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Aristotle's Enthymeme and the Imperfect Syllogism

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In the past decade several scholars have pointed out a range of meanings for the term *enthymeme* and so provided a cautionary tale for those who would speak naively about Aristotle's enthymeme.¹ It would be nice to think that no one will ever again make the mistake of thinking that Aristotle's enthymeme is a rigidly deductive form of inferential reasoning. But this error has been corrected before, and the correction has been ignored before.² As early as the Renaissance, for example, the grand Greek Thesaurus from the Estienne press listed numerous meanings for the term ἐνθύμημα, understood as an *animi conceptus, sensum*

¹See Thomas M. Conley, "The Enthymeme in Perspective," *Quarterly Journal of Speech* 70 (1984): 168-187; Jürgen Sprute, *Die Enthymemtheorie der aristotelischen Rhetoric* (Göttingen: Vandenhoeck & Ruprecht, 1982); and, earlier, Wayne N. Thompson, *Aristotle's Deduction and Induction: Introductory Analysis and Synthesis* (Amsterdam: Rodopi, 1975), 72-77. For recent discussions of some of the issues addressed in this chapter see Carol Poster, "A Historicist Recontextualization of the Enthymeme," *Rhetoric Society Quarterly* 22 (1992): 1-24, and Myles F. Burnyeat, "Enthymeme: Aristotle on the Logic of Persuasion," *Aristotle's "Rhetoric": Philosophical Essays*, ed. David J. Furley and Alexander Nehamas (Princeton: Princeton University Press, 1994), 3-55, which appeared too late to use in the preparation of this chapter.

²See, for example, *Animadversiones variorum criticae et exegeticae in Aristotelis de rhetorica libros tres* (Oxford: Clarendon Press, 1820) 37: "Non haec est enthymematis, quasi mutili syllogismi, nota propria, ut media propositio, qua argumentum assumitur, fere desit: quanquam enthymema vulgo ita definiunt." But the authors then go on to declare "Enthymema igitur est syllogismus non accurate expressus, sed accommodata ad dictionem oratoriam" (38).

vel sensus.³ After 1572 the Greek Thesaurus was widely available, and most commentators on the classics had recourse to it. But despite the wide use of this readily available resource, the most common way to speak about the details of Aristotle's enthymeme continued to be in terms of deductive inferential proceeding, and the other meanings all dropped by the wayside.

In the present chapter I wish to address the longevity of this misperception of Aristotle's enthymeme as both a reductive and a rigidly deductive proceeding—to address not so much the history of this misperception as its power to endure, even in the face of contradiction and correction. Eugene E. Ryan's current theory of rhetorical argumentation, in which Aristotle's orator need only fill in the blanks in one of a variety of topical templates, is one recent form; and William M. A. Grimaldi's view of the enthymeme as a deductive nexus of *ethos*, *pathos*, and *pragma* can be seen in this tradition as well.⁴ My concern here is with the extreme version of this position, that is, with the view of the enthymeme as an incomplete or imperfect syllogism, a syllogism that need not be truncated but that usually is truncated for rhetorical reasons. This view is supposedly discredited today; but it has been discredited repeatedly since the Renaissance, and yet it is still with us. My principal interest is in the longevity of this view and I focus on that position, not to batter a straw man but, rather, to confront—in its historically most enduring form—the willingness, and even the determination, to understand the enthymeme as a mechanistic and deductive formula.⁵

³Henri Estienne (Henricus Stephanus, 1531–1598), ed., *Thesaurus graecae linguae*, 5 vols. (Paris, 1572). The meanings under the heading ἐνθύμημα include *recordatio*, *commentum*, *cogitamentum*, *sententia quae e contrariis conficiatur*, *acrius epicheremate*, and *memorable inventum*, and the entry cites a broad range of classical sources, including Aristotle's *Rhetoric*.

⁴Eugene E. Ryan, *Aristotle's Theory of Rhetorical Argumentation* (Montreal: Les Editions Bellarmin, 1984); William M. A. Grimaldi, S. J., *Studies in the Philosophy of Aristotle's "Rhetoric"* (Wiesbaden: Franz Steiner, 1972); and Grimaldi's two *Commentaries* on books 1 and 2 of the *Rhetoric* (New York: Fordham University Press, 1980, 1988). In this tradition see also Paul D. Brandes, *A History of Aristotle's "Rhetoric" with a Bibliography of Early Printings* (Metuchen, NJ: Scarecrow Press, 1989) 178–207.

⁵This enduring misperception has implications for that branch of modern composition pedagogy in the United States that seeks to use a so-called structural enthymeme. This structural enthymeme is a thoroughly modern pedagogical device that brings together a number of rhetorical perceptions found in Aristotle and in other early writers. But just as Aristotle's enthymeme is misperceived as a reductive and mechanistic formula, so also the modern structural enthymeme is misperceived as such. Those in modern composition who are unconvinced about the utility of the structural enthymeme see it as a mechanistic device that shares all the debilities of formal syllogistic and thus falsifies a student's understanding of persuasive writing. On the other hand, those who have worked with this structural enthymeme claim that it provides a useful kind of shorthand for focusing a student's attention on the principal dynamics of persuasion that Aristotle discusses in the *Rhetoric*. See, for example, Linda Bense-Meyers, *Rhetoric for Academic Reasoning* (New York: HarperCollins, 1992) 124–128, 167–173, 210; Wayne C. Booth and Marshall W. Gregory, *The Harper and Row Rhetoric: Writing as Thinking, Thinking as Writing*, 2nd ed. (New York: HarperCollins, 1991) 24–29; John T. Gage, "A General Theory of the Enthymeme for Advanced Composition," *Teaching Advanced Composition* ed. Katherine H. Adams and John L. Adams (Portsmouth, NH: Heinemann, 1991)

PART ONE

There are several places in the *Rhetoric* where Aristotle could be understood as referring to the enthymeme as a truncated syllogism (notably at 1.2, 1357^a16ff and again at 2.22, 95^b24ff). Indeed, the most recent English interpreter of the *Rhetoric* notes that Aristotle's statement at 1.2, 1357^a16 "became in postclassical times the authority for defining an enthymeme as a syllogism in which one or more propositions are not expressed."⁶ But this postclassical reading is itself the product of earlier ways of thinking that did not originate with the *Rhetoric* proper. That treatise all but disappeared from sight for 15 centuries following Aristotle's death, and during much of that time scholars devoted themselves instead to Aristotle's analytical treatises. When the *Rhetoric* finally reemerged, the understandings about the enthymeme that were read back into the text had less to do with rhetoric and more to do with contemporary understandings about logic.

Thus the starting point for the following discussion is not Aristotle's *Rhetoric* but instead his analytical works and the problems they pose. Even so, the story is not simple. In Aristotle's single reference to the enthymeme in the *Prior Analytics* at 2.27, 70^a10, he calls the enthymeme "a syllogism from probabilities or signs" (ἐνθύμημα δὲ ἐστὶ συλλογισμὸς ἐξ εἰκότων ἢ σημείων). But in the centuries after the rediscovery of the lost Aristotelian corpus,⁷ a consensus slowly emerged that what Aristotle really had in mind in this passage was an imperfect syllogism—συλλογισμὸς ἀτελής. In the succeeding centuries this gloss ἀτελής was interpolated into a few of the manuscripts of the *Prior Analytics*, although the particular steps in the process remain obscure. In 3rd-century Alexandria, the Peripatetic commentator Alexander of Aphrodisias offers a careful discussion of imperfect syllogisms in Aristotle's *Prior Analytics*, but he is concerned almost exclusively with Aristotelian procedures for the conversion of premises and the reduction of second and third figure syllogisms to the perfect syllogisms of the first figure. Alexander uses the term ἀτελής throughout this discussion, but he

161–178; John T. Gage, *The Shape of Reason: Argumentative Writing in College*, 2nd ed. (New York: Macmillan, 1991) 144–162; Maxine C. Hairston, "Bringing Aristotle's Enthymeme into the Composition Classroom," *Rhetoric and Praxis: The Contribution of Classical Rhetoric to Practical Reasoning* ed. Jean Dietz Moss (Washington, DC: Catholic University of America Press, 1986) 59–77; William A. Wallace, "Aitia: Causal Reasoning in Composition and Rhetoric," in Moss, *Rhetoric and Praxis* 107–133, especially 131–132; Lawrence D. Green, "Enthymemic Invention and Structural Prediction," *College English* 41 (1980): 623–634.

⁶George Kennedy, *Aristotle. "On Rhetoric": A Theory of Civic Discourse, Newly Translated with Introduction, Notes, and Appendixes* (New York: Oxford University Press, 1991) 297.

⁷The eclipse of the Aristotelian school started to reverse only after 86 B.C. with the editorial work by Andronicus of Rhodes. For a review of this revival, and the start of the commentary tradition, see Hans B. Gotschalk, "The Earliest Aristotelian Commentators," *Aristotle Transformed: The Ancient Commentators and Their Influence*, ed. Richard Sorabji (Ithaca: Cornell University Press, 1990) 55–81, revised from "Aristotelian Philosophy in the Roman World from the Time of Cicero to the End of the Second Century A.D.," *Aufstieg und Niedergang der römischen Welt*, ed. Wolfgang Haase, II (Berlin: Walter de Gruyter, 1987) 36:2, 1079–1174.

does not suggest that imperfect syllogisms have anything to do with Aristotle's enthymeme.⁸ The reverse is true of Alexander's massive commentary on Aristotle's *Topics*, in which Alexander does discuss enthymemes but does not use the word ἀτελής in connection with them. Here Alexander examines the notion of syllogisms that are missing a premise, but the term he uses is μονολημμάτους συλλογισμούς, a term that he carefully attributes to the newer Stoic logic rather than the older Aristotelian logic; and Alexander is critical in general here of Stoic syllogistic. Later in this same discussion he explains that Aristotle's enthymeme requires that an auditor supply a missing premise, and that enthymemes of this sort are properly called rhetorical syllogisms (ῥητορικοὶ συλλογισμοί), because they are not really syllogisms at all in Aristotle's sense. The perfection or imperfection of rhetorical syllogisms is not an issue for Alexander, and the word ἀτελής does not appear in his discussion.⁹

Alexander differentiates between Aristotelian and Stoic understandings of what constitutes a syllogism but points out that a rhetorician with a compliant audience might be able to understand an Aristotelian enthymeme in terms of a Stoic syllogism. But two centuries later in Alexandria, these uses are no longer distinct, and the careful attribution to the Stoics no longer obtains. The Neoplatonist Ammonius explains in his commentary on Aristotle's *Prior Analytics* that rhetoricians use a syllogism that has but one premise (μονολήμματος) and that such a syllogism is imperfect ἀτελής.¹⁰ Ammonius repeats the same argument in his commentary on Porphyry's *Isogoge*, this time introducing the phrase συλλογισμὸς ἀτελής,¹¹ thus making it easier for subsequent readers to understand *imperfectio* as *truncation*. Ammonius's commentary of Porphyry may have had even more influence than his commentary on the *Prior Analytics*, because Porphyry's *Isogoge* was used routinely as an introduction to Aristotle's logical works for over a thousand years, and Ammonius's commentary on Porphyry was widely available.¹² Subsequent commentators in the later Byzantine tradition continued to look at the

⁸Alexander of Aphrodisias (ca. A.D. 200), *In analyticorum priorum librum I commentarium*, in *Commentaria in Aristotelem Graeca*, ed. Maximilian Wallies, vol. 2, part 1 (Berlin: George Reimer, 1883) 23.17–24.18. Cited hereafter as CAG.

⁹Alexander, *In topicorum libros octo commentaria*, CAG 2:2, ed. Maximilian Wallies (1891), 8.17, 9.9. The word μονολήμματος is also used by Chrysippus and by Antipater, *Stoic* 2.84, suggesting a Stoic rather than Peripatetic background.

¹⁰Ammonius Hermioui (435/445–517/526), *In analyticorum priorum librum I commentarium*, CAG 4:6, ed. Maximilian Wallies (1899), 27.14–20 at *APr* 24^b18.

¹¹Ammonius, *In Porphyrii isagogen*, CAG 4:3, ed. Adolf Busse (1891) 8.8.

¹²The Aristotelian logical studies by Ammonius and his students (notably Philoponus) were central to the work by Byzantine scholars and, through Boethius, a contemporary of Philoponus, to scholars in the Latin West; see Sten Ebbesen, "Philoponus, 'Alexander' and the Origins of Medieval Logic," in Sorabji, *Aristotle Transformed* 445–461, 451–452. There survive numerous manuscripts of Ammonius's *In Porphyrii isagogen*, and many editions were printed during the Renaissance (CAG 4:3, xl–xlii). Greek editions were printed in Venice (1500), and twice again in Venice (1545). Latin translations were printed in Venice (1504), Lyon (1547), Venice (1559), and Venice (1581). There were also editions in Arabic and Syriac.

enthymeme as a truncated syllogism, although these later commentators were not concerned directly with the analytical treatises. An anonymous scholiast on Hermogenes' *On Invention* specifies that enthymemes are syllogisms that are ἀτελής and discusses enthymemes using a conflation of Stoic and Peripatetic terminology.¹³ An anonymous commentator on the *Rhetoric*, possibly as late as the 12th century, specifies that a syllogism always has two premises, whereas an enthymeme has only one;¹⁴ and in a discussion (at 2.22, 1395^b23) he asserts that an enthymeme is indeed a συλλογισμὸς ἀτελής.¹⁵ Numerous prolegomena and scholia to Hermogenes carry the phrase συλλογισμὸς ἀτελής down through the 12th century and later.¹⁶

Given the prevalence of this way of thinking, it is not surprising that the ἀτελής gloss crept into the text of the *Prior Analytics* (although never into the text of the *Rhetoric*). The Greek commentators were not shy about such emendations.¹⁷ Of the six oldest manuscripts that provided the text for the modern editions of the *Prior Analytics*, two offered the reading συλλογισμὸς ἀτελής at 2.27, 70^a10, and both manuscripts, in different ways, date from later than the 12th century.¹⁸ Most of codex Coislinianus 330 dates from the 11th century, but the manuscript has major lacunae, including the locus at *Prior Analytics* 2.27; and those lacunae were supplied by a hand from the 12th or 13th century. Similarly, most of codex Ambrosianus L 93 sup. (490) dates from the 9th century, but the folios that include the present locus have been supplied by an imitator writing in the 15th century. There is no need to postulate a line of textual descent

¹³Christian Walz, *Rhetores Graeci* 7:2 (Stuttgart and Tübingen: J. G. Cotta, 1832–1836) ἀτελής at 762.11, 763.9; λήμμα and πρότασις at 763.27.

¹⁴Anonymous, *In artem rhetoricam commentarium*, CAG 21:2, ed. Hugo Rabe (1896) 2.26–27: τοῦ γὰρ συλλογισμοῦ ὄντος ἐκ δύο προτάσεων τὸ ἐνθύμημα ἔχει μίαν. Robert Browning suggests that the author might have been Michael of Ephesus, which, if true, would fix the date of the commentary in the early 12th century in Byzantium; "An Unpublished Funeral Oration on Anna Comnena," in Sorabji, *Aristotle Transformed*, 393–406; reprinted from *Proceedings of the Cambridge Philological Society*, n.s. 8 (1962): 1–12. The anonymous Greek commentary was printed in Paris, 1539.

¹⁵CAG 21:2, 130.17.

¹⁶See Thomas M. Conley, "Notes on the Byzantine Reception of the Peripatetic Tradition in Rhetoric," *Peripatetic Rhetoric After Aristotle: Rutgers University Studies in Classical Humanities*, vol. 6, ed. William W. Fortenbaugh and David C. Mirhady (New Brunswick, NJ: Transaction Publishers, 1994), 217–242; in particular, Conley's references to the use of ἀτελής in *Prolegomenon sylloge* 234.5 (from MS Par. gr. 3032, 10th or 11th century), 240.24f, and 324.15f, (from MS Ambr. 290, 14th century).

¹⁷In one passage, for example, the anonymous commentator on the *Rhetoric* explains that Aristotle meant to write one thing but mistakenly wrote another, so the commentator would supply instead what Aristotle meant to write: οὕτω μὲν ὁ φιλόσοφος γράφεσθαι βούλεται τὸ ῥητόν· γράφεται δὲ καὶ οὕτως (CAG 21:2, 41.18–19). I thank Thomas Conley, personal communication, for pointing out this reference.

¹⁸The standard histories are W. D. Ross, *Analytica Priora et Posteriora* (Oxford: Clarendon Press, 1964); and L. Minio-Paluello, *Aristoteles Latinus III:1–4; Analytica Priora* (Bruges-Paris: Desclée de Brouwer, 1962). For MS Ambr. L 93 sup. (490), see now Mark F. Williams, *Studies in the Manuscript Tradition of Aristotle's Analytica* (Königstein/Ts.: Hain, 1984).

from some original scribal error for the insertion of the word ἀτελής, because there appears to be a continuing cultural interest in seeing the enthymeme in Aristotle's *Prior Analytics* as an imperfect or incomplete or truncated syllogism.

Modern editors of the *Prior Analytics* regularly reject the word ἀτελής at 2.27, 70^a10, because the very oldest manuscripts do not have the word and it appears to have been introduced later than the 12th century.¹⁹ But even assuming that the rejection by modern editors is correct, there still seems to be an irresistible impulse for editors and interpreters to understand the now purified line as though the offending word were still present. Those who find it convenient to understand Aristotle's enthymeme as an imperfect syllogism continue to do so, viewing it as syllogistically imperfect, truncated for rhetorical reasons, or both. The problem is not at all confined to students of the *Rhetoric*, as is shown by one widely used and representative modern translation of the *Prior Analytics*. Aristotle explains that it is possible to suppress a premise and still have a syllogism (in Aristotle's example, "Pittacus is high-minded, because those who love honour are high-minded, and Pittacus loves honour"); the translator here notes that although Aristotle says "syllogism" he strictly means *enthymeme*.²⁰ The translator thus rejects the word ἀτελής—with the combined senses of syllogistic imperfection and rhetorical truncation—and at the same time he retains the force of the word.

This misperception of the enthymeme has a power to endure and prosper, even among those who have supposedly corrected it, and its occurrence in the modern period is only the latest in a continuing series. The modern instance repeats what happened in the Renaissance when this problem with the *Prior Analytics* was first addressed in a substantial manner. In 1584 Giulio Pace published a fresh Greek edition and Latin translation of the *Prior Analytics*, and in a marginal note at 2.27 he scathingly observes that the most commonly used manuscripts inexcusably added the word ἀτελής, or "imperfect."²¹ In his extensive commentary on the *Prior Analytics* in 1597, Pace offers nine arguments against the offending word.²²

¹⁹Not only the word but even the status of the entire line is uncertain, and various editors have moved the line around in the text seeking a better context for it. W. D. Ross, for example, displaces it by 10 lines so that it initiates Aristotle's earlier discussion that distinguishes probabilities from signs. Changing the context for Aristotle's statement obviously affects any critical understanding about his enthymeme. The criteria for accepting or rejecting the readings of MS Coisl. 330 are not always clear. In this same line, Ross rejects the reading of ἀτελής from MS Coisl. 330 but accepts the codex reading of δὲ over the reading of μὲν οὖν received from the principal manuscripts he usually follows, and at the same time he rejects the Paris reading of ἢ καὶ in favor of the simpler ἢ of the principal manuscripts. See Ross's critical apparatus, along with L. Minio-Paluello's more recent appendices to Ross's edition.

²⁰Hugh Tredennick, *Aristotle: Prior Analytics* (London: Heinemann, 1938; Cambridge: Harvard University Press, 1973) 525n, at *APr* 70^a24.

²¹Giulio Pace (Iulius Pacius, 1550–1635), *Aristotelis peripateticorum principis organum* (Geneva, 1584): "Vulgati codices male hic adiuunt ἀτελής, imperfectus." My text is the Frankfurt edition of 1597, which adds the marginal note "vide nostrum commentarium."

²²Pace's complete argument concerning the word ἀτελής is found in his *In Porphyrii isagogen et Aristotelis organum, commentarius analyticus* (Frankfurt, 1597) 263–265, published at the same time as the second edition of his *Aristotelis organum*.

1. ARISTOTLE'S ENTHYMEME AND THE IMPERFECT SYLLOGISM

1. According to Aristotle, perfection in syllogisms depends not on the number of propositions but only on the probative force (*vim probandi*) of a syllogism, and syllogisms are imperfect until they have been resolved into perfect first figure syllogisms.

2. Four Greek manuscripts lack the word ἀτελής, and even those contemporary professors who themselves prefer to think of the enthymeme as an imperfect syllogism do not attribute the word ἀτελής to Aristotle.²³

3. The Greek commentators, including Philoponus, do not recognize the word; and even Alexander of Aphrodisias himself does not refer to a formally incomplete syllogism as an enthymeme but, rather, as a syllogism that is μονολήμματος, that is, "with but one premise."²⁴

4. Aristotle himself says that an orator is still using an enthymeme even if he offers both premises.

5. Aristotle says in the *Rhetoric* that enthymemes "often" have fewer parts than do syllogisms.²⁵ But "often" means "not always" (*non perpetuo*), and thus the number of formal parts cannot provide the differentia needed for a definition of the enthymeme.

6. In this problematic locus at 2.27, Aristotle resolves several enthymemes into syllogistic figures by using both premises, so formal completeness must be irrelevant to the definition.

7. Even Aristotle's own words prove that ἀτελής is impossible; the enthymeme is drawn "from probabilities or signs" (*ex verisimilibus, vel signis*), not from "a probability or a sign" (*non, ex verisimili, vel signo*). Aristotle's use of the plural here is impossible without recourse to two premises.

8. As for the unspoken propositions of an enthymeme somehow being supplied by the auditor (*in mente, et in animo*), Aristotle disposes of that possibility in *Posterior Analytics* 1.10.7, where he allows an auditor to supply one, two, or no premises for a syllogism.

9. Aristotle distinguishes the enthymeme from the induction and the example, both of which do in fact use but one proposition. People are commonly confused

²³Pace has in mind the professors at Louvain, and he then adds Rudolph Agricola, who seems to make a sympathetic statement about Aristotle's enthymeme in *De inventione dialectica* (Cologne, 1539; Nieukoop: De Graaf, 1967) 2.18. But Agricola's own commentator does not appear to agree with Pace's reading of Agricola; see 274–275.

²⁴Joannes Philoponus (ca. 490–570s) was the literary executor for his master Ammonius, and especially for the logical works. The commentary on the *Prior Analytics*, which is possibly by Philoponus, is silent on the matter of ἀτελής at *APr* 2.27. Although Pace seems to suggest an active rejection, Philoponus may still have agreed with his master; *In analytica priora commentaria*, *CAG* 13:2, ed. Maximilian Wallies (1905) 481.19. For Alexander, see the earlier discussion on *In topica*; *CAG* 2:2, 8.17.

²⁵This is the same contested phrase at *Rhetorica* 1.2, 1357^a16ff to which Kennedy refers; see earlier discussion.

and mistakenly call these forms enthymemes. Their single propositions are drawn from causes, or examples, or definitions, or other commonplaces, but because they are not drawn from probabilities or signs, Aristotle was scrupulous in not calling them enthymemes.

Giulio Pace was particularly exercised by the state of contemporary Aristotelian commentary on this issue; most scholars had already agreed that the enthymeme was an imperfect syllogism, and the principal debate was over the nature of its imperfection. Philip Melancthon and others argued that an enthymeme was formed when the major or minor premise was missing. George Pachymeres argued in his *Epitome logices* (1545) that it was only an enthymeme when the major premise was suppressed, and otherwise it was a syllogism.²⁶ It might have seemed that, whatever the worth of Pace's individual arguments about ἀτελής, the fact that a major commentator had managed to marshal as many as nine of them might have given pause to subsequent editors of the *Prior Analytics*. And yet, Pace's thorough discrediting of ἀτελής had at best a mixed reception during the Renaissance. The authoritative Sylburg edition of Aristotle (Frankfurt, 1585) and the great Casaubon edition (Lyon, 1590) both claim to have consulted Pace scrupulously; yet both include the supposedly offending word ἀτελής, and neither edition even bothers to acknowledge the emendation by Pace in 1584. Isaac Casaubon's massive edition of the *Opera* in 1590 lists Pace's edition and translation of the *Organon* among the works consulted.²⁷ But at *Prior Analytics* 2.27, Casaubon, without explanation, accepts Nicholas Grouchy's reading of συλλογισμὸς ἀτελής, along with Grouchy's translation: "Est igitur Enthymema ratiocinatio imperfecta ex verisimilibus vel signis."²⁸ Friedrich Sylburg's edition of the *Organon* was printed two years after Pace's edition, and by the same press (Andreas Wechel at Frankfurt) that would soon bring out Pace's second edition. Sylburg explicitly claims that he has consulted Pace at every point, and that each divergent reading has been scrupulously noted, along with Pace's findings from the manuscripts.²⁹ Yet, despite numerous references to Pace's emendations

²⁶George Pachymeres (Georgius Pachymerius), *Epitome logices Aristotelis* (Oxford, 1666) 112: "Enthymema vero est Syllogismo persimile, in eo tamen discrepat, quod Syllogismus duabus e Propositionibus est conflatus, vet si ex unica tantum, ex majore, Enthymema autem ex una eaque minore ut diximus."

²⁷Isaac Casaubon, ed., *Operum Aristotelis* (Lyon, 1590) Index fol. ii: "Iulius Pacius Arist. organum transtulit, & multis notis illustravit."

²⁸Casaubon, *Operum* 75. Grouchy's text and translation were based on the earlier work by Joachim Périon; see sig. [xi']. Pace himself reedited the later edition of Casaubon (Geneva, 1595) and silently substituted both his own edition and his own translation of the *Organon*.

²⁹Friedrich Sylburg, ed., *Aristotelis opera quae exstant* (Frankfurt, 1587) 468: "Adnotatio eorum in quibus Isingriniana & Paciana editio a nostra discrepat. His intermista sunt quae Pacius partim ex aliis codicibus, partim e manu scripto adnotavit. Addita etiam nonnulla ex Camotiana editione, & alia Veneta vetustiore; nec non ex doctissimorum virorum animadversionibus."

throughout the *Prior Analytics*, Sylburg makes no reference whatsoever to Pace's excision of ἀτελής at 2.27, and the phrase συλλογισμὸς ἀτελής appears intact.

If there is an explanation for all this, it has less to do with philological squabbling over authoritative codices, and a great deal to do with the predisposition to view Aristotle's enthymeme in the context of deductive syllogistic rather than in the context of rhetoric. We must look, I think, for a more deeply rooted philosophical disposition, one that accounts for the incredibly fertile ground in which this misperception continues to sprout, generation after generation. I suggest instead a different line of inheritance. This line of inheritance starts, not with enthymemes, but with syllogisms, and not with the Peripatetics, but with the Stoics.

PART TWO

Jonathan Barnes argued some years ago that the syllogistic enterprise of the *Prior Analytics* represented an intellectual dead end for Aristotle; he had an interesting if limited analytical device, but he never tried to do anything further with it, and he soon went back to his real work.³⁰ Perhaps so, but it is certainly the case that after the death of Aristotle, Peripatetic logic lost the initiative to Stoic logic, to the logic of Zeno and Chryssippus. Diogenes Laertius, in fact, declared that if the gods used logic, it would be the logic of Chrysippus.³¹ The larger Stoic philosophy seems to have had much more to offer people of the ancient world than did the disparate investigations of Aristotle, and within 80 years of the death of Aristotle the Athenians erected a statue not of Aristotle but of Zeno the Stoic—although presumably not merely for his contributions to logic.³² One powerful attraction of Stoicism was its reputation for internal unity and consistency.³³ Man's moral nature was intimately connected with the certainties of the physical world, and both were inextricably linked with logic. Each of these could be studied in terms of its own active principle—the *logos* of ethics, the *logos* of physics, and the *logos* of logic (that is, dialectic)—and these three coequal branches of Stoic philosophy were unified as aspects of the one single *logos* that governed the universe.³⁴ For the

³⁰Barnes concludes that Aristotle's "syllogistic is a small and relatively insignificant part of logic," rigorous and elegant but useless for science and math; see "Proof and the Syllogism," *Aristotle on Science: The Posterior Analytics. Proceedings of the Eighth Symposium Aristotelicum*, ed. Enrico Berti (Padua: Editrice Antenore, 1981) 17–59, 19. For a critique of Barnes, see Michael Frerzejohn, *The Origins of Aristotelian Science* (New Haven: Yale University Press, 1991) 15–37, 140n, 141n, 143n.

³¹Diogenes Laertius 7.180.

³²Diogenes Laertius 7.6.

³³I. G. Kidd, "Stoic Intermediates and the End for Man," *Problems in Stoicism*, ed. A. A. Long (London: Athlone Press, 1971) 157.

³⁴For a summary statement, see Marcia L. Colish, *The Stoic Tradition from Antiquity to the Early Middle Ages*, 2 vols. (Leiden: E. J. Brill, 1985) 1:7–60. See also A. A. Long, *Hellenistic Philosophy: Stoics, Epicureans, Sceptics*, 2nd ed. (Berkeley: University of California Press, 1986) 107–231.

Stoics, ethical failures occur when men become alienated from the natural world and so make faulty assumptions or draw invalid inferences.³⁵ Thus Diogenes Laertius reports the Stoic maxim: "Only the sage is a true logician."³⁶

There are many similarities, differences, and crossovers between Aristotelian and Stoic syllogistic. For the purposes of the present discussion the differences matter most. There are three principal differences, and each requires clarification. First, Aristotelian syllogistic is concerned with terms and their relations within a categorical matrix, whereas Stoic syllogistic is concerned with propositions in hypothetical schemes of inference. Second, Aristotle's syllogistic is strictly limited to three terms, no more nor less, so that the number of possible syllogisms is finite, whereas Stoic logic has no such restrictions on the number of propositions. Third, Aristotle's syllogistic is categorical and does not depend upon the construction of *if . . . , then . . .*. It is not deductive and it advances no claims to new truths, whereas Stoic syllogistic characteristically appears in the inferential form *if . . . , then . . .*, followed by a truth claim, leading to a new claim.³⁷

Despite the similarities, crossovers, and even confusions between the two kinds of syllogistic, those hellenistic philosophers who were most intimate with the two kinds saw them as operating in very different philosophical systems.³⁸ The basic form of Aristotelian syllogism as developed in the *Prior Analytics* 4-6 adopts an argumentative form, as in the following:

- (1) A is said of every B, and B is said of every C;
- (2) thus A necessarily is said of every C.

Aristotle permits three variations of this basic argumentative form, and each variation alters statement (1). The first replaces one or both uses of *every* with *some*. The second negates one or both of the verbs. The third alters the position of the repeated term, that is, the term in (1) that does not appear in (2). The result of these conditions is that there is a finite number of syllogistic forms, determined by manipulating a finite number of categorical terms and relations, which can be manipulated only within a matrix of established positions (apodeictic and conditional syllogisms add two more kinds of variation but finally only enlarge the matrix). Although it is still unclear whether Aristotle here actually

³⁵A. A. Long, "Language and Thought in Stoicism," in Long, *Problems in Stoicism*, 104.

³⁶Diogenes Laertius 7.83: διαλεκτικὸν μόνον εἶναι τὸν σοφόν.

³⁷Michael Frede examines "the possibility that the validity of an argument was thought to be due to a real relation that holds between the facts referred to in the argument, if the premises are true," in his essay "Stoic vs. Aristotelian Syllogistic" in Michael Frede, *Essays in Ancient Philosophy* (Minneapolis: University of Minnesota Press, 1987) 104, reprinted from *Archiv für Geschichte der Philosophie* 56:1 (Berlin: Walter de Gruyter, 1956). Some later Stoic thinkers held that their syllogistic was merely formal.

³⁸Frede, "Stoic vs. Aristotelian Syllogistic" 99-124. See also Ian Mueller, "Stoic and Peripatetic Logic," *Journal of Philosophy* 51 (1969): 173-187.

has a term logic with true variables, as we would understand that today, it is nevertheless clear that the famous example of a syllogism (*Socrates is a man, all men are mortal, . . .*) is not at all Aristotelian. *Socrates* is not a category that can be introduced with the word *every* or with the word *some*; it is instead a particular, and Aristotle's discussion in book 1 of the *Prior Analytics* disallows particulars (although book 2 seems to allow a more expansive notion of the use of terms). Moreover, although it is certainly possible to reformulate Aristotle's syllogism into an *if . . . , then . . .* construction, this reformulation is not really part of the Aristotelian approach and it changes nothing. Statement (1) deals with a categorical world in which things in fact belong in the category in which they are said to belong, and it is a static world, in which universal statements can be made. Finally, it is this same static world that justifies the lengthy procedures in book 2 of the *Prior Analytics* where Aristotle demonstrates how to construct a repeatable "middle" term for statement (1). It is in this static sense that Aristotle's syllogistic is not at all deductive, because he does not use statement (1) to infer (2). Instead he takes as a given one of the categorical terms in (1) and also takes as a given one of the terms in (2); only then does he look for ways to connect them.

Stoic propositional logic, on the other hand, occupied a philosophical world of contingency and flux, a world without fixed essences and without an unchanging structure among those essences. The Stoic propositions identify concrete individual phenomena and then focus on the changing relations among those individuations, and in this respect Stoic logic is compatible with Stoic physics.³⁹ One of the basic Stoic arguments takes the following form

- (3) If *p*, then *q*;
- (4) but *p*; therefore *q*.

Here the *if . . . , then . . .* construction is not simply formal. Statement (3) first postulates a world in which, for the purposes of this particular argument, the individuation *p* does in fact entail the individuation *q*. Statement (4) specifies a fact within that world at this particular moment and deduces a new fact that was previously only a formal possibility. Thus, in the simple school text example, *If it is light, it is day; but it is light; therefore it is day*. Or, to toy with a noncanonical example, *If Socrates is a man, then he is mortal; but Socrates is a man; therefore he is mortal*. According to Stoic thinking, this argument does not rely upon a prior universal statement (spoken or unspoken) about the changeless relations between essential humanity and essential mortality. Instead, the adequacy of (4) is assured by the hypothetical postulation of (3).

There are other distinctions between Aristotelian and Stoic syllogistic. Stoic logicians recognized at least five different principal types of syllogism: condi-

³⁹Colish, *Stoic Tradition* 1:54-55.

tional (as in the preceding), conjunctive, disjunctive, causal, and probable. Moreover, propositions could be combined and embedded.⁴⁰ In statement (3), for example, the proposition *p* could itself be yet another entire argument of the form *if p, then q*. Because there was no systematic limit on the number of propositions or on the number of resultant syllogisms, Stoic syllogistic was much more flexible and powerful than Aristotelian syllogistic. The fact that one was a propositional logic and the other a term-logic seems not to have been the crucial distinction, because there are ways in which the two could be made to seem complementary to one another. But at the time neither school seems to have regarded the other as complementary, and each seems to have rejected the other's claim to having any syllogistic whatsoever.⁴¹ Rather than being a simple turf war, this rejection was rooted in an opposition of underlying philosophies; one viewed a world of changing relations among particulars, and the other viewed a world of changeless relations among categories. There were, nevertheless, later Peripatetics who tried to recover the initiative from the Stoics, claiming that these complex logical innovations had their roots in Aristotle's conditional syllogism, and that his followers Theophrastus and Eudemus had both developed something like hypothetical syllogisms.⁴² These claims are generally recognized as rearguard actions; they underscore the vitality of the new directions but suggest how easily writers in the classical world might slide from one system into the other.

One such writer was Cicero, whose own relations to Stoic and Peripatetic philosophy were always ambiguous and yet whose writings provided one of the most important conduits of Stoic thinking for later centuries.⁴³ Cicero rejects Stoic rhetorical theory, or at least Stoic rhetorical theory as it existed by Cicero's time, as being too spare, too austere, too didactic, and too uninterested in moving the passions.⁴⁴ And yet, at many points, Cicero seems uncertain about the distinctions between Stoic and Peripatetic thinking. In his treatise on the *Topics*, in particular, Cicero begins by claiming he would explain Aristotle's lengthy and diffuse treatise on this subject, but finally does nothing of the kind, and instead

⁴⁰By contrast, as Benson Mates observes, "it is obvious that the result of substituting sentences for the variables in an Aristotelian syllogism will always be nonsensical"; Benson Mates, *Stoic Logic* (Berkeley: University of California Press, 1953) 3n.

⁴¹Frede, "Stoic vs. Aristotelian Syllogistic" 99ff.

⁴²Henry Chadwick, *Boethius: The Consolations of Music, Logic, Theology, and Philosophy* (Oxford: Clarendon Press, 1981) 167.

⁴³Colish reviews Cicero's tortured relations, and subsequent commentators' tortured efforts to make sense of those relations, in her detailed chapter on Cicero in *Stoic Tradition* 1:61-158.

⁴⁴The passages in Cicero's mature rhetorical works are numerous and extensive, for instance, *Orator* 24.81, 26.91-28.96; *De oratore* 3.10.37, 3.21.91, 3.25.96-3.27.108, 3.37.149-3.61.227; *De partitione oratoriae* 6.19-6.22. See, in particular, Colish's discussion of Cicero's rhetorical theory, *Stoic Tradition* 1:79-89. For a more complex view of Stoic rhetoric than that presented by Cicero, see Karl Barwick, *Problem der Stoischen Sprachlehre und Rhetorik*, *Abhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig* 49:3 (Berlin: Akademie Verlag, 1957).

offers a version of the topics that is difficult to reconcile with Aristotle's.⁴⁵ In the midst of his own *Topics* Cicero offers a discussion of enthymemes, introduced under the topic of consequents, antecedents, and oppositions (*Topica* 13.53ff). Cicero provides seven different forms of syllogisms, and they are all forms of the five basic hypothetical propositional syllogisms that are at the heart of Stoic logic.⁴⁶ According to Cicero, these syllogisms are the same forms of reasoning that philosophers use, that poets use, that in fact everybody uses. But when orators use them, they are called *ενθυμήματα*; and an enthymeme is best understood as a very concise and pointed form of reasoning from contraries (*Topica* 13.55). Cicero's third enthymeme illustrates what he has in mind: "either this or that; but this; therefore not that" (*Aut hoc aut illud; hoc autem; non igitur illud. Topica* 15.56). This enthymeme is not at all Aristotelian. It is, instead, the fourth principal Stoic syllogism, which we can read as *either p or q; but p; therefore not q*.⁴⁷

Cicero apparently learned his syllogistic from Stoic teachers; his early teacher Diodotus the Stoic later became very close to Cicero, living with him and dying as a member of his household. Perhaps Cicero's knowledge of Aristotelian syllogistic was filtered through these same Stoic teachers, although such a specific source is hardly necessary. As early as *De inventione*, Cicero indicated his confusion about Peripatetic syllogistic, attributing to Aristotle a five-part syllogism (*De inv.* 1.35.61; but this might even prove to be a three-part syllogism!), and then apparently a four-part syllogism (*De inv.* 1.39.70), before finally offering as a syllogism, *If it is daytime, it is light* (*De inv.* 1.46.86), that is, the same first Stoic syllogism which Cicero will later present in the *Topics*. Much the same conflation of ideas is found in a compressed form in *Rhetorica ad Herennium* at 2.18.28, suggesting that the uncertainty about syllogistic was widespread. Nowhere in Cicero's *De inventione* do we find any mention of enthymemes. But at 1.36.62ff,

⁴⁵There is some question whether Cicero thinks he is summarizing Aristotle, in which case he is seriously confused, or simply discussing a subject on which Aristotle has also written. The opening sections of his *Topics* are ambiguous on this subject, and commentators often clarify the issue by a phrase in one of Cicero's letters to the ostensible addressee of the *Topics*: "institutui Topica Aristotelea conscribere" (*Ad fam.* 2.7.19). W. G. Williams translates this phrase as "I set about writing a summary of the *Topics* of Aristotle"; W. G. Williams, *Cicero: Letters to His Friends* (London: William Heinemann, 1928). Eleonore Stump argues that the phrase instead should be translated "I began to write about Aristotelian *Topics*"; see Eleonore Stump, *Boethius's "De topicis differentiis": Translated, with Notes and Essays on the Text* (Ithaca: Cornell University Press, 1978) 20-21.

⁴⁶H. M. Hubbell views the first five of Cicero's seven argumentative forms as a restatement of the Stoic five syllogisms, whereas the sixth and seventh merely repeat the third; H. M. Hubbell, *Cicero: Topica* (London: Heinemann, 1949) 422-423. But in Colish's view, Cicero lists only the first four Stoic hypotheticals, and the remaining three forms either vary or negate the first, third, and fourth; Colish, *Stoic Tradition* 1:84.

⁴⁷Cicero's Latin and the Greek of Diogenes Laertius 7.81 read as translations of one another. Sextus Empiricus provides much the same in *Pyrrhoneae hypotyposes* 2.157.

we find the fullest early discussion of why orators might suppress parts of a syllogism, and it is to this discussion that later commentators continually turned.⁴⁸

Marcia Colish has suggested that "Cicero's conflation of the Stoic hypothetical syllogism with the Aristotelian enthymeme may be seen either as a reflection of post-Aristotelian eclecticism within the Peripatetic school, as an act of misinformed or partisan doxography on Cicero's part, or as an inspired association of two doctrines which in fact work quite well together."⁴⁹ Cicero makes it clear late in his career that—whether he is eclectic, confused, or inspired—he sees no reason for the orator to choose between Aristotelian and Stoic logic; they are more or less interchangeable.⁵⁰ But if the two doctrines do in fact work well together, they do so at a cost to understanding what Aristotle might have had in mind. Less debatable is the fact that at Rome, from 250 B.C. to A.D. 100, there was a gradual loss of distinction among the several philosophical schools at the elementary level of education.⁵¹ Even at the higher levels of education, the competing schools of Platonic, Peripatetic, Epicurean, and Stoic philosophy slowly coalesced, with the two former sects absorbing those doctrines of the latter two that had become part of the common intellectual understanding among the educated.

PART THREE

By the 6th century the canonical authors were Plato and Aristotle, and such Stoic teaching as survived in the work of Boethius (ca. 480–525/526) was viewed primarily in terms of the thinking of the two major schools.⁵² But to put it this way is to obscure the amount of Stoic thinking that actually did survive and the extent to which it affected later understandings of Aristotle. Boethius himself was both a translator of and a commentator on Aristotle's works,⁵³ and although not actually dismissive of Stoic logic,⁵⁴ he certainly saw Stoic logic in terms of

⁴⁸See, for example, the often cited discussions in Quintilian 5.10.1ff and 5.14.5ff. It is not clear whom Quintilian has in mind when he reports the views of certain Peripatetics.

⁴⁹Colish, *Stoic Tradition* 1:84–85.

⁵⁰Cicero *Orator* 32.115: "Ego eum censeo qui eloquentiae laude ducatur non esse earum rerum omnino rudem sed vel illa antiqua vel hac Chrysippi disciplina institutum."

⁵¹See Sten Ebbesen, "Ancient Scholastic Logic as the Source of Medieval Scholastic Logic," *The Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism, 1100–1600*, ed. Norman Kretzmann, Anthony Kenny, Jan Pinborg, and Eleonore Stump (Cambridge: Cambridge University Press, 1982) 101–127, 103; cited as *CHLMP*.

⁵²Colish, *Stoic Tradition* 2:266–290, 2:267.

⁵³James Shiel, "Boethius' Commentaries on Aristotle," in Sorabji, *Aristotle Transformed* 349–372, revised from *Medieval and Renaissance Studies* 4 (1958): 217–244. Sten Ebbesen, "Boethius as an Aristotelian Commentator," in Sorabji, *Aristotle Transformed* 373–391, reprinted from "Boethius as an Aristotelian Scholar," *Aristoteles: Werk und Wirkung*, vol. 2, ed. Jürgen Wiesner (Berlin: Walter de Gruyter, 1987).

⁵⁴Jonathan Barnes argues that Boethius knew Stoic logic but generally dismissed it and saw no reason to expound it; see "Boethius and the Study of Logic," in Margaret Gibson, ed., *Boethius: His Life, Thought and Influence* (Oxford: Basil Blackwell, 1981) 73–89, 83. Colish contests Barnes's view; Colish, *Stoic Tradition* 2:269n.

Peripatetic logic. In his treatise *De hypotheticis syllogismis* he appropriates the Stoic hypothetical conditional syllogism *if p, then q; but p; therefore q* and converts it into a three-term Aristotelian categorical syllogism: *If A, then B; if B, then C; but if A, therefore C*.⁵⁵ Lost here are the philosophical underpinnings that distinguished the Peripatetic and Stoic enterprises in logic, and, indeed, Boethius is so out of sympathy with the Stoic thinking that he all but ignores the remaining four Stoic syllogistic forms to focus on the one that was most easily appropriated for the Aristotelian syllogism.

When Boethius turned to Cicero's *Topics*, in which Cicero had offered his own very uncertain blend of Peripatetic enthymemes and Stoic syllogisms, he reformulated Cicero's *Topics* as thoroughly as Cicero had reformulated Aristotle's discussion of topics. We are familiar today with the enormous impact of Boethius' *De topicis differentiis* during the later Middle Ages and the early Renaissance. But prior to the 15th century, the more widely reproduced and read treatise was Boethius' commentary on Cicero's *Topics*. Early in that commentary Boethius explains that "every argument is expressed by a syllogism or an enthymeme. But an enthymeme is an incomplete syllogism, some of whose parts are omitted either for the sake of brevity or because they are already known, and so argumentation of this sort also does not fall outside the genus of syllogism."⁵⁶

When Boethius comes to the analysis of Cicero's syllogisms—and those are Stoic hypothetical syllogisms, not Peripatetic categorical syllogisms—he does not strictly follow Cicero's conflation of the terms *syllogism* and *enthymeme*. In Cicero's *Topics* the statement that explicitly conflates those two terms is placed after his discussion of the third Stoic hypothetical syllogism (*Topica* 14.56), although the point Cicero makes there simply repeats his earlier discussion about all seven syllogisms being understood as enthymemes (*Topica* 13.55). But Boethius instead understands Cicero's general statement as a local statement that applies only to the third Stoic hypothetical syllogism, and then Boethius has to try to make sense of this reading. According to Boethius, Cicero's third syllogism negates a conjunction of things and then joins another negation to the first. Such a syllogism is already dealing in contraries, and if the contrariety is expressed concisely, it will provide an enthymeme: "From these, Cicero says, enthymemes arise which are inferred from contraries" and "these are called enthymemes because the things discovered, which are concisely deduced from contraries, are especially pointed."⁵⁷

Boethius' discussion of the double negation of conjunctions in enthymemes reads very much like first-year algebra. Boethius explicitly says we should reduce the argumentative form to a syllogism, namely, to a syllogism from incompatibles, from which enthymemes generally arise.⁵⁸ Boethius goes even further than this

⁵⁵Colish, *Stoic Tradition* 2:278.

⁵⁶Eleonore Stump, *Boethius's "In Ciceronis Topica": Translated, with Notes and an Introduction* (Ithaca: Cornell University Press, 1988) 31–32.

⁵⁷Stump, *Boethius's "In Ciceronis Topica"* 149; compare 152.

⁵⁸Stump, *Boethius's "In Ciceronis Topica"* 150.

in his treatise *De topicis differentiis*, in part because he is no longer constrained merely to elucidate Cicero:

An enthymeme is an imperfect syllogism, that is, discourse in which the precipitous conclusion is derived without all the propositions having been laid down beforehand . . . So since an enthymeme argues from universals to particulars which are to be proved, it is, as it were, similar to a syllogism; but because it does not use all the propositions appropriate to a syllogism, it deviates from the definition of a syllogism and so is called an imperfect syllogism.⁵⁹

Thus the enthymeme is a substitute for the syllogism and is derived from it.

In the Latin West, from the late 11th century onward, Boethius' formulations had a telling impact on logical distinctions, even after the full program of his *De topicis differentiis* had been left behind.⁶⁰ Garlandus Compotista, for example, devotes book 4 of his *Dialectica* to a discussion of Boethius' *De topicis differentiis*, but when Garlandus tries to explicate the enthymeme he falls back on Boethius' *De syllogismis categoricis* for his discussion of complete and incomplete arguments.⁶¹ And Peter Abelard, who follows Boethius very closely in associating enthymemes with hypothetical syllogisms, even extends the notion of imperfection, so that just as the enthymeme is an incomplete syllogism, so the example is an incomplete induction.⁶²

Peter of Spain, in the 13th century, offers a particularly strong version of Boethius' views on the enthymeme in his *Tractatus*. It is a view that hopelessly conflates Aristotelian syllogistic with the Stoic aspects of Cicero's and Boethius' syllogistic:

It is important to know that every enthymeme must be reduced to a syllogism. Consequently, in every enthymeme there are three terms, as in a syllogism. Two of these terms are used in the conclusion and are the extremes; the other is the middle (*medium*) and is never used in the conclusion. One of the extremes is taken twice in an enthymeme, the other once. In accordance with the requirement of the

⁵⁹Stump, *Boethius's "De topicis differentiis"* 45.

⁶⁰There is little sign of Boethius's syllogistic studies or Aristotle's analytical and topical treatises before the 11th century. See Mark W. Sullivan, *Apuleian Logic: The Nature, Sources, and Influences of Apuleius's "Peri Hermeneias"* (Amsterdam: North-Holland, 1967) 190–191, 203–204. Sullivan also explores the hypothesis that Boethius himself drew upon Apuleius for understanding Aristotle's *Prior Analytics*; see 210–227. See also Martin M. Tweedale, "Logic (i): From the Late Eleventh Century to the Time of Abelard," *A History of Twelfth-Century Western Philosophy*, ed. Peter Dronke (Cambridge: Cambridge University Press, 1988) 196–226.

⁶¹Osmund Lewry, O. P., "Boethian Logic in the Medieval West," in Gibson, *Boethius* 90–134, 99. See also Eleonore Stump, "Topics: Their Development and Absorption Into Consequences," in *CHLMP*, 273–299, 275–281.

⁶²Peter Abelard (Petrus Abaelardus, 1079–1142), *Dialectica*, ed. L. M. de Rijk (Assen: Van Gorcum, 1956) *Tractatus Tertius, Topica*, 464: "Si vero consequentiam praeponam, hypotheticum quoque enthymema erit propter eam, sicut syllogismus, quamvis necessitatem quam syllogismus habet, non teneat. Sicut ergo enthymema imperfectus est syllogismus, sic exemplum imperfecta inductio dicitur."

1. ARISTOTLE'S ENTHYMEME AND THE IMPERFECT SYLLOGISM

[syllogistic] mood, one must make a universal proposition out of the extreme that is taken once and the middle (*medium*), and in this way a syllogism will be produced.⁶³

This might at first seem like simple Aristotelian commentary, but it is not. Peter does not use the word *medium* to refer to the distributed middle term of an Aristotelian syllogism but instead to signify a topically differentiated relationship that obtains between the middle term and one of the extremes.⁶⁴ Thus what had started in Boethius' commentary as an attempt to make sense of Cicero's Stoic syllogisms became in Boethius' *De topicis differentiis* a procedure for inventing Stoic enthymemes. But by the time of Peter of Spain this heuristic procedure was little more than a logical and analytical procedure for checking the validity of enthymemes by reconstructing middle terms and by casting them into the form of Aristotelian syllogisms. And Peter is not at all unusual; Walter Burley and a host of others say much the same thing.⁶⁵ By the 13th century, the doctrine of the truncated syllogism is so secure that Giles of Rome can work from a manuscript of Aristotle's *Prior Analytics* that clearly does not have the challenged word ἀτελής; and yet his larger discussion still comes out at the same place.⁶⁶ So also in the early 15th century, with Lorenzo Valla's wide-ranging *Retractio totius dialectice cum fundamentis universe philosophie*.⁶⁷ With the introduction of print in the late 15th century, what appears to be conflicting evidence in fact confirms the story. John Argyropulus, one of the Byzantines who came to Italy, translates Aristotle with no trace of the offending word ἀτελής, whereas the first edition of Aristotle from the Aldine press does indeed include the offending

⁶³Peter of Spain (Petrus Hispanus, 1205–1276), *Tractatus*, in *The Cambridge Translations of Medieval Philosophical Texts: Volume One, Logic and the Philosophy of Language*, ed. Norman Kretzmann and Eleonore Stump (Cambridge: Cambridge University Press, 1988) 227.

⁶⁴Stump, *Boethius's "De topicis differentiis"* 234.

⁶⁵Walter Burley (Burleigh, 1275–1344/1345), *De puritate artis logicae tractatus longior*, ed. Philotheus Boehner (St. Bonaventure, NY: Franciscan Institute, 1955) *Capitulum II: De modo arguendi enthymematice in conditionalibus*, 66–79, where Burley defines the enthymeme as a "syllogismus curtatus" (66). For discussions of Burley and others, see Niels Jørgen Green-Pedersen, *The Tradition of the Topics in the Middle Ages: The Commentaries on Aristotle's and Boethius' "Topics"* (Munich: Philosophia Verlag, 1984), especially 309–313. The position is so common for medieval logic that, in the modern period, Alexander Broadie can declare that "an enthymeme is an inference one of whose premises is unstated"; Alexander Broadie, *Introduction to Medieval Logic* (Oxford: Clarendon Press, 1987) 60.

⁶⁶Giles of Rome (Aegidius Romanus, Egidio Colonna, ca. 1243/1247–1316), *In libros priorum analeticorum expositio* (Venice, 1516) 81^v–82^r. So, also, John Buridan (Johannes Buridanus, ca. 1300–ca. 1360), who had all the relevant Aristotelian treatises to hand, supports the medieval consensus through careful distinctions: "Sed minor patet, quia licet inductio, exemplum et enthymema non sunt perfectae argumentationes, tamen sunt bene perfectae argumentationes dialecticae"; *Quaestiones topicorum* I. qu. 16, in MS Munich, Bayr. St. B., cfm. 12707, ff. 110^b–111^a, ed. Green-Pedersen, 372.

⁶⁷Lorenzo Valla (1407–1457), *Repastinatio dialectice et philosophie*, ed. Gianni Zippel (Padua: Antenore, 1982) I:355: "Hunc ego, si enthymema est (nam multis modis 'enthymema' dicitur), potius appellaram 'imperfectum syllogismum,' quam 'rhetoricum' sive 'oratorium syllogismum.'"

word. It hardly matters whether the word is present in Aristotle's text, because his enthymeme will be understood as though the word were there all the same.

The story in the Latin West is paralleled by what happens in Arab thinking. In the 9th century, Alfarabi produced a lengthy commentary on Aristotle's *Rhetoric* (a commentary that was rediscovered only in 1951). In keeping with Arabic thinking that considered rhetoric, dialectic, and poetics all as subdivisions of logic, Alfarabi defines Aristotelian rhetoric as "un art syllogistique" and devotes a major part of the commentary to "persuasion par la forme des enthymèmes."⁶⁸ The enthymeme itself was a truncated syllogism, with the hidden (*caché*) premise being discovered in the mind (*se trouve dans la conscience*) of the auditor. The persuasive force of the enthymeme lay largely in the fact that the omitted premise suddenly and immediately calls into play shared understandings in the audience.⁶⁹ Alfarabi's commentary provided the basis in the 13th century for the *Didascalica* of Hermannus Alemannus, in which Hermannus defines Aristotle's enthymeme in the *Rhetoric* as a subset of the syllogism and refers explicitly to the *Prior Analytics* to justify reducing enthymemes to syllogistic figures.⁷⁰ In the 12th century, Averroes composes an extensive commentary on the *Rhetoric*, in which he discusses the enthymeme as though it were incomplete; and in the 15th century the Junctas edition of Averroes clearly translates *Prior Analytics* 2.27 as "imperfectus."⁷¹ Averroes was available in the West from the 12th century, and Averroist thinking in Aristotelian studies was particularly strong in Padua; in 1579 Jacopo Zabarella, the Professor of Logic at Padua, could offer with confidence a specious etymology of the word *enthymeme* as coming from ἐν θυμῷ, that is, "in the mind, because the omitted proposition remains in the mind."⁷²

⁶⁸Alfarabi (Al-Fārābī, ca. A.D. 873–950), *Commentaire de la rhétorique d'Aristote*, trans. Jacques Langhade, *Al-Fārābī: Deux ouvrages inédits sur la rhétorique*, ed. Jacques Langhade and Mario Grignaschi (Beirut: Dar El-Machreq, 1971) 30 [248 b].

⁶⁹Alfarabi, *Commentaire de la rhétorique d'Aristote*, 62: "L'enthymème est une affirmation composée de deux prémisses conjointes que l'on utilise en omettant l'une de ces deux prémisses conjointes. On l'appelle enthymème parce que celui qui l'utilise cache certaines de ses prémisses et ne les déclare pas; il l'utilise aussi en fonction de ce qui se trouve dans la conscience de l'auditeur qui est censé connaître les prémisses qu'il a cachées. Et il faut dire que l'enthymème ne devient persuasif pour le sens commun immédiat parce qu'on y opère la dite omission. Car sans cette omission il ne serait pas persuasif."

⁷⁰Hermannus Alemannus (Herman the German, d. 1272), *Didascalica in Rethoricam Aristotelis ex Glosa Alfarabi*, ed. Grignaschi, in Langhade and Grignaschi, *Al-Fārābī: Deux ouvrages* 208–209 (sect. 36): "Enthymemata sunt sillogismi, quorum aliqua propositionum subtrahuntur vel subcitantur propter causas. . . . Et iam patuit in Libro (Analyticorum) similiter qualiter deducuntur enthymemata omnia in sillogismorum figuras."

⁷¹Averroes (Ibn Rushd, 1126–1198), *In libros rhetoricorum Aristotelis paraphrases. Abramo de Balnes interprete*, 75^v–76^r; *Aristotelis priorum resolutiorum, Ioanne Francisco Burana Veronensi interprete*, 166^r; in *Aristotelis opera cum Averrois commentariis*, vols. 1 and 2 (Venice, 1562).

⁷²Jacopo Zabarella (Giacomo, Jacobus, 1533–1589), *Tabulae logicae* (1579; Padua, 1594) 169: "Enthymema est syllogismus imperfectus constans ex verisimilibus, vel ex signis. Imperfectus est quia deest ei altera propositio vel maior, vel minor, quae ut nota omittitur, unde etiam dictum est enthymema quasi ἐν θυμῷ, id est in animo, quia propositio, quae omittitur, in animo manet."

This predisposition to view Aristotle's enthymeme as a formula explains why Giulio Pace's thorough discrediting of the word ἀτελής during the Renaissance remained all but irrelevant. So deeply rooted was the predisposition that even Peter Ramus, who made his reputation attacking Aristotle, accepted the doctrine in its entirety: "Tel syllogisme imperfect est nommé par Aristote, enthymeme au deuziesme du Syllogisme. L'esprit de l'homme autrefois est content de la seule proposition, autrefois de l'assomption, autrefois conçoit plustot la conclusion, qu'elle se puisse dire & exprimer: neantmoins en examinant ce ingement syllogistique, il fault remplir les parties qui sont seulement entendues, & acheuer le syllogisme."⁷³ A whole new industry in logical thinking developed in the wake of Ramus' work,⁷⁴ one that did not need to attend closely to the Renaissance debates about Aristotle's own logic and that thus provided an independent path of survival for the doctrine of truncation, immune to Pace's arguments. But even within the world of Aristotelian studies, life went on as usual, untroubled by Pace's assault. The Jesuits provide but one of many examples. The anonymous or, rather, corporate commentary from the College of Coimbra on Aristotle's logic was reprinted numerous times during the early 17th century.⁷⁵ The discussions of the enthymeme rehearse all the traditional positions, including the doctrine of truncation, drawing extensively upon Cicero, Quintilian, Boethius, Agricola, and even Averroes to explain Aristotle.⁷⁶ And the Latin translation of the *Organon* upon which this commentary was based was that of John Argyropoulos, the one that did not have the suspect word ἀτελής.

PART FOUR

During much of this time, the text of Aristotle's *Rhetoric*, with its several different accounts of the enthymeme, was nowhere to be seen.⁷⁷ Such Aristotle as the western world knew was the Aristotle of the *Organon*, and even Aristotle's *Topics*, which is so closely allied with the *Rhetoric*, was kept with and understood in terms of the analytical treatises. With the reintroduction of Aristotle's *Rhetoric*, the intervening centuries of logical discussion were read back into the *Rhetoric*. Giles of Rome (ca. 1290) provided an extensive commentary on Moerbeke's Latin translation of the *Rhetoric* in which he declared that *enthymema est quidam defectivus syllogismus*,

⁷³Pierre de la Ramée (Ramus, 1515–1572), *Dialectique* (Paris, 1555) 114–115.

⁷⁴Modern philosophers "find little of value either in Ramus's criticisms of Aristotle or in his own original work"; see William Kneale and Martha Kneale, *The Development of Logic* (1962; Oxford: Clarendon Press, 1984) 302ff.

⁷⁵*Commentarii Collegii Conimbricensis e Societate Iesu in universam dialecticam Aristotelis* (Cologne, 1607; Hildesheim: Georg Olms, 1976); other editions in Coimbra, 1606; Lyon, 1607; Lyon, 1610; Cologne, 1611; Venice, 1616; Lyon, 1622; Cologne, 1630; also Frankfurt[?], 1604.

⁷⁶*Commentarii Collegii Conimbricensis*, 2.266–270; 2.401–406; 2.507–510.

⁷⁷See Lawrence D. Green, "The Reception of Aristotle's *Rhetoric* in the Renaissance," in Fortenbaugh and Mirhady, *Peripatetic Rhetoric After Aristotle* 320–348.

short one premise and reducible to a syllogism.⁷⁸ With the rediscovery of the complete text of Quintilian's *Institutio oratoria* in the early 15th century, commentators found what must have seemed like confirmation of what they had already concluded long before: "Some again call [the enthymeme] a rhetorical syllogism, others an incomplete syllogism, because its parts are not so clearly defined or of the same number as those of the regular syllogism, since such precision is not specially required by the orator."⁷⁹ The commentators who rely upon Quintilian show little awareness that the conflation of Stoic and Peripatetic notions had begun long before Quintilian, or that his summary of Peripatetic positions might have little to do with Aristotle's own treatises.

Even the distinctions that Alexander of Aphrodisias had drawn with such care in the century after Quintilian were completely obliterated during the Renaissance. Marc-Antoine Muret's influential Latin translation of Alexander's *In topica* (1544) freely uses the Latin phrase *sylogismus imperfectus* where the word ἀτελής never appeared in Alexander's text.⁸⁰ Those who relied upon Muret's translation found confirmation for what they were already prepared to believe.⁸¹ As early as 1545 Daniello Barbaro glosses Hermolao Barbaro's translation of the *Rhetoric* by explaining that the enthymeme was an imperfect and incomplete syllogism.⁸² Johann Sturm's influential edition of the *Rhetoric* in 1570 glossed the word *sylogism* by saying that it is what orators called an enthymeme and then gives the standard explanation about truncation and probable premises.⁸³ But Sturm also

⁷⁸Giles of Rome, *Expositio super tribus libris rhetoricorum* [ca. 1290] (Venice, 1515) 2'a, 4'b. Giles refers to his own earlier commentary on the *Prior Analytics* (see footnote 66) in thinking about the *Rhetoric* in terms of the *Organon*, saying that enthymemes and examples are the tools (*instrumenta*) of rhetoric; *Rhetoricorum*, 8'a, 9'a-10'b.

⁷⁹Quintilian, *Institutio oratoria*, trans. H. E. Butler (London: Heinemann, 1921) 5.10.3: "Hunc alii rhetoricum syllogismum, alii imperfectum syllogismum vocaverunt, quia nec distinctis nec totidem partibus concluderetur, quod sane non utique ab oratore desideratur." See 5.14.23ff.

⁸⁰Marc-Antoine Muret (Muretus, 1526-1585), *Alexander Aphrodisiensis in octo libros topicorum Aristotelis explicatio* [1544?] (Venice, 1554) 2'b. On the other hand, the earlier translation by Guilelmus Dorotheus Venetus does not read *imperfectus* into Alexander's text; *Alexandri Aphrodisi summi peripatetici, in octo libros topicorum, vel de locis sedeque argumentorum Aristotelis commentatio lucidissima* [1538?] (Venice, 1541).

⁸¹So also the anonymous Greek commentary on the *Rhetoric* (CAG 21.2) would have confirmed the predispositions of the Renaissance commentators, and it would have been available after its printing in 1539, but I have found no evidence of commentators drawing upon it; see the earlier discussion on this commentary.

⁸²Hermolao Barbaro (Hermolao Barbarus, 1454-1493), Daniello Barbaro (Danielus Barbarus, 1514-1570), *Aristotelis rhetoricorum libri tres, Hermolao Barbaro Patricio Veneto interprete, Danielis Barbari in eosdem libros commentarii* (Basel, 1545) 30. Hermolao's translation reads "Enthymema autem est ratiocinatio et syllogismus quidam," which Daniello glosses as "Enthymema esse quendam syllogismum, imperfectum scilicet et inchoatum." Daniello later rehearses several different uses of the word *enthymeme* by various writers and again concludes that Aristotle intends "Enthymema, id est commentatio, imperfectus syllogismus" (81).

⁸³Johann Sturm (Sturmus, 1507-1589) *Aristotelis rhetoricorum libri III* (Strassburg, 1570) 20: "συλλογισμός: Latine Ratiocinatio, apud oratores vocatur enthymema." See especially Sturm's discussion on p. 10.

provides a psychological explanation that owed more to Stoicism than to Aristotle: The speed and the condensed form of the enthymeme could make auditors grant their assent to that which they really do not understand.⁸⁴ By the late Renaissance, the doctrine of the truncated Aristotelian enthymeme was secure and was further complicated not only by Renaissance efforts to make Aristotle's *Rhetoric* consonant with topical proceeding in the *Topics* (which also got confused with Ciceronian *Topics* and Boethian topics) but also by efforts to coordinate that treatise with Aristotle's analytical works.

Antonio Riccobono (1606) is no longer translating Aristotle's *Rhetoric* but merely summarizing the views of some of the best thinkers of the preceding century when he explains that "enthymema sit syllogismus imperfectus."⁸⁵ Riccobono is nervous about trying to make sense of the enthymeme in this way, and he engages in extended argument with Marc Antonio Maioragio on this subject.⁸⁶ The doctrine of truncation, as Riccobono points out, stipulates that enthymemes are for those auditors who cannot grasp a syllogism; but he is unconvinced by this explanation, because it surely must be more difficult for an auditor to follow an incomplete syllogism than a complete syllogism. Riccobono was not the only Renaissance commentator to be troubled by the entire issue. In 1549, the magisterial Pier Vettori repeats the doctrine of rhetorical truncation, but when he comes to the topical discussion of enthymemes in book 2 of the *Rhetoric*, he realizes that the doctrine is insufficient.⁸⁷ Like Riccobono later, Vettori is puzzled and finally resorts to the theory of truncation as an explanation of last resort. So also when the *Rhetoric* is finally printed in England in 1619; in the preface Theodore Goulston tries to approach the enthymeme as a fuller concept that organizes Aristotelian rhetoric, but in his local commentary he is reduced to explaining the enthymeme with medieval diagrams for syllogistic completion and reduction.⁸⁸

For Riccobono and other commentators on the *Rhetoric*, completeness and perfection seem to mean the same thing, but they are not—at least, not in Aristotle—and this raises one last problem in this long tradition. Formal completeness refers to the number of parts present; hence the notion of truncation. Perfection, however, is a notion that emerges out of the *Prior Analytics*, when Aristotle

⁸⁴Sturm, *Rhetoricorum libri III*, 20: "Enthymemata vero magis perturbant: quia requirunt celerem auscultatorum assensioem. Saepe etiam condensantur, ut auditor nesciat, quare credat, et tamen cogitur assentiri: quia audit sententias uniuersales et graves, et putantur quasi es thesauro ingenij alicuius magni adferri."

⁸⁵Antonio Riccobono (Riccobonus, 1541-1599), *Paraphrasis in rhetoricam Aristotelis, interiecta rerum difficiliorum explicacione, & collata ipsius Riccoboni multis in locis conversione, cum Maioragii, Sigonii, Victorii, Mureti conversionibus* (Hanau, 1606) 25.

⁸⁶This argument is summarized in Green, "The Reception of Aristotle's *Rhetoric* in the Renaissance" 342-344.

⁸⁷Pier Vettori (Victorius, 1499-1585), *Commentarii in tres libros Aristotelis de arte dicendi* (Florence, 1548) 414: "Enthymema hic appellat, non imperfectum syllogismum, sed ut fere magistri dicendi capere hoc nomen consuerunt, sententiam ex contrariis conclusam. Verba autem quae sequuntur oratoris, id manifesto declarant." Compare 44-45.

⁸⁸Theodore Goulston, *De rhetorica seu arte dicendi libri tres* (London, 1619).

described four, and then two, syllogistic forms that are "perfect." Unfortunately, there is little agreement on what Aristotle means by a "perfect" syllogism. Apparently, an Aristotelian syllogism is perfect when its validity is immediately apprehensible upon first articulation, and any syllogistically valid set of propositions in the other more convoluted Aristotelian modes and figures ultimately can be expressed as an uncomplicated and clearly apprehensible syllogism. That is, any imperfect syllogism can be rendered as a perfect syllogism. Thus it makes sense to propose that either Aristotle or his unknown glossator might have used the word ἀτελής at *Prior Analytics* 2.27. An enthymeme is rarely expressed in the form of a perfect syllogism and does not depend upon such perfection for its immediate apprehension by an audience. But anyone, with time and effort, could reduce an enthymeme to a perfect syllogism. The word ἀτελής is defensible in the context of the *Prior Analytics*, even if it is mistaken. But that context is not the context of the *Rhetoric*.

It remains open to debate whether it is useful at all to think of Aristotelian syllogistic in terms of inferential proceeding; as Ernst Kapp points out, even the name of what we call logic "indicates that logic was originally conceived as a science of what happens, not when we are thinking for ourselves, but when we are talking and trying to convince one another."⁸⁹ It is widely recognized that trying to turn Aristotle's syllogism to practical account and, at the same time, to preserve its status as an inferential categorical proceeding leads quickly to absurdity. The discussions on the so-called practical syllogism offer a case in point.⁹⁰ When we act in this world, it is simply not the case that we start from premises and work our way toward a conclusion, in the following fashion:

(major premise) Any act of mine that results in my knowing the time is desirable;

(minor premise) Looking at my watch will result in my knowing the time;

(conclusion) Therefore, I look at my watch.⁹¹

There may be a syllogism inherent in the act of looking at one's watch, but it is silly to think of this instantaneous act as a truncated syllogism.⁹²

⁸⁹Ernst Kapp, *Greek Foundations of Traditional Logic* (New York: Columbia University Press, 1942) 19. See also Ernest Kapp, "Syllogistik," in Georg Wissowa (orig.), *Paulys Real-Encyclopädie der classischen Altertumswissenschaft*, 2nd ser., 4:1 (Stuttgart: Metzler, 1931) cols. 1046–1067; reprinted in Ernest Kapp, *Ausgewählte Schriften* (Berlin, 1968) 254–277; reprinted in Jonathan Barnes, Malcolm Schofield, Richard Sorabji, eds., *Articles on Aristotle: 1. Science*, trans. Mary Humboldt Dill and Peter Dill (London: Duckworth, 1975) 35–49.

⁹⁰For a review of the literature and problems, see W. K. C. Guthrie, *A History of Greek Philosophy*, 8 vols. (Cambridge: Cambridge University Press, 1981) 6:349–352.

⁹¹Quoted in Guthrie, *A History of Greek Philosophy* 6:350n.

⁹²For efforts at a more nuanced understanding of Aristotle's practical syllogism, see Takatura Ando, "The Practical Syllogism," *Aristotle's Theory of Practical Cognition*, 3rd ed. (1958; The Hague: Martinus Nijhoff, 1971) 214–265; Anthony Kenny, "Practical, Technical and Ethical

So also with Aristotle's enthymeme. The process starts not with premises but with conclusions, and we work backwards; first we seize upon what we want another person to think or do, and then we seek reasons sufficient for that goal. There may be a syllogism inherent in some enthymemes,⁹³ but this is hardly the entire story. Aristotle's enthymeme has suffered from two thousand years of conflating Stoic and Peripatetic ideas, and this conflation has provided fertile ground for enduring misperceptions.⁹⁴ People accept limited evidence that the enthymeme is merely a mechanistic formula, because they are already predisposed to view the enthymeme as part of a deductive inferential machine. And when this machine fails to operate as required, as inevitably it must fail, Aristotle's enthymeme can only appear naively reductive—and even *imperfectus, inchoatus, defectivus, mutilus, curtatus, truncatus*.

Syllogisms," *Aristotle's Theory of the Will* (New Haven: Yale University Press, 1979) 111–124; and Norman O. Dahl, *Practical Reason, Aristotle, and Weakness of the Will* (Minneapolis: University of Minnesota Press, 1984). Kenny and most editors read *Ethica Nicomachea* 1144^a31 as συλλογισμοὶ τῶν πρακτικῶν, whereas Guthrie reads συλλογισμοὶ τῶν πρακτικῶν.

⁹³See the comments and materials in Kennedy, *Aristotle. On Rhetoric* 42n, 297–298, 310.

⁹⁴Sten Ebbesen provides an interesting comparison for how ideas conflate and separate over time: "Medieval logicians surpassed the ancients. But they were deeply influenced by the men from Porphyry to Philoponus; both in nominalistic periods and in realistic ones. The ancient scholastics were chimeras with an Aristotelian body barely managing to keep the Platonic head and the Stoic tail from either running in opposite directions or engaging in a deadly fight with each other. The medievals saw the monster from both ends." See Sten Ebbesen, "Philoponus, 'Alexander' and the Origins of Medieval Logic," in Sorabji, *Aristotle Transformed* 459.