II.5 417b2-5, and De Int 16a7. Cf. Robert Coulter, “Thought, Perception, and Isomorphism in Aristotle’s De Anima,” Polish Journal of Philosophy 6 (2012): 37: “in the act of thinking, thought ‘takes on’ the form of the object of thought by becoming formally, and not numerically, identical with the essence of the object of thought. … It is ‘made like’ its object by being formally identical with it.”

6 DA III.4 429a15-16: “while being impassible, capable of the form, and potentially this but not this [ἀπαθῆς ἄρα δὲ ἔιναι, δεκτικόν δὲ τοῦ ἐἴδους καὶ δυνάμει τουπτόν ἀλλὰ μὴ τούτο].” Aristotle employs the language of identity for both sensation and intellection. Cf. DA III.8 431b26-28: “it is necessary for them to be either the things or their forms [ἀνάγκη δ’ ἢ αὐτὰ ἢ τὰ εἴδη εἶναι].”

7 Herbert Granger, “Aristotle and Perceptual Realism” The Southern Journal of Philosophy 31 Supplement (1993): 166: “Throughout the psychology Aristotle seems to use aisthema to mean ‘sensation’ or ‘sense-impression’ or some such thing, which is something that comes to be through the perceptual act, and he uses aistheton to mean the ‘sensible object,’ which is the object of sensation, a color, or a sound, or the like.” I take the same to be true, mutatis mutandis, for ‘νόημα’ and ‘νοητόν.’

8 Phys VII.3 247b4-7.

9 DA III.2 425b26-27.
with-distinction are that activity of thinking (νόησις) is identical with its thought (νόημα), and
that the power (νοῦς) which actively thinks is (ἐστὶν) the things (τὰ πράγματα) it thinks.¹⁰

Third, Aristotle implies that the identification of actual cognition is possible because of
the correlativity of the potencies of the subject and object. Actual cognition is an identification,
in other words, because the subject’s potential is for the object, and the object’s is for the subject.
The potentially cognizing subject and potentially cognized object are teleologically oriented to
fulfilment in the other.¹¹

**Potential Cognition**

Aristotle’s discussion of potential cognition is more extended than that of actual
cognition. The reason for this difference is that, whereas actual cognition consists in the identity
between subject and object, potential cognition consists in the orientation of subject and object,
separately, toward identity. This orientation, moreover, can be realized in subjects and objects in
more than one way. We shall recount these ways, first for the subject potentially knowing, and
second for the object potentially known.¹²

A text that is important to consult for our present purpose is *DA II.5.*¹³ In this text,
Aristotle distinguishes between three kinds of knowers.¹⁴ A subject is a knower in the *first* sense

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¹⁰ *DA I.3 407a7-8; III.7 431b17.


¹² It seems possible to extend Aristotle’s account of potential subjects of intellection to his account of potential subjects of sensation, but Aristotle himself does not execute this extension.

¹³ For a recent account of the complexity of this passage, see Miles Burnyeat, “*De Anima* II.5,” *Phronesis* 47 (2002): 28-90. Burnyeat calls the threefold account of knowers the “triple scheme.”

¹⁴ Only where argumentative context requires it does Aristotle specify whether the subject of cognition is the animal, the soul, or the power or part of the soul. There are two errors concerning the identity of the subject that
if he falls within the genus of things that know or have knowledge (ἐχόντων ἐπιστήμην) (417a24). A subject is a knower in this sense “if his kind (γένος) or matter (ὕλη) is such and such” (a27-28). A subject is a knower in a *second* sense if he has, for example, some knowledge of grammar (τὸν ἔχοντα τὴν γραμματικήν) (a25). A subject is a knower in a *third* sense if he is actively contemplating (θεωρῶν) (a28-29). The first two kinds of knowers are *potential* knowers, while the third knows actually. Aristotle distinguishes between the potentials possessed by the first and second knowers according to how each potential is fulfilled: the first knower has a potential to learn (ὁ ἄνευ ἤθος εἴσ) (a31), while the second knower has a potential to exercise what he has not been exercising (μὴ ἐνεργεῖν δὲ, εἰς τὸ ἐνεργεῖν) (b1).

There are two significant differences between the array set forth in *DA* II.5 and the trajectory of our present inquiry into the activity of noetic thinking. First, the kind of thinking at issue in *DA* II.5 is clearly of a synthetic nature; both the example of grammar (a24), the description of a man as having ἐπιστήμη (a25), and the mention of learning (a31) indicate that Aristotle is eager to eschew. On the one hand, Aristotle is concerned with distinguishing between activities that do and do not involve the body; we ought not attribute all activities to the same subject without distinction. On the other hand, Aristotle is concerned to present the cognitive subject as a unity. Thinking does not occur apart from the man who thinks (*DA* I.4 408b13-17), any more than man could be a man apart from having this power. Owens, “Cognition A Way of Being,” 3, emphasizes one side of this dependence: “[A]n accident such as a faculty or an action cannot exist in itself, or do or undergo anything as an independent subject. It is always the substance that exists and acts and undergoes in the way it is modified by the accident.” Cf. Ronald Polansky, “One Mind Under God Indivisible: Aristotle on Mind and God,” in *Sources of Desire: Essays on Aristotle’s Theoretical Works*, ed. James Oldfield (Newcastle: Cambridge Scholars Publishing, 2012), 153.

It is perhaps because Aristotle is confident in having established the interdependence between man and his powers that Aristotle is free to speak ambiguously about the subject. In *DA* III.6 430b15, for example, he attributes the thinking of what is undivided in form to ἀδιαιρέτῳ τῆς ψυχῆς, omitting any noun or pronoun (’like μέρος or τινι’). Aristotle so identifies the power with its activity, ἐνέργεια, that we can say either that it is the soul, undivided, or an undivided act or part of the soul. Cf. Hicks, *De Anima*, 519.

A similar expression of Aristotle’s confident ambiguity is found at *DA* III.4 429a23: ψυχῆς is that by or with which (ἀ) the soul thinks and judges. Herbert Weir Smyth, *Greek Grammar* (Cambridge: Harvard University Press, 1956), 1506 and 1521, distinguishes the dative as either instrumental (the part is the instrument of the soul) or comitative (the soul and the part together think). Pritzl, “*De Anima* III.4,” Phil 712: Aristotle’s *De Anima* (class lecture, The Catholic University of America, Washington, DC, April 6, 2010), suggests that one dative might be appropriate for one kind of thinking, and the other, for another kind.
Aristotle is not here concerned with the thinking of what is undivided. Second, DA II.5 distinguishes between two potentials found in knowing subjects, but says nothing about the corresponding potentials in knowable objects.

If we extend the framework of DA II.5 to noetic as well as synthetic thinking, and to kinds of objects as well as subjects, we might arrive at the following analogous account: since the actual object of thought is a νόημα – the form (εἶδος) of a thing (πρᾶγμα) without its matter, insofar as that thing is being known – it follows that the potential object of thought is a νοητόν – the form of a thing without its matter, insofar as that thing is potentially known. This νοητόν exists at two distances, as it were, from being an actual object of thought (νόημα).

At the farther distance, a νοητόν exists only in the matter of the thing whose intelligibility it is.15 A thing is capable of being known even when it is actually neither sensed nor contemplated. At a closer distance, a νοητόν exists in the soul of a subject, not as actually thought (νόημα), but as actually sensed (αἴσθημα). This νοητόν – the intelligibility of the thing being sensed – is present in the sensible form, even though sensation is not of this intelligibility.16 When actual sensation has ceased, the εἶδος of the thing does not cease to exist in the soul altogether, but only to exist as an αἴσθημα – as actually sensed. The εἶδος of the thing remains in the soul expressed in a phantasm (φάντασμα).17 It is in this way that the νοητόν, the


16 DA III.8 432a5: “thoughts are in the sensible forms [ἐν τοῖς εἴδεσι τοῖς αἴσθητοῖς τὰ νοητά ἐστι].” How does the intelligible exist in (ἐν) the sensible? Aristotle does not explain. Perhaps intelligibility is present in a sensible form as a cause is manifested or expressed in its effects. Cf. AnPo II.19 100b3-5

17 The phantasm, in its capacity to embody an εἶδος that is not actually being cognized, is very much like the particular matter of the πρᾶγμα. A phantasm, as it were, plays the part of matter. Cf. DA III.8 432a9-10: τὰ γὰρ φαντάσματα ὡσπερ αἴσθημα ἐστὶ, πλὴν ἄνευ ὕλης. Roopen Majithia, “The Relation of Divine Thinking to Human Thought in Aristotle,” American Catholic Philosophical Quarterly 73 (1999): 386n19, observes that imagination “has a physical and psychical aspect: Aristotle describes the former in terms of the movement of the
intelligibility of the thing, is present in a phantasm as potentially contemplated, even prior to the subject’s actually contemplating it. Following an act of contemplation, the νόημα recedes back, so to speak, as a νοητόν in its phantasm.

On the basis of this extended analogous account, we can refine our question about what the subject does to render potential thinking actual thus: what does the subject do to render a potentially intellected form (νοητόν), present within a phantasm, actually intellected (νόημα)? In the next section, we shall consider whether the answer to this question can be found by examining the two kinds of transitions from potential to actual thinking.

C. OI’S ANSWER

The account previously constructed on the basis of DA II.5 took into consideration the two kinds of potentially known objects, but failed to address how each potency transitions to its fulfillment. While still using DA II.5 as a basic framework, we might extend our account as follows.

soul through the body that takes place after the sense object is gone (459b7ff; 461 a3-8; 461 a25-b15), and the latter in terms of the image without which the immaterial intellect cannot think (431 a8ff; 431 b2ff).”

DA II.1 412a22-23. The εἴδος in the φάντασμα is also αἰσθητόν, but not in a manner that can be actualized. Aristotle makes this point at DA II.5 217a27-28, when he observes that, while sensation depends on the presence of sensible things (πράγματα), contemplation of sensible things can occur even when these things are absent from sense: ὁ δὲ ὅτι βουληθεὶς δυνατὸς θεωρεῖν, ἂν μὴ τὶ κοιλίσῃ τὸν ἐξωθην. We might express this difference between intellection and sensation thus: the αἰσθητόν is present in the soul only after the form has been actually sensed, but the νοητόν is present in the soul before it has been actually contemplated.

Aristotle is insistent that phantasms are necessary for thinking (De mem 449b31-450a2; DA III.7 431a14-17), even when our thinking abstracts from the particular or sensible matter of things (De mem 450a7-9). He says frustratingly little about how phantasms are necessary for thinking. He insists, nevertheless, that the intelligibility of things comes to us through sensation and imagination (DA I.4 408b14-17; DA II.2 414a11-12; DA II.5 417a17-18), and that a phantasm is not what is thought, but that in which form is thought. DA III.8 432a12-14: “they are not images, but are not without images [ἡ οὐδὲ ταῦτα φαντάσματα, ἀλλ’ οὐκ ἄνευ φαντασμάτων].” DA III.7 431b2: “mind thinks forms in phantasms [τὰ μὲν οὖν εἴδη τὸ νοητικὸν ἐν τοῖς φαντάσμοις νοεῖ].”

Aristotle’s discussion of what I am calling the “transition” from potential to actual cognition shares at least the following with his discussions of motion (κίνησις) and change (μεταβολή) in the Physics and Metaphysics:
The first transition, corresponding to what Aristotle describes in *DA* II.5 as ‘learning,’ occurs when a subject actually thinks a form that he has not previously thought, whether this form is previously or newly acquired through sensation. The subject of this first transition either lacks the necessary phantasms from sensation or has these phantasms, but lacks intellectual familiarity with them. By the transition, the subject is brought from his state of lack or ignorance to a state of knowing.

According to our analogous account, the second kind of transition occurs when the subject thinks anew a form that he has previously thought. Nothing external to the subject is needed for this transition; there is neither need nor possibility of a teacher, since the subject is brought not from a state of ignorance to a state of knowing, but from a developed potential to know to the actualization of this potential. Nor is there need for the thing to be presented anew to the subject in sensation, since the intelligibility of the thing has been preserved in the phantasms in the subject’s soul.

wherever there is an actualization of a potency, there must be a cause (αἴτιον) (*Meta* VIII.6 1045a30-32; b21-22). In the *De Anima*, Aristotle is careful to distinguish between the “transition” from potential to actual cognition and alteration in the ordinary sense: unlike alteration, in which one contrary is extinguished by the other (τὸ μὲν φθορά τις ὑπὸ τοῦ ἐναντίου), a transition from sensory or intellectual potentiality to actuality is not a destruction of any actually existing form (*DA* II.5 417b2-5). In this respect, cognitive transition is “either not an alteration of it at all [οὐκ ἔστιν ἀλλοιοῦσθαι]” or is “an alteration in a quite different sense from the usual meaning [Ἑτέρον γένος ἀλλοιώσεως]’’ (b5-7). The subject’s potencies, rather, are preserved by actual thinking: the subject does not cease to be of a certain kind and certain matter, nor does he lose his potential for subsequent actualization, either of this thought or another. On the contrary, in actual thinking, the subject’s potential for actualization [πρὸς ἐντελέχειαν] is developed “into its true self [ἰς ἀὑτὸ] or actuality [ἰς ἐντελέχειαν]” (*DA* II.5 517b5,6).

John Sisko, “Material Alteration and Cognitive Activity in Aristotle’s *De Anima,*” *Phronesis* 41 (1996): 142, notes that Aristotle makes the same point in *Phys* VII.3: “When a builder tiles the roof of a house, he is not altering the house, rather he is perfecting it.”

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22 Cf. Lear, *Desire to Understand*, 105: “When one is learning, one’s soul is undergoing a straight forward change of state. A state of ignorance is being replaced by a state of knowledge.”

23 *DA* III.4 429b8-9; II.5 417a32-b1.
In *DA* II.5, Aristotle unfortunately does not target for discussion what the subject himself does to effect the second transition. Although we know that sensation and, perhaps, a teacher, are *necessary* causes of the first transition from ignorance to actual contemplation, neither sensation nor the words of a teacher are *sufficient* for the second transition from having contemplated to actual contemplation. We are left wondering what the subject does that is sufficient for either transition – whether from *having* sensed or from *having* contemplated to one who *is* contemplating.\(^{24}\)

Although Aristotle does not identify the sufficient cause of the transition to actual thinking by name, he is not entirely silent about what this cause must be like. As the cause of an actuality, the cause must itself be an actuality; neither the potentially thinking subject nor the potentially thought object can, as potential, cause actual thinking. The cause, moreover, must not be just any actuality, but an actuality that is not separate from the actuality of thinking itself.\(^{25}\) Furthermore, since actual thinking occurs *in* the subject, the cause of the transition must either be or terminate in the subject.

OL proposes that the form (*εἶδος*) of the thing that is both sensed and contemplated meets these conditions. The *εἶδος* of a thing is an actuality, both of the thing and of its being thought. Although the *εἶδος*, as *νοητόν*, is potentially thought, as *νόημα*, it is not separate from the single

\(^{24}\) For this reason, I believe Polansky, *De Anima*, 440, unnecessarily restricts noetic thinking to “what we already know.” Presumably, Polansky is concerned to safeguard noetic thinking’s infallibility, which would be jeopardized by the induction he regards as present in learning or coming to know. I differ from Polansky here on two main points: first, I do not believe that the induction that precedes noetic thinking is discursive, although I do not deny that there is a discursive kind of induction. Second, I believe that Aristotle includes under the first transition not only being instructed, but also discovery through observation, unaided by instruction. Cf. Apostle, *On the Soul*, 168: “thoughts of (or as) indivisibles … may be activities or qualities; they are activities when one is thinking, but qualities and possessed by a man when he is not thinking.”

\(^{25}\) *Phys* VII.3 247b1-18.
actuality of actual thinking. This εἴδος, moreover, as νόημα, is as much in the subject as are the phantasms in which the εἴδος is expressed.

Aristotle appears to support this thesis of OI in the manner in which he characterizes the roles of subject and object in actual cognition. Throughout his general account of cognition, Aristotle portrays the subject as potentially suffering or being acted upon by the object; he presents the object, correlative- ly, not as potentially suffering the subject’s action, but as potentially acting upon the subject. Actual thinking, therefore, is a kind of suffering (πάσχειν τι), wherein the soul is acted upon by an εἴδος insofar as it is potentially thought (ὑπὸ τοῦ νοητοῦ). What the subject does to render potential thinking actual, thus, is not a doing, but an undergoing: in actual thinking, it is the thing that acts.

D. Problems with OI

However consonant OI may be with Aristotle’s account of cognition in general, it is inadequate as a response to our target question. For, while the activity of an εἴδος upon the subject is necessary for actual thinking, it is not sufficient. The activity of an εἴδος, present as a phantasm, cannot explain why the subject sometimes is, and sometimes is not, affected by this actuality. The activity of an εἴδος, in other words, cannot explain why the subject is not always present to the actuality that is always presenting itself to the subject.

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26 DA III.2 426a5-6: τοῦ ποιητικοῦ; Phys VIII.4 225a34-35: τὸ ποιητικὸν; cf. Meta IX.8 1050a34-36.

27 DA III.4 429a13-18. Cf. Shields, “Intentionality and Isomorphism,” 308n3: “If the indefinite τι is an accusative object of πάσχειν, Aristotle means (i) in thinking, νοῦς suffers something; if, by contrast, τι is a noun agreeing with πάσχειν, Aristotle means either (ii) thinking is a kind of being affected, or (iii) thinking is a being affected – sort of (that is, thinking is akin to being affected, but not quite a proper instance of it).” Shields supposes that Aristotle intends (iii).
OI is also problematic as an interpretative key for DA III.6. OI conflicts with III.6, first, by implying that the subject of actual thinking is entirely passive. In contrast, in III.6, Aristotle very much emphasizes the role of the subject in actual thinking: in fallible thinking, it is the mind (νοῦς) that makes each thought the unity (τὸ δὲ ἐν συνειδέσει) that it is (b5-6); in infallible thinking, it is by means of the activity of the subject that time and length are divided (b11-12).

OI conflicts with III.6 in a second way insofar as it describes cognition generally, rather than fallible or infallible thinking in particular. This generality is problematic, since it leaves us without an account of what distinguishes these two kinds of thinking. III.6, of course, takes this distinction as its central task.

A defender of OI might respond to these apparent conflicts by saying that the general account of cognition does not hold for both kinds of thinking, but only for infallible thinking. So understood, the central task of III.6 would be to introduce another notion of thinking which can be false. Since fallible thinking is manifestly associated with the subject’s activity of synthesis, the difference between fallible and infallible thinking can be construed as follows: in fallible thinking, the subject acts, while in infallible thinking, the object alone acts. There are two reasons why Aristotle says so little about infallible thinking in III.6, then: first, because he has previously described infallible thinking in his general account; second, because the purpose of the chapter is to introduce fallible thinking.

Although this proposal of OI might suffice as an explanation for the absence of a robust discussion of infallible thinking in III.6, its construal of the general account of cognition as applying exclusively to infallible thinking is manifestly wrong: Aristotle not only mentions fallible kinds of thinking prior to III.6, but also clearly distinguishes his discussions of thinking
in general from his discussions of thinking’s veracity. The reason why the general account appears to be about infallible thinking can be explained thus: the general account addresses what is common to (or necessary for) both fallible and infallible thinking. If this is in fact what Aristotle does in his general account, then the task of DA III.6 must be to introduce not one but two species of the thinking hitherto described only in general terms.

CONCLUSION

In this part, we set out to examine OI’s claim that the answer to our target question is to be found not in DA III.6 but in Aristotle’s general account of cognition. Having noted that this general account reveals only what is necessary but insufficient for rendering potential thinking actual, our turning to DA III.6 with our question has, in a roundabout way, been confirmed. In the next part, we will examine an interpretation that claims to locate in DA III.6 itself a cause that is sufficient for the transition to actual noetic thinking.

II. NOETIC THINKING AS AN ACT OF DEFINING

In this part, we ask again the question posed at the beginning of the chapter but clarified by our examination of OI: what does the subject do to render actual the potentially intellected form within a phantasm? The definition interpretation (DI), whose answer we shall present and critique in this part, can be viewed as a response to the inadequacy of the OI: since neither the potential object nor the potentially thinking subject is a sufficient cause for actual thinking, we
must locate a cause within the activity of the subject. DI proposes that this activity is the act of defining.  

A. THE RATIONALE FOR THE DEFINITION INTERPRETATION (DI)

In contrast to OI, DI holds that Aristotle’s primary task in DA III.6 is to distinguish between two kinds of thinking on the basis of fallibility. III.6 achieves this distinction, adherents of DI contend, by contrasting the objects (νοήματα) that are thought by each kind of thinking; Aristotle does not distinguish between the activities of fallible and infallible thinking directly, but indirectly, by describing two different kinds of objects of thought. We are right to seek the answer to our target question in DA III.6, then, as long as we are aware that we must infer the nature of the activity of infallible thinking from the descriptions Aristotle provides of its object, both in its own right and in contrast to the object of fallible thinking.

B. DI’S ANSWER

According to DI, the two kinds of objects featured in III.6 are predications, on the one hand, and the components of predications, on the other. We shall present below DI’s analysis of each kind of object in turn.

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28 Like OI, DI is not articulated as a unified interpretation by any one of its adherents. Unlike OI, however, DI’s fundamental claims have been expressly defended in recent publications. The account that follows, accordingly, draws heavily on the writings of Enrico Berti, Ronald Polansky, and Richard Sorabji. It is worthwhile to unite the varying claims of these commentators into a single account, not only because the claims are at least mutually supportive and probably mutually entailing; but also because this seems to be the most coherent default position held by those who are convinced that the subject of noetic thinking is not merely passive.

29 DA II.3 415a12- II.4 415a22.
DIVIDED OBJECTS AND THE SYNTHETIC ACTIVITY OF PREDICATING

No sooner does Aristotle state his primary task in DA III.6 than he begins to execute it; after observing that there is a kind of thinking that can and cannot be false, Aristotle proceeds to describe the fallible kind. In this kind of thinking, he says, there is “already some synthesis of thoughts (νοήματα)” (a27-28).

The kind of νοήματα that Aristotle has in mind are suggested by the examples he provides of these synthetic objects of fallible thinking: ‘the diagonal is incommensurable’ (a31), ‘the white is not white’ (b2-3), and ‘Cleon is white’ (b5) are all predications, involving a subject and attribute. Later in the chapter, Aristotle alludes to these examples, calling the object of fallible thinking a ‘saying something about something’ (τι κατά τινος), whether an affirmation (κατάφασις) or a negation (ἀπόφασις) (b26-27).\(^{30}\)

In light of the implicit contrast throughout III.6 between predications, which are thought fallibly, and undivided objects, which are thought without falsity, adherents of DI regard predications as “divided objects.” A predication is divided in the sense that, although it is thought as a unity, this unity is potentially divided into the subject and attribute of which it is composed.

Characterizing the objects of fallible thinking as potentially divided into subject and attribute underscores why this kind of thinking is fallible: wherever it is possible for us to predicate one νόημα of another νόημα, it is possible to do so either in a manner that does or that does not correspond to the attributes that inhere in things (πράγματα). The language of division also helps us to identify, for fallible thinking, the question that we are asking of infallible

\(^{30}\) Reading φάσις as implying both ἀπόφασις and κατάφασις.
thinking: what the subject does, in order to render potential fallible thinking actual, is to predicate. I am potentially thinking a predication when I have in mind a subject and attribute but have not synthesized them. I am actually thinking a predication, as a unity that is potentially divided, when I predicate the attribute of the subject. It is the subject, then, that makes predicational thinking actual (τὸ δὲ ἐν ποιῶν) (b5-6).

**Undivided Objects and the Synthetic Activity of Defining**

Subsequent to his discussion of the divided objects produced by synthetic thinking, Aristotle turns his attention to the objects of infallible thinking. Aristotle unfortunately does not begin this latter discussion as he began the first, with a clear list of examples of objects of thought. According to adherents of DI, Aristotle eventually provides three examples of what can be thought infallibly: a length, an *infima species*, and a point. 31 These examples are introduced in succession, and appear to represent three different ways in which objects are undivided (ἀδιαιρέτον). A length, representing objects that are undivided in quantity (ἀδιαιρέτον κατὰ τὸ ποσόν), is καθ’ αὐτό potentially divided, and κατὰ συμβεβηκός undivided; it is capable of being divided *ad infinitum*, and is undivided only if it is not infinite – if it is continuous within, but not beyond given limits. An *infima species*, representing objects that are undivided in form (ἀδιαιρέτον τῷ εἴδει), is κατὰ συμβεβηκός potentially divided and καθ’ αὐτό undivided. 32 It is divided κατὰ συμβεβηκός into the individuals in which it is instantiated, but cannot be divided

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31 These objects are discussed, respectively, at b8-14, 17-20; b14-17; and b20-26. Cf. Hicks, *De Anima*, 510: “We have a sketch of the way in which three kinds of single notions are thought and known; firstly, the quantitative notions, like length and magnitude, which belong to mathematics; secondly, the *infimae species* of the physical world and, thirdly, the point.”

32 Cf. Hicks, *De Anima*, 516: “[the divisibility of an indivisible in form] is external and foreign to it and no part of its essence.”
into species of lesser generality. A point, representing a third kind of undivided object (τὸ οὖτος ἀδιαιρετον), is potentially divided neither καθ’ αὐτό nor κατὰ συμβεβηκός (b20-23). The reason why a point is not even accidentally divisible is because it is not a continuous magnitude, but a division of a continuous magnitude. Insofar as a point is that by which a continuous magnitude is made actually undivided, it is a principle of unity.

What is of interest to advocates of DI is not the manner in which these examples differ, but the manner in which they are alike: a length, an infima species, and a point are all alike in not being predications. The object of infallible thinking are ‘undivided’ inasmuch as they are not themselves capable of being divided into the components of predications – attributes and subjects. What these undivided objects are, rather, are the potential components of predications – the νοήματα that, in a predication, are “already synthesized” (a27-28). The thought of a length, for example, is potentially the subject of the predication, ‘the length is incommensurable,’ while the thought of white is potentially the attribute of the predication, ‘Cleon is white.’ Undivided objects, in short, are the potential components of divided objects.

Aristotle’s reason for displaying three different kinds of undivided objects, presumably, is to underscore what features of objects do and do not compromise infallibility; it is not the

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33 Hicks, De Anima, 518; Berti, “Intellection,” 152.

34 Meta V.6 1016b29-30: “what is in no way divided in quantity is a point or a unit [τὸ δὲ μηδὲν ἀδιαιρετὸν κατὰ τὸ ποσὸν στιγμῆ καὶ μονᾶς].” Cf. Meta XI.2 1060b12-19; XIV.3 1090b5-10.

35 Berti, “Intellection,” 145, subdivides this third class into causes with contraries and those without. Under the first subdivision, causes with contraries, fall divisions such as the point and privations such as evil or black. The relevant feature is not so much that points and evil have contraries, as that one cannot think of a point or evil without thinking of their contraries. Presumably, Berti regards members of the second subdivision, essences of material realities, as causes without contraries.

particular way in which an object is undivided that renders its thinking infallible, but the fact that it is undivided.

How, then, are these undivided objects thought? Aristotle does not answer this directly. He gives two features, however, of the kind of thinking he has in mind. The first feature appears in the chapter’s opening lines and has been assumed throughout our discussion: the thought of what is undivided is among those things concerning which there is no falsity (a26-27). The second feature appears toward the conclusion of the chapter: the kind of thinking which is always true is the thought of what a thing is (τί ἐστι), according to its essence (κατὰ τὸ τί ἦν εἶναι) (b28).

DI’s central claim is that the kind of thinking by which the essence of an undivided object is thought without possibility of falsity is an act of defining.37 Although Aristotle does not mention the act of defining (ὁρίζω) in III.6, his remarks on the definition (ὁρισμός) elsewhere confirm that such an act is at least a candidate for being the cause of actual noetic thinking. The definition, for one, is clearly affiliated in some manner with a thing’s τί ἐστι, and particularly with its essence (τὸ τί ἦν εἶναι): the definition is “the formula of the essence [ὁ τοῦ τί ἦν εἶναι λόγος],” such that the unity of the definition is caused by the unity of the essence itself.38

There are textual grounds, also, for concluding that the act of defining is infallible. Adherents of DI note that Aristotle regards the parts of a definition, genus and difference, to be

37 None of the commentators surveyed here offer a definition of the definition that they regard as infallible. Is the thought of a nominal definition infallible, or only the thought of a scientific definition?

related not as subject and attribute, but as matter and form.\textsuperscript{39} Both genus and difference, therefore, refer to the same thing.\textsuperscript{40} The act by which the thinking subject joins genus to difference, accordingly, is not an act of predication, but of identification.\textsuperscript{41} A definition does not say one thing of another thing (τι κατά τινος), but merely says one thing – what it is (τι ἐστι).\textsuperscript{42} This is an important distinction, for, if falsity is possible only where one says something about something else, definitional thinking cannot be false. While the acts of predicating and defining are both synthetic, only definitional thinking is infallible.\textsuperscript{43}

If we return to the text of \textit{DA} III.6 with this notion of infallible thinking in mind, we can discern a clearer rationale behind Aristotle’s chosen examples of undivided objects. Although the length, \textit{infima species}, and point are alike in being potential subjects or attributes of predications, they differ in the manner in which each is defined: we define a length by joining together its beginning and ending point (ὅρος), which lie apart; we define an \textit{infima species} by joining together its genus and difference; and we define a point just as we define a privation, namely, by joining together the form (ἐἶδος) of its positive contrary (τῷ ἐναντίῳ) and the

\begin{footnotes}
\footnote{Meta VIII.3 1043b28-32; cf. VIII.6 1045a33-35; V.25 1023b22-25.}
\footnote{Perhaps this is what Sorabji, “Myths,” 498, means when he claims that defining involves “simply referring to the same thing twice.” Cf. Polansky, \textit{De Anima}, 478n8; Apostle, \textit{On the Soul}, 168.}
\footnote{AnPo II.3 90b33-36.}
\footnote{Pierre Aubenque, “La pensée du simple dans la Métaphysique Z.17 et IX.10,” in \textit{Études sur la Métaphysique d’Aristote. Actes du Vie Symposium Aristotelicum}, ed. Pierre Aubenque (Paris: Vrin, 1979), 76n14. In AnPo I.2 72a23-24, Aristotle distinguishes between saying what something is, on the one hand, and asserting that a thing exists, on the other. This is significant for DL, insofar as it removes one element of assertion from the definition; where one makes an assertion, error is possible.}
\footnote{Berti, “Encore,” 134-35; Sorabji, “Myths,” 498. Cf. Polansky, \textit{De Anima}, 478n8, 479, who holds that the thinking of definitions is non-discursive. Polansky unfortunately offers no explanation of how this is possible.}
\end{footnotes}
negation of this form.\textsuperscript{44} All of these definitional syntheses are easy to miss because they are not propositional in character.\textsuperscript{45}

DI sees the complexity of definitional thinking as key to answering the target question – to identifying what the subject does to render potential infallible thinking actual: a subject is \textit{potentially} thinking an undivided object when he thinks its two elements separately, or when he has previously thought its elements together, but is not doing so now; the subject \textit{actually} thinks an undivided object only when he is synthesizing its parts as one.

\section*{C. Problems with DI}

There are three main reasons why DI must be rejected as an interpretation of \textit{DA} III.6, and therefore as an answer to our target question. However coherent DI may be in its own right, it cannot be accepted as an Aristotelian interpretation of the definition, of the conditions for infallibility, or of the character of thinking in general.

\textbf{Definitional Thinking Can Be False}

DI concludes that definitional thinking is infallible. It reaches this conclusion on the grounds that falsity follows only from a \textit{τι κατά τινος} rather than from synthesis, simply, and that a definition is not a \textit{τι κατά τινος}. There are textual reasons to reject both of these grounds for DI’s conclusion.

\textsuperscript{44} \textit{Meta} VII.7 1032b2-6. Because of this common εἶδος, Aristotle regards the thinking of a privation as a genuine actualization of the subject. Cf. \textit{Meta} IX.9 1051a10-12; \textit{DA} I.5 411a3-7: We think (\textit{γινώσκομεν}) what is curved (τὸ δὲ καμπύλον) by means of what is straight (τῷ εὐθεῖ), namely, by means of the positive opposite (τὸ ἀντικείμενον). In defining a po

\textsuperscript{45} Cf. \textit{Meta} VII.17 1041a32-b2: we often overlook the object of inquiry where there is not an explicit predication.
First, in DA III.6 Aristotle says without qualification that falsity follows from synthesis.\textsuperscript{46} Although this remark is delivered in the section which DI associates with predication, Aristotle himself gives no indication that he is speaking of a particular kind of synthesis. He repeats this unqualified association between synthesis and falsity elsewhere, outside of the explicit contrast between two kinds of thinking.\textsuperscript{47}

Second, Aristotle by no means restricts his use of ‘τι κατά τινος’ to predications.\textsuperscript{48} He employs the phrase most often when speaking of predications, but does not hesitate to use it in reference to demonstrations (\textit{άπόδειξις}) and syllogisms (\textit{συλλογισμός}).\textsuperscript{49} Most importantly, although Aristotle consistently denies that definition is a predication (κατηγορεῖται), he nowhere denies that a definition is a τι κατά τινος.\textsuperscript{50} On the contrary, in two passages, he uses this phrase to describe definitions.

In the first of these texts, Meta VIII.3, Aristotle inquires into why it is possible for there to be a definition or an account (ὅρον καὶ λόγον) of a substance (οὐσίας) that is composed (συνθέτου) of form and matter – whether this matter is intelligible or perceptible (ἐάν τε αἰσθητή ἐάν τε νοητή) – but not for the primary parts (αὕτη πρώτων) of such a composite substance

\textsuperscript{46} DA III.6 430b1-2.

\textsuperscript{47} De Int 16a9-16.

\textsuperscript{48} Aristotle uses ‘τι κατά τινος’ in a narrow and broad sense. The narrow sense signifies only something holding of another. The broad sense signifies both something holding of another and something not holding of another (τι ἄπο τινος). The broad sense should be assumed, except where ‘τι ἄπο τινος’ appears nearby.

\textsuperscript{49} In application to predications, see AnPr I.1 24a16-17; I.1 24a26-30; AnPo I.2 72a11-14; De Int 17a20-22; 17a23-26; 19b5-7; in application to demonstrations, see AnPo II.3 90b33-36; in application to syllogisms, see AnPr I.23 40b30-31; II.1 53a8-10; AnPo II.4 91a14-15.

\textsuperscript{50} AnPo II.3 90b35-36: “in definition, one thing is not predicated of another; we do not, for example, predicate ‘animal’ of ‘biped’ [ἐν δὲ τῷ ὁρισμῷ οὐδὲν ἐπερον ἑτέρου κατηγορεῖται, οἷον οὐτε τὸ ζῷον κατὰ τοῦ διπόδος οὐτε τοῦτο κατὰ τοῦ ζῴου].” Cf. De Rijk, Semantics and Ontology, 122. Cf. Fattal, “Intellection,” 435, retains a broad sense of ‘τι κατά τινος,’ calling it only a ‘σύνθεσις.’
He answers that a definatory account (ὁ λόγος ὁ ὁριστικός) signifies something of something (τὶ κατὰ τινος), where one thing plays the part of matter and another the part of form (ὡσεὶρ ὦλην εἶναι τὸ δὲ ὡς μορφήν) (b30-32). There can accordingly be no definition of the ultimate elements of a composite substance, which are themselves not divisible into matter and form.

In a second text, Topics V.4, Aristotle also suggests that a definition is a τὶ κατὰ τινος. Here, Aristotle describes a differentia as related to a species as a τὶς κατὰ τινος: an attribute that flows from the essence (τὸ τί ἦν εἶναι) will be a differentia (διαφορά) applying to some (τὶς κατὰ τινος) one species (ἐνὸς εἴδους).

**INFALLIBLE THINKING IS NON-SYNTHETIC**

A second difficulty with DI concerns its presentation of infallible thinking as synthetic. DI rightly acknowledges definitional thinking to be synthetic, but ignores several indications, both in DA III.6 and in other texts, that infallible thinking is not.

One indication that the activity of infallible thinking is non-synthetic is the pattern of Aristotle’s verb choices throughout DA III.6. Aristotle employs ‘συντίθημι’ when speaking about the thinking that can be false, but never uses this verb when speaking about the thinking that cannot be false. Correlatively, he uses ‘νοεῖν’ when speaking about infallible thinking, but never uses this verb in the sections devoted to fallible thinking.

A second indication of the non-synthetic character of infallible thinking is Aristotle’s use of ‘νοεῖν’ in conjunction with divine thinking, the latter of which he expressly identifies as non-

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51 Topics V.4 132b36-133a3.

52 Aristotle additionally uses ‘δηλόω’ (b21) and ‘γνωρίζω’ (b22, 23, 24) exclusively for fallible thinking, and ‘γιγνώσκω’ (b25) exclusively for the infallible kind.
synthetic. Although Aristotle is careful not to equate human noetic thinking with its divine counterpart, he does not hesitate to point out the likeness between these two kinds of thinking: the actuality that divine thinking possesses unceasingly is possessed by human thinking “in a certain period of time [ἐν τινὶ χρόνῳ].” We pass from potency to actuality, and, in those periods of actual thinking, our thinking is identical with our thought. By extension, where human thought imitates divine thought, it is non-synthetic, both in its object and its activity.

A third indication of infallible thinking’s non-synthetic character lies in Aristotle’s likening the thinking of simple objects as a saying (φάσις or φάναι) rather than as a τι κατά τινος. There are two texts in which this likening is particularly clear. In *Metaphysics* IX.10, the thinking of incomposite objects (ἀσύνθετα) is described as a saying (φάναι), as opposed to an affirmation (κατάφασις). In *De Anima* III.7, Aristotle likens perceiving and knowing (νοεῖν) to the sheer act of saying (φάναι μόνον), in contrast to the subject’s quasi-affirmation or negation (οἷον καταφάσα ἢ ἀποφάσα) in the case of objects that are painful or pleasant. In both of these texts, the simple nature of the object and the contrast with affirmation and negation testify to the

53 *Meta* XII.9 1075a5-6.
54 *Meta* XII.9 1075a7-8.
56 *Meta* IX.10 1052a24-25. Cf. Crivelli, *Aristotle on Truth*, 102n13: “Some commentators (e.g. Torstrik (1862), 196; Rodier (1900), 11 488) claim that Aristotle elsewhere uses ‘φάσις’ to mean ‘predicative assertion’, but their evidence is far from clear cut.” Cf. Ross, *Metaphysics II*, 277: “φάναι does not seem to be used elsewhere by Aristotle as meaning anything other than καταφάναι, but φάσις, in the sense of the term as opposed to the proposition occurs in *De Int*. 16b 27, 17a17.”
57 *DA* III.7 431a8-10.
simple nature of noetic saying. In order to “speak” a simple object, we need not perform any synthesis; we need only give voice to what already presents itself to us as unified.\textsuperscript{58}

Aristotle does not extend this special meaning of ‘φάναι’ to all speaking verbs. In particular, he employs ‘λέγειν’ to signify ‘saying that,’ rather than simply ‘saying.’\textsuperscript{59} The kind of saying signified by ‘saying that’ clearly complex: the subject says that something is painful or that one thing differs from another.\textsuperscript{60}

A further indication that Aristotle regards infallible thinking to be non-synthetic is his manner of naming the objects of this activity. Whatever the πράγματα that are known infallibly may be, the νοήματα of infallible thinking are in every case described as lacking in complexity: in DA III.6, they are called ἀδιαίρετα; in Meta IX.10, ἀσύνθετα; in Meta VI.4, ἀπλά.\textsuperscript{61} How Aristotle distinguishes between simple and complex νοήματα in these passages must differ from how DI proceeds; if the infallibility of the thinking of these νοητά is to be guaranteed, the νοητά must require no synthesis in thought whatsoever. Otherwise stated: a subject can render a νοητόν a νόημα in an infallible manner only if the νοητόν itself has no actual parts.\textsuperscript{62}

\textsuperscript{58} De Rijk, *Semantics and Ontology*, 101, claims that both ‘νοεῖν’ and ‘φάναι’ are used on the onomastic level; they are only assertions in the sense that they propose an assertible.

\textsuperscript{59} De Rijk, *Semantics and Ontology*, 121, argues that ‘λέγειν’ is apophantic.

\textsuperscript{60} DA III.1 425b2; III.2 426b20-22; III.7 431b8-9; DS 447b16, 21.

\textsuperscript{61} For a comparison of these names as applying to νοήματα, see Chapter Two. For their application to πράγματα, see Chapter Four.

\textsuperscript{62} It follows from this that definitions, which Aristotle describes as being both divided (Meta V.6 1016a35; VIII.3 1043b32-1044a2) and with parts (Meta V.25 1023b22-25; VIII.6 1045a12-14), cannot be thought infallibly. As νοητά, definitions are actually divided into their genera and differentiae; as νοήματα, definitions are potentially divided into these parts, although actually unified by the synthetic activity of the subject. Pritzl, “Being True,” 200: “The unity of the definition … is not the unity of the form which is its cause and has its being in itself.”
DI’S NOTION OF A DEFINITION IS UNARISTOTELIAN

If we step back for a moment from the exigencies of DA III.6 in order to take stock of Aristotle’s account of the definition in its own right, it becomes evident that DI’s notion of a definition is not Aristotle’s. After sketching from a psychological standpoint the Aristotelian account of how one arrives at a definition, I shall draw attention to two ways in which DI’s notion of a definition departs from this account.

For Aristotle, a definition is an articulation in speech of what is essential in things. The act of defining requires that the thinking subject has not only had sensual and intellectual contact with the thing in question, but has thoughtfully distinguished between the thing as a whole and the features present in this whole. A further process of distinguishing is required, in which the subject encounters other things similar to the thing in question, and discerns what features these things share and do not share with what is to be defined. At this point, we can say that the subject has in mind both the genus and the difference of the thing, but not that the subject has actually thought the definition. Actual articulation of a definition requires that the subject synthesize these two parts of the definition, whether in thought or in speech. As Aristotle notes throughout the Analytics, there are many ways for the subject to err throughout this process; merely going through the process of formulating a definition is no guarantee that one is defining any actual thing, much less the thing one set out to define.63 A definition falls short insofar as it fails to express accurately the essence of the thing encountered.64


64 For an examination of Aristotle’s use of ‘accuracy’ in relation to thinking, see Chapter Five.
One way in which DI conflicts with this Aristotelian account is by failing to distinguish between a psychological account and a logical or linguistic account of the definition. *DA* III.6 is manifestly psychological in character. Advocates of DI, however, portray both the fallible and infallible kinds of thinking discussed in the chapter as linguistic rather than psychological activities. They offer no explanation, moreover, for why Aristotle would depart without comment from the psychological standpoint he assumes throughout rest of the *De Anima*. The reason why he need not depart from this standpoint in III.6 is clear: Aristotle distinguishes between predicating and defining in his logical works rather than in the *De Anima* because, as *syntheses*, these activities are psychologically indistinguishable.

Advocates of DI depart from Aristotle’s account of the definition in a second way when they anchor the infallibility of defining exclusively in the relationship between the νοήματα within the soul of the thinking subject. It indeed follows, that all *definiens* are true, if they need not correspond to a *definiendum* that is both a νόημα and a πρᾶγμα.\(^{65}\) If this need is dispensed with, no act of defining can fail, because a combination of genus and difference either is or is not a definition of something; if there is no *definiendum* corresponding to my combination, then I have not defined anything wrongly. Alternately, if the *definiendum* comes to exist in my imagination only as a consequence of the act of defining, then the definition is true.\(^{66}\) All of

\(^{65}\) Sorabji and Berti contend that the infallibility of a definition rests on the relation between the parts internal to its *definiens*. In an act of defining, however, what stands in need of explanation is how the *definiens* as a whole can relate infallibly to the *definiendum*. Berti, “Encore,” 135, discusses the relationship between the internal parts of the *definiens*, and then flatly asserts that infallibility follows from this: “the intellect cannot err when it perceives, for example, the essence of the diagonal, incommensurable, or man, that is to say, when it perceives the definition.”

\(^{66}\) Sorabji, “Myths,” 498, offers yet a third construal of the infallibility of definitions: “we are not in error” when we identify a given *definiendum* with a different *definiens*, “because [we] have not succeeded in talking about the subject at all.”
these attempts at explaining the infallibility of the act of defining are unaristotelian insofar as they sever definitions from the things they seek to define.\textsuperscript{67} The conflation between the definition and the thing defined, on the one hand, and the thinking of these things, on the other, is surely DI’s underlying error.

\textbf{Conclusion}

This part has shown that what the subject does in noetic thinking cannot be the synthesizing of definitions. DI presents us with an act that is sufficient for thinking a definition, but not for thinking separately the νοὴματα combined in the act of defining.\textsuperscript{68} Although our examination of DI was unsuccessful insofar as it did not present us with an acceptable answer to our target question, it has assisted our inquiry into the nature of noetic thinking in two ways.

First, the criticism occasioned by our examination of DI confirmed that neither the activity of noetic thinking nor the noetic object can be synthetic in any way. Practically speaking, this realization allows us to identify as synthetic any activity or object that, when actual, is articulated into parts. The thinking of predications, definitions, or the thinking of anything \textit{as} anything else, is all synthetic. When the subject is actually thinking, these thoughts are unities, but they are unities only because the subject has synthesized their parts. Our recognizing noetic thinking’s non.synthetic character similarly allows us to delineate more

\textsuperscript{67} De Rijk, \textit{Semantics and Ontology}, 76, makes a similar observation about the tendency to view predications in abstraction from the natures of the predication’s parts: “the Aristotelian procedure should be described in terms appositively assigning an attribute (κατηγοροῦμενον) to a substrate (ὑποκείμενον), rather than ascribing a predicate to a subject by means of a copula.”

\textsuperscript{68} Cf. \textit{DA} III.6 430b13-14: “But if one thinks a length as made of both halves, one also thinks it in time corresponding to both halves.” Cf. \textit{Meta} VI.4 1027b23-25: “it is another question, how it happens that we think things together or apart; by ‘together’ and ‘apart’ I mean thinking them so that there is no succession in the thoughts but they become a unity.” For similar statements in the sensible domain, see \textit{DS} VII 447b9-13; VII 448a8-10.
clearly between the activities that lead up to and follow noetic thinking, on the one hand, and noetic thinking itself, on the other.\textsuperscript{69} Neither the activity nor the object of noetic thinking can be synthetic in any way, yet as long as synthetic activity truly precedes or follows noetic thinking rather than entering into it, we can readily admit that noetic thinking is surrounded on either side by syntheses.\textsuperscript{70} Were a subject to think of a sphere both before and after defining ‘sphere,’ for example, the subsequent noetic act would be no more articulated than the first. The only difference between the first and second noetic acts would be in the subject’s potential to articulate; synthetic thinking establishes in the subject a potential for subsequent synthesis, but does not make a noetic act synthetic.

A second benefit of our examination of DI is that it helps us to further refine the question formulated through our exploration of OI in Part One: what is the non-synthetic act by which the subject renders the potentially intelleced νοητόν in a φάντασμα actually intelleced, namely, as a νόημα? In the third and final part of this chapter, I propose that this act is an act of division.

\textsuperscript{69} Berti, “Intellection,” 158, in an attempt to distance Aristotle’s account of noetic thinking from that of Plato, fails to distinguish between the synthetic activities that might precede noetic thinking and noetic thinking itself: “The intellection of indivisibles … is not an intuition in the strict sense, that is a knowledge which is immediate, direct, and accessible at once. It is rather one that presupposes a process of research, which has as its point of departure experience, does have a temporal duration, and can be more or less difficult and laborious.”

\textsuperscript{70} In Meta IX.10 1051b30-33, Aristotle mentions a ‘searching’ that might follow noetic thinking (b32). Having made contact with the essence of a thing (a26), we then ask, ‘τί ἐστι,’ and seek to articulate the answer. The τί ἐστι that would fulfill the subject’s seeking is not noetic contact with an essence, but the articulation of the contact in a definition. Cf. Pritzl, “Being True,” 200, 198: “This inquiry into the nature of simple things seeks their definitions and is distinct from noetic contact itself. … The demand to know what the intelligibility of such contact consists in is the demand to move to propositional thinking.” Cf. Heinrich Maier, Die Syllogistik des Aristoteles: die logische Theorie des Urteils bei Aristoteles, vol. 1 (Tübingen: Verlag der H. Laupp’schen Buchhandlung, 1896), 21: “wenn das Denken den Begriff erfasst hat, so muss man weiter fragen, ob demselben gewisse Bestimmungen zukommen oder nicht. Und das kann nur im Urteil geschehen. Der Begriff wird doch erst dann voller Besitz des menschlichen Erkennens, wenn er aus der Sphäre der Intuition in das Licht des diskursiven Denkens, das sein einzelnen Bestimmungen heraushebt, gerückt ist. Schon das primitivste Prädikat, das ihm beigelegt werden muss, das Sein, kann ihm nur im Urteil ausdrücklich zugesprochen werden.”
III. NOETIC THINKING AS AN ACT OF NON-SYNTHETIC DIVISION

In this part, I sketch an alternative to the object interpretation and definition interpretation of noetic thinking, neither of which is able to answer the target question adequately. My alternate account proposes that what the subject does in noetic thinking is to divide in a non-synthetic manner. This account avoids the difficulties of other interpretations by taking as central precisely what they ignore or regard as problematic in DA III.6, namely, the notion of dividing.

The ultimate goal of the upcoming three sections is to show that the notion of dividing is indispensable to Aristotle’s account of noetic thinking. Since the discussion of the activity of noetic division in DA III.6 is cryptic at best, it will be necessary to read this discussion through

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71 I have not found this position articulated in secondary literature, except in the most general terms. Charles Kahn, “The Role of NOUS in the Cognition of First Principles in Posterior Analytics II 19,” in Aristotle on Science: The Posterior Analytics: Proceedings of the Eighth Symposium Aristotelicum, ed. E. Berti (Padova: Editrice Antenore, 1981), 409, recognizes the necessity of some activity on the part of the subject, but does not believe that Aristotle elaborates on the activity’s character: “the intellect actualizes its object, the intelligible form or essence, by somehow identifying this object with itself in act … by identifying these forms with its own nature in the act of contemplating them.” Vasilis Politis, “Aristotle’s Account of the Intellect as Pure Capacity,” Ancient Philosophy 21 (2001): 384, similarly observes that “the capacity to think, even though it involves affection and hence is not purely active like the intellect of God, is not purely passive like perception either.” Sachs, On the Soul, 37, hints at the subject’s activity but does not describe in Aristotelian terms what this activity is like, nor how it is distinct from complex thinking: “It is rather an effortful holding of oneself in readiness. Attentive seeing or concentration in thinking requires work to keep oneself from distraction; it is a potent passivity (dunamis) that becomes activity in the presence of those things that feed it.” Fernando Fiorentino, “Il problema della verità in Aristotele” Sapienza: Rivista di Filosofia e di Teologia 54 (2001): 270, similarly recognizes the need for some activity on the part of the intellect. Fiorentino ventures to say that this activity must not be synthetic in a Kantian manner, but stops short of saying what this activity is like: “Questa passività presuppone però nell’intelletto un’attività, per mezzo della quale tale oggetto è stato elevato allo stato d’intelligenza attuale dallo stato d’intelligenza potenziale, qual è quello che possiede nella cosa in cui si trova da cui è estratto, per l’azione che questa volta esercita su di esso l’intelletto agente. In ogni modo, quest’attività dell’intelletto non va paragonata a quella teorizzata da Kant, secondo il quale il nostro intelletto conosce delle cose «quanto noi stessi poniamo in esse.»” Cf. Esfeld, “Aristotle’s Direct Realism,” 323.

72 OI focuses its attention on the earlier chapter of the De Anima and says nothing about Section B. DI offers an account of what it means to be divided and undivided and acknowledges Section B’s introduction of the line as an undivided object. DI says nothing, however, about the activity of ‘undividing.’ DI thus explains why Aristotle talks about lengths, but not why he talks about the dividing of lengths, much less why he seems to liken the action of dividing to thinking. It is surprising that none of the advocates of DI have attempted to supply this lack by appealing to ‘ὁρίζω’ as a dividing.
the lenses of other texts in which the role of division in cognition is presented with greater clarity and detail. We shall examine these supplementary texts on either side, as it were, of our examination of the pertinent passage in DA III.6, namely, Section B (430b6-14). The first section, accordingly, notes the role that Aristotle accords to division in his De Sensu VI account of proper sensation. On the grounds that Aristotle presents division as playing an analogous role in intellection as in sensation, the second section reads DA III.6 as an account of noetic thinking as non-synthetic division. The third section corroborates the proposed reading of III.6 by situating it alongside other passages in which the notion of non-synthetic division is similarly central.

A. De Sensu VI: Proper sensation as non-synthetic division

In DA III.6, Aristotle introduces the notion of dividing in the very place we expect him to begin describing the activity of noetic thinking, namely, in Section B (430b6-14), immediately following his account of synthetic thinking. It is difficult to recognize this section as an account of noetic thinking, however, because it consists almost entirely of a description of the division of lengths. Aristotle appears to be presenting the division of lengths as analogous in some way to the thinking of what is undivided. Unfortunately, Aristotle neglects to say not only how they are analogous, but also why the analogy with lengths is called for at all.

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73 The only indications that Section B is indeed an account of thinking, as opposed to physical division, are the four appearances of the verb νοῶ [b6 (νοεῖν), 7 (νοῇ), 10 (ἐνοεῖ), 12 (νοῶν)].

74 Charles, Meaning and Essence, 113, asserts that the purpose of the analogy is to highlight the difference between noetic thinking and synthetic thinking. I think noetically if I think only of one object, represented by one length, but I think synthetically if I think of two things, represented by two lengths, conjoined. Although the text permits this reading, Charles provides no evidence from other texts that this is anything more than a possible reading.
In order to answer these questions, I propose turning first to a passage that is structurally similar to Section B. In *De Sensu* VI, Aristotle likens the sensation of proper sensibles to the division of a length. In this text, Aristotle is significantly more explicit both about why he presents the analogy and also about how the two sides of the analogy align. Examining *De Sensu*, accordingly, will assist our inquiry into Section B in two ways. First, it will confirm our contention that the answer to the target question is indeed found in Section B; in at least one other text, Aristotle discusses the division of lengths with a view to answering a question about a cognitive activity. Second, it will allow us to see how the division of lengths is like noetic thinking; on the basis of the relatively more complete cognitive-sensible side of the analogy in *De Sensu*, we will be able to fill out the cognitive-noetic side of Section B.\(^75\)

**Sensing a Proper Sensible as the Dividing of a Length**

In *De Sensu* VI, Aristotle considers why the subject does not notice sensible objects that are extremely small (τὰ μικρὰ πάμπαν) (446a3-5). This question arises from the observation that all sensible objects, as magnitudes, are potentially divisible *ad infinitum* (εἰς ἄπειρα τέμνεται) (445b27). Aristotle responds to the question not by denying the infinite divisibility of sensible objects altogether, but by noting how objects that are potentially sensed become actually so: “we must notice that there is a difference between the potential and the actual [τὸ δυνάμει καὶ τὸ ἐνεργείᾳ ἔτερον]” (445b30-31). As Aristotle’s argumentation indicates, the way we come to notice *this* difference is by first noticing the difference between an object’s potential for being divided, on the one hand, and the subject’s potential for dividing, on the other.

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\(^75\) The *De Sensu* is a later work than the *De Anima*, as several backward references indicate: *DS* I 436b10, 14; III 439a8, 16; IV 440b28. The repetition of the same principles in both texts confirms their importance.
The passage opens, accordingly, with the observation that sensible objects possess two kinds of potential for being divided. What Aristotle seems to have in mind is something like the sensible experience of an evening meal. The dining experience can be divided, in one way, into its audible or visible aspects – into the various species of sense (τὰ μὲν πάθη ὡς εἰδη) (445b29). The audible and visible aspects of the dinner could in turn be divided into their particular audible and visible forms (εἰδη), such as a grain of millet (κέγχρος) or a musical interval (μέλους παντός) (446a1-2). The dining experience possesses this kind of potential for division insofar as it is not essentially continuous (μὴ καθ’ αὑτὸ συνεχές), that is, insofar as the experience is comprised of multiple forms (εἰδη) (445b28-29).

The dining experience is potentially divided in a second way insofar as each of its individual sensible objects, such as the grain of millet and the musical interval, is itself continuous. Because “continuity always subsists in individual sensible forms [ὑπάρχει δὲ συνέχεια ἀεὶ ἐν τούτοις],” these forms can be divided, that is, cut (τέμνω) or limited (περαίνω), just as continua are divided (445b27-30). As continua, the grain of millet and the musical interval possess the potential for being divided into an infinite number of unequal parts (ἀνισα) or into a finite number of equal parts (ἰσα).  

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76 Cf. DA II.6 418a14-15; III.2 426b8-12. Because only one power contributes to the sensation of a proper sensible, the proper sensible is itself of only one species. Because multiple powers coordinate to construct a common sensible and an incidental sensible, however, neither of these objects are of one species. Perhaps Aristotle would describe these objects as divisible into the species of particular senses. In this case, the white being sweet would be divisible into white, on the one hand, and sweet, on the other.

77 Cf. DS VII 449a20-21: “what is sensible is not undivided [οὐκ ἐστιν ἀδιαίρετον αἰσθητόν].” Phys I.2 185b9-11: “the continuous is [potentially] divided into infinity [εἰς ἀπειρον γὰρ διαιρετὸν τὸ συνεχές].” Phys III.6 206a16-17: “we have seen that magnitude is not actually infinite [τὸ δὲ μέγεθος ὅτι μὲν κατ’ ἐνέργειαν οὐκ ἔστιν ἀπειρον], but by division it is [διαιρέσει δ’ ἐστίν].”
For the remainder of the passage, Aristotle turns his attention to this second kind of potential for division—potentially a grain of millet possesses for being quantitatively divided. The reason why we cannot see the thousandth part (μυριοστημόριον) of a grain of millet, even though the grain is potentially divided in this way, is that “there is a difference between potential and actual” division (445a30-31). Aristotle is here invoking a principle that he expresses at greater length in the *Physics*: although a continuous object possesses a potential to be divided *ad infinitum*, this potential is never actualized. Thus, while the grain of millet possesses an objective potential for being divided *ad infinitum*, the only divisions that are actually made are finite in number. The only objective potential for being divided that is ever *actualized*, in other words, is the potential that falls within the limits of the subject’s power (δύναμις) to sense. The powers of sight and hearing, evidently, are not capable of dividing what is visible and audible into units that are extremely small (τὰ μικρὰ πάμπαν); it is for this reason that we do not see the “ten-thousandth part in a grain of millet” and do not hear “the quarter-tone [τῇ δίεσει φθόγγος]” or “the interval between the extreme sounds [τὸ δὲ διάστημα τὸ τοῦ μεταξὺ πρὸς τοὺς ἐσχίτους]” (446a2-4).

Aristotle next identifies the act by which a potential division in a sensible object is made actual: a division in an object remains potential unless it has been parted (μὴ χωρίς) by the subject (a6). An object exists as actually present to a subject, that is, if and only if the subject

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78 *Cf. Phys III.6 206a18-21*: “It is not necessary for us to take [the infinite as potential] just as [we take] the statue of a man to exist potentially if it will exist actually; there will not be an actual infinite [οὕτω καὶ ἀπαραφόν ὃ ἔσται ἐνεργεία].” Note that Aristotle’s explanation for the impossibility of infinite division, both here and in *Phys VI.10 241a2-4* and *GC I.2 317a6-9*, is rooted in the nature of the object rather than in the nature of the dividing subject. *Cf. Lear, Desire to Understand*, 71: “for any process of division, there must be divisions which could have been made which in fact were not made.”

79 *DS VII 449a20; Phys IV.11 219a11.*
divides the object from the continuity (συνεχοῦς οὐντος) of which it is a part (a2-3). The act of sensing a proper object is, as it were, a counting to one, regarding the thing as a measure unto itself.\textsuperscript{80} Apart from this act of division, an object is present to a subject only potentially, whether as a whole large enough for the subject to divide, or as aggregated (προσγενόμενον) to some such whole (a13-15).

Midway through the De Sensu passage in question, Aristotle presents the same notions of objective and subjective potencies for division with respect to a length, rather than a sensible object. He does so, seemingly, to underscore the role of continuity in the object’s potential for division. “The foot-length,” he says, “exists potentially in the two-foot length, but actually only when it has been separated (ἀφαιρεθεῖσα) from the whole” (446a6-7). As essentially continuous, a length, like a sensible object, is potentially divided into smaller lengths that are of the same continuous nature. Such a length, moreover, is potentially divided either into an infinite number of unequal lengths, or into a finite number of units. Thus, both the foot-length and the ten-thousandth foot-length both exist potentially in the two-foot length, but neither of these exist actually for the subject unless the subject makes a division (ἀφαιρεθεῖσα) (a7).

\textbf{Observations}

I would like to draw attention to several aspects of the De Sensu passage that will be important for the forthcoming exposition of Section B in DA III.6. First, Aristotle’s apparent reason for appealing to lengths in this passage is pedagogical. The notions of the infinite and the potential are not only central to answering why we do not sense extremely small objects, but are also exceedingly difficult to grasp; we know the potential only through the actual, and the

\textsuperscript{80} Meta V.17 1022a8-10; X.1 1052b19-26.
finite exists only as potential. Recourse to an abstraction such as length removes some of the difficulty of grasping these two notions: it is easier for us to imagine the length of a bronze sphere existing as potentially abstracted from our thought of the bronze sphere, than it is for us to imagine potential objects of sense or intellect – αἰσθητά or νοητά – existing in things – ὄντα. Similarly, it is easier for us to imagine the successive division of a length, whose potential parts are homogeneous, than to imagine the successive division of an organic body.

Second, the kind of sensible objects Aristotle describes in this passage pertain to the sensation of proper objects, not to the sensation of common or incidental objects. Only an object that is an instance of a single species (εἴδος) is continuous in such a way as to be potentially divided into parts of the same nature. Objects constituted by the coordination of multiple sense powers have a unity that is less than the unity of a single species. These complex sensible objects accordingly possess a different kind of divisibility than the simple objects of a single sense. By attending exclusively to the divisibility of objects of proper sensation, Aristotle signals that his concern is with the quantitative divisibility of what is qualitatively the same. In this passage, in other words, Aristotle is not concerned with why we sometimes cannot distinguish, for example, between magenta and maroon; such a distinction between colors is

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82 For Aristotle’s recognition of the difficulty one faces when attempting to form a phantasm of what lies outside experience, see Meta VII.11 1036a35-1036b7.

83 Cf. DA II.6 418a24-25: the sensation of proper sensibles is sensation in the strictest sense (κυρίως ἐστιν). Is Aristotle defining sensation as the power to non-synthetically divide one particular sense object of its kind from all others?
qualitative, not quantitative. This distinction can be made only where complexity is present – in objects where more than one species (of red, say) is expressed.\(^{84}\)

Third, what Aristotle names in the *De Sensu* passage as the smallest possible divisions – the quarter-tone and the foot-long length – are elsewhere called ‘measures’ (μέτρον).\(^{85}\) Since the quarter-tone and foot-line are objectively capable of enduring further division, they are not called ‘units.’\(^{86}\) Since we who perceive the quarter-tone and foot-line are not capable of executing any further divisions, however, these objects which are ‘undivided to perception’ (ἀδιαίρετα πρὸς τὴν αἴσθησιν) function as units for us.\(^{87}\) Interestingly, Aristotle says that the way we come to know what is undivided to perception is by dividing (διαιροῦντες) a given object, either quantitatively or qualitatively (κατὰ τὸ ποσὸν ἢ κατὰ τὸ ἔδοξ), presumably, until we can divide no more.\(^{88}\)

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\(^{84}\) Aristotle’s ultimate focus on quantitative divisibility, here in *De Sensu*, is significant insofar as it foreshadows a similar focus in DA III.6: a noetically simple object – a νοητόν expressing only one infima species – is potentially divided from the thought of its particular matter, sensible matter, or intelligible matter. The mental division of form from various kinds of matter reflects the division of a grain of millet, for example, into successively smaller magnitudes.

\(^{85}\) A measure is an undivided object according to which judgments are possible regarding a given class of things. *Meta* V.6 1016b19-24: “everywhere, the one is undivided in quantity or in form [πανταχοῦ δὲ τὸ ἐν ἢ τὸ ποσὸν ἢ τῷ ἐδει ἄδιαιρετον].” *Meta* X.1 1052b33: “even among lines, we treat the foot length as uncut [ἐν ταῖς γραμμαῖς χρῶνται ὡς ἀτόμω τῇ ποδιαί].” *Meta* X.1 1052b34-35: “the simple is such either qualitatively or quantitatively [τοῦτο δὲ τὸ ἀπλοῦν ἢ τῷ ποιῶ ἢ τῷ ποσῷ].”


\(^{86}\) In *Meta* XIV.1 1087b33-1088a3, Aristotle implies that a measure is “undivided to perception” is divisible κατὰ τὸ ποσὸν: while the measure of qualities is undivided in form [τὸ μὲν κατὰ τὸ ἔδοξ] the measure of quantities is undivided to perception [τὸ δὲ πρὸς τὴν αἴσθησιν].

\(^{87}\) *Meta* X.1 1053a21-24.

\(^{88}\) *Meta* X.1 1053a19-20.
Fourth, what Aristotle is discussing here seems to be a non-synthetic form of κρινεῖν.\footnote{Theodor Ebert, “Aristotle on What is Done in Perceiving,” Zeitschrift für philosophische Forschung 37 (1983): 184-87, recognizes differences among Aristotle’s uses of κρίνω, although he does not draw attention to the difference between simple and complex sensible objects in the texts he examines. His suggested translations, nevertheless, align with the view presented here: ‘κρίνω’ in proper sensation is a ‘discerning’ or ‘distinguishing,’ while ‘κρίνειν’ in more complex sensation is a ‘deciding.’} Aristotle uses variants of κρίνω to describe cognition, both sensible and intellectual, of both complex and simple objects.\footnote{Cf. DA I.2 404b25-27.} The effect of κρινεῖν, in every case, is awareness.\footnote{DA III.3 427a19-21: “the soul distinguishes [κρίνει] and knows [γνωρίζει] what exists [τῶν ὄντων],” taking καί as epexegetical.} What the subject does when discriminating complex and simple objects, however, is not identical.

With respect to simple objects of cognition, the subject discriminates X from ~X, where X is a particular sense object that is actually sensed, and ~X is the set of all particular sense objects that are potentially, but not actually being sensed.\footnote{Phys II.2 193b33-35: “that is why he separates [διό καὶ χωρίζει] for they are separable in thought from motion [χωριστά γὰρ τῇ νοησιᾷ κινήσεως ἑστὶ], and there is no difference or coming to be of falsity, if they are separated [καὶ οὐδὲν διαφέρει, οὐδὲ γίγνεται ψεῦδος χωρίζοντων].” There is no possibility for falsity in cognizing X, since this act does not synthesize X and ~X, but only cognizes X.} Here, the discrimination of X from its background of ~X just is the actualization of X as an object for the cognizing subject.\footnote{A potential object is, by definition, not actually an object for a subject. Cf. DA III.2 425b20-22; II.10 422a20-23: “it is by sight that we discriminate darkness from light, though not in the same way as we distinguish one colour from another.” Cf. DA II.12 424a21-24: “the sense is affected by what is colored or flavoured or sounding, but it is indifferent what in each case the substance is.” The number seven, we might say, is not an object for a base-six system.} We

\textit{...}
see the bronze hue of a sphere, for example, precisely by not attending to any other color within our field of vision. The color of the sphere alone is actually sensed, while all other colors serve as a background for this actual discrimination.94

It should be emphasized that the subject’s act of dividing X from ~X is both necessary and sufficient for his actually cognizing X; when the subject does not divide in this manner, X is only potentially cognized, and the subject is only potentially cognizing. Apart from the subject’s activity of dividing X from ~X, the sensible object is not an object for the subject; it is an object for the subject only as long as the subject is dividing it from the continuity of which it is a part.95 Aristotle gives no indication that this is problematic for his broader account of sensation as being affected by objects.

With respect to complex objects, the subject discriminates either X as Y or that X is Y. In this case, the discrimination of X from ~X is necessary but insufficient for actual cognition.96 For cognizing complex objects, in addition to discriminating X from ~X and Y from ~Y, the

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94 There are two distinctions that are certainly relevant to this example, but that Aristotle does not explicitly address. One is the difference between seeing and perceiving; the other, the difference between the field of focus and the field of vision. Do I perceive what is outside my field of focus, but inside my field of vision?

95 Cf. DS VII 447b9-13; VII 448a8-10. The unity referred to here is the unity of the object, constituted by the subject’s unifying activity. Sachs, On the Soul, 33: “never does Aristotle construe the noun or verb as naming anything but an activity. As we shall see, even when Aristotle speaks of the intellect as passive, indeed as pure and unmixed passivity, he is still speaking of a high level of concentrated activity, in no way compatible with any notion of a mind stored with ideas.” Michael V. Wedin, Mind and Imagination in Aristotle (New Haven: Yale University Press, 1988), 175: “On the interpretation offered here, that productive mind makes all things simply states a condition on the mind actively thinking an object. The mind is productive just in the sense that the object it happens at t to actually think was prior to t potentially an object of such thought.”

96 Aristotle seems to make this point when he notes that sight discriminates the absence and the superabundance of color differently than it discriminates one color from another. Cf. DA II.10 422a20-23; III.2 425b21-22.
subject must also synthesize the two discriminations. To perceive the white as sweet, for example, requires not only the previous or current perception of white and sweet, but the synthesis of these perceptions by the subject.

B. De Anima III.6: Noetic thinking as non-synthetic division

In what follows, I shall use the cognitive side of the analogy in DS VI as a pattern for constructing a fuller account of the noetic side of the analogy in DA III.6. My construction will use the ‘length’ side of both passages’ analogies as a middle term.

Although the structural similarity between the two analogies is sufficient to justify the project of this section, it is helpful nonetheless to note three further similarities between the passages themselves. First, in both passages, the analogy between cognition and the division of lengths is given as a response to a question about division. In DS VI, the supposed questioner inquires why our senses cannot track the smallest divisions in things, while in DA III.6, the question concerns the thinkability of the diagonal length that Aristotle mentions at 430a31: granting that the thought, ‘the diagonal is incommensurable’ is synthetic, and granting that the non-synthetic kind of thinking is of ‘what is undivided,’ how are we to think of a diagonal length? As potentially divided ad infinitum, the length does not seem to be undivided; but as a single νόημα in a σύνθεσις, ‘line’ seems not to be divided after the fashion of syntheses, either.

A second similarity between the two passages concerns the explanatory principles at work in Aristotle’s response to each question. In both passages, Aristotle equates what is continuous with what is potentially divided (and cognized), and what is discrete with what is

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97 The De Anima passage opens with an explicit discussion of this synthesis (430a28-b6). Although Aristotle does not appear to be concerned with synthesis in the De Sensu passage, one might construe his closing reference to aggregation (προστετόμενον) (a15) in this way.
actually divided (and cognized). In both passages, he also makes a further distinction between an object’s potential to be divided and a subject’s potential to divide.

A final similarity worthy of note between *DS VI* and *DA III.6* concerns terminology. This similarity is not immediately evident, since the passages employ different expressions to approximate the same meaning. Where *DS VI* speaks of cutting (τέμνω) or limiting (περαίνω), of what is essentially continuous (συνεχές), and of what is not essentially continuous (μὴ καθ’ αὐτὸ συνεχές), *DA III.6* speaks of dividing (διαιρέω), of what is undivided in quantity (ἀδιαιρέτον κατὰ τὸ ποσόν), and of what is undivided in form (ἀδιαιρέτον τῷ ιδεί).

Before proceeding to the exposition of *DA III.6*, we might note one difference between the focus of the two parallel passages that is illustrative of their complementarity. In *DS VI*, Aristotle’s concern is to explain the small object that is actually divided *from* a larger aggregate. In *DA III.6*, his concern is with objects that are not divided *into* smaller objects. These two phrases – divided from and not divided into – reflect opposing perspectives on the same actuality, namely, an object that is wholly one.

**Dividing Lengths**

As noted above, the question that occasions Aristotle’s otherwise arbitrary discussion of the division of lengths concerns the thinkability of a diagonal length: how does a length, which is potentially divided *ad infinitum*, relate to the thinking of what is undivided?

Aristotle’s response to this supposed question begins with an observation about the meaning of ‘undivided.’ ‘Undivided,’ he notes, is said either as potential or actual. The distinction is especially clear in the case of lengths. As continuous entities, lengths are potentially divided *ad infinitum*. Because a length is actually divided only when a subject
divides it, the length’s potential for infinite division is never actualized. The only lengths that are actually divided are those being divided by a subject. Even though a given length (μῆκος), AC, is potentially divided into a segment half its length (ἡμισῦ), AB, the half-segment exists only potentially until the subject divides it at point B (b10). The length’s continuous nature – its capacity for repeated division – permits rather than prevents (οὐθὲν κολύει) actual division (b6-8). Each successive division of a length is a realization of something that is at once discrete, because it is divided at either end, and yet continuous, because it is divisible at any point between those ends. When a subject divides length AC at point B, he actualizes a limit within the continuity of AC. This dividing activity realizes a new discrete unity in thought.98

DIVIDING νοητά

The distinction between what is potentially and actually undivided applies similarly to thoughts as it does to lengths. A νοητόν, as it exists in a phantasm, is potentially divided at successive levels. In this respect, it is like a length, which is objectively potentially divided without limit, but which is actually divided according to the limits of the nature and character of the subject who divides.99

At the most rudimentary level of intellectual activity, the subject renders a νοητόν within a phantasm a νόημα by dividing the νοητόν from the material aspects of the phantasm itself. The νοητόν that is in the phantasm but not of it is distinguished (χωρὶς … νοῶν) from the phantasm

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98 In Phys IV.4 211b12-14, Aristotle describes form (εἶδος) as the boundary of the thing (τοῦ πρᾶγματος).
99 Our ability is limited as a species by our nature as hylomorphic knowers, and individually by our ability to distinguish between sensible and intelligible matter, for instance, will have less potential for the more refined noetic divisions than one who can achieve this distinction. The difference between ‘νοῦς’ as signifying a habit (ἐξίς) and as signifying an excellence (ἀρετή) is taken up in greater detail in Chapter Five.
as an object in its own right (b11-12). At this point, the νόημα is akin to the length AC: it is continuous (ἀδιαιρέτον κατὰ τὸ ποσόν) insofar as it retains the possibility for being further divided from matter, but it is discrete (ἀδιαιρέτον τῷ εἴδει) insofar as its limits, that is to say, its form, has already been realized.100

The same subject might subsequently return to this νοητόν and make a division at a more refined level. Having once thought of a bronze sphere with all of its peculiarities, for example, the subject might now think of the bronze sphere without its matter (ἄνευ ὄλης) (b31). 101 The division, in this case, differs from the division made previously; the subject divides from the νοητόν, which is of the bronze sphere’s matter and form, the thought (νοητόν) of its form, leaving behind the thought (νοητόν) of its matter. This kind of division of form from matter obtains, whether the matter in question is particular, sensible, or intelligible. 102 A subject might thus think of the same bronze sphere – the same πρᾶγμα – without its matter in three ways: when dividing from the νοητόν the thought of particular matter, the subject thinks of a bronze sphere; when dividing the thought of sensible matter, the subject thinks of a sphere; when dividing the thought of sensible matter, the subject thinks of a sphere; when dividing the

100 Aristotle recognizes quantity (πόσον) that is definite (διωρισμένον) and indefinite (συνεχές) (Cat 4b20). That he intends indefinite quantity in III.6 is evidenced by his description of a length both as continuous (συνεχές) (430b19-20) and as ἀδιαιρετόν κατὰ τὸ ποσόν (b14).

101 In DA III.4 429b10-14; cf. b20-21; Meta VI.1 1025b28-34; DC I.9 278a23-25, Aristotle distinguishes between the acts by which a νοητόν is thought along with its matter, on the one hand, and apart from its matter, on the other. In Phys II.2 194b8-9; Meta VIII.6 1045a33-35, he lists different kinds of matter.

102 DA III.7 431b12-16. Cf. Hicks, De Anima, 511-12: “So long as a νοητόν is διωρισμένον, logical analysis can always go on separating, τὸ μὲν τὸδε δὲ τὸδε, so much form, so much matter: if no longer sensible matter, then logical or intelligible matter.” Cf. Lowe, “Kinds of Thinking,” 23.

Aristotle appears to hint at the isomorphism of successive levels of noetic division in DA III.4 429b10-18; 18-22. When we think of water and the essence of water, or of what is straight and straight, these objects are apprehended “by a different power or by the same power in a different state (ἄλλος ἔχοντι κρίνει; ἑτέρος ἔχοντι κρίνει).” The different states of the power could reasonably be attributed to the different potential object (as matter) on which the activity of dividing acts.
thought of intelligible matter, the subject thinks of the essence of a sphere. In each of these cases, the subject makes separate (ποιεῖ) in a thought (νόημα) what is not separate in the thing (πρᾶγμα).

The underlying structure of these acts of noetic thinking is identical to that of proper sensation. In every case, what the subject does, to render a νοητόν within a phantasm a νόημα, is to divide X from ~X. Here, as with proper sensation, ~X is not actually cognized, but serves as a necessary background against which X appears to the subject. X alone is cognized, not as related to ~X, but as a unity in its own right. In this respect, dividing X from ~X is non-synthetic; by dividing in this manner, we think only one thing. Without this unifying activity,

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103 Cf. Lear, Desire to Understand, 122: “If we wish to arrive at something truly formal, we must ask, what is it to be a straight line? Here the answer might be: the shortest distance between two points. This is the form embodied in any straight line.” Lear is correct to characterize a thing’s essence – its τὸ τί ἐίναι – as purely formal. However, I find Lear’s description here of the thinking of essence misleading; what Lear describes is clearly a synthetic act of thinking a definition, not a non-synthetic act of thinking an essential unity.

104 Meta XIII.3 1078a22; De mem 450a2-7. The three cases of division correspond respectively to the objects of physics (Phys II.2 194b12-13; II.2 194a12-15), mathematics (AnPo I.13 79a7-10), and first philosophy (DA I.1 403b16). Deborah K. Modrak, “Aristotle on the Difference between Mathematics and Physics and First Philosophy,” Apeiron 22 (1989): 122-23, observes that Aristotle reserves the language of abstraction (ἀφαίρεσις) to mathematical thought; the objects of physics and first philosophy are described as separable in definition and as being thought separately (κυττά τὸν λόγον), but not as ‘abstract.’ Modrak’s claim about the uniqueness of the term ‘abstraction’ differs from the claim I am defending about the activity of dividing in a non-synthetic manner. While the terminology Aristotle employs when speaking of the objects of physics, mathematics, and first philosophy may differ, the activities by which these objects are thought appear structurally indistinguishable: an object comes to be actually contemplated only if the subject divides, thinks separately (χωρίς), or thinks by “an effort of taking away [πάθη καὶ ἐξ ἀφαιρέσεως],” the form from the matter of a νοητόν (DA I.1 403b13).

105 DA III.6 430b10-11: “it is not possible to say what one was thinking in each half [time], for [the half time] does not exist, if one does not divide [οὐ γὰρ ἔστιν, ἀν μὴ διαιρεθῇ].”

106 Unlike sensation, however, where ~X is comprised of all objects potentially, but not actually sensed, in the case of noetic thinking, matter in its own right has no potential for being known.

107 This kind of thinking can be articulated by a list of ways in which X is or is not like ~X, but it cannot be reduced to this list. Butler and Rubenstein, “Nous of Simples,” 239n4, conflate these two ways of knowing – in relation and in itself – when they ask, “if contact only means ‘correct but partial grasp,’ why is the only contrast with contact complete ignorance (agnoia)?”

no actual thinking is possible.\textsuperscript{109} Where this manner of thinking is present, falsehood is impossible.

**DIVIDING TIME**

The structure of noetic thinking as an act of non-synthetic division is confirmed by Aristotle’s presenting the actuality of time, as well as that of lengths and νοήματα, as dependent on the subject’s activity of dividing. Since time, as well as lengths and thoughts, is continuous, it is potentially and actually divided in the same manner as these other continua (b19-20).\textsuperscript{110} Just as lengths and thinking are objectively potentially divided *ad infinitum*, but actually divided only when a subject makes a division, so is time potentially divided at any now, but actually divided only when a subject divides. A subject divides time in this way by dividing his own activity of thinking (b11-12). Only as long as the subject makes such a division in thinking is time actual for him; only as long as the subject is actualizing different unities in his thinking is he actualizing unities within the continuum of nows. Thinking and time are actual only when they are discrete.

There are two errors that commentators have fallen into, regarding the relationship between time and noetic thinking. One error is to conflate time’s potentially being divided between nows with the divisions that the subject potentially makes in his thinking. Those who involves only “eliminating something from consideration. This is not a matter of collecting particulars and somehow arriving at a general idea.”

\textsuperscript{109} The activity of dividing can accordingly not consist in looking to an object already actually present in the soul. Nor can the object remain an actual object of thought once the subject has ceased actually dividing. The time of thinking corresponds to the activity of thinking, which in turn corresponds to each object’s potential to be thought. Cf. *DA* III.6 III.4 429b5-9; 430b14-20. Hilary Putnam, “Aristotle’s Mind and the Contemporary Mind,” in *Aristotle and Contemporary Science*, ed. Demetra Sfendoni-Mentzou (New York: Peter Lang, 2000), 9: “[Aristotle commits] himself to the commonsense view that in sense perception we are directly aware of properties of objects and not of representations, and that in thought we directly conceive of properties and things.”

\textsuperscript{110} *Phys* IV.11 219a10-14; V.4 228b1-3; VI.5 236b16-18; *Meta* V.6 1016a5-6. Hicks, *De Anima*, 517, emphasizes that the subject’s activity of thinking is responsible for dividing the time.
espouse this conflation sever the mutual dependence of divisions in time with the divisions in thinking. It would follow from this error that noetic thinking occurs part-by-part, because the time of thinking is potentially divided into parts.\textsuperscript{111} The opposite error regarding the relationship between time and noetic thinking is to misunderstand ‘actually undivided’ time as ‘not potentially divided’ time. If this were the case, thinking would occur in or at a now.\textsuperscript{112} This is impossible, though, insofar as an actual thought is a change, bounded on either temporal side by a division; change cannot occur in or at a now.\textsuperscript{113}

C. \textbf{OTHER TEXTS ON THE SUBJECT WHO THINKS BY DIVIDING}

In this final section, I present three themes that are closely related to the activity of dividing. These themes differ from the discussion of noetic thinking in \textit{DA} III.6 in that they view the activity of dividing from the standpoint of the subject who divides rather than from the standpoint of the object that is undivided. The three themes are complementary to the reading of noetic thinking as an act of division insofar as the same distinctions we observed at work in \textit{DA}

\footnote{111 Berti, “Intellection,” 151: “They are then not necessarily grasped all at once, because the time in which they are grasped can be divided into a series of successive moments.” Cf. Fiorentino, “Il problema della verità,” 265, who rightly imputes temporality to noetic thinking, but wrongly construes noetic thinking as the perception of an attribute holding universally of a subject: “Il tempo è richiesto alla manifestazione dell’essere sia da parte dell’oggetto sia da parte del soggetto. È richiesto da parte del soggetto, perché questi ha bisogno di accertare, attraverso l’osservazione, che alcune attribuzioni dell’oggetto lo accompagnano sempre o quasi sempre: ciò comporta, da parte del soggetto, il veder l’essere nel tempo. È richiesto da parte dell’oggetto, perché non qualsiasi oggetto è sempre nella pienezza del proprio essere. Il vivente, per manifestare pienamente la sua natura, ha bisogno di un lungo processo, che avviene nel tempo, durante il quale esso, senza mai diventare altro da sé, cresce e si sviluppa per portare all’atto tutte le potenzialità racchiuse nella sua natura. E poiché non si conosce se non ciò che è in atto, l’oggetto, per manifestare le sue potenzialità latenti, ha bisogno del succedersi del tempo.”

112 Biondi, \textit{Posterior Analytics} II.19, 240, 39n28, holds this view. He attributes temporal duration only to the expression of the thought in language.

113 It seems to me that this second error arises because we are not aware of movement ‘between’ the divisions in thought and in time.
III.6 (viz., potential and actual division, subjective and objective potential, and the continuous and the discrete) are at work in them as well.

**THE SUBJECT AS UNDIVIDED BY HIS OWN ACTIVITY**

In Book III of the *De Anima*, Aristotle describes the cognizing subject as being both divided (διαιρετός, χωριστός) and undivided (ἀδιαίρετος, ἀχώριστος).\(^{114}\) A subject is called either ‘divided’ or ‘undivided’ according to whether he is actually or only potentially engaging in the activity of dividing.

A subject is *divided* insofar as he has the potential for becoming not one but a multitude of forms; the intellect is capable of becoming the forms of all things, as a sense power is capable of becoming all forms within a particular species of sensible object.\(^{115}\) Rather than being a source of disunity, this potential for division is one way in which the subject is unified.\(^{116}\) The subject who is potentially thinking all things is unified, as it were, in the same manner as what is continuous: the potential for division is infinite.\(^{117}\)

A subject is *undivided* insofar as he is actually thinking one thing – when he is giving his undivided attention, as it were, to one particular unity. The unity that a subject enjoys in virtue of becoming identified with one particular unity differs from the unity mentioned above; here, the subject makes himself discrete by his act of discriminating. As long as the subject is actually

\(^{114}\) *DA* III.2 427a6-14; III.2 426b28-29.

\(^{115}\) *DA* III.4 429a22-28; III.4 429b29-31; II.6 418a24-25.

\(^{116}\) What is one according to form is more properly unified than what is one because it is a quantity and continuous, but we call both of these ‘one’: *Meta* V.6 1016b11-16; X.1 1052a22-26. “And in fact mind as we have described it is what it is by virtue of becoming all things” (*DA* III.5 430a14-15) “the mind is the form of forms and sense the form of sensible things.” (*DA* III.8 432a2-3)

\(^{117}\) *DA* I.3 407a6-7: Now mind is one and continuous (ὁ δὲ νοῦς εἷς καὶ συνεχής) in the sense in which the process of thinking is so (ὁσπερ καὶ ἡ νόησις).
thinking this unity, he is limited; his potential for thinking a different unity cannot be actualized.\textsuperscript{118} Since actually thinking this unity does not destroy the subject’s potential for thinking other unities at different times, however, the subject may still be said to have a “continuous nature.”\textsuperscript{119}

Aristotle’s claim that the undivided subject actually cognizes only one unity is worth investigating. In explicating this claim, Aristotle appeals at once to the unity of the object thought and also to the unity of the time of thinking. He expresses both of these unities in terms of the absence of division.

From one perspective, the subject’s being undivided is caused by an object’s being undivided: the way the subject becomes undivided is by identifying himself with an undivided form. From another perspective, the subject himself is a cause of his becoming undivided: it is by his own activity of dividing that a potentially undivided \( νοητὸν \) becomes actually undivided, a \( νόημα \).

Aristotle states, rather than argues, the impossibility of the subject’s cognizing two unrelated unities at the same time: “Nor can one discern the components in compounds \([τὰ μεμειγμένα]\) simultaneously … unless, indeed, on condition of perceiving them as one \([ἐὰν μὴ ὡς ἐν αἰσθάνηται]\).”\textsuperscript{120} The necessity here is reminiscent of the principle of non-contradiction:

\textsuperscript{118} \textit{DA} III.2 427a6-7. Cf. \textit{Phys} VIII.5 258b1-3: what is “divisible though actually undivided \([διαιρετὸν εἶναι, ἐντελεχεία δ᾽ ἀδιαιρετὸν]\), if it is divided, will not continue in the possession of the same capacity \([ἐὰν δὲ διαιρεθῇ, μηκέτι εἶναι ἐχον τὴν αὐτὴν φύσιν]\).”

\textsuperscript{119} Cf. \textit{DA} III.4 429b8-9; III.5 430a14-15: “There is, on the one hand, mind that becomes all things \([ὄ μὲν τοιοῦτος νοῦς τῷ πᾶντα γίνεσθαι], and, on the other hand, mind that makes all things \([ὄ δὲ τῷ πᾶντα ποιεῖν]\).”

\textsuperscript{120} \textit{DS} VII 448a8-10; VII 447b20-21. The following argument might be made for why a subject cannot actualize all forms simultaneously: if to actualize a unity is to divide it from what it is not, the actualization of all divisions would leave nothing from which any unity could be divided. Perhaps this is one application of Aristotle’s observation that “we cannot think anything without a continuum \([νοεῖν οὐδὲν ἄνευ συνεχοῦς]\)” (\textit{De mem} 450a7-9).
“for not to have one meaning is to have no meaning, and if words have no meaning our reasoning with one another, and indeed with ourselves, has been annihilated; for it is impossible to think of anything if we do not think of one thing [οὐθὲν γὰρ ἐνδέχεται νοεῖν μὴ νοοῦντα ἔν].”

Aristotle is careful to note that there is a manner in which it is possible for us to cognize two unities at the same time: we do this by cognizing two unities as a unity (ὡς ἕν), either by intellectual synthesis or by sensing something as mixed. Thus, when a power discriminatestwo separate things as two, the power does this in two separate times and itself is divided; but when a power takes two things as one, it does so in an undivided time and is itself undivided. Every cognition, thus, is actually one, whether it has been made one by mixture or not. It is for this reason that Aristotle describes thinking as a succession of wholes.

Aristotle follows a similar pattern in expressing the subject’s unity with respect to time:

“in one and the same power [μίαν δύναμιν] the perception actualized [κατ’ ἐνέργειαν] at any one undivided time [ἄτομον χρόνον μίαν] is necessarily one; only one stimulation or exertion [μία χρήσις καὶ κίνησις] of a single power being possible in an undivided time.”

The temporal nature of the subject’s activity is bound by two denials: thinking can occur neither in a now nor

121 *Meta* IV.4 1006b7-10.

122 *Meta* VI.4 1027b23-25. The only limitation on a faculty’s capacity to perceive multiple forms as one, apparently, is the perception of contraries. Cf. *DA* III.2 427a8-9: “It is not possible to be at once white and black, and therefore it must also be impossible for a thing to be affected at one and the same moment by the forms of both [οὐδὲ τὰ ἑλθῃ πάσχειν αὐτῶν], assuming it to be the case that sensation and thinking [ἡ αἴσθησις καὶ ἡ νόησις] are properly so described.”

123 *DA* III.2 427a9-16.

124 *DS* VII 447b13; VII 448a8-10.

125 *DA* I.3 407a7-8. Cf. Hicks, *De Anima*, 519: “I take ὃ νοεῖ to mean a single thought, one link in the chain of thoughts of which actual thinking consists.”

126 *DS* VII 447b17-20.
in a time that is actually divided. The reason for the first denial is as follows: the time of thinking is divided just as the power is divided; the power is divided because of its continuous nature; a now cannot be actually undivided because it is not continuous. The reason for the second denial is similar: thinking is actual because it is of a form that is one in form; time is unified just as thinking is; therefore, all thinking occurs in time that is one, made discrete by the subject’s dividing two nows.

**The Subject Divides, If Nothing Prevents Him**

In *DA II.5*, a passage briefly considered but overlooked in its details by OI, Aristotle describes the difference between the man who is capable of learning grammar, on the one hand, and the man who knows grammar already, on the other. The latter kind of knower can actualize his potential to contemplate (θεωρεῖν) on two conditions: first, if he wishes (βουληθεὶς), and second, if something does not prevent him (ἂν μή τι κωλύσῃ) from without (τῶν ἔξωθεν). Aristotle’s focus in this passage is on the knower himself as a cause of his activity. In order to achieve this focus, he mentions a necessary condition outside of the knower.

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127 *Phys* VI.3 234a30-32. Cf. Ross, *De Anima*, 300 and Hicks, *De Anima*, 516, who suggest that thinking occurs in an instant, rather than between instants: “the act of thought and the time it takes are instantaneous and absolutely indivisible.” Cf. Themistius, *On Aristotle’s On the Soul*, trans Robert B. Todd (Ithaca: Cornell University Press, 1996), 110.15: “this is among the marvels of the intellect: that while it hears in time, it thinks not in time, but in the now that is either not even time at all, or is time that has no parts.”

128 *DA III.2* 426b17-29: “[the discriminating power] is unseparated [ἀχώριστον], and [discriminates] in an unseparated time [ἐν ἀχώριστῳ χρόνῳ].” *DA III.2* 427a9-16: ἤ δὲ ἕνι, ἐν καὶ ἀμα; *DS VII* 447b17-20: ἀτομὸν χρόνον μίαν; *DS VII* 448b17-20: ἐν ἕνι καὶ ἀτόμῳ χρόνῳ.


130 Does ‘τῶν ἔξωθεν’ (and, in *Meta* IX.7, ‘τῶν ἐκτός’) refer to what is outside the body of the thinking subject, or what is outside the activity of thinking? If the latter, what division would distinguish the outside of an act from the inside?
Outside of the *De Anima*, there are two important texts in which Aristotle similarly describes the actualization of a potential in terms of the removal of a barrier. In *Meta IX.7*, Aristotle uses the phrase to define something that comes to fulfillment from potential (ἐντελεχείᾳ γιγνομένου ἐκ τοῦ δυνάμει) as a result of thought (ἀπὸ διανοίας)’ (1049a5-6). Something comes to be as a result of thought, Aristotle says, if it comes to be (γίγνηται) when it has been wished (ὅταν βουληθέντος) and if nothing hiders it (μηθενὸς κωλύοντος) from without (τῶν ἐκτός) (a6-7). In both *DA II.5* and *Meta IX.7*, Aristotle lists both ‘wish’ and ‘the removal of what prevents’ as conditions for the transition from potential to actual thinking.

It is interesting to note how Aristotle departs from this pattern in a passage in the *Physics*. *Phys VIII.4* begins in a manner highly reminiscent of *DA II.5*: there is a difference between the potential possessed by one who is learning a science (ὁ μανθάνων ἐπιστήμων) and by one who has the science but is not activating it (ὁ ἔχων ἡδὴ καὶ μὴ ἐνεργῶν) (255a33-34). After generalizing and then recapitulating the difference between the potentials of these two knowers (255b2-3), Aristotle turns his attention to the second kind of knower. At this point, the question Aristotle seems to have in mind is, ‘what brings about the fulfillment of the second knower’s potential to contemplate?’ Surprisingly, Aristotle here makes no mention of wish: when someone is in the state of having a science but not activating it (ὅταν δ’ οὖσαν ἔχη), he actively contemplates (ἐνεργεῖ καὶ θεωρεῖ), *if nothing prevents him* (ἔάν τι μὴ κωλύη) (b3-4). By omitting here any reference to wishing, Aristotle focuses our attention on the role of removing whatever prevents activity. It is impossible for contemplation to occur, as long as something...
contrary to contemplation is present. But what are the contraries—the barriers—that prevent actual contemplation?

In none of the passages just reviewed—DA II.5, Meta IX.7, and Phys VIII.4—does Aristotle name any particular barriers to contemplation. Extrapolating from the account of cognition in general, we might supply the following: a subject is prevented from contemplating a given form, X, either by the presence of the matter in which X resides or by the presence of a different form. I am prevented from actually thinking of a bronze sphere, for example, just as long as I am not dividing the form of a bronze sphere from its phantasm. Most often, the reason why I am not dividing the form of a bronze sphere from its phantasm is because I am occupied with some other activity—dividing the form, say, of a stone cylinder from its phantasm.

If this extrapolated account is correct, we can explain in greater detail how the subject’s activity of non-synthetic dividing contributes to both the presence and the removal of the barrier to the actual contemplation. In every case, the reason why X is not being contemplated is because its matter is not being divided from its form. In turn, the reason why a wakeful subject is not dividing the matter of X from its form is because he either wishes to or is forced to contemplate something else. Since the subject cannot act on his wish to contemplate two different unities at the same time, each act of contemplation at once prevents and then yields to another act. The barrier to the contemplation of a bronze sphere is removed, in other words, in the same way in which it was erected, namely, by an act of division.

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131 Cf. Phys VIII.4 255b4-5: ἢ ἐσται ἐν τῇ ἀντιφάσει καὶ ἐν ἀγνοίᾳ. Aristotle suggests that the activity of contemplating cannot occur as the same time as the ‘activity’ of being ignorant.

132 In Meta IX.9 1051a29-32, Aristotle describes an act of division as what brings about the actual thinking of potentially existing geometric constructions. The geometer’s thinking (νόησις), as an act of dividing, is an actuality (ἐνέργεια). In this text, it should be noted, the act of dividing seems to be more akin to physical division.
ACTUAL THINKING AS STANDING AND RESTING

In passages in four separate works, Aristotle employs the language of standing (ἵστημι) or resting (ἠρεμέω), rather than dividing, to describe what is necessary for actual thinking to occur. We could read each of these passages as responding to a puzzle concerning the actuality of thinking: granting that the activity of thinking is an actuality (ἐνέργεια), how does it come about that we think successive different objects? There does not seem to be any potential in the activity of thinking itself, whereby the actuality would be changed. In each passage, Aristotle’s response to this puzzle is to point to the necessity of a rest or stand in the subject’s thinking. The ἐνέργεια is complete, as it were, at every moment of the undivided time. But the time and the thinking is divided only when ἐνέργεια comes to a stand.

The four passages read as follows. In Physics VII.3, Aristotle simply observes that “the terms ‘knowing’ and ‘understanding’ [ἐπίστασθαι καὶ φρονεῖν] imply that the intellect [ἡν διάνοιαν] has reached a state of rest and come to a standstill [ἡρεμῆσαι καὶ στηναί].”133 A similar observation in DA I.3 confirms that the subject’s stopping and resting is required both for synthetic and for non-synthetic thinking. In this text, Aristotle likens both thinking (νόησις) as well as syllogizing (συλλογισμός) more to resting and standing (ἡρεμήσει τινὶ καὶ ἐπιστάσει) than to motion (κινήσει).134 In De Int 3, Aristotle indicates that the same principle holds of our thoughtful speaking and listening: “When uttered just by itself a verb is a name and signifies

than cognitive division of form from matter; most likely, the subject is drawing a line in his imagination. If this is correct, the kind of division at issue in this text is synthetic, and the kind thinking is, as well. Cf. De mem 449b31-450a2.

133 Phys VII.3 247b11. Aristotle subsequently describes knowing as occurring when the soul settles down (τῷ γὰρ καθίστασθαι) (b17-18).
134 DA I.3 407a32-34.
something – the speaker arrests [ἵστησι] his thought [τὴν διάνοιαν] and the hearer pauses [แหละμησεν].” In a fourth text, *Meta II.2*, Aristotle offers an analogy to explain the impossibility of thinking without ceasing: if we were to begin and never stop making divisions in a length (οὐκ ἀριθμῆσει τὰς τομὰς), we would never arrive at a definite length. Analogously, if our thinking consisted always of analysis, we would never arrive at a discrete form. But thinking is itself made discrete, that is to say, made actual, only when the object thought is discrete. Thus, we will not actually think if we do not make a stand (νοῆσαι δ’ οὐκ ἐστι μὴ στήσαντα).

In addition to clarifying the nature of thinking as an ἐνέργεια, Aristotle’s description of actual thinking as a resting and standing also confirms our reading of *DA III.6* in two ways. First, the language of standing and resting supports the same explanatory distinctions as the language of division, namely, the continuous and the discrete, the potential and actual: it is because the activity of thinking is a continuity that the subject possesses the potential to stand or rest at any moment; it is only by the subject’s actually standing or resting that thinking is made discrete and thus actual. Second, the language of standing and resting, like the language of division, is capable of explaining the two aspects of the unity of an undivided thought: a thought of X is actual, that is to say, discrete, only if there are two moments, before and after which the subject is *not* thinking X, but between which the subject *is* thinking X, and nothing else.

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135 *De Int* 16b19-21.
136 *Meta II.2* 994b16-27.
CONCLUSION

At the outset of this chapter, we sought to identify what the subject does, to render potential noetic thinking actual. In Part One, we saw that the forms of things, as actualities, are necessary but insufficient to effect the transition from potential to actual thinking; the presence of form, as an actuality, in the soul of a subject does not explain why the subject sometimes is, and sometimes is not receptive to this actuality. In Part Two, we saw that the synthetic activity of defining, while sufficient for rendering complex thinking actual, can in no way be associated with noetic thinking. Noetic thinking cannot consist in the thinking of definitions, for such thinking is synthetic, and the possibility for falsity follows from synthesis. In Part Three, we surveyed three kinds of texts, each of which indicate that noetic thinking is an act of non-synthetic division. In order to render a potentially contemplated form actually so, the subject need only divide the thing’s form from the matter of the phantasm, or the thought of the thing’s form from the thought of its matter. This activity is infallible, inasmuch as it is non-synthetic; the form of a thing is thought as a unity in its own right, distinguished from but not compared with any other unity.

By way of conclusion, I would like to offer some brief responses to two questions that may have arisen in the reader’s mind over the course of this chapter. First, if Aristotle understood noetic thinking as the chapter contends, namely, as an act of non-synthetic division, why did he not say this overtly? One possible explanation for Aristotle’s silence is that he regarded the non-synthetic nature of noetic thinking to be manifest from experience; anyone who reflects on his own thinking as an activity will notice that his attention is moved, now to this
unity, now to another – always a succession of wholes, always an interplay between the continuous and the discrete.

Another possible explanation is that Aristotle intended his account of the activity of proper sensation as non-synthetic division to suffice as an account for foundational cognition in general. If the structure of non-synthetic division is isomorphic across the spectrum, the structure need not be re-presented at each turn.137

The correctness of either of these possible explanations gives rise to a second question: if Aristotle believed his presentation of the nature of noetic thinking to be adequate, why have commentators almost universally failed to notice it? Here, again, I would like to propose two possible explanations. First, there is a tendency among commentators to conflate actuality and synthesis, and thus to regard the absence of synthesis as the absence of activity. This seems to be the root of A. C. Lloyd’s conclusion that non-discursive thinking – “thinking of, say beauty, without thinking something about beauty,” – is “bizarre, unplauble, unintelligible.”138 The same assumption appears to underlie assessments of Aristotle’s account of sensation: despite ample texts to the contrary, the prevailing view is that all acts of κρινεῖν are inherently synthetic.139

137 On this reading, Aristotle’s extended account of the nature and truthfulness of sensation is a twofold investment in intellection: first, insofar as intellection is founded on sensation, if truth is not possible at the level of sensation, it cannot be regained at higher levels. Second, insofar as intellection is structurally similar to sensation, examination of the structure on the sensible level is preparatory for a similar examination on the intellectual level. Cf. Hamlyn, “Aristotle’s Account of Aesthesis,” 7, who believes that Aristotle does not build intellectual certainty on proper sensation.


A second possible reason why commentators fail to notice the non-synthetic nature of noetic thinking is their assumption that activity and passivity must be mutually exclusive between two members of a relation. Of course, nothing can be active and passive at the same time and in the same respect. But there is no difficulty in saying that the activity of dividing is the means by which the subject is receptive to the intelligibility of things.¹⁴⁰

The next chapter directs our inquiry to the nature of these things that can be thought by an act of non-synthetic division: what kind of unity must these things possess, in order to be thought noetically? and what kinds of things are unified in this way?

¹⁴⁰ Fattal, “La composition des concepts,” 373: “Le fait de penser n’étant pas altéré par son objet est dit «impassible» mais tout de même «capable de recevoir» (δεκτικόν) la forme.” Long, Nature of Truth, 167, expresses this interplay in grammatical terms: “despite Aristotle’s division of the discussion of νοῦς into the passive and the active, these dimensions of νοῦς must, like perceiving and being appeared to, be understood in the middle voice.”
CHAPTER FOUR:
THE ONTOLOGY OF THE NOETIC OBJECT

The previous chapter examined noetic thinking as a psychological activity and revealed it to be an act of non-synthetic division. The present chapter shifts the dissertation’s focus from the activity of noetic thinking to the activity’s potential objects. What is meant in this chapter by ‘object’ is not what exists only in the soul of a thinking subject – the νοητά or νοήματα present in phantasms – but what exists independently of and potentially in such a subject – πράγματα or ὄντα. The particular aim of this chapter will be to distinguish between the πράγματα that are and are not capable of becoming the νοήματα of noetic thinking: what they are, and what features enable or prevent them from being thought by non-synthetic division.¹

The textual challenges to this inquiry are twofold. The first challenge is by now familiar: Aristotle nowhere explicitly identifies, whether by definition or example, what kinds of things are capable of being thought noetically. Methodologically, therefore, we take as our starting point neither a clear referent nor a clear meaning of ‘noetic object’ or ‘noetically thinkable thing.’

The starting point that is available to us, rather, is a set of descriptions of how things noetically thinkable are unified. The ambiguous character of these descriptions, appearing in DA III.6 and Meta IX.10, poses a second difficulty: each description could be understood to apply alternately to πράγματα or νοήματα. Our inquiry into the nature of noetically thinkable things,

¹ Where the inquiry necessitates mentioning both kinds of objects, I shall refer either to the Greek names (νοητόν or νόημα, on the one hand, and πράγμα, on the other), to avoid imputing to Aristotle the complicated ontology that ‘psychological object’ and ‘ontological object’ might imply.
therefore, requires that we carefully distinguish between the ontological and psychological application of each description of unity.

Mindful of these challenges, we proceed in the present chapter as follows. The first part explores the meaning of each of Aristotle’s four descriptions of how things that are noetically thinkable are unified: ‘undivided in quantity,’ ‘undivided in form,’ ‘uncomposed,’ and ‘without matter.’ The second part argues that material composite singulars alone are unified in these four ways; neither universals nor immaterial substances are unified in the way requisite for noetic thinking.²

I. FOUR WAYS NOETICALLY THINKABLE THINGS ARE UNIFIED

Between the two texts specifically devoted to the discussion of noetic thinking – *DA* III.6 and *Meta* IX.10 – Aristotle mentions four ways in which noetic objects are unified. Things that can be thought noetically are described as undivided in quantity (ἀδιαιρέτον κατὰ τὸ ποσὸν), undivided in form (ἀδιαιρέτον τῷ εἴδει), uncomposed (ἀσύνθετον), and without matter (ἀνευ ὑλῆς). The goal of this first part of the chapter is to supply, both from the two aforementioned texts and from related passages, an extended account of the meaning of each way of being unified.

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² By considering whether immaterial substances are sufficiently unified to be thought noetically, I do not intend to attribute to Aristotle what has been called the “doctrine of pure form” – the belief that form is capable of existence entirely apart from matter (Ryan, “Pure Form in Aristotle,” 209). My purpose in this chapter in drawing attention to the unity of immaterial substances, rather, is dialectical and critical. I wish to show that, if pure forms existed (or if Aristotle believed that pure forms existed), they could not be thought noetically.
A. UNDIVIDED IN QUANTITY: UNITY WITH RESPECT TO THE PARTS OF A WHOLE

Aristotle employs the term ‘undivided in quantity’ (ἀδιαιρέτον κατὰ τὸ ποσὸν) only once in *DA* III.6. The term appears at the beginning of Section C, unaccompanied by a definition or example (430b14). Aristotle provides two indications in Section C, nonetheless, of what ‘undivided in quantity’ means.

Aristotle first contrasts the unity of what is undivided in form with the unity of what is undivided in quantity (b16-17). The purpose of the contrast is to explain the unity of what is undivided in form: what is undivided in form is divided not in the way that what is undivided in quantity is divided (viz., καθ’ ἑαυτό, by its own nature), but in the way that it is undivided (viz., κατὰ συμβεβεκός, by the activity of a subject). The manner in which Aristotle presents this contrast is interesting on two counts. First, the unity of what is undivided in quantity is presented as familiar to the reader; we will understand how what is undivided in form is divided, only if we understand how what is undivided in quantity is divided and undivided. Second, the unity of what is undivided in quantity is fully displayed only by noting both how these things are divided and how they are undivided.

A second indication of the meaning of ‘undivided in quantity’ comes from Aristotle’s apparent identification of being undivided in quantity with being continuous. Immediately after contrasting what is undivided in form with what is undivided in quantity, Aristotle mentions lengths and time twice, identifying these on the second occasion as continuous (b19-20). If Aristotle is indeed equating being undivided in quantity with being continuous, and if he is presenting lengths and time as examples of continua, then his earlier assumption that the reader is familiar with what is undivided in quantity is grounded in two ways. First, with respect to the
order of Aristotle’s works: the nature and unity of continuous quantity are discussed in the
*Categories* as well as in the *Physics*, both of whose dating precedes that of the *De Anima*.

Second, with respect to the order of argumentation in *DA* III.6: the unity of lengths and time is
discussed in Section B (b6-14), immediately preceding the contrast between what is undivided in
quantity and what is undivided in form.

In what follows, we look to other descriptions of what is undivided in quantity and what
is continuous, both to confirm and to expand upon the meaning of ‘undivided in quantity’
suggested in *DA* III.6. We shall look in particular to those passages that describe how what is
continuous is divided, on the one hand, and undivided, on the other.

**BEING CONTINUOUS VERSUS BEING DISCRETE**

Aristotle offers several brief descriptions of what is continuous (συνεχές) throughout his
corpus. The description most commonly consulted is from *Physics* V.3. In this text, Aristotle
locates the meaning of ‘continuous’ with respect to the meaning of three other terms, namely,
‘successive’ (ἔφεξῆς), ‘touching’ (ἀπτόμενον), and ‘contiguous’ (ἐχόμενόν). Something is
continuous “when the limits of each [τὸ ἑκατέρου πέρας οἷς] touch [ἅπτονται] and become one

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3 The account of continuity in *Phys* VI.1 is more dialectical and less introductory than that of *Phys* V.3. Aristotle’s aim in the later text is to show that “a continuum cannot be composed of indivisibles (ἀδύνατον ἐξ ἀδιαιρέτων εἶναι τι συνεχές) (231b24).

4 W. D. Ross, *Aristotle’s Physics: A Revised Text with Introduction and Commentary* (Oxford: Clarendon Press, 1955). 626, observes that “the relations between the four main terms are not altogether clear … [for] the continuous is described indifferently as a species of the ἐχόμενον and of the ἀπτόμενον.” Jean De Groot, “A Husserlian Perspective on Empirical Mathematics in Aristotle,” *Proceedings of the American Catholic Philosophical Association* 80 (2007): 96, notes that the account of continuity in the *Physics* is “notoriously plagued by foundational difficulties,” stemming in large part from the mathematical perspective Aristotle assumes when discussing whether extremities touch. Cf. *Meta* XI.12 1068b27: things whose extremes (τὰ ἄκρα) are together (ἀμα) touch (ἀπτέσθαι); *Phys* V.3 226b23: ἀπτέσθαι δὲ ὅν τὰ ἄκρα ἀμα; *Phys* VI.1 231b17-18; 26-29: the extremities (τὸ ἔσχατον) of things that are continuous (τῶν συνεχῶν) are one (ἔν) and in contact (ἀπτετοῦν); but the extremities of points (τὰ ἔσχατα τῶν στιγμῶν) can neither be one (οὐτε γὰρ ἔν) nor together (οὐθ’ ἀμα).
and are contained in each other [συνέχetai]. This is impossible if the extremities [τοῖν ἐσχάταιν] are two [δύοιν]” (227a10-13). As W. D. Ross observes, the notion of continuity presented in Physics V.3 is closely related to the notion of unity:

Two things cannot strictly speaking be continuous, since an extreme of one thing cannot be identical with an extreme of another thing alongside of it in space. On the other hand there is no difficulty in saying that an extreme of one part of a single thing is identical with an extreme of another part of the same thing.5

Aristotle’s description of the continuous in the Categories does not enter into the technical details and mathematical perspective of the Physics account.6 Aristotle’s approach in the former work is to identify what is continuous with respect to its contrary, what is discrete (διωρισμένον), rather than with respect to broader ways of being related.7 Continuous and discrete quantities are distinguished according to whether there is or is not a common boundary (κοινὸς ὁρος) at which the parts (μορίων) of the quantity touch (συνάπτει).8 Every potential part

5 Ross, Physics, 69. Cf. De Groot, “Empirical Mathematics in Aristotle,” 96: “Extremities, being without magnitude, cannot touch, since things touch part to part not whole to whole, nor can two things occupy the same primary place without being the same thing.”

6 De Groot, “Empirical Mathematics in Aristotle,” 96: “In treating what we take to be the composition of the continuum in Physics V.3, Aristotle shifts between a mathematical and a physical characterization of the unity of endpoints of continuous segments of magnitude.”

7 For a helpful display of the distinctions Aristotle draws between (1) the unity of contact, (2) the unity of having and holding, and (3) the unity of the continuous, see Ignacio De Ribera-Martin, “Unity and Continuity in Aristotle,” Apeiron 50 (2017): 225-46, and especially 226-41. De Ribera-Martin roots his inquiry in passages in the Physics and Metaphysics and ultimately relates his findings to the De Anima account of the unity of soul and body. I regard my examination of Aristotle’s account of continuity to be compatible with but distinct from that of De Ribera-Martin: like De Ribera-Martin, my ultimate concern is to relate a certain notion of continuity to Aristotle’s account of the soul and its activity; unlike De Ribera-Martin, I begin my examination from a passage in the Categories that De Ribera-Martin does not consider. The Categories account of the continuous is central to my purpose of elucidating DA III.6, insofar as both texts feature the presence or absence of a certain kind of boundary or division.

8 Cat 4b25-26, 31. It would have been helpful if Aristotle had reserved one term for the mathematical sense of ‘boundary’ and another term for the more physical sense. Unfortunately, context provides no help in our discerning the differences between ‘άκρον,’ ‘πέρας,’ ‘ἐσχάτον,’ or ὁρος. For ‘άκρα,’ see Phys V.3 226b23; Meta XI.12 1068b27; DA I.3 407a29; and II.11 424a4-7. For ‘πέρας,’ see Meta V.17 1022a3-13; Phys II.2 193b31-32; IV.4 212a3-6; DA I.3 407a23-28; and III.2 427a13-14. For a non-mathematical use of ‘ἐσχάτον,’ see DA III.2 426b14-17: “It is clear that flesh is not the ultimate sense organ [ἡ σάρξ οὐκ ἐστι τὸ ἐσχάτον ἀισθητήριον]; for if it
of a continuum, accordingly, has a boundary in common with its potentially neighboring part. It follows from this that the parts of a continuum are necessarily of the same nature (ὁμοομορφῆς).\(^9\)

Since the boundary between the parts of a continuum is itself contained in those parts, the boundary must not be of a different nature than the parts.

The unity enjoyed by a continuum should be contrasted with the unity enjoyed by other kinds of wholes. A pile of sticks, for example, is one because its parts are touching one another; its parts are discrete and are not held together by any internal principle.\(^10\) Although the individual sticks do not share a common boundary with one another, these sticks are nevertheless parts of a whole, because they are in contact. Two sticks that are not touching, on the other hand, are not one thing but two. Even if the sticks are of the same nature, because they are not touching, they are not parts of the same whole.\(^11\) Discrete parts, in other words, are separated from one another, while remaining parts of the same whole. Since discrete parts do not share a common boundary, it is possible for those parts to have natures that differ, both from one another and from their boundaries. A boundary that is not contained in and common to the parts it

\(^9\) Berti, “Encore” 129. In DS VI 445b27-28, Aristotle seems to imply that continuous parts are of the same nature, while parts related as discrete are not: “what is continuous can be cut into infinite unequal, but finite equal parts; what is not essentially continuous [τὸ δὲ μὴ καθ’ αὐτὸ συνεχὲς] [can be cut into] finite species [εἰς πεπερασμένα ἔνδη].”

I interpret this to mean that, while what is discrete may have some parts that are of the same nature, these parts differ in nature from the boundaries that distinguish them as discrete. The stones of a tower, for example, are homogeneous with one another, but are not homogeneous with the mortar or air that separates stone from stone.

\(^10\) Meta V.6 1016a7-9: “Those things are continuous by their own nature [καθ’ αὐτὰ δὲ συνεχῆ] which are one not merely by contact [μὴ ἄφῃ ἐν]; for if you put pieces of wood touching one another [θείης ἄπτωμα], you will not say these are one piece of wood or one body or one continuum of any other sort [ἄλλο συνεχὲς οὐδὲν].”

\(^11\) Meta XI.12 1069a10-12: Only in things “in which there is no touching [ἐν οἷς δὲ μὴ ἔστιν ἁφὴ]” is there no “organic unity [οὐκ ἔστι σύμφωσις ἐν τούτοις].”
divides, moreover, is necessarily of a different nature; if it were of the same nature as the part, there would be no distinction between it and the part.

**TWO WAYS OF BEING CONTINUOUS**

In several of his physical works, Aristotle posits a distinction within the class of continuous entities: some continuous entities are homogeneous at every potential level of division – the elements – while other continuous entities are homogeneous at one level of division, but not at another – mixed bodies. This refinement of the notion of continuity is helpful for clarifying several aspects of Aristotle’s discussion of ‘undivided in quantity’ in *DA III.6.*

Something is an element (στοιχεῖον) if it “is not itself divisible into bodies different in form [ἄδιαίρετον εἰς ἕτερα τῶ ἐιδέα].” An element is homogeneous, that is, “into nothing [εἰς μηδέν]” In an element, sameness of specific form is thoroughgoing: if, *per impossibile,* every potential division were actualized (εἰς ἄπειρου γὰρ διαιρετόν), the resulting parts would still be of the same nature.

In contrast, something is a mixed body if it has heterogeneous parts that are divisible into homogeneous parts, or if it has homogeneous parts that are divisible into heterogeneous parts. Flesh, for example, is homogeneous insofar as it is divisible into parts having the nature of flesh.

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12 *DC III.3 302a14-18; cf. Meta V.3 1014a33-34: an element is that whose parts, when divided, are not different in kind (ἔκείνα δὲ μηκέτ’ εἰς ἀλλὰ εἰδέα διαιρέοντα).

13 *GC I.2 317a6-9: a magnitude (τὸ μέγεθος) is divisible into nothing (εἰς μηδέν) not in the sense that it is simultaneously divided at every point, but in the sense of being divisible at any point. Aristotle implies that the potential parts of a magnitude that is divisible ‘into nothing’ are homogeneous; no matter at what point we divide, the parts on either side will be of the same nature.

14 *Phys I.2 185b10-11; DS VI 445b27; Meta X.1 1053a24; DC III.4 302b14-19.*
Insofar as these parts of flesh can be divided into elements differing in nature, however, they are heterogeneous.¹⁵

Four things should be observed about the distinction between being continuous ‘into nothing’ (viz., at every level), on the one hand, and being continuous only on one level. First, Aristotle regards an entity as genuinely continuous, even if it is not divisible at every level. Second, all of the entities Aristotle mentions when he distinguishes between the two ways of being continuous are particular material composites. The entities and their parts have both form and perceptible matter, rather than merely intelligible matter.¹⁶ Third, the nature of any given part is determined by the whole of which it is a part. Aristotle never speaks of parts as existing as parts independently of wholes; a part that has been separated from its whole is a part in name alone, since it no longer has the nature of the whole.¹⁷ Fourth, any given entity either is or is not continuous at every level. An entity does not become continuous, in other words, only when we think it as such. By thinking, we do not bestow or actualize a continuous nature upon a thing; we discover it.

Taken collectively, these four observations suggest that the reason Aristotle mentions lengths in DA III.6, is not to provide an example of a continuous entity, but to illustrate one kind of continuity – the kind that is not perceptible to the senses. Lengths are divisible into nothing;

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¹⁵ GA I.18 722a16-35. In this text, Aristotle asks whether semen comes from the homogeneous or heterogeneous parts of the body. At a16-17, flesh is regarded as homogeneous, but at a32-35, flesh is regarded as heterogeneous, insofar as it is composed of fire and other elements.

¹⁶ GA I.1 715a9-11: “the material of animals is their parts – of the whole animal the non-homogeneous parts, of these again the homogeneous, and of these last the so-called elements of bodies.”

¹⁷ Meta VII.10 1035b24-25: “it is not in all cases that a finger is a finger of a living animal [οὐ γὰρ ὁ πάντως ἐξ ὅντα νόμων δέκτυλος ζώου], but a finger of a dead [animal] is a homonymous [finger] [ἄλλ' ὁμόνυμος ὁ ταθνεῶς].” Cf. PA I.1 640b34-641a21.
no matter how a length is divided, its parts will remain homogeneous. Lengths do not have perceptible matter, but intelligible matter. Neither the line nor the point — the common boundary that is contained in either line segment — actually exists, except in thought.\textsuperscript{18} The kind of continuity that pertains to lines and elements, nonetheless, is a helpful contrast to the kind of continuity that pertains to things that are perceptible to the senses; we understand something about the continuity of the parts of a stick when we contrast it with the parts of a bundle of sticks, but we understand something different when we contrast the stick’s parts with the parts of a line.

**The unity of what is continuous**

It is evident from the foregoing survey of texts that, for Aristotle, the meaning of ‘part’ and ‘division’ are essential to the meaning of ‘being continuous.’ However, it would be wrong to conclude, from the centrality of the notions of part and division, that Aristotle associates continua primarily or exclusively with a multiplicity of parts. On the contrary, Aristotle’s purpose in discussing the parts and divisions of a continuum is precisely to convey continuity as a way of being unified.\textsuperscript{19} This emphasis on unity can be seen both in how a continuum is, and is not divided into parts.\textsuperscript{20}

On the one hand, a continuum is potentially divided into parts wherever the parts share a common boundary. What is continuous at every level is thus potentially divided at any and

\textsuperscript{18} Meta XIV.3 1090b5-10: There are some who, because the point is the limit and extreme of the line (πέρατα εἶναι καὶ ἐσχατὰ τῆν στηθήν μὲν γραμμῆς) … think there must be real things of this sort (οὐντα εἶναι ἀνάγκην τοιαύτας φόσσας εἶναι); Phys VIII.8 263a23-25: it is by dividing (διαιρῇ) what is continuous (συνεχῆ) into two halves that we make (πουῖ) one thing signify (τῷ ἐνὶ σημείῳ) in two ways (ὡς δυσὶ), namely, as a beginning and an end (ἀρχὴν καὶ τελευτήν); DA III.2 427a9-16. Lear, *Desire to Understand*, 70.

\textsuperscript{19} Meta XIV.2 1089b34-36. Being continuous is a way of being a unity.

\textsuperscript{20} Phys VIII.5 258a32-b4.
every point, while what is not continuous at every level is potentially divided on the level at which its parts are homogeneous, at each common boundary. Since actually making these divisions would limit either kind of continua as a continuum, the emphasis on potential division is in fact an emphasis on unity.

On the other hand, a continuum is unified because it is not actually divided into parts. This is a καθ’ αὑτὸ feature, at least insofar as it follows from the Categories definition of continuity: the parts of the whole are of the same nature, both as one another, and as the boundaries which are one and the same with each part. What is continuous is unified, we might say, precisely because it is indefinite (ἀόριστον, from α, “not,” + ὁρίζω, “to divide”) and infinite (ἀπειρον, from α, “not,” + πείρω, “to pierce”). There is no definition, as it were, of the parts of a continuum, since there are no actual limits or boundaries to which one can point to distinguish one part from another.

Whenever Aristotle speaks of the parts of a continuum, therefore, he must have in mind only parts that are potentially and not actually divided. It is for this reason – that the parts are only potential – that Aristotle calls what is continuous “without parts [ἀμερές],” “undivided [ἀδιαίρετον],” and “one [ἕν].”

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22 Phys VI.10 240b12-13; cf. VI.1 231b1-3: since indivisibles have no parts [ἐπεὶ δ’ ἀμερές τὸ ἀδιαιρετὸν], they must be in contact with one another as whole with whole [ἀνάγκη ὅλον ὅλου ἀπεσεσθαι]. Cf. Meta V.26 1023b32-34; V.6 1016b12.
B. UNDIVIDED IN FORM: UNITY OF A WHOLE WITH RESPECT TO OTHER WHOLES

Like what is undivided in quantity, what is undivided in form (ἀδιαιρέτον τῷ εἴδει) receives rather sparse treatment in DA III.6. Throughout the chapter, the phrase ‘undivided in form’ appears only once, and is accompanied neither by a definition nor by examples. If we learn anything from DA III.6 at all about the meaning of ‘undivided in form,’ we learn how things that are undivided in form are thought, and not how they are, apart from the thinking subject; Aristotle’s comments about what is undivided in form, in other words, are manifestly psychological rather than ontological: our thinking and the time of our thinking what is undivided in form is undivided (430b14-15); this thinking is divided only accidentally, not in the way in which the thinking of what is undivided in quantity is divided (namely, καθ’ αὑτό, according to its own nature), but in the way in which the thinking of what is undivided in quantity is undivided (namely, κατὰ σωμβεβεκός, according to the action of something extrinsic to the quantity itself) (b16-17).

Since our present interest is with how things themselves are undivided in form, rather than with how such things are contemplated, we shall turn to the Metaphysics in search of the ontology underlying Aristotle’s psychological claims in DA III.6. We shall explore in particular Meta V.6, which lists several ways in which things are said to be one (ἐν), Meta X.1, which distinguishes between ways in which things are undivided (ἀδιαιρέτων), and Meta III.3, which synthesizes these two notions of unity. Our examination of the first two texts will proceed after Aristotle’s own pattern, namely, by drawing distinctions among the meanings of ‘one’ and ‘undivided’ that we are apt to conflate. Accordingly, in what follows, what is ‘one in number’
will be distinguished from what is ‘one in species’ and ‘one in genus,’ while what is ‘undivided in thought’ will be distinguished from what is ‘undivided in form’ and ‘undivided in number.’

**META V.6: ONE IN FORM VERSUS ONE IN NUMBER**

Aristotle’s account in Meta V.6 of the ways in which things are called ‘one’ begins with what is least ‘one’ and concludes with what is most ‘one.’ Within this progression, Aristotle moves in the reverse order; he distinguishes between the intensive unity possessed by a single entity, and the lesser unity possessed by multiple entities in conjunction. Over the course of the chapter, he lists five ways in which we use the word ‘one.’

Aristotle identifies two ways in which a single entity is called ‘one’: first, because its own matter is continuous, and second, because its form is “undivided in kind [ἀδιαιρετον κατὰ τὸ εἴδος].” He then lists three ways in which multiple entities are called ‘one,’ either in virtue of their matter or in virtue of their form. Multiple entities are called ‘one,’ first, because the matter of each is composed of the same kind of elements, such as air or water. Multiple entities are called ‘one’ in a second way because they fall into a common genus. They are called ‘one’

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23 Meta V.6 1015b36-1016a3; V.6 1016a20-21. Cf. Cat 3b10-14, where what is ‘numerically one’ (ἐν ἀριθμῷ) is called ‘uncut’ (ἀτομον).

24 ‘Matter’ and ‘form’ cannot have the same meaning, of course, when applied collectively to multiple entities, as when applied to a single entity. Cf. Gregory Salmieri, “Αισθησις, Εμπειρια, and the Advent of Universals in *Posterior Analytics* II 19,” in *From Inquiry to Demonstrative Knowledge: New Essays on Aristotle’s Posterior Analytics*, ed. J.H. Lesher (Kelowna, Canada: Academic Printing & Publishing, 2010), 165n15, who describes the unity of multiple entities that do not differ in form as ‘ἀδιάφορος’; “Outside of the Analytics, ἀδιάφορος is often used to refer to things that do not differ from one another in form (see de Caelo 310b5, Generation and Corruption 323b19, de Respiracione 478b23, Generation of Animals 746a31, and Metaphysics M 7-8). The meaning of ‘ἀδιάφορος,’ when used in this way is simply ‘not different’, and Aristotle sometimes specifies the respect in which the things are not different, thus ‘ἀδιάφορα κατὰ τὸ εἴδος’ (Topics 103a11, cf. 121b15-22, de Caelo 277a2-4, Parts of Animals 644a25).”

25 Meta V.6 1016a22-25.

26 *Meta* V.6 1016a25-32. Aristotle interestingly notes that this kind of unity in virtue of form is similar to the kind of unity in virtue of matter, since a genus underlies differentiae.
in a third way because the definition of the essence of each is indistinguishable from the
definition of the essence of the others.\(^{27}\) To be one in definition, presumably, is to be one in
specific form.

The conclusion of *Meta* V.6 serves as both a review and a clarification of the ways of
being one in virtue of form, as opposed to matter.\(^ {28}\) A single entity, on the one hand, is one in
number (κατ’ ἀριθμόν), if its matter is one (ἡ ὕλη μία). Although the form of what is one in
number is ‘one in definition’ with other forms, it is distinguished from these other forms in being
united to *this* matter. Each thing’s form, in other words, is the form of its matter, and its matter
alone.\(^ {29}\) Multiple entities, on the other hand, are one in species (κατ’ εἶδος), if their definition is
one (ὁ λόγος εἷς), and one in genus (κατὰ γένος), if they belong to the same category (τὸ αὐτὸ
σχῆμα τῆς κατηγορίας). Seemingly as an afterthought, Aristotle adds a final “way” onto to his
array of ways of being one in virtue of form: multiple *pairs* of entities are one by analogy (κατ’
ἀναλογίαν), if the relation between A and B is the same as the relation between C and D.\(^ {30}\)

Although Aristotle presents each of these ways of being ‘one’ as genuine, we should note
the primacy that is accorded to the unity of a single entity. A single entity can be one in virtue of
its own matter and in virtue of its own form. Both of these ways of being unified are καθ’ αὑτό,
since a thing’s matter and form are its own internal principles. In contrast, all other ways of
being one – with the possible exception of unity by analogy, about which Aristotle says very

\(^{27}\) *Meta* V.6 1016a32-b17.

\(^{28}\) *Meta* V.6 1016b31-1017a1.

\(^{29}\) *Meta* X.1 1052a31-33: in number [ἀριθμῷ], then, the individual is indivisible [τὸ καθ’ ἕκαστον
ἀδιάφρετον]. Cf. *Meta* IX.10 1052a9: the beings that are in no way composed – μὴ σύνθετα οὐσίαι – are referred to
as “one in number” (ἀριθμῷ).

\(^{30}\) *Meta* V.6 1016b34-34, 1017a2-3.
little – are κατὰ συμβεβηκός: the unity that exists among two or more entities is based in each thing’s nature, but is not internal to each entity in its own right. A single entity is also primary, in that no other way of being one is possible, unless single entities themselves exist as unified. Oil and water could not be one in substratum or one in genus, for example, if oil and water did not each exist as one in number.

**Meta X.1 and III.3: Undivided in Form versus Undivided in Thought**

Aristotle’s presentation of unity under the title of ‘undivided’ is both similar to and distinct from his presentation of unity under the title of ‘one.’ The presentations are similar, in that the distinction between kinds of forms is the basis of the distinction between ways of being one or undivided. The presentations differ, however, with respect to the perspective from which unity is viewed: something is more one insofar as it is actually divided from other extrinsic wholes, while something is more undivided insofar as it is not potentially divided into internal parts.³¹

Meta X.1 opens with a backward reference to Meta V.6 and presents itself as a review of what was said in that passage (1052a15-16). Insofar as the review is not critical, it appears to confirm the ontological distinctions suggested in our speech about unity. The review goes beyond the original analysis of speech, however, by not merely listing, but also by ranking the ways of being one.

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³¹ The fact that Aristotle does not refer to a form as being divided from more universal forms indicates that his language of division is intended for ontological rather than logical application: since what exists primarily are forms at their lowest level of generality, it would be misleading to speak of these primary existents as being divided off from more general forms; this would imply that more general forms, which are not primary existents, were the cause of the primary ones.

Cf. Ross, *Metaphysics II*, 277, who describes the ἄσονθετα of Meta IX.10, excepting summa genera, as what are analyzable into genus and difference.
A thing is one in the least way, as it were, insofar as it is continuous (a19-22). A thing is one in a greater way insofar as it “has a certain shape and form” (a22-23). A thing is least unified insofar as its form is one in definition (ὁ λόγος εἷς) or one in thought (ἡ νόησις μία) (a29-30). A thing is more unified insofar as its form is undivided in kind (ἀδιαιρέτου εἴδει) or undivided in knowledge and understanding (ἀδιαιρέτον ... τῷ γνωστῷ καὶ τῇ ἐπιστήμῃ). A thing is most unified insofar as its form is undivided in number (ἀριθμῷ ... ἀδιαιρέτον) – that is, insofar as the thing is an individual (τὸ καθ’ ἕκαστον) (a31-33).

Meta V.6 familiarized us with the notion of being one in definition and one in genus, but said nothing about being undivided. Somewhat surprisingly, Aristotle’s more complete account of what it means to be undivided is found in an earlier book, Meta III.3, which is intended only as a preview of arguments that are subsequently taken up in detail. In a brief passage in this book, Aristotle lists five premises, as it were, that, if true, would lead to the conclusion that “what is predicated of individuals will have more unity than what is predicated of species or genera.”

Two of these premises are helpful for clarifying Meta X.1, both in itself and in relation to Meta V.6. One of these premises states “what is undivided in form is prior [in unity to genera], since genera are divisible into species [γένη διαιρεῖται εἰς εἴδη].” Aristotle is contrasting two kinds of forms: species and genera. A species is undivided in form, since it cannot be divided into forms of lesser generality. A genus is divided in form, since it can be so

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32 Meta III.3 999a4-5: “what is predicated of the individual [τὸ ἔσχατον εἰς κατηγοροῦμεν] is more one [μᾶλλον ἄν ἐν].”

33 Meta III.3 999a3-4.
divided. The genus ‘liquid,’ for example, is potentially divided into the less generic forms of ‘oil’ and ‘water.’ Of course, the unity of what is undivided is greater than the unity of what is divided. The second helpful premise Aristotle posits in Meta III.3 is that “what is undivided is one [ἔν δὲ τὸ ἀδιαίρετον].” This identification, while perhaps obvious, challenges us to read together Aristotle’s accounts of being one (Meta V.6) and being undivided (Meta X.1).

With the claims of Meta III.3 in mind, we can make three observations about how Meta V.6 and Meta X.10 relate. First, in Meta X.1, Aristotle focuses only on the unity that pertains to single entities, and not on the unity that exists among multiple entities. The reason for this, presumably, is that the latter kind of unity is a unity κατὰ συμβεβηκός, since it is not founded in and pertaining to each entity’s internal principles alone, and since Aristotle is concerned in Meta X.1 with arriving at what is most unified. Second, in Meta X.1, Aristotle confirms the implications of Meta V.6, that what is called ‘one’ or ‘undivided’ is so-called because of either matter or form, and that the unity that pertains to matter is inferior to the unity that pertains to

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34 In Meta III.3, Aristotle’s assertion that a genus is divisible into εἶδη implies that a genus is itself a kind of εἶδος. Joseph Owens, “The Grounds of Universality in Aristotle,” American Philosophical Quarterly 3 (1966): 166, notes the difficulty engendered by Aristotle’s use of the same Greek term, εἶδος, to refer at once to a thing’s form and also to the universals—species and genera—that describe the thing as a composite of form and matter. Εἶδος as form, on the one hand, “is a real physical principle, … achieved in the matter through physical causality. [Εἶδος as] universal, on the other hand, is not one of the two physical constituents. It is the composite of both, taken universally.” Cf. Montgomery Furth, “Aristotle on the Unity of Form,” in Aristotle Today: Essays on Aristotle’s Ideal of Science, ed. Mohan Matthan (Edmonton, Alberta: Academic Printing & Publishing, 1986), 80-81.

35 DC III.1 299a20-22; Meta V.6 1016a17-18. Since these less generic forms are not of the same nature as each other or as the genus, we might call them heterogeneous, in contrast to the homogeneous parts of what is undivided in quantity.

36 Meta III.3 999a2.

37 It follows from this difference that Aristotle understands ‘one’ differently, when he says that multiple entities are “one in definition” (Meta V.6) and that a single form is “one in definition” (Meta X.1). In the former text, Aristotle makes clear that he is speaking about the essences—the specific forms—of multiple entities. To say that these forms are one in definition is to say that they have the same definition. In the latter text, Aristotle equates what is one in definition with what is one in thought, speaking in both cases about a single entity. Here, something is one in definition if it has a single definition; something is one in thought if it can be thought as a unity. If Aristotle is speaking loosely here, then both genera and species can be defined and can be thought as unities.
form. Third, only between the two texts does Aristotle present a complete account of how genera, species, and individuals, on the one hand, are all genuine unities, and, on the other hand, are not equally unified. *Meta* V.6 verifies each kind of form as a unity, by noting the cause of its unity: an individual form is one because of its union with individual matter; a species is one because multiple entities share the same definition; and a genus is one because multiple entities belong to the same category. In attempting to explain how these unities differ with respect to a single entity, Aristotle opts for the language of division: as a form, a genus is undivided only in thought; a genus exists as actual only when a subject does not actually divide it into forms of lower generality. A species is not only undivided in thought, but also undivided in form; it does not possess the capacity to be divided into forms of lower generality. Water, for example, is undivided in form ( quam adiáreton katà to eîdos), because there are no less generic forms into which water can be divided. Although a species cannot be divided into forms of lesser generality, it is not absolutely incapable of division: as a species that does not exist in matter, it is potentially divided into individuals by being united with particular matter. This way of being divided, however, is caused not by the form itself (καθ’ αότο) but accidentally (κατ’

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38 In all three passages that discuss unity, in fact, Aristotle presents unity as pertaining either to matter or to form. *Meta* III.3 999a3: “Everything [ἀπὰν] indivisible is so either in quantity or in form [κατὰ τὸ ποσὸν ἢ κατ’ εἶδος].” *Meta* V.6 1016b23: “Everywhere [πανταχοῦ] the one is indivisible [τὸ ἐν ... ἀδιάφρετον] either in quantity [τὸ ποσὸν] or in form [τὸ εἶδει].” *Meta* X.1 1053b4-8: “some things will be one if they are indivisible in quantity [κατὰ τὸ ποσὸν], and others if they are indivisible in quality [κατὰ τὸ ποιόν].” It is likely that Aristotle’s mentioning ἀδιάφρετον κατὰ τὸ ποσὸν and ἀδιάφρετον τὸ εἶδει in DA III.6430b14-15 is similarly presenting two ways in which a material composite can be unified.

39 *Meta* V.6 1016b33: “in genus, [one is said concerning] those to which the same figure of predication applies [ὅν τὸ αότο σχῆμα τῆς κατηγορίας].”

40 *Meta* III.3 999a5; V.3 1014a26-33.

41 *Meta* V.6 1016a21.
συμβεβεκός), in virtue of matter. The only kind of form that is absolutely incapable of
division, whether into other forms or particulars, is the form of a particular material composite.
The form of an individual material composite is not only undivided in thought and form, but also
in number and place. Because this form is already lowest in generality, it cannot be divided
into other forms. Because it is already united to this matter, it cannot be united to other matter.
Among all the forms surveyed, therefore, the form of a particular material composite is
undivided in the greatest degree.

By way of concluding this investigation into the meaning of what is undivided in form, I
would like to point to two further ways in which Aristotle recognizes the primacy of the unity of
the singular material composite. First, Aristotle occasionally speaks of what is “undivided in
form according to perception (ἀδιαιρέτου τὸ ἐίδος κατὰ τὴν αἴσθησιν).” Aristotle does not
bother to explain the kind of form that is undivided according to perception, perhaps because the
only form that can be perceived is the form of a particular material composite. The alternative to
perceiving what is ‘undivided in form’ is not to perceive a genus, but, rather, to perceive multiple

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42 DC III.1 299a22-23: an attribute is divided κατὰ συμβεβεκός when that which has the attribute is divided (ὁ ὑπάρχει ὡς διαιρέτων). Cf. Phys VI.4 235a13-18, where qualitative motion (τοῦ δὲ ποιών), is said to be divided only accidentally. Cf. Berti, “Intellec-

43 Cf. Meta X.1 1052b15-17: a thing is capable of being isolated [χωρίστο] either in place, or in form or thought [ἡ τόπος ἢ ἐίδος ἢ διανοίαν]. Cf. DA III.2 427a4-5: “[what discriminates] is divided in being [τὸ ἐίναι μὲν γὰρ διαιρέτων] but undivided in place and in number [τόπῳ δὲ καὶ ἀριθμῷ ἀδιαιρέτων].”

44 Meta X.1 1052a31-33: “what causes substance to be one is one in a primary way [ἐν ᾧ ἐνὶ πρῶτον τὸ ποιῆς ὀνείρως αἴτιον τοῦ ἑνός].” It should be emphasized that this primary way of being one is not merely being one by contact; it involves the complete individualization of form by matter. Butler and Rubenstein, “Noûς of Simples,” 342, are wrong, therefore, when they suggest that Aristotle’s simples cannot be thought infallibly, since they are internally complex, that is, since they have “more than one intrinsic property.” Cf. Furth, “Aristotle on the Unity of Form,” 87: “the type of form that Aristotle thinks must be supposed operative in nature if the phenomena that concern him are to be explained and understood, cannot be just a scatter of ‘properties’ or ‘characters’ or ‘afflictions,’ but a powerful integrative agency that is cause of the unity.”

45 Meta V.6 1016a18-19.
particular forms. How do we know that we are perceiving only one form? We have here no measure other than perception itself: if I cannot discern any forms within this form, I am perceiving an individual form that is undivided in form. It is by perception, in other words, that we distinguish between one form and two forms, and also that we distinguish between a form that can be divided and that cannot.\textsuperscript{46} It is by sense, for example, that we recognize that the form of a shoe is one (εἰδός τι ἐχειν ἕδη ἕν), but that the forms of the parts of a shoe, placed in contact but not organized, are multiple.\textsuperscript{47}

Second, Aristotle seems to have the individual form in mind when he opts not to employ the language of “parts” when discussing how forms are, and are not, divided. Although he says in \textit{Meta} VII.10 that ‘part’ may be said either of form, composite, or matter, he clarifies that not all forms have parts: since ‘parts’ are said of definitions, and since there are no definitions of particular forms, but only of universal forms, the form of the individual will not have parts.\textsuperscript{48} We do not define the particular form by joining its parts; we perceive it – whole and entire.\textsuperscript{49}

\section*{C. Uncomposed, or not composed: unity of a whole with respect to other wholes}

In \textit{Meta} IX.10, Aristotle mentions a third way that things noetically thinkable are united: things that are thought infallibly are uncomposed (ἀσύνθετα).

\textsuperscript{46} Imagination seems to be involved in this latter activity. We recognize that a form cannot be divided precisely by attempting to divide it, and failing. There is a parallel, in this eidetic variation, to the principle of non-contradiction: unity and self-same identity is confirmed by the impossibility of division and differentiation.

\textsuperscript{47} \textit{Meta} V.6 1016b11-16.

\textsuperscript{48} \textit{Meta} VII.10 1035b31-1036a9.

\textsuperscript{49} Cf. Noriega-Olmos, \textit{Psychology of Signification}, 99n198, who describes being undivided in form as the inability to be “divided into homomorphic parts, i.e. into elements of their same kind, i.e. classes.”
The first thing we learn about what it means to be ἀσύνθετα is that things unified in this way are not thought in the same manner as things unified as σύνθετα. While σύνθετα such as ‘the incommensurable diagonal’ and ‘the white wood’ are actually thought whenever the subject “puts together” the composite parts, things that are ἀσύνθετα cannot be “put together,” but can only be “touched” (1052a18-21; 25-26).

The reason why σύνθετα are thought by synthesis and ἀσύνθετα by a non-synthetic act is clearly ontological: ἀσύνθετα are unified in a way that σύνθετα are not. But what is the nature of this unity? At the very point in the passage when we would expect to find a description of how the ἀσύνθετα are unified, Aristotle presents what appears to be a reprise of his previous claims about the infallibility of ἀσύνθετα. The subjects described in the alleged reprise, however, are not called ἀσύνθετα, but μὴ σύνθετα οὐσίαι.

Aristotle cannot here be referring to the same set of entities signified by ‘ἀσύνθετα,’ since he describes the thinking of μὴ σύνθετα οὐσίαι as similarly (ὁμοίως δὲ καὶ) true (a26-27). This comparison would be nonsensical if there were not at least some difference between what is ἀσύνθετα and the μὴ σύνθετα οὐσίαι.

How, then, do the ἀσύνθετα and the μὴ σύνθετα οὐσίαι differ? Since the thought of each is infallible, it must be the case that neither is composed of multiple forms. Both kinds of entities, in this sense, are ἀσύνθετα. The μὴ σύνθετα seem to be singled out as a species of what

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50 Ross, Metaphysics II, 276; Pearson, “Being-as-Truth,” 202; Biondi, Posterior Analytics II.19, 243 conclude from Aristotle’s remarks that something is ἀσύνθετον if its expression in speech is a term rather than a proposition. This kind of simplicity required in this case would be relative: something would be ἀσύνθετον if, though not expressed as a judgment, it were expressed as a compound name. This interpretation cannot be correct, since Aristotle clearly calls the thought of these ἀσύνθετα ‘true’ and ‘not false,’ and since the thought of what is expressed by a compound name can be false, insofar as it requires composition in thought.

51 Aristotle subsequently extends the comparison between ἀσύνθετα and μὴ σύνθετα οὐσίαι: concerning the latter, like the former, it is not possible to be deceived (οὐ γὰρ ἐστιν ἀπατηθῆναι) (a27-28; 30-32).
is ἀσύνθετα, in the broader sense: these alone are presented as οὐσίαι and as εἶναι τι – as beings in their own right – and are described as having a simplicity that is not merely relative to what is composite: “all these exist actually, not potentially [καὶ πᾶσαι εἰσὶν ἐνεργεία, οὐ δυνάμει] (a28).”

The language of οὐσίαι and ἐνεργεία strongly suggests that the μὴ σύνθετα οὐσίαι are the forms of the material composites, the ἀσύνθετα. All ἀσύνθετα are ontologically simple in such a way that they can be thought without composition: they are neither composed of multiple forms, nor are they privations or abstractions of forms. Not all ἀσύνθετα are absolutely uncomposed, however, since a material composite is, by definition, composed of matter and form. The μὴ σύνθετα οὐσίαι, as the forms of these material composites, are uncomposed in a further way: although they are forms of matter, they are not composed of matter and form, but are form alone.

D. WITHOUT MATTER: UNITY OF FORM

In the concluding section of DA III.6, Aristotle offers a fourth description of the unity of what is noetically thinkable: things are thought infallibly when they are “without matter [ἄνευ

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52 Another interpretation of this distinction is articulated in Burnyeat et al., *Notes on Eta and Theta*, 160: the ἀσύνθετα are the forms of accidents, while the μὴ σύνθετα οὐσίαι are the forms of substances. This position seems unlikely to me, for two reasons. First, Aristotle does not characterize the crucial difference between accident and substance in terms of actuality, but he characterizes the difference between ἀσύνθετα and μὴ σύνθετα οὐσίαι in terms of actuality. Second, Aristotle’s overall project in the Metaphysics – to identify primary οὐσίαι – is more taken with the distinction between form, matter, and composite, than between accidental and substantial form. The interpretation that views ἀσύνθετα and μὴ σύνθετα οὐσίαι respectively as material composites and the forms of those composites confirms Aristotle’s eventual conclusion: material composites are οὐσίαι, but the forms of these οὐσίαι are causes of the composite.

53 Oehler, *Die Lehre*, 185: “die ἀσύνθετα nicht die ὕλη-freien εἴδη sind, sondern die Gegenstände und damit die Inhalte der isolierten Begriffe, die vor ihrer Verbindung im Urteil gesondert für sich apperzipiert werden.”

54 Mignucci, “Truth and Thought,” 150. Others, less helpfully, identify the ἀσύνθετα as the “ontological correlates of simple thoughts.” This is unhelpful because it points only to the fact that simple things are related to simple thought, and says nothing about ontological simplicity itself.
Aristotle mentions this feature while remarking on the truthfulness of noetic thinking: “just as seeing a proper object is true, so is the thinking of what is without matter.”

Before discerning what it means to be ἄνευ ὕλης, we should note that the things that Aristotle here calls “without matter” cannot be the νοητὸν or νόημα as such. For, although all νοήματα (as well as οἰσθήματα and φαντάσματα) are the forms of things without their matter, not all νοήματα are true. We must take Aristotle to be saying, rather, that, among thoughts, some are of things with matter, and others are of things without matter. The thinking of the latter sort is always true.

What, then does it mean for a thing to be without matter? Throughout his corpus, Aristotle uses this phrase to describe either things that are not themselves material, or that are neither material nor exist in matter. To be without matter, in other words, is in every case to be a form. The first of these meanings – not material – applies to the forms of all material composites, regardless of the kind of matter in which the form might exist; a form neither is nor is composed of matter. The second meaning – not existing in matter – does not apply to the forms of material composites, but only to the thought of these forms.

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55 DA III.6 430b30.
56 DA III.3 428a11-18.
57 Cf. DA III.4 430a2-5: “concerning what is without matter [ἐπὶ μὲν γὰρ τῶν ἄνευ ὕλης], what thinks and what is thought [τὸ νοοῦν καὶ τὸ νοούμενον] are the same [τὸ ὁμότο ἐστι].”
58 Meta VIII.6 1045b23: what is without matter is essentially a unity [ἄπλως ὑπὲρ ἐν τί]; cf. VIII.6 1045b1: ἐν τί [ἐναι] ἐστιν ἑκαστὸν.
59 DA III.4 429b18-21.
60 DA III.7 431b12-17. Ryan, “Pure Form in Aristotle,” 214, observes that the only sense in which Aristotle regards εἴδος as χωριστὸν is in its “capability of being thought of or perceived apart from matter.”
The appearance of ‘without matter’ at 430b30 cannot be taken to refer to immaterial substances; here, Aristotle is comparing the thought of what is without matter to the sensation of a proper object. Immaterial substances, if they can be contemplated by human beings at all, certainly cannot be contemplated in the non-synthetic manner that is analogous to proper sensation. At b30, therefore, Aristotle can only be referring to the forms that exist in matter.\(^6^1\)

That Aristotle intends this meaning of ‘without matter’ at b30 is confirmed by his use of ‘separate’ (χωριστόν) twice in the preceding lines in \(DA\) III.6. The form described as χωριστόν at 430b25-26 could refer either to the divine mind, which does not exist in matter, or to substance, which exists in matter but is not itself matter.\(^6^2\) If b25-26 describes the divine mind’s contemplation of itself, the argumentative effect would be to contrast the things thought by the divine mind with the things thought by the human mind; what does not exist in matter is proper to the divine mind, while what exists in matter is proper to the human mind. If b25-26 describes the human mind’s contemplation of substance, the argumentative effect would be to confirm the proper object of human contemplation: while we think privations synthetically, by means of their positive contraries, we think the forms of material composites in their own rights.

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\(^6^1\) In the context of \(DA\) III.6 as a whole, Aristotle’s comment at b30 makes most sense if the forms of material composites are being considered in their own right, and not as united to this matter. The form that is thought infallibly, in other words, is not thought as the form of this particular. The reason for this should be clear: to think a form as a particular requires not only an act of division (of the form from its matter), but also an act of synthesis (of the form with its matter). With synthesis, the possibility for falsity is present.

\(^6^2\) The difference between the forms of material composites and immaterial substances is too great for Aristotle not to have one or the other in mind. For this reason, I believe Shields is wrong to allow that Aristotle might have both meanings of “without matter” in mind in \(DA\) III.6. Shields, \(De Anima\), 335: “It is unclear whether he is thinking of those objects which exist without matter in abstraction, including the points and lines already discussed in the chapter, or has in mind the prime mover of \(Met\). Α 6-10, which exists permanently without matter, and thus stands in no need of abstraction. Perhaps he has both in view.” For an overview of the meanings of ’χωρίς’ throughout Aristotle’s works, see Gail Fine, “Separation” \(Oxford Studies in Ancient Philosophy\) 2 (1984): 34-36.
These interpretations of Aristotle’s ambiguous use of χωριστόν at b25-26 are confirmed by his unambiguous use of χωριστόν at b17-18. Here, Aristotle says that there is a principle that unifies lengths and time, and that this principle “perhaps” does not exist apart from matter (οὐ χωριστόν). What unifies abstractions, in other words, is not an immaterial substance, but the form of the material composite from which the abstraction was made.63

**CONCLUSION**

By way of conclusion, I would like to make two observations about the relationship between the four ways of being unified examined above. First, the four ways of being unified can be reduced to two: the unity of form, on the one hand, and the expression of this unity in matter, on the other.

Although ‘undivided in form,’ ‘uncomposed,’ and ‘without matter’ differ in meaning, they are alike in referring to the unity originating in, and possessed by, form. The first two phrases refer to the unity enjoyed by the same kind of form: what cannot be divided into forms of lesser generality cannot be composed of such forms, and what is not composed of multiple forms cannot be divided into them. Each phrase implies the other, moreover, since both express the same unity: ἀδιαιρέτον implies the absence of composition as well as division, and ἄσυνθετον implies the absence of division as well as composition.

While ‘what is without matter’ refers in every case to the unity enjoyed by form, the form is not in every case undivided and uncomposed. Abstractions as well as the forms of particular

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63 Cf. Ryan, “Pure Form in Aristotle,” 223: “In his epistemology, Aristotle need not be concerned with stuffing pure forms into material envelopes, the material objects of our experience, to get them to be intelligible, but must instead explain how form, the source of understanding, can be abstracted from existent material individuals (which are, after all, the only sorts of things that exist in our experience).”
composites are both without matter, but are not undivided and uncomposed; as argued above, genera, which exist actually only as abstractions from the forms of particular composites, are divided in form.

That ‘undivided in quantity’ refers to the unity enjoyed by matter should be clear: to be undivided in quantity is to have parts that are related to one another in a certain way, namely, by means of common boundaries, indwelling each part. Since nothing has parts that are spatially related (by means of boundaries) unless it is material, the unity that exists among parts must be a unity expressed in matter.

The second observation I would like to make concerns the relation between the two sides of the distinction just drawn: the unity of form not only differs from the unity of matter, but is the cause of that unity. While the unity of form both originates in and is enjoyed by form, the unity of matter originates in form but is enjoyed by matter.

Aristotle mentions form as the cause of unity in matter in several of his works. In DA III.6, he implies that what is undivided in form is the cause of the unity of what is undivided in quantity: “there is something undivided (τι ἄδιαιρετον) present in time and length and everything continuous (τῷ συνεχεῖ), which makes them one (ὁ ποιεῖ ἕνα).” The primacy of form runs as a theme throughout the Metaphysics, and particularly throughout Book VII. In one chapter in that book, he notes that the composite, which is with matter, comes from the form, which is without matter. In a later chapter, Aristotle observes that form is not itself a part of a whole, but that in

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64 DA III.6430b14-15; III.6 430b17-20.
65 Meta VII.7 1032b11-14: “from that without matter [comes] that which has matter [τῆς ἄνευ ὑλῆς τῆν ἔχουσαν ὑλή].”
virtue of which the parts constitute a whole. In other words, wherever there are parts that are not merely a heap, but a whole, there is something besides these parts which is the cause of their unity. Aristotle illustrates this with a syllable, ‘ba,’ whose elements or parts are ‘b’ and ‘a.’ Form is what makes these one syllable, rather than merely two letters. Without form, we might say, parts would not be parts, but separate wholes. Parts have the potential to be in contact, but do not have the potential to establish or maintain that contact in their own right. Parts are parts of a whole only through the agency of a form.

The unity that matter enjoys through the agency of form is not in every case the same; the parts of a whole are more or less unified, according to the greater or lesser unity enjoyed by the casual form. Aristotle illustrates this difference by distinguishing between what is continuous by nature and what is continuous by art. What is continuous by nature has in itself (ἐὰν αὐτῶ) the cause (αἴτιον) of its parts being in contact. This cause is natural form. The contact between the parts of what is continuous by art, in contrast, is caused by some force (βίᾳ) outside those parts. Several pieces of wood, for example, as parts of a heap or bundle, are in contact by the force of an artisan’s hands, or perhaps by the force of a band or glue. The lesser unity enjoyed

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66 *Meta* VII.17 1041b25-33: form is what makes each thing the kind of thing it is; form is the substance or nature of each thing.

67 *Meta* VIII.6 1045a6-25.

68 A similar point is made in *DA* II.1 412a6-9. There, Aristotle identifies form as that in virtue of which a substance is a τόđε τι.

69 Cf. Aubenque, “La pensée du simple,” 74: “Or l’essence ne peut, sans se nier elle-même comme essence, c’est-à-dire comme puissance unificante, avoir une cause, puisqu’elle perdrait alors cette unité originaire (réfractaire à la dissociation attributive) qui la constitue à la fois comme essence et comme cause.”

Cf. Furth, “Unity of Form,” 87: “We have seen that he seems to think of form as something that ‘unifies’ a matter into a ‘unitary’ τόđε τι, an individual. But if form is to do this, it must itself possess a kind of ‘unity’ of its own; as the originative principle, ἀρχή, of internal coherence and connectedness, it must itself be ‘one.’”
by the parts of what is continuous by art corresponds to the lesser unity of the artificial form: natural forms are simpler and more unified than artificial forms.\textsuperscript{70}

We might summarize these relations between the unity of form and the unity of matter as follows: all that is, is unified, but not all unities are equally one.\textsuperscript{71} Some unities are caused by others, and these caused unities are what have the potential for being thought noetically.\textsuperscript{72}

II. THINGS THAT ARE AND ARE NOT SUFFICIENTLY UNIFIED FOR NOETIC THINKING

In this part, we turn our attention to the ways in which things can be unified, to the things that are and are not unified in these ways.\textsuperscript{73} Rather than considering the meaning of ‘undivided in quantity,’ ‘undivided in form,’ ‘uncomposed,’ and ‘without matter,’ we shall seek to identify the kind of entity to which these terms collectively refer. Commentators have proposed three kinds of entities, each of which appear to be sufficiently unified for noetic thinking: essences of material composites; universals, either in general or infimae species; and immaterial substances. In what follows, we will examine the extent to which each of these entities fulfills the criteria detailed in Part One.

\textsuperscript{70}Meta V.6 1016a1-2; 1016a4; V.26 1023b34-35; X.1 1052a19-21: natural forms have “a movement that is more indivisible and simpler [ἀδιαιρετωτέρα ἡ κίνησις καὶ μᾶλλον ἁπλῆ].”

\textsuperscript{71}Meta X.1 1052b3-5: each of the things to which one of these kinds of unity belongs will be one; but ‘to be one’ will sometimes mean being one of these things, and sometimes being something else.

\textsuperscript{72}Meta V.6 1016a7-9; X.1 1052a24-25.

\textsuperscript{73}Meta X.1 1052b1-3: the questions, what sort of things are said to be one [ποῖα τε ἐν λέγεται], and what it is to be one [τί ἐστι τὸ ἕνι εἶναι] and what is the definition of it, should not be assumed to be the same.
A. ESSENCES OF MATERIAL COMPOSITES ARE SUFFICIENTLY UNIFIED FOR NOETIC THINKING

Of the four ways of being unified we have examined, three concern the unity of form. Of these three, two concern the unity of a form that is undivided and uncomposed in form. The fourth way of being unified concerns the unity of matter – a unity that is caused and sustained by the unity of form.

The form of a material composite singular expresses all four of these ways of being unified.74 By ‘form’ (ἐἶδος) here is meant not a genus or species, but the non-material principle of unity that is actually united to matter.75 Unlike forms that are universals – that are potentially divided into individuals – the form of a material composite singular is not potentially divided into a multitude, since it is actually united to matter that is one. The matter with which this form is in union is not an abstraction, such as corresponds to the νοηματα of physics, mathematics, and first philosophy, but rather the designated matter of what is one in number.76

Aristotle refers to the form that is united to this matter as ‘essence’ (τὸ τί ἦν εἶναι).77 Essence is not the composite, but the form of the composite, in the sense of being united to this

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76 Rogers Albritton, “Forms of Particular Substances in Aristotle’s Metaphysics,” The Journal of Philosophy 54 (1957), 701: “when Aristotle speaks of a form as a ‘this’ [τὸ ὁδός τι], he has in mind the particular rather than universal form.” Cf. Meta V.8 1017b25; VIII.1 1042a29; IX.71049a35, DA II.1 412a8-9.
77 Meta VII.7 1032b1-2.
matter. Only insofar as essence can signify what the resulting unity is, does Aristotle identify essence as the composite.

Essence, so understood, is unified in all four ways relevant to noetic thinking. As a form, essence is without matter, not in the sense of not existing in matter, but in the sense of neither being matter nor being composed of matter and form. Because essence is not a universal form, it is undivided in form and uncomposed. Essence is undivided in quantity necessarily but accidentally: necessarily, because essence exists actually (apart from thought) only in matter; accidentally, because it is not essence itself that is undivided in quantity, but the matter which essence unifies and with which essence is in union.

Aristotle does not specify, either in DA III.6 or Meta IX.10, whether the essences that can be thought noetically are essences of substances or of accidents. Accidents and substances alike are named as νοήματα in Section A of DA III.6, but this section describes synthetic thinking, not noetic thinking. If Aristotle entertained the question about the unity of accidental essences at all, he seems to have regarded his account of essence in the Metaphysics to suffice as an answer: just as essence belongs primarily and simply only to substance, and only secondarily to accidents, so will essences of substance be the primary objects of noetic thinking, and

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78 Meta VII.7 1032b11-14; VII.10 1035b31. Owens, Doctrine of Being in the Aristotelian Metaphysics, 180.

79 Meta V.17 1022a9-10: “[‘limit’ means] the essence of each [τὸ τί ἐν εἶναι ἐκάστῳ]; for this is the limit of knowledge [τὴς γνώσεως γὰρ τοῦτο πέρας], and if of knowledge, then also of the thing [εἴ δὲ τῆς γνώσεως, καὶ τοῦ πρᾶγματος].” Meta VII.6 1032a1-2: “it is not by accident that the essence of one, and the one, are one [Εν τῷ ἐνι ἐστὶ καὶ ἐν],”

80 Apostle, On the Soul, 171; Crivelli, Aristotle on Truth, 107.

81 Owens, “Grounds of Universality,” 166: form, under its own aspect of form and as expressly contrasted with matter, is not divisible.

82 The few commentators who raise this question answer in the affirmative, but give no account for their answer: Berti, “Intelllection,” 144; Apostle, On the Soul, 168; Halper, One and Many, 222.
essences of accidents only secondarily.\textsuperscript{83} How the secondary quality of essential accidents affects the activity and truthfulness of noetic thinking, Aristotle does not say.\textsuperscript{84}

### B. FORMS AS UNIVERSALS ARE NOT SUFFICIENTLY UNIFIED FOR NOETIC THINKING

The close relationship Aristotle portrays between essence and species has led many commentators to regard these lowest universals as sufficiently unified for noetic thinking.\textsuperscript{85} Among universals, \textit{infimae species} alone are identified with essence.\textsuperscript{86}

\textit{Infimae species}, moreover, appear to express the same four ways of being unified that are expressed by essences. As universals, species are without matter.\textsuperscript{87} Like essences, universals are not matter. Unlike essences, universals do not exist in matter. \textit{Infimae species} are undivided in

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\textsuperscript{83} \textit{Meta} VII.4 1030a28-32: “essence [τὸ τί ἦν εἶναι] will belong, just as ‘what a thing is’ [τὸ τί ἐστιν] does, primarily and simply to substance [πρῶτος μὲν καὶ ἀπλῶς τῇ οὐσίᾳ], but not simply [οὐχ ἀπλῶς] to the other categories.” \textit{Meta} VII.5 1031a11-14: “essence belongs to substances either alone or chiefly and primarily and simply [ἡ μόνον τῶν οὐσιῶν ἐστὶν ἢ μᾶλστιν καὶ πρῶτος καὶ ἀπλῶς].”

\textsuperscript{84} It might be objected that, since accidents cannot exist actually except in substance, they cannot be known except in reference to substance. If accidents could only be known in this synthetic manner, they would not be noetic objects at all. In response to this objection, it should be noted that there is a difference between knowing an accident and knowing an accident as an accident. The act of knowing white differs from the act of knowing white as an accident. Indeed, to know anything as another thing requires synthesis and thus is not noetic. The act of knowing an accident as inhering in substance is assuredly synthetic, but this act differs from knowing accident, simply.

\textsuperscript{85} Ross, \textit{De Anima}, 300, and Hamlyn, \textit{De Anima}, 142 are particularly explicit in regarding \textit{infimae species} (and these alone) as noetic objects. Fattal, “Intellecction,” 429-30, explicitly identifies universals as noetic objects, describing these universals as logically undivided. The phrase “logically indivisible,” of course, is ambiguous between “not divisible into higher genus and difference,” and “not divisible into lower species.” Fattal neither specifies which of these he intends, nor gives an account of the unity these universals possess. Jorge Morán y Castellanos, “Los indivisibles para Aristóteles en \textit{De Anima} III, 8 y \textit{Metaphysica} IX, 10,” \textit{Tópicos: Revista de Filosofía} 16 (1999): 125, identifies the \textit{summa genera} – the categories of being – as noetic objects, but offers no account for this claim.

I shall restrict my consideration of whether universals are sufficiently unified for noetic thinking to the case of \textit{infimae species}. The rationale for this restriction is as follows: the arguments in favor of regarding the \textit{infima species} as a noetic object are stronger than arguments for more generic universals; accordingly, the arguments against regarding \textit{infimae species} as sufficiently unified for noetic thinking apply, \textit{a fortiori}, to these other, less unified kinds of universals.

\textsuperscript{86} \textit{Meta} VII.4 1030a11-17: “Nothing, then, which is not a species of a genus [οὐδὲν τῶν μὴ γένοις εἰδόν] will have an essence [ὑπάρχον τὸ τί ἦν εἶναι].” Apostle, \textit{On the Soul}, 168.

\textsuperscript{87} Cf. Berti, “Intellecction,” 147.
form. They are divided only κατὰ συμβεβηκός – into individuals. Similarly, they are not composed of other forms. Species ordinarily signifies the composite of matter and form, rather than form alone. In this way, namely, accidentally and by means of signification, species can be called ‘undivided in quantity’: species is undivided in quantity since it signifies matter that is unified in this way.

It must be noted, however, that although essences and infimae species are both unities, there are two significant differences in how they are united. First, the manner in which infimae species are without matter precludes their being undivided in quantity. As universals, infimae species are related to matter not by union, as is the case with essence, but by signification alone. Second, collectively, the three ways in which infimae species genuinely are unified are still insufficient to define an actual species. The description of infimae species given above, in other words, has omitted an additional way of being unified – a way that Aristotle does not associate with noetic thinking: as a universal, an infima species does not actually exist unless a subject is actually thinking it. A universal is an expression of the unity that exists among many individuals that are either one in genus or one in species. This unity does not exist in a single material

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88 In contrast to infimae species, summa genera are undivided insofar as there are no higher genera from which they can be divided. Genera of all kinds are divided in form, insofar as they can be divided into species. Meta III.3 999a4; V.3 1014b9-11.

89 A possible exception would be species that are composed in the imagination. Perhaps this is the reasoning behind the curious ad hoc insistence in Berti, “Intellection,” 147, that the universals considered noetically “must be real, not imaginary.” It seems to me that Berti was responding to an objection rooted in an unaristotelian notion of species as a lowest-level (logical) sortal, rather than as an animating principle of a material composite, existing independently of thought and speech. If Aristotle had considered the being of species “composed” by the imagination from other forms, I suspect he would have dismissed them as having less being than the Platonic forms.

composite, but only among such composites, in thought.\textsuperscript{91} Both the existence and unity of universals, in other words, are dependent upon the synthetic activity of mind.\textsuperscript{92}

In contrast, for an essence to be unified in these four ways is sufficient for existence; an essence exists and is unified \( \kappa\alpha\theta' \quad \alpha\upsilon\tau\omicron\), regardless of whether a subject touches this unity in thought or not.

C. IMMATERNAL SUBSTANCES ARE NOT SUFFICIENTLY UNIFIED FOR NOETIC THINKING

Aristotle provides plenty of evidence that he does not regard immaterial substances as actual objects of human noetic thinking. In the \textit{Metaphysics}, for example, we find an extended discussion of immobile substances – entities that are separate from both matter and motion – but no account of how these substances might be known.\textsuperscript{93} Aristotle muses briefly in these passages about the possibility that essences of material composites could exist apart from their composites, but restricts his account to essences of natural composites (\( \epsilon\pi\tau\omega\nu\phiυσει \)).\textsuperscript{94} In the \textit{De Anima}, similarly, where we would expect to find an account of the soul’s capacity to think what exists, we find Aristotle nearly silent on the topic of separate substances. Aristotle mentions \( \tau\alpha \kappa\epsilon\chi\omega\rho\iota\sigma\mu\epsilon\alpha \) on several occasions, but this term refers in each case to what has been separated from matter in thought, rather than to what exists apart from matter, independently of thought.\textsuperscript{95}

\begin{thebibliography}{9}
\bibitem\textsuperscript{91} Berti, “Intellection,” 147.
\bibitem\textsuperscript{92} Modrak, “Aristotle on Thinking,” 218: “When we look at the description of noetic objects in the \textit{De Anima}, we do not find the term \( \kappa\alpha\theta\omicron\lambda\omicron \) nor does the contrast between universal and particular explicitly play a role. All of which suggests that to assume \textit{a priori} that every noetic object is a universal would be a mistake.”
\bibitem\textsuperscript{93} \textit{Meta} XII.1 1069b1-2; XII.6 1071b4-5.
\bibitem\textsuperscript{94} \textit{Meta} XII.3 1070a13-18.
\bibitem\textsuperscript{95} \textit{DA} I.1 403b12-16; III.7 431b17-19. Hicks, \textit{De Anima}, 520. Cf. Lear, \textit{Desire to Understand}, 301.
\end{thebibliography}
What is troubling is that, against all these texts, Aristotle’s ontological criteria for being a noetic object appears to be met by immaterial substances. Immaterial essences are without matter not only in the manner that essences of material composites are without matter, but absolutely so.\textsuperscript{96} Their simplicity and unity extends beyond the absence of matter, moreover, to the absence of division and composition in form. They are, in virtue of lacking matter and actual parts, supremely one. Aristotle seems committed, then, to the view that immaterial substances are noetically thinkable.\textsuperscript{97} This is a matter of concern, because it suggests not only discontinuity across Aristotle’s works, but also kinship between Aristotle’s account of noetic thinking and that of his teacher, Plato.\textsuperscript{98} If the ontology that supports Aristotle’s account of noetic thinking cannot distinguish between the unity of material composites and that of immaterial substances, Aristotle’s hylomorphism is, in the best case, severely underdeveloped.

\textsuperscript{96} Owens, “Reality of Separate Movers,” 333: “But an Aristotelian separate form, because it is not the form of a matter, is of a different nature from any sensible form. … The Aristotelian separate form, accordingly, is not reached by any process of abstraction.”

\textsuperscript{97} The apparent conflict between Aristotle’s “agnostic” discussions of immaterial substances and his criteria for things noetically thinkable might appear to be heightened by passages wherein the description of noetic objects is ambiguous between the essences of material composites and immaterial substances (DA III.6 430b25-26; Meta IX.10 1052b28-32). I do not regard the ambiguity in these passages as troublesome. Although I believe the arguments of both passages are strongest if Aristotle is referring to essences of material composites rather than to immaterial substances, I believe the ambiguity might have been permitted by the Stagirite himself; perhaps Aristotle is eager to draw attention, here as elsewhere, to the similarities between human and divine thinking. The difference between divine thought of self and human thought of substance, of course, is precisely the expression of unity in matter.

\textsuperscript{98} Modrak, “Aristotle on Thinking,” 209, provides a neat overview of how scholarship came to recognize the distinction between Aristotle’s and Plato’s account of noetic thinking: “Noûς is Plato’s term for the intuition of the highest genera or forms. Until fairly recently commentators simply imported this Platonic concept into the Aristotelian corpus. [Lee (1935), for instance, asserts that Aristotelian noûς is the same concept as Platonic νόησις.] Many of Aristotle’s actual statements about noûς were glossed over, as a result, or interpreted in a manner which made his positions seem puzzling at best and inconsistent at worst. [Jaeger (1923) recognized the tension between the Platonic interpretation of noûς and Aristotelian positions, and this led him to argue that Aristotle’s doctrine of noûς was a hold-over from an earlier Platonic period].”
These concerns, thankfully, are groundless. For, although immaterial substances are indeed undivided, uncomposed, and without matter, they are not unified in the way proper to noetic thinking; since they neither exist in matter nor signify matter, they cannot be undivided in quantity. It is not just the unity of form that is required for a thing to be noetically thinkable, but the expression of this unity in matter. By including ‘undivided in quantity’ among his criteria, Aristotle shows his account of noetic thinking to depart from that of his teacher: we cannot intuit what is not present to us in and through sense. The conditions for noetic thinking suppose the boundaries of the realm of material composites. 99 Paradoxically, immaterial substances are too ontologically unified to be thought by division alone; to think what is simpler than a material composite, our thinking must be complex. 100

99 Cf. William Wians, “Aristotle and the Problem of Human Knowledge,” The International Journal of the Platonic Tradition 2 (2008): 42, “Throughout the corpus, Aristotle maintains a separation of knowledge at the broadest level into two kinds, human and divine. The separation is not complete—human knowers may enjoy temporally what god or the gods enjoy on a continuous basis. But the division expresses a fact about humanity’s place in the cosmos, one that imposes strict conditions on what we may know…”

100 Cf. Seidl, Der Begriff des Intellekts. 183: “Die meisten Interpreten verstehen zwar die μὴ σύνθετα οὐσίαι, als die abgetrennten, ewigen, einfachen Substanzen. Aber dies ist unmöglich; denn ihr Sein läßt sich nicht in direkter Erfahrung „berühren” und wird auch von Aristoteles nur durch Beweis erschlossen.” Cf. Joseph Owens, in Aubenque, “La pensée du simple,” 85: “As “known in itself”, the knowledge of a separate substance is an entirely simple intuition. But as “known by us,” the knowledge regarding separate substance consists in the conclusions of a discursive procedure starting from the sensible thing and the human knowledge immediately accessible to our cognition.”

It is perhaps because of the similarity between these two potential objects of thought – immaterial substances and privations – that Aristotle mentions them in close conjunction in DA III.6; immaterial substances possess too much ontological unity for being an object of noetic thinking, while privations don’t possess enough. In both cases, what is lacking is the existence of form in matter: immaterial substances cannot exist in matter because they are too much form, as it were; points cannot exist in matter because they are not form enough. On the point as derivative in being, see Meta XI.2 1060b12-19; XIV.3 1090b5-10; Phys VIII.8 263a23-25. On the sense in which the point is undivided, see DA III.2 427a9-16; Meta V.6 1016b24-31. Cf. Lear, Desire to Understand, 70: “Points, for Aristotle, do not actually exist independently of our ‘probing’ for them, yet they are not of our own making. A point, for Aristotle, exists only in a derivative sense: it is, so to speak, a permanent possibility of division. But these are possibilities which cannot all be actualized.”
CONCLUSION

In this part, we have distinguished between the things that are and are not sufficiently unified for noetic thinking. We have seen that not everything that is unified is unified in a manner suited to noetic thinking; universals possess no actual unity apart from being thought, and immaterial substances possess actual unity that is not expressed in matter. Only material composites possess a unity which is at once actual, apart from being thought, and also expressed in matter.

Although the preceding examination has focused on the things that are and are not noetically thinkable, it indirectly reveals to us the extent of the activity of noetic thinking. The examination has shown us that human thinking is limited in two respects.

First, human thinking always begins with the expression of the unity of form in matter. Although we can think many kinds of unities – universals, immaterial substances, and essences of material composites – we can think of nothing except insofar as its unity is expressed in matter. If there is anything that is actual, but that does not express its actuality in matter, it could not be known by us at all, but only by a different kind of knower, whose activity of knowing was not founded on dividing form from matter. This is to say: even if the essences of material composites are not primary ὑσίαι absolutely speaking, they are primary for us.

Second, in a different way, our thinking never departs from the expression of the unity of form in matter. In every case, the things we think are material composites. We may think these things with or without their matter; we may think them as universals or as particulars; we may think them as they are in themselves or as they are in relation to others; but all of these different ways of thinking are differences in the activity of thinking, not differences in things. We do not
think universals; we think material composites, universally.\textsuperscript{101} Although there is indeed a
difference between the unity of an essence considered with its matter and without, this difference
is a difference in thought, not in things.\textsuperscript{102}

CONCLUSION

At the outset of this chapter, we sought to distinguish between the kinds of things that are
and are not noetically thinkable. In Part One, we examined four ways of being unified – ways
that Aristotle mentions but does not define in either \textit{DA} III.6 or \textit{Meta} IX.10. Having
distinguished between these four ways of being unified, we sought in Part Two to determine
what kinds of things are and are not unified in these four ways. After considering the unity of
essences of material composites, \textit{infimae species}, and immaterial substances, essences of
material composites alone were seen to be sufficiently unified for noetic thinking.

This chapter is particularly significant for showing how “what holds in the case of the
soul [ἐπὶ τῆς ψυχῆς]” is similar (οὕτως) to what holds “of the things themselves [ἐπὶ τῶν
πραγμάτων].”\textsuperscript{103} The chapter has revealed not only what noetically thinkable things are like, but

\textsuperscript{101} Cf Owens, “Grounds of Universality,” 163: we do not know the \textit{infimae species}, but the entity capable
of being thought as such. Cf. \textit{Meta} XII.10 1087a15-23: the universal is perceived only accidentally.
The English translation of ‘τὸ καθόλου’ as ‘the universal,’ rather than ‘what is known universally’ obscures
both the Greek grammar and the underlying ontology. In Greek, ‘καθόλου’ is adverbial, modifying a ‘thinking’
verb. Cf. \textit{De Int} 17a39-b2.

\textsuperscript{102} \textit{Meta} XII.3 1070a13-18.

\textsuperscript{103} \textit{DS} VII 449a10-14. Fiorentino, “Il problema della verità,” 261, sees in noetic thinking’s non-synthetic
character a reflection of the motionless quality of foundational things: “La ragione per la quale il principio deve
essere oggetto della conoscenza immediata e senza movimento dell’intelletto, diversamente da quella mediata e con
movimento della ragione, non è solo di ordine logico. È anche di ordine fisico, cosmologico e ontologico. Aristotele
parte dall’esperienza del movimento dell’anima. Se l’animale non poggia ben fermo un piede su qualcosa di
stabile, su cui far leva, non riuscirà a muoversi. Così pure nella natura non ci sarebbe nessun divenire, se non ci
fosse qualcosa che permanesse immutabile e soggiacesse sempre identico a se stesso al di là di qualsiasi movimento.
Questo qualcosa è la sostanza. Analogamente, i cieli non potrebbero muoversi, se non ci fosse immobile al centro
how the unities in thought are related to the unities in things. The relation is a causal one: different unities exist in thought because things are unified in different ways. We think certain things noetically and other things synthetically, in other words, because, apart from our thinking, things are unified in different ways.\textsuperscript{104}

It is because the unities of thought are conditioned by the unities of things that an examination of our thinking leads to – or should lead to – an examination of things. Otherwise stated: reflection on the nature of our thinking provides us with an insight into the way things are, even apart from our thinking. We cannot think a point noetically, because a point is not a unity, but rather the \textit{absence} of a unity. We cannot think a judgment noetically, because the \textit{relata} of the judgment are divided, rather than undivided in form. We can think a material composite noetically, because these are unified of themselves, even apart from our thinking.\textsuperscript{105}

\textsuperscript{104} DA III.7 431b17; Shields, \textit{De Anima}, 306: “reason’s own separation somehow tracks the ways in which its objects are themselves separate from matter.”

\textsuperscript{105} This route to ontology from psychological reflection is only a straight one if we recognize the particular limits of our thinking: because we can only think what is expressed in matter, material composites will be primary for us; what is more or less unified than a material composite will not be thought in a primary way.
CHAPTER FIVE:
THE PERFECTION OF NOETIC THINKING

The purpose of this final chapter is to demonstrate that the account of noetic thinking set forth in the preceding chapters has merit not only in its own right, but also as a starting point for discerning Aristotle’s line of reasoning in obscure or otherwise difficult passages. To this end, I offer below readings of two passages that are as notorious for their ambiguity as they are central to the completion of Aristotle’s account of cognition: *Nicomachean Ethics* VI.6 and *Posterior Analytics* II.19.

These passages are of interest to my present task because commentators regard them as problematic particularly with respect to the features they appear to attribute to νοῦς. Since it is clear that what Aristotle means by ‘νοῦς’ in these passages is not merely the power (δύναμις) by which we think but the habit (ἕξις) that we develop from thinking noetically, the account of noetic thinking set forth in this dissertation is promising as an interpretive key.¹

The remainder of this chapter is divided into two parts, dedicated respectively to the examination of *NE* VI.6 and *AnPo* II.19. In each part, I begin by outlining the aspects of the passage relevant to a specific question concerning νοῦς. I then sketch an answer to this question, taking as my starting point the nature of noetic thinking, rather than the exigencies of the passage at hand. My primary intention in presenting these sketches is neither to critique the readings of other commentators nor to defend in detail my own reading, but only to show that my

¹ My reason for translating ἕξις as ‘habit’ rather than ‘state’ is that, while ‘state’ connotes a quality that is stable and static, ‘habit’ connotes a quality that is stable and dynamic. It is philosophically significant to regard ἕξις as a dynamic ‘holding’ and not as a static condition that is not inherently for activity of a certain kind.
interpretive approach allows us to escape potential difficulties and to achieve new depths of explanation.

I. **NICOMACHEAN ETHICS VI.6: HOW DOES νοῦς AS A ἕξις DIFFER FROM νοῦς AS AN ἀρετή?**

Aristotle’s objective in *NE* VI.6 is to determine which of the five habits “by which the soul possesses truth” pertains to the thinking of the principles (ἀρχαί) of science (ἐπιστήμη) (1140b33-34). Aristotle approaches this question having previously discussed three of the other habits, each in their own right: art (τέχνη), science (ἐπιστήμη), practical wisdom (ϕρόνησις). Another habit, theoretical wisdom (σοφία), receives similar attention subsequently, in *NE* VI.7. Paradoxically, it is only intuition (νοῦς) – the habit associated with non-comparative thinking – whose account is constituted entirely of comparisons to other habits. *NE* VI.6 is, nonetheless, the most extended direct account of νοῦς we find throughout the Aristotelian corpus.

Aristotle proceeds by a process of elimination to identify the habit that pertains to the thinking of the principles of science. The rationale he gives for each elimination is instructive, insofar as he reveals something of what νοῦς is, by saying what it is not. Science cannot grasp the principles, he says, since science is of things that can be demonstrated (ἐπιστητὸν ἀποδεικτὸν) (1140b35). From this, we learn that the principles of science are indemonstrable. Neither can art nor practical wisdom grasp the principles of science, since these habits concern things that are variable (περὶ τὰ ἐνδεχόμενα ἄλλως ἔχειν) (1141a1); from this, we learn that the principles of science are invariable. Philosophical wisdom, finally, cannot grasp the principles,
since philosophical wisdom includes things that can be demonstrated (περὶ ἐνίων ἔχειν ἀπόδειξιν ἔστιν) (a2-3); here, we learn that a principle of science not only is indemonstrable as whole, but also that it does not include, as a part, anything that can be demonstrated. Aristotle concludes without further elaboration that νοῦς is the habit that grasps the principles (λείπεται νοῦν εἶναι τῶν ἀρχῶν) (a7-8).

THE PROBLEM, FROM THE TEXT

One of the difficulties with this chapter concerns the distinction between νοῦς as a habit (ἔξις) and νοῦς as an excellence (ἀρετή). From the standpoint of reference, the distinction is not problematic; in the two texts in which Aristotle targets νοῦς for discussion, he states explicitly whether he is referring to a habit or to an excellence: in AnPo II.19, he reminds us multiple times that he is searching for the habit (ἔξις) that knows the principles.3 Here in the Nicomachean Ethics, he refers to τέχνη, ἔπιστήμη, φρόνησις, σοφία, and νοῦς as intellectual excellences (ἀρεταί).4

Neither is the distinction between habit and excellence problematic from the standpoint of the meaning of these terms in general. Aristotle defines an excellence of an intellectual part of the soul as a habit according to which that part is most in possession of truth (μάλιστα … ἀληθεύσει).5 This compressed definition can be more readily understood if we examine the two terms of interest – ‘ἔξις’ and ‘ἀρετή’ – in relation to two other terms, ‘ἐνέργεια’ and ‘δύναμις.’

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3 AnPo II.19 99b25, 32; 100a10; 100b6.
4 NE VI.2 1139b12.
5 NE VI.2 1139b12-13: “The work of both parts of the intellect [τῶν νοημικῶν μορίων] is truth. The virtues [ἀρεταί] are those states [ἔξεις] according to which [καθ’ ἄς] each part is most in possession of truth [μάλιστα … ἀληθεύσει].”
Articulating the distinction between habits and excellences in general is a necessary preliminary for resolving the apparently problematic distinction between νοῦς as a habit and νοῦς as an excellence.

We can understand an intellectual habit (ἔξις) as being related, on the one hand, to the intellectual power (δύναμις), and on the other hand, to the intellectual activity (ἐνέργεια) for which the power is a potential. A power is the potential a subject possesses for engaging in a particular kind of activity. Since it is by means of this activity that the subject is related to objects of a certain kind, we can say that a power is determined to objects of a certain kind. Aristotle emphasizes that the νοῦς, as a power, is nothing other than this potential for actual thinking, this determination to the kinds of things that are thinkable.

It is helpful to think of a habit along similar lines: like a power, a habit is nothing other than a potential for activity; as potential, the intellectual power and its habits are fulfilled rather than destroyed by their activity. Where the intellectual power is oriented of itself only to the ‘genus,’ as it were, of the intelligible, the intellectual power as determined by an intellectual habit is oriented to a ‘species’ of activity and object. That is to say, while the intellectual power

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7 DA III.4 429a22-24; III.4 429b29-430a2.

8 DA II.5 417b2-7.
is actualized by the activity of thinking any object whatsoever, an intellectual habit is actualized only by the activity of thinking the particular kind of object for which it is a potential.\textsuperscript{9}

The reason why an intellectual habit is properly actualized by a particular kind of activity is because a habit is itself established or determined by an activity of a particular kind. It is by the activity of my thinking a bronze sphere without its particular matter, for example, that my intellectual power acquires a more determined potential – a habit – to think of material composites in this manner. As often as I think of material composites in this manner, I actualize this habit, and as often as I actualize this habit, I confirm it as a habit of my intellectual power.\textsuperscript{10}

Two facets of this account of intellectual habits should be emphasized. First, an intellectual habit is not something existing apart from the intellectual power, on the one hand, or from the intellectual activity, on the other.\textsuperscript{11} What I acquire when I think a bronze sphere without its particular matter is not a thought that is separate from my power to conceive or from my act of conceiving; what I acquire as a consequence of conceiving is nothing other than the further determination (or qualification) of my intellectual power. This further determination is the particular pattern, as it were, of my conceiving.

\textsuperscript{9} A consideration of the dynamics of dispositions (διαθέσεις), which Aristotle does not mention in connection with intellectual excellences, would complete the schema presented here. The intellectual power, intellectual habits, and intellectual dispositions are all potencies for intellectual activity. The potencies are distinguished according to their stability: the intellectual power is more stable than an intellectual habit, which in turn is more stable than an intellectual disposition. The three kinds of potencies might also be distinguished according to the breadth of activity by which each is fulfilled: the intellectual power is fulfilled by the genus of intellectual activity; an intellectual habit is fulfilled by a species of intellectual activity; and an intellectual disposition is fulfilled, perhaps, by thinking again a particular thought.


\textsuperscript{11} Aristotle’s use of a single word, νοος, to describe at once the power, the habit, and the excellence, is an indication that the distinction between these potencies is not a distinction in being.
Second, different intellectual habits incline the intellectual power to think the same πράγματα, but different νοήματα. The habit by which I think of a bronze sphere without its particular matter differs from the habit by which I think of a bronze sphere without its sensible matter. In both cases, however, the thing (πράγμα) that is thought is one and the same.\textsuperscript{12}

It is similarly helpful to articulate in terms of power, habit, and activity, what Aristotle means by an intellectual excellence (ἀρετή). Since Aristotle says that an excellence is a kind of habit, we can attribute to excellences all that we have attributed to habits: an excellence is a determination of the intellectual power; like the intellectual power and habits in general, an excellence is nothing other than a potential for activity; an excellence disposes the subject to perform those kinds of activities by which the excellence was established and is subsequently confirmed.

Aristotle’s only explicit distinction between intellectual excellences and mere intellectual habits is drawn along the lines of truth: an intellectual excellence causes the subject to be more in the possession of truth.\textsuperscript{13} When applied to synthetic thinking, the distinction between intellectual habits and excellences is unproblematic: a habit might incline us to a certain synthetic activity, while an excellence would incline us to perform this activity in accordance with the syntheses in things. When applied to non-synthetic thinking, however, the distinction between intellectual habits and excellences poses more difficulty: since no act of noetic thinking can be false in any way, it seems impossible for one noetic act to render the subject more in possession of truth than

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{12} Aristotle provides an example of thinking the same πράγμα according to different νοήματα in \textit{Meta} XIII.3 1078a19-26: “man qua man is one indivisible thing; and the arithmetician supposed one indivisible thing, and then considered whether any attribute belongs to a man qua indivisible. But the geometer treats him neither qua man nor qua indivisible, but as a solid.”

\item \textsuperscript{13} \textit{NE} VI.2 1139b13.
\end{enumerate}
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another act. How can we speak of a habit as being more true, if there is no possibility for falsity in the acts by which it is actualized? It does not appear possible for νοῦς, as an ordinary habit, to be anything less than an excellence.

THE RESOLUTION, FROM OUR ACCOUNT OF NOETIC THINKING

I propose that this difficulty can be readily resolved by appealing to what we know to be essential and inessential to any given act of noetic thinking: although any act of thinking will be noetic if it is an act of non-synthetic division, not every noetic act will divide form from matter in the same manner. I am suggesting that Aristotle’s account of noetic thinking implies that there are four different ways one might think essence by means of non-synthetic division. In theory, all four of these ways could intend the same πρᾶγμα; the νοήματα, however, would differ insofar as each would exclude a different kind of matter.

We think noetically in one way, when we think the essence of a material composite with its particular matter. We think a bronze sphere, for example, without either focusing on or abstracting the peculiarities of this bronze. This act is still intellectual rather than sensible, since the νοητόν can be actualized as a νόημα without the physical presence of the bronze sphere. The act, too, is still non-synthetic, since the essence of the bronze sphere is unified with its particular matter even apart from the subject’s thinking. This kind of noetic thinking would appear to be essential for experience (ἐμπειρία).

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15 Only if we were to think the bronze sphere as a particular would we be thinking synthetically – doubling back, as it were, on the particular matter.

16 Meta I.1 981a15-17: “experience is knowledge of individuals [ἡ μὲν ἐμπειρία τῶν καθ’ ἐκαστόν ἐστι γνώσεις]; art of universals [ἡ δὲ τέχνη τῶν καθόλου]; and actions and products are all concerned with the individual [αἱ δὲ πράξεις καὶ αἱ γενέσεις πᾶσαι περί τὸ καθ’ ἐκαστὸν εἰσιν].”
We think noetically in a *second* way when we think the essence of a material composite *without its particular matter*. The νόημα in this case includes the essence and its expression in sensible matter. We think the bronze sphere, for example, with its being bronze, but without its being this bronze. Aristotle associates this kind of thinking with physics.\(^{17}\)

We think noetically in a *third* way when we think the essence of a material composite *without its sensible matter*. Here, the νόημα includes essence and its expression in intelligible matter. We think a sphere with its being continuous, but without its being bronze. Aristotle associates this kind of thinking with mathematics.\(^{18}\)

We think noetically in a *fourth* and final way when we think the essence of a material composite *without its intelligible matter*. Here, the νόημα is of the essence alone, without any expression in matter. (Our thinking remains caught up in matter, of course, insofar as no thinking occurs apart from phantasms.) Aristotle associates this kind of thinking with first philosophy.\(^{19}\)

This fourfold refinement of Aristotle’s account of noetic thinking allows us to resolve the difficulty concerning the distinction between νοῦς as a habit and νοῦς as an excellence. While any kind of non-synthetic division suffices to establish νοῦς as a habit, only acts of greater abstraction from matter suffice to establish νοῦς as an excellence. Aristotle calls these acts of greater abstraction from matter “more accurate” (ἀκριβέστερον) in part because they intend the

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\(^{17}\) *Phys* II.2 194b12-13; cf. II.2 194a12-15.

\(^{18}\) *AnPo* I.13 79a7-10; *DC* III.1 299a13-17: “there will be difficulties in physics which are not present in mathematics; for mathematics deals with an abstract and physics with a more concrete object.”

\(^{19}\) *DA* I.1 403b11-16. Cf. Lear, *Desire to Understand*, 122: “If we wish to arrive at something truly formal, we must ask, *what is it to be* a straight line? Here the answer might be: the shortest distance between two points. This is the form embodied in any straight line.”
essence alone, without its expression in matter. So understood, to be ‘accurate’ and to be ‘more in possession of truth’ pertain not to the absence of error, but to the presence of form, as cause. This cause is present in every πρᾶγμα and νόημα, but is present to the thinking subject only insofar as we divide it from matter.

CONCLUSION

In this part, the difficulty we singled out from the text of NE VI.6 was the difference between the habit to exercise an infallible activity and the habit to exercise that infallible activity with excellence. We resolved this difficulty not by relying on the exigencies of the passage alone, but by drawing upon what we learned from our inquiry into the nature of noetic thinking. We justified appealing to the activity of noetic thinking by noting that both habits and excellences are potencies that can be understood only in relation to the activities which are their fulfillment. We next observed that, among acts of noetic thinking, some are more excellent than others, not in the sense of being more true (or less erroneous), but in the sense of revealing form more (and matter less). We noted that Aristotle refers to excellence in this sense in terms

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20 Meta II.3 995a15-16; XIII.3 1078a11-12; DC III.7 306a26-30. Modrak, “Difference between Mathematics and Physics and First Philosophy,” 121, argues that the objects of both physics and first philosophy, unlike the objects of mathematics, are “ultimately justified through an appeal to observation and sense experience.” This helps to explain why Aristotle refers to mathematics, rather than first philosophy, as the ἀκριβέστερον science: accuracy concerns not merely the extent to which a science abstracts form from matter, but the manner in which these forms are verified.

21 It was seen in Chapter Four of this dissertation that Aristotle identifies the unity of form as the cause of the unity of matter. When the subject thinks the essence without its matter, the essence becomes an actual object of thought. Although only synthetic thinking can reveal the unity of essence as a cause of the unity of matter, noetic thinking is necessary for uncovering essence in its own right. DA II.2 413a11-16: “Since what is clear or logically more evident [τὸν ἀσαφῶν μὲν φανεροτέρον] emerges from what in itself is confused but more observable by us [γνωριμότερον], we must reconsider our results from this point of view. For it is not enough for a definitive formula to express as most now do the mere fact; it must include and exhibit the ground also.”

22 The reason for this, in turn, is that the actualization of a power and its activity is one. DA III.2 425b26-27.
of accuracy: an act of thinking is more accurate if it more fully uncovers the cause, and thus the measure, of the unity of things.

II.  POSTERIOR ANALYTICS II.19: WHAT ARE THE ἀρχαί THOUGHT BY νοῦς?

Aristotle opens the final chapter of Posterior Analytics by declaring that he will set aside inquiry into syllogisms (συλλογισμός) and demonstrations (ἀπόδειξις) and take up inquiry into the principles (ἀρχαί) (99b15-17). Concerning these principles, he states that he will inquire both into how they come to be known (πῶς τε γίνονται γνώριμοι), and what the habit is that knows them (τίς ἡ γνωρίζουσα ἡξις) (b18).

Before pursuing the first of these questions, Aristotle makes some preliminary observations. He first notes that demonstration is impossible if the principles of demonstration are not known (b20-22). This observation validates the philosophical value of the two questions Aristotle has proposed: given that demonstration is both possible and actual for us, it follows that we already possess the principles of demonstration. Inquiry into the causes of demonstration, then, is possible as well. Aristotle next observes that the knowledge we possess of these principles of demonstration is more accurate (ἀκριβέστερος) than our knowledge of the demonstrations themselves (b27). With this remark, Aristotle introduces a notion that will feature in his response to the second question: we can distinguish between the habit of knowing the principles and the habit of knowing demonstrations with respect to accuracy. Aristotle’s

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23 Miira Tuominen, “Back to Posterior Analytics II 19: Aristotle on the Knowledge of Principles,” in From Inquiry to Demonstrative Knowledge: New Essays on Aristotle’s Posterior Analytics, ed. J.H. Lesher (Kelowna, Canada: Academic Printing & Publishing, 2010), 118 and 125, understands ‘νοῦς’ in II.19 to be referring to the power (δύναμις) rather than to the habit (ἕξις) of a power as a consequence of engaging in a particular activity. As a result of this identification, Tuominen views II.19 as recounting the various activities of νοῦς. Although Tuominen is not wrong to attribute intellectual activities to νοῦς, her reading of II.19 as concerned with νοῦς as a δύναμις is not justified; Aristotle mentions νοῦς only in the final lines of the chapter, where he answers the second of his two opening questions – a question concerning the habit, not the power, that knows the ἀρχαί of ἐπιστήμη.
third and final observation extends this notion of accuracy to another contributing cause of
demonstration, as yet unnamed: we have a power (δύναμις) by which we have the principles
before we know them, but not in a manner more valuable for its accuracy (τιμιωτέρα
κατ’άκριβείαν) (b32-34).

Aristotle then proceeds to answer his first question, namely, how the principles come to
be known. Curiously, Aristotle does not use the term ‘άρχαί’ anywhere in his answer to this
question. He speaks consistently, rather, of the universal (τὸ καθόλου). 24 Although several
potencies are mentioned that contribute to advent of the universal in the soul, two receive
particular attention: sensation (αἴσθησις) and induction (ἐπαγωγή). 25 Aristotle does not initially
describe sensation as concerning the universal in any manner; we read only in the conclusion of
the discussion of the first question that, while what is sensed is the particular, sensation is of the
universal. 26 Supposedly, it is because the more developed habits of knowing arise out of
sensation that sensation is associated with the universal; what is sensed is potentially, but not
actually thought as a universal. 27

24 Aristotle uses τὸ καθόλου five times throughout AnPo II.19, all within his response to the first question:
100a6-7, 16, 17, 100b2, 5.

25 AnPo II.19 100b4-5: “It is necessary that the primitives [τὰ πρῶτα] make themselves known to us by
induction [ἐπαγωγὴν γνωρίζειν]; for sensation also puts the universal in us in this way [ἡ αἴσθησις οὖτω τὸ καθόλου
ἐμποιεῖ].” Throughout AnPo II.19, Aristotle refers to sensation as a δύναμις, rather than as a ἔξις: 99b32-33, 35,
100a13-14.

26 AnPo II.19 100b3-5; Meta I.1 981a18-20; XII.10 1087a19-21; De An. III.4.430a5-6.

27 Joseph Owens, “The Universality of the Sensible in the Aristotelian Noetic,” in Aristotle, the Collected
perceived form of the sensible particular is universal in the sense of being predicable of the particular as well as of
subsequently refined universals, namely, the differentiae and genera that explain the particular. The first universal
that is grasped from sense perception is a “confusedly known object, universal in regard to all.” Owens’
interpretation is echoed by Greg Bayer, “Coming to Know Principles in Posterior Analytics II.19,” Apeiron 30
with the universal only at the last moment; after discussing for more than a dozen lines how the universal comes to exist in the soul, Aristotle declares, “it is clear that the primitive universals [τὰ πρῶτα] must make themselves known to us by induction.”

At 100b5, Aristotle takes up his second slated question, namely, what is the habit by which the ἀρχαί are known. In contrast to the discussion of the previous question, the account Aristotle gives here is well-delineated and focused. Aristotle begins by distinguishing νοῦς and ἐπιστήμη, which are always true, from those intellectual habits (διάνοιαν ἔξεσων) that admit falsehood (100b5-8). Next, he presents a list of observations about νοῦς, ἐπιστήμη, and the ἀρχαί of ἐπιστήμη. Among the list, three merit particular attention: first, νοῦς and ἐπιστήμη are always true (ἀληθῆ δ’ ἀεί) (100b7-8); second, νοῦς exceeds ἐπιστήμη in accuracy (ἀκριβέστερον) and truthfulness (ἀληθεύσεως) (b8,11); and third, there cannot be ἐπιστήμη of the principles of ἐπιστήμη (b10-11). Toward the end of his list of observations, Aristotle states his conclusion: “νοῦς will be of the principles” (b12). The conclusion is subsequently qualified

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28 AnPo II.19 100a16-17. Cf. Meta I.1 981a5-7. Mark Wheeler, “Concept Acquisition in Posterior Analytics II.19,” Hermathena 167 (1999): 22-23, distinguishes between the universals described at 100a6-9 and those described at 100a15-16: experience appears to contribute to the former, but not to the latter. Wheeler does not differentiate between these two kinds of universals and the ‘primitives [τὰ πρῶτα]’ that Aristotle associates with induction at 100b4.

29 David Bronstein, “The Principle and Aim of Posterior Analytics II.19,” Phronesis 57 (2012): 29, argues that “the aim of II.19 is not to explain how we get all the way to principles but to defend the claim that our knowledge of them originates in perception.” Bronstein succeeds in showing that αἴσθησις is indeed involved in the acquisition of the ἀρχαί, but fails to reconcile his thesis with the final passage of the chapter, in which no mention is made of αἴσθησις, and in which νοῦς is identified as the habit that knows the ἀρχαί. Bronstein’s thesis – too strong in its present form – could be amended to include this subsequent discussion of νοῦς, if he distinguished between the referents of ἀρχαί.

30 In contrast to the rest of the chapter, in which νοῦς is not mentioned at all, Aristotle mentions νοῦς five times in the final passage: 100b8, 9, 12, and 15.
and then reaffirmed: “if we have no other true kind of habit besides ἐπιστήμη, νοῦς will be of the principles of ἐπιστήμη.”

THE PROBLEM, FROM THE TEXT

One of the difficulties with AnPo II.19 that commentators have been quick to point out concerns a prerequisite for understanding Aristotle’s answers to his two questions. Aristotle identifies both sensation and induction as the means by which the universal comes to reside in the soul, and identifies νοῦς as the habit proper to knowing the ἀρχαί of ἐπιστήμη. Neither of these identifications suffice for us as answers to Aristotle’s questions, however, unless we can identify the referents of the ‘ἀρχαί of ἐπιστήμη.’

Because Aristotle never explicitly states what the ἀρχαί of ἐπιστήμη are, commentators have sought to identify the unnamed referents by examining Aristotle’s first and second answers. Some commentators propose that the referents of the ἀρχαί of ἐπιστήμη are universals, discussed toward the end of Aristotle’s answer to his first question. These commentators unanimously identify νοῦς as the habit pertaining to the knowledge of universals as principles. Others have concluded from Aristotle’s description of the ἀρχαί as “of ἐπιστήμη” that the intended referents

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31 Cf. NE VI.6 1141a7-8: λείπεται νοῦν εἶναι τῶν ἀρχῶν.

32 For a defense of this position, see Lesher, “The Meaning of ΝΟΥΣ,” 59; Tuominen, “Back to Posteriori Analytics II 19,” 125; and Salmieri, “Αισθησις, Εμπειρια, and the Advent of Universals,” 178-84.

33 Aydede, “Aristotle on Episteme and Νοῦς,” 16; Miles Burnyeat, “Aristotle on Understanding Knowledge,” in Aristotle on Science: The Posterior Analytics, ed. Enrico Bertí (Padua: Antenore, 1981), 131-32; Richard D. McKirahan, Principles and Proofs: Aristotle’s Theory of Demonstrative Science (Princeton: Princeton University Press, 1992), 235; Salmieri, “Αισθησις, Εμπειρια, and the Advent of Universals,” 160n12: “It is not clear to me that Aristotle himself has a distinction between knowing something that is a principle and knowing it as a principle, but insofar as that distinction applies, the subject of the chapter would have to be the latter.” Modrak, “Aristotle on Thinking,” 210: “νοῦς is thought about universals qua universals.”
are premises; syllogisms and demonstrations proceed from universal, true, and unmidled premises. \(^{34}\)

The difficulty with these two proposed referents of ‘ἀρχαί’ is that neither yields a completely coherent reading of AnPo II.19. If, on the one hand, the ἀρχαί of νοῦς are universals, then why does Aristotle mention ἐπαγωγή, rather than νοῦς, in connection with their advent in the soul? \(^{35}\) If, on the other hand, the ἀρχαί of νοῦς are premises, what are we to make of the closing line of the chapter, that νοῦς is the ἀρχή of ἀρχαί?

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34 Bronstein, “Principle and Aim,” 42: “Aristotle is clear that νοῦς, the state that knows first principles, comes after the universal, for he says that the ἀρχή of τέχνη and ἐπιστήμη (that is, νοῦς) arises from the universal.” Bronstein associates νοῦς with the thought of premises in this way: we are actually in the habit of ἐπιστήμη when we demonstrate; demonstrations begin from premises; and premises are articulated from universals.

35 NE VI.3 1139b28-29. Advocates of this proposed referent contend that Aristotle’s focus in this section is on the activity by which the universal is discovered, rather than on the habit of knowing the universal as true, or as a principle.

Lambros Couloubaritsis, “Y a-t-il une intuition des principes chez Aristote?” Revue Internationale de Philosophie 34 (1980): 468: “Par là même, le terme de nous doit être compris comme un terme générique qui traduit l’intelligibilité même du réel, intelligibilité que seule l’activité complexe d’induction rend accessible à l’homme. En ce sens, le nous constitue l’émergence de l’une des formes d’induction, de celle qui touche l’essence des choses, les principes, au niveau même de l’essence.” Edmund H. Ziegelmeyer, “The Discovery of First Principles According to Aristotle,” Modern Schoolman 22 (1945): 139: “we must discover universal principles by an inductive process; and once this induction has taken place, our intellect takes the last step, that namely of intuition, and without any reasoning process sees the universal.” T. Engberg-Pederson, “More on Aristotelian epagōgê,” Phronesis 24 (1979): 317, argues that the activity of induction, ἐπάγω, results in the state of νοῦς. He admits that this interpretation runs into difficulty with Aristotle’s contention at AnPo II.19 100b7-8 that νοῦς is always true, since “coming to see something universal as a consequence of attending to particular cases” is not infallible (301). Leonard Peikoff, “Aristotle’s ‘Intuitive Induction,’” New Scholasticism 59 (1985): 198, makes a similar point: Aristotle fails to reconcile the infallible and fallible aspects of his doctrine of “intuitive induction.” Michele Anik Stanbury, “Inference, Nous, and Dialectic: Reconciling Aristotle’s Accounts of the Epistemological Status of First Principles,” Society for Ancient Greek Philosophy Newsletter East (2016): 4, argues that ἐπαγωγή is the process by which we become familiar with a principle, while νοῦς is the state in which we grasp the principle as true. While Stanbury’s distinction successfully separates the discursivity of induction from νοῦς, it does so at the price of making νοῦς discursive in a different, reflexive fashion.

Cf. Zeev Perelmuter, “Nous and Two Kinds of Epistêmê in Aristotle’s Posterior Analytics,” Phronesis 55 (2010): 235-36, correctly observes that not every act of demonstration places us in the state of ἐπιστήμη; failed attempts at demonstration are not ἐπιστήμη, because they are not demonstrations. Perelmuter accordingly introduces, between the state of knowing universals (which Perelmuter incorrectly identifies as νοῦς) and the state of ἐπιστήμη, the state of non-demonstrative science (ἐπιστήμη ἄναπόδεικτος), by which one knows premises that are not primary. Perelmuter finds the textual distinction between nous and non-demonstrative ἐπιστήμη suggested by the νοῦς … νοῦς clause of I.33.88b35-37, which Lesher, “The Meaning of NOUS,” 52, interprets in a remotely similar way. The two states are hierarchically related: νοῦς is ἀρχή to non-demonstrative ἐπιστήμη, and non-
Even if these inconsistencies could be explained, there would still remain a more significant conflict between either of the proposed referents and the text: since falsity comes from synthesis, and since synthesis is required for thinking premises as well as universals as principles, if νοῦς thinks either premises or universals as principles, then νοῦς can err. This, however, is in direct conflict with the truth claims contained in the closing passage of AnPo II.19: νοῦς is not only always true, but is truer and more accurate than ἐπιστήμη (100b6, 7-8, 8, 11). Commentators respond to this difficulty by construing Aristotle’s truth claims in a manner not found elsewhere throughout his corpus.36

**The Resolution, from Our Account of Noetic Thinking**

If we turn to the account of noetic thinking that Aristotle presents outside of AnPo II.19, we can resolve the difficulties concerning the referent of ‘ἀρχαί’ without needing to amend the passage’s infallibility claims. This turn to Aristotle’s account of the activity of noetic thinking is demonstrative ἐπιστήμη is ἀρχή to ἐπιστήμη. I have not found Perelmuter’s position expressed by other commentators.

36 Aydede, “Aristotle on Episteme and Nous,” 39, presents both νοῦς and ἐπιστήμη as the state of holding inductive conclusions from empirical propositions; the states differ, he says, only in that νοῦς knows propositions while ἐπιστήμη knows syllogisms. Aydede admits that this characterization of νοῦς and ἐπιστήμη sacrifices infallibility; Aristotle’s account of cognition, Aydede concludes, “boils down to the justified true belief (JTB) analysis of knowledge” (36). Cf. Burnyeat, “Aristotle on Understanding Knowledge,” 133: “It is remarkable how little interested Aristotle is in the central concepts of that [theory of knowledge] enterprise as it is carried on today. Concepts like evidence and justification, the Humean problem of induction—all this belongs in Aristotle’s terms to the process by which we make something gnōrimon to us. His treatment of this process in B 19 … is by our standards perfunctory in the extreme.”

L. A. Kosman, “Understanding, Explanation, and Insight in the Posterior Analytics,” in Exegesis and Argument, Phronesis supp. vol. I, ed. E. N. Lee, Alexander Mourelatos, and Richard Rorty (Assen: Van Gorcum, 1973), 389, assigns a pragmatic meaning to Aristotle’s truth labels: to say that νοῦς is true is merely to acknowledge the explanatory power of the ἀρχαί; a proposition is true if using it succeeds in “making intelligible the world of phenomena.”

McKirahan, Principles and Proofs, 259, suggests that νοῦς just is the state of grasping propositions that are true, universal, and appropriately explanatory. Faulty attempts at grasping first principles are indeed faulty, but they are not νοῦς. Similarly, faulty attempts at demonstration do not yield ἐπιστήμη, but only successful demonstrations. Νοûς and ἐπιστήμη are always true, but we cannot always recognize when we are in these states. It only follows that “if we have nous or epistêmê of p, then necessarily p is true.” Cf. Aydede, “Aristotle on Episteme and Nous,” 32.
justified, as before, on the foundational relationship that activities bear toward habits; since we are seeking to understand the habit that knows the ἀρχαί of ἐπιστήμη, it is right that we draw upon our understanding of the activity that determines this habit.

**THE ἈΡΧΑΙ OF ΒΟΤΖ ARE ESSENCES, NOT PREMISES NOR UNIVERSALS**

From the standpoint of Aristotle’s account of noetic thinking, it is clear that the ἀρχαί, the knowledge of which corresponds to the habit of νοῦς, are neither universals nor premises, but undivided thoughts (ἀδιαίρετα νοήματα). The dissertation’s preceding chapters have presented three arguments that support this conclusion.

Chapter Four inquired into the unity of the things (πράγματα) capable of being thought noetically. This inquiry revealed noetically thinkable things to be undivided in quantity, undivided and uncomposed in form, and without matter. Essences of material composites were seen to be unified in all these ways, while universals and, by extension, universal premises, were not. Essences are noetically thinkable because they are actual unities apart from the subject’s act of synthesis. Although certain universals – infimae species – are undivided in form, even these universals lack the unity of existing in matter – of being undivided in quantity. Universal premises are divided in form and, like universal terms, are not undivided in quantity. Since neither universals nor universal premises exist as unities apart from the subject’s act of synthesizing, neither can qualify as the referent of ἀρχαί.

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37 I distinguish here between psychological objects, which are divided or undivided according to the subject’s thinking, and things, which are divided or undivided apart from the subject’s thinking. In AnPo II.19, Aristotle’s overt focus is on psychological objects – νοηματα, universals, and premises – rather than things – πράγματα.
Chapter Three inquired into the nature of the subject’s activity in noetic thinking. The chapter concluded that noetic thinking is an act of non-synthetic division. From this conclusion, too, it is evident why the ἀρχαί thought by νοῦς must be essences of material composites: it is not possible to think a universal or a premise – whether universal or not – by non-synthetic division. The thought of a universal requires not only that we think something, but that we think something as the same in multiple particulars. The thought of a premise, similarly, is synthetic; it is by synthesis that we think ‘S is p.’ No synthesis is necessary, however, in thinking the essence of a material composite; since an essence is unified of itself, apart from the thinking subject, actual thinking requires only that the subject remove the barrier to the thing’s intelligibility.

Chapter Two established, as an initial observation, that Aristotle speaks of noetic thinking as infallible. Any given act of noetic thinking is true and not false. The cause of this infallibility was eventually revealed to be actual union in the absence of synthesis. Since neither universals nor premises can be thought without synthesis, neither of these can be the objects of noetic thinking – the ἀρχαί thought by νοῦς. Νοῦς is always true because it thinks without synthesis the things that are undivided, namely the essences of material composites.

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38 It follows, a fortiori, that knowing ἀρχαί as ἀρχαί is clearly synthetic: it requires that one not only attempt to extend one’s demonstration further into the essence of the subject; and not only fail to extend the demonstration in this way; but also to recognize that the failure is due not to error but to having reached the first unmiddled premises which constitute the difference between mere γνῶσις and ἐπιστήμη.
Having identified the ἀρχαί thought by νοῦς as the familiar ἀδιαίρετα of DA III.6, we can now re-examine the text of AnPo II.19, in order to see the relation that these ἀρχαί have to the other proposed referents, namely, universals and premises. The structure that comes to light, when we approach the text with this fuller understanding of the nature of νοῦς, is that ‘ἀρχή’ is said in many ways. To be an ἀρχή is to be in relation to something else. We can identify the referent of each appearance of ‘ἀρχή,’ accordingly, only by identifying those things whose origin we are seeking.\footnote{The sixth meaning of ‘ἀρχή’ given in Meta V.1 1013a14-15 “that from which a thing can first be known [δόθεν γνωστόν τὸ πράγμα πρῶτον].” The example given is a hypothesis (ὑποθέσεις), which is an ἀρχή of ἀποδείξεις (a16).}

Throughout AnPo II.19, Aristotle refers or alludes to three different ἀρχαί: premises, universals, and ἀδιαίρετα νοῆματα. These three ἀρχαί are related not as independent causes of the same effect, but as causes that are uniquely related to one another and to a common effect.\footnote{Tuominen, “Back to Posterior Analytics II 19,” 120-21, distinguishes between two kinds of ἀρχαί mentioned in II.19: universals are the ἀρχαί for inquiry, and premises are the ἀρχαί for proof. Tuominen regrettably does not extend this reasoning toward an identification of the ἀρχαί of ἐπαγωγή.}

At the outset of AnPo II.19, Aristotle makes known that the “effect” to be explained is the demonstrative syllogism. Demonstration will have been explained scientifically when its causes have been identified – both the causes that prepare for and that actualize the demonstration.

Aristotle’s approach in AnPo II.19 is to introduce the principles of the demonstrative syllogism beginning with the most rudimentary and proceeding to the most refined. In order to bring out the dependence of the refined principles upon the rudimentary ones, I would like to begin at the opposite end, with the immediate ἀρχαί of demonstrative syllogisms, and proceed to the intermediate and then remote ἀρχαί.
The immediate ἀρχαί of demonstrative syllogisms are premises, known by the synthetic activity of judgment. We are in the state of ἐπιστήμη, that is to say, when we perform the activity of ἀπόδειξις with premises that are universal, true, and sound. We cannot arrive at these universal premises, however, unless we first possess universal thoughts which, when synthesized, can serve as parts of a premise. 41 Since we arrive at these thoughts by means of ἐπαγωγή, both ἐπαγωγή and its objects, universals, are remote ἀρχαί of the activity of ἀπόδειξις. 42

Although a universal is an ἀρχή of a premise, it is not without an ἀρχή of its own. A universal, as a description of what is common to many, depends for its actuality on the subject’s already knowing many particulars. 43 For this reason, noetic thinking, by which a subject comes to know a particular material composite, must precede the activity of induction; it is only by first knowing the essence of a material composite that the essence can be thought as a universal.

CONCLUSION

I would like to conclude this examination of AnPo II.19 with three remarks about the surprisingly grand description Aristotle provides of νοῦς in the chapter’s closing lines: νοῦς is the “principle of principles [ἡ μὲν ἀρχὴ τῆς ἀρχῆς], relating, as a whole, in the same way to the whole of existing things [ἡ δὲ πᾶσα ὁμοίως ἔχει πρὸς τὸ πᾶν πρᾶγμα]” (100b15-17).

First, this encapsulates and confirms the reading of AnPo II.19 displayed above: νοῦς (and its attendant activity and objects) is the principle of other principles of thought. Νοῦς

42 NE VI.3 1139b28-29.
43 Kahn, “The Role of NOUS,” 399: “[I]ntelligible forms (τα νοεῖα) … are precisely the universal concepts or essences that become the principles of scientific knowledge.”
precedes other habits, activities, and objects, not merely temporally, but as an underlying condition and cause. An act of noetic thinking is neither altered nor rendered superfluous by the acts that articulate it; noetic thinking remains the undivided principle on which all synthetic thinking of necessity rests.

Second, the truth of noetic thinking relates to the truth of synthetic thought in the same way as their respective activities, habits, and objects relate. The truth of noetic thinking differs from that of synthetic thinking because the activities themselves differ.\textsuperscript{44} The truth of noetic thinking is both a necessary condition and a measure of the truth of synthesis, but just as the activity of noetic thinking cannot be reduced to that of synthesis, neither can its truth be so reduced.\textsuperscript{45}

\begin{footnotesize}

\textsuperscript{44} Kal, \textit{On Intuition and Discursive Reasoning in Aristotle}, 47: “with regard to that which is simple there can be no question of making a connection or a distinction. At the end of the chapter Aristotle says: the making of connections and distinctions belongs to the mind and does not clarify directly the reality outside the mind. In other words, this is where knowing differs from thinking.” Moreau, “Aristote et la vérité antéprédicative,” 23: “Il faudra donc admettre, si l’on ne veut retirer sa base à la vérité du jugement, que dans la perception la réalité se montre \textit{telle qu’elle est,} que la perception est essentiellement (sinon sans réserves) une \textit{révélation} de la chose; ainsi la vérité de la perception n’est pas conformité, mais révélation, et dans cette révélation on saisit, antérieure à la vérité du jugement, la vérité de la chose.”


\textsuperscript{45} \textit{Meta} XIII.3 1078a9-11: “And in proportion as we are dealing with things which are prior in definition and simpler [προτέρον τῷ λόγῳ καὶ ἁπλοστέρον], our knowledge has more accuracy [τὸ ἀκριβές], i.e. simplicity [τὸ ἁπλοῦν ἐστίν].”

Seidl, \textit{Der Begriff des Intellekts}, 85: “Schließlich sei bemerkt, daß die \textit{ἐπιστήμη,} nur in Verbindung mit dem \textit{νοῦς:} “immer wahr” sein kann. (Diese Verbindung wird auch in \textit{Nicomachean Ethics} VI.7 bezüglich der \textit{σοφία} eigens betont, 1141a18-20 und b2-3.) Nach \textit{De Anima} III.6 ist nämlich die Irrtumsmöglichkeit in jeder Aussagenverknüpfung und so in jedem diskursiven Denken gegeben, während streng genommen nur “der die Wesenheit erfassende Intellekt (immer) wahr ist”(430b28). Jede Wissenschaft ist deshalb immer wahr und notwendig, weil ihre Prinzipien es sind, und diese sind wiedenum immer wahr und notwendig, weil der Intellekt sie als solche erfaßt.” Biondi, \textit{Posterior Analytics} II.19,” 256: “It is this truth [of intuition] which measures the truth of judgments expressed in enunciations and in the propositions of a demonstration and which, as a consequence, can be said to be ‘truer.’”

\end{footnotesize}
Third, what underlies the primacy of noetic thinking as an activity and as true is the primacy of the things (πράγματα) that are thought. It is ultimately because noetic thinking is of the primary things that exist – the principles of all that is derivative – that it is itself a primary principle.

CONCLUSION

Throughout this dissertation, I have sought to display the nature and value that Aristotle attributes to noetic thinking, both as an activity in its own right and as a foundation for subsequent thought. My intention in the present chapter has been different: I have sought to show the value that my reading of Aristotle’s account of noetic thinking has for the interpretation of other texts within the Aristotelian corpus.

I would like to close the present chapter with a more general recommendation for those who wish to know not only Aristotle’s texts, but Aristotle’s mind. In the immediately preceding pages, I have shown that DA III.6 can succeed as an interpretive key for NE VI.6 and AnPo II.19: in all three texts, Aristotle presents noetic thinking as an ἀρχή of the life of the mind. It seems to me that reflection upon noetic thinking assumed a similarly foundational role in the life of Aristotle’s mind – at least as it is reflected in his writings. If we wish to know Aristotle’s mind, we would do well to regard as first in our interpretation what was first for him in his writing: having once uncovered noetic thinking as an ἀρχή of his writing, it remains for us to seek this ἀρχή in its effects.46

46 NE I.4.1095a32-33: “For Plato, too, was right in raising this question and asking, as he used to do, ‘are we on the way from or to the first principles?’”
CONCLUSION

In this final conclusion of the dissertation, I would like to assume a different narrative posture than I maintained throughout the preceding chapters. I would like to close by describing how the unity of Aristotle’s account of noetic thinking unfolded for me throughout my research. While this description concerns the development my personal synthesis of Aristotle’s account of noetic thinking, I believe it is helpful nonetheless for disclosing the unity that is objectively present in the account itself.

One of the greatest difficulties I encountered throughout the process of articulating Aristotle’s account of noetic thinking was the Stagirite’s apparent failure to provide any examples of noetic acts or noetically thinkable things. It was not until I was penning the dissertation’s fifth chapter that it occurred to me that Aristotle’s seeming omission might have been deliberate. I noticed that examples of noetic thinking are as conspicuously absent from NE VI and AnPo II.19 as they are from DA III.6.¹ I found in the concluding lines of II.19 a possible explanation for why Aristotle might have regarded such examples as neither necessary nor possible: “νοῦς will be the origin of the origin [ἡ μὲν ἀρχὴ τῆς ἀρχῆς], and νοῦς as a whole [ἡ δὲ πᾶσα] will relate similarly [ὁ μίως ἔχει] to the whole of existing things [πρὸς τὸ πᾶν πρᾶγμα].”² If noetic thinking is the ground of both synthetic thinking and the life of thought as a whole, examples of noetic thinking are ubiquitous and, for that very reason, elusive.

¹ Throughout the whole of AnPo II.19, Aristotle gives only two examples of particular cognitive acts, neither of which is an act of noetic thinking: sensation is of the man Callias (100a16-b1); we proceed by induction (ἐπαγωγή) from such-and-such animal to animal as such (100b1-5).
² AnPo II.19 100b15-17.
Examples of noetic thinking are not necessary, because the thought of any \( \pi\rho\alpha\gamma\mu\alpha \) exemplifies this kind of thinking; the objective limit of non-synthetic thinking, that is to say, is nothing other than existing \( \pi\rho\alpha\gamma\mu\alpha \) themselves. It would have been potentially misleading, therefore, if Aristotle had drawn attention to a noetic act of a particular \( \pi\rho\alpha\gamma\mu\alpha \); it is in virtue of a thing’s being a \( \pi\rho\alpha\gamma\mu\alpha \) that it is noetically thinkable, and not in virtue of its being a \( \pi\rho\alpha\gamma\mu\alpha \) of any particular kind.

Similarly, along this line of supposition, examples of noetic thinking are not possible to provide. Aristotle’s account of noetic thinking isolates for philosophical reflection a foundational and recurring activity in the life of the mind – a life that proceeds by synthesis, speech, and desire, and that is inextricably interwoven with the life of the senses. Our ability to distinguish in thought between various sensory, intellectual, and speech acts is answered by our relative inability to discern these acts in our experience. We should neither insist on locating in our experience the philosophical distinctions we have arrived at through reflection, nor deny the validity of these distinctions because we cannot find them in experience.

Noetic thinking, as I have come to understand it through \textit{DA} III.6 and the closing lines of \textit{AnPo} II.19, permeates the life of the mind. We think noetically whenever we focus on a single \( \pi\rho\alpha\gamma\mu\alpha \), whether we are in the physical presence of that \( \pi\rho\alpha\gamma\mu\alpha \) or not. We think a dandelion noetically, for example, when we give our undivided attention to its particular phantasm, focusing on the \( \varepsilon\iota\delta\omicron\omicron\varsigma \) in the phantasm rather than on the phantasm’s material aspects. Having thought of the dandelion in this way, we can subsequently uncover the dandelion’s \( \varepsilon\iota\delta\omicron\omicron\varsigma \) more accurately by separating from the thought of the dandelion the thought of its particular matter, sensible matter, and intelligible matter. Both iterations of this non-synthetic dividing are in no
way false, since neither the activity of thinking nor the thing thought are unified by synthesis.

This non-synthetic dividing is true, moreover, since the thinking subject touches and is touched in a supersensory way by what is real – wholly one, of itself.\(^3\)

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\(^3\) The unities that we touch in noetic thinking seem, to me, to be the Aristotelian corollaries of what Parmenides called “the unshaken heart of well-rounded truth [Αληθείης εὐκυκλέος ἀτρεμές ἤτορ]” (DK 28B1, 29).
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