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Refutation, Deduction and The Demarcation of Philosophy from Sophistry

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REFUTATION, DEDUCTION AND THE DEMARCATION OF PHILOSOPHY FROM
SOPHISTRY

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ABSTRACT:

This dissertation argues that Plato's and Aristotle's conceptions of genuine philosophical argumentation were significantly shaped by their attempts to distance their own methods from the argumentative practices of the Eristic sophists. The Eristics characteristically employed short question-and-answer refutational arguments in which a questioner deduced a conclusion based on an answerer's commitments that contradicted one of the answerer's central philosophical positions, but did so in ways that we would now regard as fallacious. I begin by showing that the Eristics' refutations presented a significant challenge to Plato and Aristotle not only because they derived contradictions based on important Platonic and Aristotelian commitments, but also because the Eristics' primary aim in offering these refutations was to establish controversial doctrines that were immune to the contradictions that they derived. In the remaining chapters I argue that Plato originally developed his conception of a genuine contradiction in explicit contrast to the contradictions produced in Eristic refutations and that Aristotle developed his conception of a deduction in direct opposition to the ways in which Eristics deduced contradictory conclusions in their refutations. Plato made it a necessary condition for a refutation that the contradiction it produces satisfy conditions that clearly demarcate genuine contradictions from the merely apparent ones that the Eristics produced. Aristotle then accepted and strengthened Plato's conception of true refutation by making it a necessary condition for a refutation that its conclusion is deduced in accordance with a set of requirements that clearly exclude Eristic ways of deducing from the class of genuine deductions. These logical innovations provided both philosophers with the tools necessary to diagnose sophistical refutations as fallacies, and thereby to resist the unpalatable doctrines the Eristics advanced through their arguments. On the account I offer, it was in large part through their efforts to demarcate their argumentation from that of these opponents that Plato laid the groundwork for, and Aristotle brought to completion, the first system of logic in Western philosophy.

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INTRODUCTION:

The first institutions of higher learning in the West emerged in 4th century BCE Greece, many of them offering educational programs called “philosophy.” There was a great deal of competition among these schools for prospective students, which gave rise to a genre of educational tracts in which educators advertised for their own educational programs and aimed to distinguish them from competing offerings. The writings of Plato and Aristotle—who appear, with the perspective of history, to have been the victors in this competition—bear traces of these competitions, and both philosophers endeavor through their writing to distinguish themselves from their educational rivals and to demonstrate the value of their philosophical projects over these competing educational programs, which they regarded as dubious and unworthy of the name “philosophy.” It is in the context of these educational polemics that we find both philosophers articulating what they take to be most distinctive and valuable about the endeavor they called “philosophy.”

Both philosophers come to the defense of their philosophical programs nowhere more prominently than in their engagements with a group of sophistic rivals they call “Eristics”. These were figures notorious for employing a method of refutational argumentation that was viewed with great suspicion by its opponents. And one reason they present a problem for Plato and Aristotle is that many of their contemporaries failed to observe any distinction between the argumentative practices of Eristics and those of philosophers like Plato and Aristotle. Both philosophers in fact concede this similarity, defining the Eristic as one who appears to be a philosopher by employing arguments that appear to be, but are not genuine. And both philosophers expended a great deal of effort trying to show that these arguments

merely appear to be genuine. It is in the context of their polemics against these formidable rivals, I will argue, that Plato and Aristotle developed and defended a conception of philosophical argumentation that allowed them to diagnose the Eristics' arguments as fallacies. On the account I will offer, it was in no small part through their efforts to distance themselves from these educational rivals that Plato laid the groundwork for, and Aristotle brought to completion, the first system of logic in Western philosophy.

The claim that Plato and Aristotle needed to develop sophisticated philosophical resources to respond to the challenge of the Eristics will surprise the many readers of Plato and Aristotle for whom the Eristics look more like charlatans and clowns than genuinely formidable intellectual opponents. The first chapter aims to dispel this impression and to lay the groundwork for our understanding what was at stake in Plato and Aristotle's demarcation of philosophy from Eristic. On a standard understanding of Eristic, these figures offer obviously fallacious refutations simply for the sake of argumentative victory. This impression is partly thanks to the hostile manner in which Plato and Aristotle portray them. Nevertheless, there are significant concessions in the work of both authors that strongly suggest that Eristics did not merely propound contradictions and paradoxes through their refutations, but also provided their own solutions to the contradictions they derived. One common form of solution that the Eristics employ is what I call a "doctrinal solution", which involves presenting a controversial doctrine as a solution to the derived contradiction, where this doctrine resolves the contradiction in the sense that, once one accepts it, the contradiction in question can no longer be truly formulated in a dialectical exchange. Sophistical refutations thus presented a significant challenge to Plato and Aristotle not only because the Eristics derived contradictions based on important Platonic and Aristotelian commitments,

but also because the Eristics' primary aim in offering these refutations was to give credence to their own controversial doctrines, which were immune to the contradictions that they derived.

Because they are unwilling to accept the Eristics' controversial doctrinal solutions, Plato and Aristotle develop a different kind of solution to sophistical refutations. This kind of solution, which I call a "formal solution", involves demonstrating that an argument merely appears to be a genuine refutation or deduction. Their confrontations with sophistical refutations lead both philosophers to reflect on and to articulate more precisely the conditions for genuine contradictions, refutations, and deductions. Plato and Aristotle are then able to appeal to these standards in their diagnoses of sophistical refutations and thereby both to dispel the appearance that a genuine refutation has occurred and to render unnecessary the radical Eristic solutions to the same arguments.

After offering this account of the Eristics' argumentative practice and the challenge they present to philosophers like Plato and Aristotle, I turn to a chapter entitled "Ambiguity and Fallacy in Plato's *Euthydemus*", which examines the way in which Plato, in the *Euthydemus*, exposes sophistical refutations that illegitimately exploit various forms of linguistic ambiguity. This chapter in part responds to a common view according to which Plato lacks the technical resources necessary to diagnose fallacious arguments adequately. I argue instead that Plato is able to offer formal solutions to Eristic refutations that produce merely apparent contradictions because of an exploitation of linguistic ambiguity, and that these solutions laid important groundwork for Aristotle's understanding of genuine refutation in the *Sophistici Elenchi*. Here I show that Plato not only has a more robust sensitivity to ambiguity and its pernicious effects on philosophical arguments than has been recognized,

but also that he is able to offer solutions that reveal the refutations of the Eristics to be merely apparent.

In the third chapter, entitled “The Eristic Background to the Principle of Non-Contradiction”, I consider the use that Plato makes of the Principle of Non-Contradiction (PNC) in his engagement with Eristic refutations. This principle—according to which opposites cannot belong to the same thing, at the same time, in the same respect and in relation to the same thing—is of central importance to both Plato and Aristotle. I argue that Plato originally formulates the principle with all of these qualifications because this articulation of the principle restricts the class of genuine contradictions in such a way that reveals the contradictions derived in certain Eristic refutations to be merely apparent. I show that, in his diagnoses of these refutations, Plato appeals to these qualifications on the PNC so as to mark a principled distinction between genuine contradictions and what he regarded as the merely apparent contradictions with which Eristic refutations characteristically concluded. Moreover, in these confrontations with Eristic argumentation Plato operates with an account of genuine refutation according to which the statement to be refuted and the conclusion of the argument that refutes this statement must together violate the PNC under all of the qualifications this principle specifies. With reference to this account, Plato is able to demonstrate that the Eristic refutations that generate such merely apparent contradictions are only apparently refutational.

The fourth and final chapter, “Contradiction and Deduction in Aristotle’s *Sophistici Elenchi*”, offers a close reading of Aristotle’s argument in that treatise that the various forms of sophistical refutation are fallacious because they fail to satisfy at least one of the criteria specified in his definition of refutation. For Aristotle a genuine refutation is a deduction

whose conclusion contradicts, in the appropriate way, a thesis one aims to refute. Aristotle thus argues that the Eristics' refutations are fallacious because they fail to satisfy either the conditions specified in the definition of deduction, or those in the definition of a contradiction. I argue that Aristotle's explanations of why sophistical refutations are fallacious are illuminating for our understanding both of his conceptions of contradiction and deduction, and of his reasons for formulating his definitions of these notions in the way he does. On the one hand, in these arguments, Aristotle appeals to a number of conditions that are not explicitly articulated in his canonical definitions of deduction and contradiction. These arguments therefore provide us with a more complete understanding of what the criteria for contradiction and deduction are for Aristotle. But moreover, Aristotle's discussion of many of these criteria indicates that they are added to the definitions of contradiction and deduction precisely in order to prevent certain kinds of sophistic arguments from counting as genuine refutations. We will thus see that it was by continuing and building upon Plato's project of demarcating genuine philosophical reasoning from its closely-related sophistic counterpart that Aristotle brought to completion what he himself regarded as his greatest philosophical achievement—the discovery of a general method of deductive reasoning that avoids fallacy and preserves truth.

I: SOPHISTICAL REFUTATIONS AND THE EDUCATIONAL RIVALRIES OF 4TH CENTURY GREECE

1. THE DIFFICULTY OF DISTINGUISHING PHILOSOPHY FROM ERISTIC

Much of Plato's work is dedicated to distinguishing the intellectual enterprise he called 'philosophy' from the various other educational programs on offer in the marketplace of ideas in classical Greece. There are, for instance, dialogues, and parts of dialogues, that aim to settle the "old quarrel between philosophy and poetry" (*Resp.* 607b5-6),¹ the latter having been central source of wisdom in a traditional education (see e.g., *Ion* & *Resp.* X). In other dialogues, Plato aims to distinguish philosophy from the composition of persuasive speeches, which Plato called "rhetoric" presumably in order to reserve for himself the name by which the chief proprietor of rhetorical education in Plato's time—namely Isocrates—called his own enterprise—namely "philosophy" (see e.g., *Gorgias* & *Phaedrus*).² Most famously, Plato has his character Socrates confront those itinerant purveyors of a general education in politics, rhetoric, science, mathematics and literary criticism—namely, the Older Sophists, among whom many numbered the historical Socrates³—in order to disabuse his readers of

¹ Abbreviations of all ancient authors and works in parenthetical citations and footnotes follow the abbreviations in the OCD⁴ (Hornblower, Spawforth and Eidinow 2012, xxvii-lii).

² Concerning Plato's coining of the term ῥητορικὴ see Schiappa 1990. On the rivalry between Plato and the rhetorician Isocrates in particular, see Eucken 1983; Cooper 1985; Nightingale 1995; Balla 2004; Livingstone 2007; McCoy 2007; and Wareh 2012.

³ For example, Aeschines, writing in 345 BCE still calls Socrates a Sophist (see *In Timarch* 173 and Nehamas 1990).

the impression that the Socratic tradition of philosophy is just another form of sophistry (see esp. *Protagoras*).⁴ But even having delineated philosophical education from these diverse pursuits, Socratic philosophy, as developed by Plato and Aristotle, nevertheless continued to be confounded with sophistry. This is because there arose a novel kind of sophistry—which Plato and Aristotle sometimes called “Eristic” to distinguish its practitioners from the older sophists—which occupied a position on the intellectual landscape much closer to Platonic and Aristotelian philosophy than any of these other intellectual pursuits. In fact, on both a Platonic and Aristotelian analysis, the defining feature of the Eristic is the appearance of being a genuine philosopher (Pl. *Soph.* 268b10-d5; Arist. *Soph. el.* 165^a21-23) through the use of arguments that appear to be, but are not in fact, genuine ones (Arist. *Soph. el.* 164^a20-21).

The fact that Plato and Aristotle both concede the apparent similarity of philosophy and Eristic suggests that distinguishing the two would be a difficult enterprise. This is not, however, the impression that Plato’s treatment of Eristic usually leaves on readers. Eristic is, for Plato, the standard argumentative enterprise against which he contrasts his own method of doing philosophy, namely dialectic. In methodological discussions throughout the Platonic corpus we regularly find a clearly delineated contrast. Philosophers employ dialectic as a means of discovering the truth. Dialectical arguments often involve refuting the views of one’s interlocutor but refutation is just one of the techniques dialecticians employ in their joint-pursuit of the truth with their interlocutors. Eristics, by contrast, engage in mere verbal

⁴ By the “Older Sophists” I mean chiefly Protagoras, Gorgias, Hippias and Prodicus. When discussing Plato’s work I generally reserve the label “Sophist” for these figures, among whom I also include other 5th century practitioners of similar enterprises: Antiphon, Evanus, etc. I object to R.K. Sprague’s inclusion of Euthydemus among her collection on the “Older Sophists” for reasons that will become clear in what follows (Sprague 1972).

quibbles in order to refute and humiliate their interlocutors and thereby to gain a reputation for wisdom (see *Resp.* 454a4-8; 499a4-9; 539a11-b6; *Theaet.* 167d6-168b2; *Soph.* 216b3-c1). These discussions suggest that philosophy and Eristic can be distinguished in terms of quite general argumentative features and their respective aims. Dialectic is not only refutational but also constructive and aims at the truth. Eristic is purely refutational and its aims are victory and honor.

Among the few scholars who have devoted attention to Plato's only extended engagement with Eristic sophistry, namely the *Euthydemus*, there is a general consensus that his delineation of Eristic in this dialogue is made with equally broad strokes.⁵ Here Plato dramatizes the characteristics that he isolates in these scattered remarks by casting the Eristic brothers, Euthydemus and Dionysodorus, as caricatures devoted solely to winning arguments through frivolous verbal quibbling (see e.g., *Euthyd.* 278b2-c5). This dramatic demarcation is thought to be the only way of drawing this distinction because Plato does not appear to have the technical resources necessary to expose the fallacious argumentative moves by which his opponents bend their arguments in whichever direction suits them.⁶ There is some

⁵ The *Euthydemus* is rather neglected in contemporary scholarship. There seven monographs devoted to the dialogue (Sprague 1962; Keulen, 1971; Narcy, 1984; Canto 1987; Chance 1992; Scolnicov 2013; Sermamoglou-Soulmaidi 2014) and three commentaries (Wells 1881; Gifford 1905; Hawtrey 1981).

⁶ R. Robinson, and M.A. Stewart have both forcefully argued that Plato does not have the technical resources necessary for diagnosing the fallacious argumentation that he wrote into his own dialogue (see Robinson 1941; 1942 and Stewart 1977). Their criticisms have posed a great challenge for those who defend Plato against this charge, but even those who have taken up this challenge, most notably R.K. Sprague and R.S.W. Hawtrey, seem to implicitly endorse Robinson's and Stewart's views insofar as they rely, in my view, far too heavily on later, Aristotelian resources for understanding these fallacies (see Sprague, 1962; 1967; 1977; 1993; and Hawtrey 1981). In the following chapter I

plausibility to this view. After all, Plato has Socrates explicitly diagnose only two of the brothers' 21 fallacious arguments (277e3-278b2), and some find even this explicit analysis wanting.⁷ There is, however, no denying that Plato seems to characterize the brothers as the very embodiment of petty victory-directed argumentation: the art that these Eristics claim to teach is one that allows its possessors to refute whatever position their interlocutor advances, whether it is true or false (272a7-b1; 275e3-6), and they demonstrate this ability by arguing for positions that no truth-seeking philosopher would advance (e.g., that if one beats one's dog and one's dog is a father, one beats one's father, or that it is fitting to cook the cook (298d7-299a5; 301c6-d8)). By contrast, although he occasionally refutes his interlocutors (e.g., 296d5-297a8), Socrates' most memorable contributions to the dialogue are his constructive arguments that exhort his young interlocutor, Cleinias, to pursue virtue and philosophy (278e3-283b3) and his subsequent tutoring of Cleinias in the method of division, which is meant to help the latter discover the knowledge that makes human beings happy (288d5-290d8). Moreover, Cleinias appears to make genuine progress toward the truth under Socrates' tutelage (288d5-290e2), whereas he comes out humiliated and discouraged after his initiation into Eristic sophistry (277d1-4). Thus, for want of a rigorous analysis of fallacious argumentation (like the analysis Aristotle develops in the *Sophistici Elenchi*), most commentators conclude that, in the *Euthydemus*, Plato draws the distinction between philosophy and Eristic through the drama of the dialogue, by characterizing the brothers as

respond to these challenges and show that Plato does in fact have the technical resources necessary to expose eristic arguments as fallacies.

⁷ See e.g., Robinson 1941; 1942; and Stewart 1977.

engaged in an argumentative practice diametrically opposed to genuine philosophy.⁸

This reading, however, fails to do justice to equally clear dramatic indications throughout the dialogue that the distinction between philosophy and Eristic cannot be so easily drawn. We should not fail to notice, for instance, that some of Plato's own characters fail to recognize the distinction that Plato apparently wants to draw. The bulk of the dialogue consists of Socrates relaying to his friend Crito a conversation that he had the day before with the Eristic brothers Euthydemus and Dionysodorus, whom he describes as "sophists of a novel kind" (καίνοί τινες [...] σοφισταί) (*Euthyd.* 271B9-C1).⁹ We learn in the introductory

⁸ Thomas H. Chance, who defends such a view in his book-length treatment of the dialogue, tellingly summarizes this view in dramatic terms, arguing that Plato "*depicts* Eristic as the antithesis to dialectic, in fact, as the very paradigm of otherness" (Chance 1992, 19, my emphasis; see also Canto 1989, 53). This is in line with a long-standing assessment of the relationship between philosophy and Eristic in the *Euthydemus*. The following is representative of this consensus: Eristic is "something superficially like dialectic and yet as base as dialectic is good" (Robinson 1953, 84-5); Socrates "stand[s] in absolute opposition to the barren and intimidating paradoxes of the two Eristics" (Gomperz 1925, 425); Eristic is "diametrically opposed to the philosophic art of conversation" (Cornford 1935, 190); "Eristic has emerged as the very opposite of 'philosophy'" (Friedländer 1928, 189); "Socrates' practice is in stark contrast with the method of Euthydemus, despite their apparent similarity" (Nehamas 1985, 19). See also Grote 1865, 530; Campbell 1867, xi-xii; Sidgwick 1872, 296, 299 & 305; Thompson 1901, 272; Gifford 1905, 10-13; Guthrie 1975, 275-276; Szlezák 1980, 81; Teloh 1986, 195-196; and Waterfield 1987, 300-303. For this summary of views see Chance 1992, 18 n.66.

⁹ Some commentators take 'καίνοί' to mean "newly arrived," as in "new in town," rather than "of a novel kind." But the former reading is rendered somewhat implausible by Socrates' claim a few lines later that the brothers "have been in these parts [i.e., I take it, around Athens] for many years now." The attribution of this line to Socrates has been controversial since the first editions of Plato (Ficino (1590) attributes this line to Socrates, but Stephanus (1578) and Cornarius (1561) to Crito). For a discussion of this attribution see Narcy 2013, 154. But even if it is Crito, rather than Socrates who describes the brothers as sophists of a novel kind, this is nevertheless the way Plato chooses to describe them.

frame (271a1-272d7) that Socrates' purpose in relaying this conversation is to persuade Crito and his sons to join him in submitting themselves to the brothers as their pupils, in order to learn their "Eristic wisdom" (272b9-10). The conversation that Socrates relays to Crito is comprised, in part, of three exhibitions of the Eristic wisdom that the brothers claim to teach (274d4-277c7, 283b4-288d4, & 293b1-303a9). These Eristic displays are separated by two intervening Socratic speeches—in which Socrates makes "amateur" attempts to persuade the young Cleinias to pursue philosophy—that are supposed to serve as models of the sort of educational advertisement Socrates hopes to hear from the Eristics (278e3-282d3 & 288d5-293a9). Finally, the dialogue ends with a closing frame (303b1-307c4) in which Crito relates to Socrates a conversation with an unnamed critic (whom Plato encourages his readers to identify as Isocrates¹⁰) who, along with Crito—and here is the surprising feature—calls the art that the brothers teach "philosophy," and describes all of those who engage in philosophy, including Socrates, as "worthless and ridiculous" (304e6-305a8). The dialogue ends in *aporia*, and Crito is unable to decide what sort of education he ought to choose for himself and his sons. The fact that Crito, who has now heard Socrates' conversation with the brothers twice—once "live", though only indistinctly and at a distance (271a2-3), and once in Socrates' retelling—still makes no real distinction between philosophy and Eristic—even

¹⁰ The precise identification of this unnamed critic is controversial. Chance provides the following summary of positions taken on this figure: Jowett (1953) identifies the critic as Lysias or Antiphon; Hermann (1839, 629) as Polycrates; Winckelmann (1833, xxxiv) as Thrasyarchus; Taylor (1927, 101-102) as Antiphon; Thompson (1868, 179-182), Grote (1875, 1:561), Shorey (1933, 167-168), Field (1948, 193) and Crombie (1963, 1:224) identify the figure as Isocrates; Wilamowitz (1959, I:304; II:165-167) and Friedländer (1969, 1:194) have argued against identifying the figure with Isocrates, or anyone for that matter, because the figure is explicitly understood to be a type, rather than a specifiable individual (Chance 1992, 275). See the following footnote for my reasons for taking the critic to be Isocrates.

though Socrates, in his retelling, has consistently reserved the term “philosophy” for his own enterprise, by explicit contrast with the doses of Eristic the brothers have administered—suggests that Plato himself acknowledges that the distinction this dialogue is devoted to drawing is anything but obvious.

Furthermore, for the part of the unnamed critic who blurs the lines between Socratic philosophy and Euthydemian Eristic, Plato could not have cast a better character than the Isocrates figure.¹¹ In doing so Plato clearly brings the educational competition represented in

¹¹ One kind of evidence in favor of identifying the critic with Isocrates is linguistic. The precise words that Crito attributes to this character—which he reports in a way that suggests nearly direct quotation (304e5-6)—are the very words that Isocrates frequently uses to discredit his educational rivals. The critic’s description of Socrates and the brothers as “speaking foolishly” (ληρούοντων—304e4) is reminiscent of Isocrates’ frequent usage of the same word, almost exclusively in contexts in which he is distinguishing his own educational program from that of the Eristics. In the *Antidosis*, for instance, Isocrates uses the word to criticize practitioners of “Eristic education”—among whom he appears to number Plato (*Antid.* 261-269)—on grounds that Eristics think that virtue can be taught (*Antid.* 274; see also *C. soph.* 1-4; *Panath.* 11; 19; 33; 112; 150). Moreover, the critic’s claim that Socrates and the brothers are not at all “serious” (σπουδαίος) is an Isocratean trope: the things that one learns from the Eristics, on Isocrates’ view, are merely propaedeutic to serious study, namely, the composition of speeches on important political matters, which Isocrates takes to be the real occupation of a philosopher (see e.g., *Antid.* 265; 267; 304). A second line of evidence in biographical and comes after Crito’s initial description of the anonymous figure’s criticism of Socrates and the brothers. Here Socrates questions Crito in an attempt to learn who exactly he is speaking about. Crito describes the person in question as one who is neither a rhetorician, nor someone who has appeared in court, but one who “equips [rhetoricians] for battle, a writer of the speeches that the rhetoricians use” (305c1-4). Socrates’ response to this description (305b4-9) includes a back reference to a type of person who was described in similar terms in the second Socratic episode, where Socrates claimed that there are “certain speech writers [who] have no idea how to use the particular speeches they themselves have written” (289c6-d7). This biographical evidence also suggests Isocrates, who had a career as a speechwriter in the late 400’s to 390’s before opening his school, and who frequently describes his own inability to use the speeches he wrote (see *Panath.* 10-11, *Phil.* 18; *Ep.* I.9; *De Pace* 7).

this piece of philosophical fiction to bear on the actual educational debates of his own time and place—a context in which Isocrates was the most prominent proponent of the view that Platonic philosophy is just a kind Eristic. The historical Isocrates, after all, habitually confounded figures that we would prefer to keep distinct. In the *Helen*, for example, Isocrates describes a surprisingly diverse group of his intellectual opponents as practitioners of “Eristic philosophy” (ἡ περὶ τὰς ἔριδας φιλοσοφία) (*Hel.* 6). Isocrates earlier enumerated the figures

Moreover, Socrates’ later claim that the character gains a reputation for wisdom by keeping away from danger and conflict also suggests Isocrates, who seems to have been the subject of suspicion for leading a “private life” away from public conflicts (*Antid.* 140-153). A third and final kind of evidence comes from the description of the critic’s educational program and activity in the educational marketplace. After Socrates gets a clearer idea from Crito about who this person is, he characterizes him as someone who “occupies the border between the philosopher and the politician” (305c7), and who is well regarded by everyone except philosophers and so devotes himself to slandering the philosophers who have a low view of him so as to increase their reputation (305c7-d2). Isocrates’ educational tracts, like *Against the Sophists* and the introduction to the *Encomium of Helen*, do precisely this: they rail against the “sophists” petty hairsplitting about words and the pretension to impart precise knowledge, and put these practices in contrast with Isocrates’ own promise to impart to his students reasonable opinions about important political matters (*Hel.* 4-5). Moreover, in characterizing the critic as one who occupies this borderland, Socrates claims that such people think that they are “suitably” (εἰκότως) wise (305d7). This is precisely the way that Isocrates describes his own “philosophy”: a practice that does not assume that it can impart precise knowledge, but one that prepares its practitioners to “opine suitably” about important political matters (*Hel.* 5). Taken together, these considerations give us good reason for thinking that Plato wants us to identify this critic with Isocrates. On piece of evidence against the identification with Isocrates is that this figure *denounces* philosophy, whereas the historical Isocrates wanted to claim this term for himself. But it is worth noticing that his description of Socrates’ and the brothers’ arguments as philosophy is qualified. He asks Crito whether he seriously thinks “that kind [sc. of philosophy]” is a fine thing, and himself claims that this kind of philosophy is worthless (304e7-305a1). The historical Isocrates is himself happy to call Eristic philosophy in a qualified sense, as he does for example at *Helen* 6, where he refers to Eristic as ἡ περὶ τὰς ἔριδας φιλοσοφία.

he here calls practitioners of Eristic by citing three groups of people who “defend strange and paradoxical theses”: (1) those who waste their time defending such views as (a) that there is no such thing as falsehood or (b) contradiction and (c) that no two words apply to the same thing; (2) those who waste their time defending the view that courage, wisdom and justice are the same, that we do not have any of them by nature and that there is one knowledge of all of them; and (3) those who waste their time with Eristic quibbles that help nobody (*Hel.* 1). There can be little doubt that (1) is an articulation of the three theses for which Antisthenes was most well known;¹² and (3) is almost certainly a reference to the Megarians, who were practitioners of refutational, Eristic argumentation *par excellence*.¹³ (2) is the real surprise, however, because it appears to be a clear reference to Plato, who famously has Socrates defend precisely this view (e.g., in the *Protagoras*). The historical Isocrates thus seems to have thought of Plato as a kind of Eristic.¹⁴ In fact, in another passage from the *Antidosis* that closely parallels the unnamed critic’s assessment of Socrates and the brothers, Isocrates more or less explicitly classifies the Platonic educational model alongside Eristic education (*Antid.* 261-9). The Isocrates character in the *Euthydemus* is thus aptly cast as the voice for what was certainly a common view in Plato’s time: that the various schools in the Socratic tradition were engaging in roughly the same enterprise. In fact, it is not unreasonable to think that the dialogue is occasioned by the inability, or unwillingness, of critics like Isocrates to

¹² Compare 1a & Frr. 152a-c in Prince 2015; 1b & Frr. 148, 152a-c, 152b, 153b, 155 Prince; 1c & 150a, 150b, 152a-c Prince.

¹³ See Frr. 8, 9, 31, 33, 34, 40, 51A, 51B, 90, 106, 157, 180 and 199 in Döring 1974.

¹⁴ This view is also held by Thompson (1868, 375), Jebb, (1876, 49), Eucken (1983, 45-56) and Nehamas (1990, 3). For a contrasting view see Lachance 2019.

distinguish these groups of Socratics.¹⁵

The Isocrates character and the general consensus he represents are, moreover, not totally off base. Consideration of the brothers' general argumentative methodology reveals a striking resemblance between Eristic and the Socratic elenchus as portrayed in other Platonic dialogues.¹⁶ With only one exception, each of the brothers' 21 arguments begins with a question to which the interlocutor is expected to give a brief answer: "yes" or "no," in the case of yes-no questions, or to choose one or the other of two opposite disjuncts in the case of an either-or question. In many cases the brothers then make sure that their interlocutor truly stands behind their answers to key questions (see e.g., 283C3-6). The arguments then progress with more yes-no questions until the brothers have what they need to conclude "no," if their interlocutor's initial answer was "yes," "yes" if it was "no," or the opposite of the disjunct that their interlocutor initially chose, in the case of either-or questions. The brothers' argumentative method is therefore, at a basic structural level, indistinguishable with the Socratic elenchus as depicted in other Platonic dialogues. Even the brothers' three questions that do not fit the above paradigm are surprisingly Socratic:

[T1]: Οἶσθα οὖν, ἔφη, ὅτι προσήκει ἐκάστοις τῶν δημιουργῶν; πρῶτον τίνα χαλκεύειν προσήκει, οἶσθα; { – } Ἔγωγε· ὅτι χαλκέα. { – } Τί δέ, κεραμεύειν; { – } Κεραμέα. { – } Τί δέ, σφάττειν τε καὶ ἐκδέρειν καὶ τὰ μικρὰ κρέα κατακόψαντα ἔσθαι καὶ ὀπτᾶν; { – } Μάγειρον, ἦν δ' ἐγώ.

¹⁵ Both Antisthenes and Euclides—the founder of the Megarian school—were Plato's older contemporaries in the Socratic circle (see *Phaedo* 59b6-c2).

¹⁶ I owe the general insights of the following paragraph to Hitchcock (2000, 59-60).

You know then, he said, what is fitting for each of the craftsmen? First, do you know for whom it is fitting to engage in metallurgy? | Yes, I do—the blacksmith’s. | Well then, what about making pots? | The potter. | And again, to slaughter and skin, and to boil and roast the small pieces after cutting them up? | The cook, I said (*Euthyd.* 301c6-d1).¹⁷

Here we have the pattern of an epagodic argument in conjunction with the craft analogy, which are arguably the very hallmarks of Socratic argumentation.¹⁸

Noteworthy in this connection is Socrates’ frustration with the more rhetorically-inclined of the sophists, Protagoras and Gorgias, from whom Socrates demands brief answers to his yes-no/either-or questions instead of their characteristic drawn-out and rhetorically-flourished argumentative displays (*Grg.* 449b4-c8 & *Prt.* 334c7-338e5). The brothers are, methodologically speaking, by far the most Socratic of the sophists that Plato puts in conversation with Socrates. Plato explicitly draws our attention to these striking similarities in Socrates’ concluding remarks about the brothers’ practice. There Socrates shows great admiration for the fact that the brothers’ refutations show no concern for the many or for people of reputation, which distinguishes their arguments from those the many themselves approve of and employ (*Euthyd.* 303c5-d5). This is precisely how Socrates distinguishes his own refutations in the *Gorgias* from Polus’ own: his style of refutation requires only the agreement of a single interlocutor (*Grg.* 472b6-c2), whereas Polus relies on the approval of

¹⁷ Greek text follows Burnet 1903. All translations from the *Euthydemus* are my own.

¹⁸ Aristotle takes epagodic arguments of this sort to be a distinctively Socratic innovation (*Metaph.* 1078^b27-30). On the surprisingly Socratic character of this argument I am indebted to M. Anderson’s “The Eristic Craft of the *Euthydemus*” unpublished typescript received: 02/25/2015.

the many and the opinions of reputable witnesses (*Grg.* 471c2-7).

Close associations between Socratic and Eristic argumentation also play a prominent role in Plato's other great engagement with the Eristics, the *Sophist*. According to the fifth division in that dialogue, Eristic belongs to the larger class of contest (ἀμφισβητητικόν), one part of which consists in long, opposed public speeches about things that are just and unjust (the kind of speeches that Gorgias teaches—see for instance *Grg.* 454e5-455a2), the other type of contest, which goes on in private and consists of chopped up questions and answers, is called disputation (ἀντιλογικόν) (*Soph.* 225b3-11). One part of disputation concerns private contracts and is not an art, but the other part of it, Eristic, is an art, and is concerned with “the justs and the unjusts themselves” (notice in this connection Dionysodorus' argument about “the beautiful itself”—*Euthyd.* 300E3-301A9)) (*Soph.* 225b13-c10). Eristic, furthermore, divides into two parts: a part that makes money, which is the part identified with sophistry, and one that wastes money, which is done for pleasure and involves—and here's the Socratic association—“neglecting one's own livelihood” and is called “babbling” (ἀδολεσχηκοῦ) (*Soph.* 225d1-226a5). As Hitchcock has noticed, this is likely an ironic reference to a common charge made against Socrates in Old Comedy.¹⁹ Particularly relevant in connection with this *Sophist* passage is Eupolis' criticism:

¹⁹ See Hitchcock 2000, 62. Other examples of the same kind of criticism in Old Comedy come from Aristophanes and Ameipsias. Aristophanes also says of Socrates and his “school”: ἀλλ' ὃ φίλ' Ἑρμῇ μηδαμῶς θύμαινέ μοι | μηδέ μ' ἐπιτρίψης, ἀλλὰ συγγνώμην ἔχε | ἐμοῦ παρανοήσαντος ἀδολεσχήα: | καί μοι γενοῦ ξύμβουλος, εἴτ' αὐτοῦς γραφήν | διωκάθω γραψάμενος εἴθ' ὃ τι σοι δοκεῖ. | ὀρθῶς παραινεῖς οὐκ ἔῶν δικορραφεῖν, | ἀλλ' ὥς τάχιστ' ἐμπιμπράναι τὴν οἰκίαν | τῶν ἀδολεσχεῶν (*Nubes*, 1478-85; text follows Dover 1968). Ameipsias also gives us: Σώκρατες ἀνδρῶν βέλτιστ' ὀλίγων, πολλῶν δὲ ματαιοταθ', ἥκει | καὶ σὺ πρὸς ἡμᾶς; καρτερικὸς γ' εἶ. πόθεν ἄν σοι χλαῖνα γένοιτο; | τουτὶ τὸ κακὸν τῶν σκυτότομων κατ' ἐπήρειαν γεγένηται (*DL* 2.27-28; text follows Dorandi 2013).

[T2]: μισῶ δὲ καὶ τὸν Σωκράτην

τὸν πτωχὸν ἀδολέσχην,

ὃς τᾶλλα μὲν πεφρόντικεν,

ὁπόθεν δὲ καταφαγεῖν ἔχοι

τούτου κατημέληκεν

And I also hate Socrates,

The begging babbler,

Who considered everything else,

Except where he might get some food

This he neglected (Eupolis 352K).²⁰

In this division we thus have Socrates' practice—a kind of “babbling” done for pleasure and at the expense of one's own livelihood—classified as a kind of Eristic and apparently distinguished from Eristic sophistry only insofar as it is not directed at making money.

Finally, as Keulen has pointed out, Plato sometimes has the brothers use Eristic arguments to establish important tenets of Platonic philosophy.²¹ The most noteworthy of these parallels are the allusions to the theory of recollection in the knowledge arguments at the beginning of the third Eristic episode, and Dionysodorus' invocation of the theory of forms in the argument from 300e3-301c5. In the former pair of refutations Euthydemus tries to show Socrates, first, that if he knows anything he knows everything (*Euthyd.* 293b1-d1)—

²⁰ For this reconstruction of the text see Storey 1985, 154-157. The translation is my own.

²¹ See Keulen 1971.

which puts one in mind of *Meno* 81c9-d5, where Socrates shows that if the soul has recollected one thing, it can recollect everything—and secondly, that Socrates always knows everything (*Euthyd.* 295e4-296d4)—which closely parallels the view advanced at *Meno* 85d3-86b5.²² Likewise, Dionysodorus' claim in the argument starting at 300e3 that the presence of beauty makes beautiful things beautiful seems to be a clear reference to the Platonic theory of forms. This is a strange thing for Plato to do if he wants Eristic to look nothing like genuine philosophy. I take it that this is yet another concession on Plato's part to the similarity between Eristic and dialectical argumentation.

The foregoing considerations show that the Eristic brothers represent a kind of sophistry quite distinct from that which Protagoras, Hippias, Prodicus and Gorgias practice: they engage in short question and answer refutations, rather than long rhetorical displays; these refutations only require the consent of their interlocutor, rather than that of the many and the reputable; and the Eristics' refutations occur on topics closely related to topics of serious philosophical interest for Plato. They are, therefore, much more formidable intellectual opponents for Plato, and for Aristotle after him, precisely because their characteristic mode of argumentation, the Eristic refutation, is surprisingly close to philosophical argumentation.

These concessions about the similarity of philosophy and Eristic are charitable on Plato's part, and they presumably reflect the way that Plato's contemporaries perceived the two practices. Nevertheless, these concessions about the similarity between the two practices stand in tension with the hostile manner in which Plato and Aristotle sometimes depict Eristic, according to which the sole aim of Eristics is to refute and humiliate their opponents.

²² Nehamas (1985, 19) has also noted the similarity between the two arguments.

Whatever other superficial similarities there might be between philosophy and Eristic, philosophical arguments do not aim merely at victory in argument; they are ultimately constructive and aim at the truth. Matters are, however, more complicated than this, and despite the hostile manner in which Plato and Aristotle sometimes portray Eristic, they also sometimes make the considerable concession—which is corroborated by independent evidence on the use of these arguments—that the aim of Eristic is not simply to derive contradictions and paradoxes for the sake of argumentative victory. Our evidence on the aim and practice of sophistical refutations rather suggests that those who offered such arguments were expected to, and in fact did, make serious philosophical use of the contradictions and paradoxes they derived in these arguments by presenting solutions to them. In the following section I will present evidence in favor of thinking that those who derived contradictions and paradoxes through Eristic refutations also provided their own solutions to these contradictions and paradoxes. Then, in section 3, I will characterize the kind of solutions Plato and Aristotle's Eristics seem to have offered. Recognizing the overall philosophical agenda behind the Eristics' refutations will, in turn, help us to understand better the philosophical motivation behind, and significance of, the kinds of solutions that Plato and Aristotle propose for these same refutations.

2. THE AIM AND PRACTICE OF ERISTIC REFUTATIONS

Throughout the *Euthydemus* Plato makes certain concessions about the brothers' argumentative practices that tell against the tendency to understand them as mere charlatans who care only about winning arguments. One such concession comes quite early in the dialogue, when Socrates interrupts the brothers' first attempt to demonstrate their Eristic wisdom, and explains to the Eristics' young interlocutor what he takes them to have been

doing. In the preceding demonstration of Eristic, the brothers answered Socrates' request that they make the young Cleinias wise by simply subjecting him to two refutations. Both of these refutations had to do with learning (μανθάνειν), and each of them concluded with an apparent contradiction: (1) that both the wise and the ignorant μανθάνουσιν and (2) that οἱ μανθάνοντες μανθάνουσιν both things they know and things they do not know.²³ The brothers are about to refute Cleinias a third time, when Socrates interrupts them and presents the following interpretation of what the brothers have been up to so far:

[T3] [1] ὦ Κλεινία, μὴ θαύμαζε εἴ σοι φαίνονται ἀήθεις οἱ λόγοι. ἴσως γὰρ οὐκ αἰσθάνῃ οἷον ποιεῖτον τὸ ξένω περὶ σέ· ποιεῖτον δὲ ταὐτὸν ὅπερ οἱ ἐν τῇ τελετῇ τῶν Κορυβάντων, ὅταν τὴν θρόνῳσιν ποιῶσιν περὶ τοῦτον ὃν ἂν μέλλωσι τελεῖν. καὶ γὰρ ἐκεῖ χορεία τίς ἐστι καὶ παιδιὰ, [...]· καὶ νῦν τούτῳ οὐδὲν ἄλλο ἢ χορεύετον περὶ σέ καὶ οἷον ὀρχεῖσθον παίζοντε, ὥς μετὰ τοῦτο τελοῦντε [2] νῦν οὖν νόμισον τὰ πρῶτα τῶν ἱερῶν ἀκούειν τῶν σοφιστικῶν. πρῶτον γάρ, ὥς φησι Πρόδικος, περὶ ὀνομάτων ὀρθότητος μαθεῖν δεῖ· ὃ δὴ καὶ ἐνδείκνυσθόν σοι τὸ ξένω, ὅτι οὐκ ἤδησθα τὸ μανθάνειν ὅτι οἱ ἄνθρωποι καλοῦσι μὲν ἐπὶ τῷ τοιῷδε, ὅταν τις ἐξ ἀρχῆς μηδεμίαν ἔχων ἐπιστήμην περὶ πράγματός τινος ἔπειτα ὕστερον αὐτοῦ λαμβάνῃ τὴν ἐπιστήμην, καλοῦσι δὲ ταὐτὸν τοῦτο καὶ ἐπειδὴν ἔχων ἤδη τὴν ἐπιστήμην ταύτῃ τῇ ἐπιστήμῃ ταὐτὸν τοῦτο πρᾶγμα ἐπισκοπῇ [...] σὲ δὲ τοῦτο, ὥς οὔτοι ἐνδείκνυνται, διαλέληθεν, ταὐτὸν ὄνομα ἐπ' ἀνθρώποις ἐναντίως ἔχουσιν κείμενον, τῷ τε εἰδότει καὶ ἐπὶ τῷ μή· [...] [3] ταῦτα δὴ τῶν μαθημάτων παιδιὰ ἐστίν [...] τὸ δὲ μετὰ ταῦτα δῆλον ὅτι τούτῳ γέ σοι αὐτὸ τὰ σπουδαῖα ἐνδείξεσθον.

²³ I leave the Greek verbs here untranslated in order to preserve the ambiguity that the brothers exploit in these arguments. I discuss both arguments at length in §2 of the following chapter.

[1] “Don’t be surprised, Cleinias, if these arguments seem strange to you, since perhaps you don’t see what the two visitors are doing with you. They are doing the same thing that the [sc. ministrants] do in the initiation rite of the Corybantic mysteries, when they perform the enthronement of the person they intend to initiate. For [sc. in the preliminary enthronement ceremony] there is dancing and playing [...] And just now these two were simply making such leaps around you, dancing and playing, so that after this they can proceed to the initiation proper. [2] So now consider that you are hearing the first part of the sophistic mysteries. For in the first place, as Prodicus says, you must learn about the correct use of words; and our two visitors are pointing out this very thing, that you did not realize that people use the word ‘μανθάνειν’ not only in the situation in which a person who has no knowledge of a thing in the beginning acquires it later, but also when he who has this knowledge already uses it to inspect the same thing [...] Now this, as they are pointing out, had escaped your notice—that the same word is applied to opposite people, to both the one who knows and the one who does not. [...] [3] These things [sc. mastering “differences in words”] are the frivolous part of study [...] But in what comes after these things it is clear that these two will show you serious things (277d4-278c4).

I will return to the details of Socrates’ solution to the brothers’ refutations in much greater detail in the following chapter. At this stage I want to focus just on what Socrates concedes

about the brothers' argumentative practice.²⁴ In [1], Socrates compares the brothers' arguments to the initiation rites of the Corybantic mysteries. On Socrates' analysis, the two refutations the brothers just offered correspond to the "enthroning," which is a preliminary stage in the Corybantic rites that involves disorienting an initiate through dancing.²⁵ The enthroneing, however, is just a prequel to the initiation rites proper: ministrants perform them, as Socrates says, "so that after this they can proceed to the initiation proper." Through this comparison, and his reiteration of the same point in [3], Socrates indicates that these refutations were just the first, and still incomplete part of a larger argumentative practice.

In [2] Socrates goes on to explain what sort of initiation he expects to follow these refutations. On Socrates view, the brothers will initiate Cleinias by making him aware of the linguistic ambiguity that they exploited in these refutations. He thus expects the brothers to show that they were able to commit Cleinias to the contradiction that both the wise and the ignorant *μανθάνουσιν*, because the key term in the argument, *μανθάνειν*, has two distinct meanings: when it applies to the ignorant it means "to acquire knowledge", but means "to understand" when it applies to the wise. Thus, on Socrates' analysis, what the statement "both the wise and the ignorant *μανθάνουσιν*" actually signifies is not a real contradiction, but rather the uncontroversial fact that the wise understand and the ignorant acquire knowledge. Thus, when we recognize that the verb really has these two meanings in these

²⁴ Stephen Menn ("Aristotle and the Sophists" unpublished typescript received: 8/17/2017) has also taken this text to reveal important concessions about the expectation that Eristics offer solutions to their own refutations, although I differ from Menn in his view that the solution Socrates attributes to the brothers is the solution they themselves would have offered. I outline my own views on the kinds of solutions the brothers offer in §3.

²⁵ For more on the Corybantic rites—which we know of mostly through Plato—see Bremmer 2014, 48-53.

two different uses, we thereby also recognize that the contradiction was merely verbal, and does not signify a real contradiction in the world. Now, there are good reasons for thinking that this is not what the brothers themselves would say about this argument, had Socrates not interrupted them, but at this stage it is only important to notice that the sort of thing Socrates expects to hear from the brothers, after they have offered these two refutations, is some kind of solution to the contradictions they have derived through these refutations.

It is tempting to take Socrates' claims here to be ironic.²⁶ But doing so becomes less tempting to when we recognize that Socrates is perfectly in line with other sources on Eristic that express the same expectations. Numerous ancient sources on figures closely related to Plato's Eristics also share Socrates' assumption that those who offer Eristic refutations are also in the business of solving the contradictions and paradoxes they derived in these refutations. Aristotle's *Sophistici Elenchi* (hereafter: "*SE*"),²⁷ which clearly engages the same kind of argumentative practice on display in the *Euthydemus*, expresses the same expectation, as do various other sources on practitioners of Eristic. First, I briefly discuss a passage in Diogenes Laertius, which further corroborates the widespread expectation that those who employ Eristic refutations do so not only to refute, but also to present solutions to the contradictions and paradoxes thereby derive. I will then examine two passages in Aristotle's

²⁶ There are interesting problems connected with Socratic irony in the *Euthydemus*. We generally see Socrates employing irony as a form of flattery, to keep interlocutors engaged in the elenchus, or to prevent them from becoming embarrassed before an audience. But in the prologue and conclusion to the *Euthydemus*, Socrates urges Crito and his sons to join him in becoming the brothers' students in a private conversation, where there is no readily available explanation for why Socrates should be ironic in this context (*Euthyd.* 272b7-d3; 304b6-c5). For a novel take on irony in the *Euthydemus* see Nancy 1984, 1-5 & 35-57; 2013; and Anderson, "The Eristic Craft of the *Euthydemus*".

²⁷ When I refer to the work I use the abbreviation '*SE*,' but when I cite passages from it in parenthetical or footnote citations I follow the abbreviation in the OCD⁴: '*Soph. el.*'

SE, which both corroborate this expectation and draw an important distinction between the ways philosophers and Eristics solve sophistical refutations.

The most prominent group of intellectuals who were called “Eristics” by their opponents were the Megarians,²⁸ and we have good reasons for thinking that the Megarians were engaged in the same form of intellectual activity as Plato and Aristotle’s Eristics. There are in fact a number of ancient sources that more or less explicitly align Euthydemus and Dionysodorus with the Megarians. For example, in a list of philosophers who concerned themselves exclusively with the logical part of philosophy, Sextus Empiricus includes Euthydemus and Dionysodorus (whom Sextus specifies to be the characters in the dialogue) alongside four Megarians: Pathoides, Alexinus, Eubulides and Bryson (Fr. 63 Döring). Moreover, Diogenes Laertius reports that Socrates chastised Euclides—the founder of the Megarian School—for his enthusiasm for ἐριστικοὶ λόγοι “because he thought there was no use in this sort of hair-splitting, as Plato shows us in the *Euthydemus*” (DL II 30).²⁹ And Aristotle’s treatment, in the *SE*, of numerous arguments from the *Euthydemus* alongside arguments that we know to have been authored by Megarians strongly suggests that Aristotle takes them to be engaged in closely-related argumentative practices.³⁰ The associations these

²⁸ Fr. 8, 9, 31, 33, 34, 40, 51A, 51B, 76, 83, 90, 106, 127, 129, 157, 180 186, 199, 217, 217 & 220 in Döring

²⁹ The passage appears in both Döring 1972 (Fr. 9) and Giannantoni 1990 (Fr. 3), but both, inexplicably, leave out the final clause of the testimony, which draws the connection between Euclides’ eristic, and the argumentation on display in the *Euthydemus*.

³⁰ For arguments in the *SE* that are drawn from the *Euthydemus* compare *Euthyd.* 276c & *Soph. el.* 165^b31-34; *Euthyd.* 277a9-b1 & *Soph. el.* 166^a30-31; *Euthyd.* 298e4-5 & *Soph. el.* 179^a34, ^b14, ^b39, 180^a4; *Euthyd.* 300a & *Soph. el.* 166^a9-10; *Euthyd.* 300b & *Soph. el.* 166^a12-14, 171^a8, ^a28-30, 177^a12, ^a25-26. For arguments in the *SE* that can plausibly be attributed to the Megarians compare: *Soph. el.* 171^b16 & Fr. 201A-C, 209A-C Döring; *Soph. el.* 179^a33-34 & Fr. 64, 109 & 183 Döring;

ancient authors make between Plato's Eristics and the Megarian school are compelling because of the likelihood that they had better sources for Megarian views, but even the little we can today infer about Euclides' influences and interests further corroborates this ancient tendency to see the early Megarians in Euthydemus and Dionysodorus. Both Euclides and the brothers, as characterized by Plato, are strongly influenced by Socrates: as I showed in the previous section, the brothers' Eristic argumentation is strikingly similar to the Socratic *elenchus*, at least in form, and Socrates' influence on Euclides is well documented.³¹ The brothers also appear strongly impressed with Eleatic thought (see e.g., *Euthyd.* 284b4-8 & 286a1-3), and our sources give us good reason to think that, apart from Socrates, Parmenides was the strongest influence on Euclides in particular, and on the Megarians more generally.³² There is in fact a large consensus in the literature that the Eristic argumentation under

Soph. el. 180^b1-5 & Fr. 64 Döring; *Soph. el.* 166^a10-12 & Fr. 182 Döring; *Soph. el.* 166^a36-37 & Fr. 151B Döring; *Soph. el.* 166^b32-33 & Frr. 64, 109 Döring; *Soph. el.* 168^a5-7 & Fr. 84 Döring; *Soph. el.* 177^b35ff & Fr. 180 Döring; *Soph. el.* 178^a29-31 & Frr. 64-5 Döring; *Soph. el.* 178^b36-37 & Fr. 220 Döring; *Soph. el.* 179^b35 & Fr. 64 Döring; *Soph. el.* 179^b2-4 & Fr. 64 Döring; *Soph. el.* 180^a2-7 & Fr. 64 Döring; *Soph. el.* 180^a2-7 & Fr. 64 Döring. For many of these parallels I am indebted to Dorion 1995, 49 n. 1 & 91-101.

³¹ See Frr. 1-5, 36 & 39 Döring. Hutchinson in fact argues that Socratic argumentation is the sole origin of professional Eristic (Hutchinson 2000). I don't want to make this strong of a claim, because there are intimations of Eristic argumentation, for instance, in the work of Zeno and Protagoras, as well as in the 5th century text *Dissoi Logoi* (on the dating of this work see Robinson 1979, 34-41). However, there is no denying the Socratic influence on Euclides in particular, as Robert Muller has forcefully argued, although I think he overstates the case in thinking that Euclides' influence is almost exclusively Socratic, and not also prominently Eleatic (Muller 1988, 71-79; see also Muller 1985, 14-15; 101-103).

³² See Frr. 24-27 & 31 Döring.

consideration in both the *Euthydemus*³³ and *SE*³⁴ is above all Megarian. I do not think there is sufficient evidence to conclude that the brothers *are* Megarians. For that matter, I do not think everyone who was called an “Eristic”, in Plato and Aristotle’s sense of the term, is necessarily a Megarian. Rather, I take the Eristics in Plato’s *Euthydemus* and Aristotle’s targets in the *SE* to be engaged in a form of argumentative activity that was characteristic of the Megarians. Comparison with the Megarians can therefore be illuminating for the purposes of understanding the broader practice that Plato and Aristotle call “Eristic”.

There is a rarely recognized assumption among our sources on the Megarians that they were just as interested in solving refutations as they were in offering them. One particularly strong indication of the Megarians’ practice of solving sophistical refutations comes from a story preserved in Diogenes Laertius about a dispute between Stilpo and

³³ That Plato characterizes the brothers, at least in part, as Megarians is the subject of a large consensus, see Henne 1843, 167; Pratl 1855, i. 33-88; Schleiermacher 1856, 275-277; Sidgwick 1872, 297-298; Rüstow 1910, 35-9; Gillespie 1911, 233; von Arnim 1914, 140; Stefanini 1932-1935, 190; 192; Schuhl 1960, 48-52; Kneale 1971, 15-16; Hawtrey 1981, 30; Canto 1987, 28; 58; Dorion 1995, 49-50 and 2000; Mársico and Inverso 2012, 42-58; Gardella 2013, 45-64; Villar 2016, 185-215; and Bailey 2012, 310. Robert Muller has some reservations about the identification (1988, 40; 135). For arguments against the association of the brothers with the Megarians see Zeller 1844-1852, II.1: 271 n.4; Magris 1977, 110 n.10; and Giannantoni 1990, iv. 62. On Plato’s use of the term ‘Eristic’ more generally see E.S. Thompson’s excursus on Eristic in his *Meno* commentary (Thompson 1901). Thompson concludes his study by claiming “whenever we find in Plato the word ἐριστικός [...] certain persons are held in view who were in fact, either directly or indirectly, pupils of Socrates. These are first and foremost Euclides of Megara and his school” (278).

³⁴ F. Schleiermacher (1856, 275-277), Henne (1843, 167), Pratl (1855, i. 33-88), Sidgwick (1872, 297-298), Gillespie (1911, 233; 236), and Dorion (1995, 47-53) hold that all or at least a majority of the *SE* is directed against the Megarians. Rüstow (1910, 48-53), Bochenski (1951, 101-2 & 1962, 152-3), Moline (1969, 398), Sedley (1973, 71 & 1997, 95), Döring (1974, 108), Montoneri (1984, 98-9), Muller (1985, 92-93), Marrone (1988, 273), Giannantoni (1990, iv. 62), and Gourinat (2000, 199) hold that at least parts of the treatise are directed against the Megarians.

Diodorus Cronus, who are both later figures in the Megarian genealogy. The story runs as follows:

[T4]: οὗτος παρὰ Πτολεμαίῳ τῷ Σωτῆρι διατρίβων λόγους τινὰς διαλεκτικούς ἠρωτήθη πρὸς Στίλπωνος· καὶ μὴ δυνάμενος παραχρῆμα διαλύσασθαι, ὑπὸ τοῦ βασιλέως τὰ τε ἄλλα ἐπετιμήθη καὶ δὴ καὶ Κρόνος ἤκουσεν ἐν σκώμματος μέρει. ἐξελθὼν δὴ τοῦ συμποσίου καὶ λόγον γράψας περὶ τοῦ προβλήματος ἀθυμία τὸν βίον κατέστρεψε.

When [sc. Diodorus] was staying with Ptolemy Soter, he had certain dialectical questions asked of him by Stilpo, and, not being able to solve them on the spot, he was reproached by the king and, among other slights, the nickname Cronus was applied to him by way of derision. After he left the banquet and wrote a pamphlet about the logical problem, ended his life in despondency (*DL* II 111-112).³⁵

Diodorus Cronus, like Stilpo, was a prolific generator of Eristic refutations,³⁶ but the fact that he was shown up by Stilpo does not have so much to do with the fact that he was refuted by

³⁵ The Greek text follows Dorandi 2013. The translation is my own.

³⁶ Although our sources on the Megarians clearly indicate that their opponents, like Plato and Aristotle, often criticized them under the terms “Eristic” and “Sophist” (Frr. 8, 9, 31, 33, 34, 40, 51A, 51B, 76, 83, 90, 106, 127, 129, 157, 180 186, 199, 217, 217 & 220 in Döring), we can be relatively certain that they would not have used such hostile terms to characterize their own practice. With almost equal regularity they are called dialecticians and their arguments dialectical (Frr. 31, 84, 89, 91, 97, 98, 99 100, 103, 106, 216, 218 Döring), which is much more likely the term the Megarians—or at least a subset of those we call Megarians—would have used to describe their own practice.

his questions, but rather, with the fact that he was not able to provide a solution to them. His response to the refutation, moreover, was not to repay Stilpo in his own coin with another refutation, but to spend the rest of his life writing up a solution to the refutation. Whether or not the story has any historical credibility, the testimony clearly indicates that those who offered sophistical refutations were expected to be able to solve them, to make some positive philosophical use of them.³⁷

Finally, Aristotle's *SE* gives us good reason for thinking that Eristics aimed to make positive philosophical contributions with their arguments. In this treatise Aristotle offers a systematic treatment of both the derivation of and solutions to the very sort of refutations on display in the *Euthydemus*.³⁸ Aristotle's discussions of solutions to sophistical refutations—which is Aristotle's preferred term for Eristic refutations³⁹—in the *SE* provide us with

Dorion (1995, 47-48) and Muller (1988, 111-114 & 126-127) both take the fact that the Megarians were called dialecticians to be an important part of why Plato and Aristotle criticize them under the labels “Eristic” and “Sophist”, wishing to reserve the label “dialectic” for their own preferred methods of argumentation.

³⁷ On these points I am indebted to Sedley 1973, 70-73; 1976, 144-147; 1997, 78; and also to Menn 2017.

³⁸ In fact, a large number of Aristotle's paradigmatic examples of sophistical refutations come directly from the *Euthydemus*. Three particularly clear cases include: (1) the equivocation over *μανθάνειν*: *Euthyd.* 276c & 277e3-278b2 → *Soph. el.* 165^b31-34 (2) Amphiboly in the phrase *σιγῶντα λέγειν*: *Euthyd.* 300b1-c4 → *Soph. el.* 166^a12-14; 171^a8; 28-30; 177^a12; ^a25-6; (3) The dogfather fallacy: *Euthyd.* 298e4-5 → *Soph. el.* 179^a34; ^b14; ^b39; 180^a4. I discuss all three of these refutations in detail in the following chapter. Aristotle additionally discusses an argument by Euthydemus that does not appear in Plato's dialogue (*Soph. el.* 177^b10-26 cp. *Rhet.* 1401^a26).

³⁹ Unlike Plato, who uses the term ‘Sophist’ both for the 5th century opponents of Socrates—Protagoras, Gorgias, Hippias, Prodicus etc.—and for practitioners of Eristic, Aristotle applies the term exclusively to contemporary practitioners of eristic arguments. Sophistical refutations, for Aristotle,

valuable insights into the culture of propounding and solving sophistical refutations. In particular, the contrasts Aristotle frequently draws between his preferred solution to a particular refutation and various other solutions on offer (see e.g., *Soph. el.* 177^b27-34; 179^b7-12; ^b34-37; ^b37-180^a7) makes it clear that offering solutions to these arguments was an important part of the overall culture of sophistical refutations. For present purposes, I focus on two methodological passages in which Aristotle contrasts two different kinds of solutions to sophistical refutations. In the first of these, Aristotle describes two different kinds of correct solutions, which correspond to two different ways in which a deduction can be false:

[T5]: Ἐπεὶ δ' ἐστὶν ἡ μὲν ὀρθὴ λύσις ἐμφάνισις ψευδοῦς συλλογισμοῦ, παρ' ὁποῖαν ἐρώτησιν συμβαίνει τὸ ψεῦδος, ὁ δὲ ψευδὴς συλλογισμὸς λέγεται διχῶς (ἢ γὰρ εἰ συλλελόγισται ψεῦδος, ἢ εἰ μὴ ὧν συλλογισμὸς δοκεῖ εἶναι συλλογισμός), εἴη ἂν ἡ τε εἰρημένη νῦν λύσις καὶ ἡ τοῦ φαινομένου συλλογισμοῦ παρ' ὃ τι φαίνεται τῶν ἐρωτημάτων διόρθωσις, ὥστε συμβαίνει τῶν λόγων τοὺς μὲν συλλελογισμένους ἀνελόντα, τοὺς δὲ φαινομένους διελόντα λύειν.

Since the correct solution is the exposure of a false deduction, [exposing] the sort of question due to which the falsehood follows, and [since] a deduction is said to be false in two ways (for [a deduction is false] either when a falsehood is deduced, or when, although it is not a deduction, it seems to be one), there will be the solution that was mentioned just now [i.e., the exposure of the question responsible for the

are thus the same kinds of arguments Plato usually calls 'Eristic.' On Aristotle's use of 'Sophist' see Classen 1981.

falsehood—176^b29-30⁴⁰] and the correction of an apparent deduction [exposing] which of the questions it is due to which it appears [to be a deduction], so that one succeeds in solving arguments that have brought about a deduction by discarding something, and those that appear [to deduce] by drawing a distinction (*Soph. el.* 176^b29-36).⁴¹

The first kind of false deduction is false in the more familiar use of the term, except that Aristotle, unlike contemporary philosophers, is comfortable calling *arguments* false because at least one of their constitutive propositions is false.⁴² On the one hand, these arguments are genuine deductions (τοὺς συλλελογισμένους—176^b35; συλλελογισμένων λόγων—^b37); they satisfy the requirements set out in the definition of deduction. However, as Aristotle clarifies in his official discussion of false arguments earlier in *Topics* 8.12,⁴³ genuine deductions are called “false” “if the conclusion is drawn through falsehoods” (ἐὰν διὰ ψευδῶν συμπεραίνεται) (*Top.* 162^b11-12). In the present passage Aristotle goes on to offer distinct strategies for solving two kinds of arguments that are false in this sense of the term: those

⁴⁰ Tricot (1939), Forster (1955) and Pickard-Cambridge (1984) take this to be a reference back to the kinds of solutions discussed in chapter 17. But as Dorion (1995, 336 n. 279) has pointed out, the two kinds of solutions here under discussion are *correct* solutions, whereas the previous chapter discussed tactics for repaying the sophists in their own coin by solving arguments in an acceptable (ἐνδόξως), rather than in a true way (κατὰ τᾰληθές) (175^a31-33). In fact, this discussion of correct solutions is presumably meant to contrast with the merely acceptable solutions of the previous chapter.

⁴¹ The Greek text follows Ross 1958. All translations from the *SE* are my own.

⁴² For other passages in which Aristotle describes arguments as ‘true’ and ‘false’ see *An. post.* 88^a19-20 and *Top.* 162^b3-22.

⁴³ The *SE*, although often treated as a separate treatise, is the 9th book of the *Topics*. See Brunschwig 1967: XIX; 1989: I.487; 1991: 424; Dorion 1995, 24-25; 418; and the conclusion of this dissertation.

that are false on the basis of a false conclusion (τοὺς κατὰ τὸ συμπέρασμα ψευδεῖς—*Soph. el.* 176^b38-39), and those that are so on the basis of one or more false premises (τοὺς κατὰ τὰς προτάσεις ψευδεῖς—177^a1). This distinction is initially puzzling, but it is presumably not meant to be an explanation of different sources of falsehood in arguments, because, as Aristotle himself recognizes, every argument with a false conclusion will also have a false premise (*Top.* 162^b13-14). Aristotle's reason for drawing the distinction between arguments that are false on the basis of the premises and those that are false on the basis of the conclusion here is presumably that he is here concerned with offering advice “for those who wish to solve an argument” (*Soph. el.* 177^a2). In a dialectical exchange, the answerer may initially detect the falsehood in different places in the argument. The distinction here is thus presumably between the places that an interlocutor recognizes the falsehood in an argument. On the one hand, for those who detect falsehood in the conclusion of a genuine deduction, Aristotle recommends that they solve such arguments by either discarding (ἀνελεῖν) one of the propositions from which the falsehood is deduced (*Soph. el.* 176^b38-40)—because false conclusions are always deduced from false premises (*Top.* 162^b13-14)—or by simply proving that the false conclusion does not hold (*Soph. el.* 176^b40). On the other hand, for those who recognize the falsehood in the premises of a genuine deduction, Aristotle claims that they can only solve the argument by discarding the false premise (*Soph. el.* 177^a1).

By contrast, the second kind of false deduction is false in the way that gods or prophets are sometimes called “false” in religious traditions. These are arguments that *appear* to be deductions, but they are in fact “non-deductive” (“non-deductive” (ἀσυλλόγιστος—177^a3), because they do not satisfy the requirements specified in the definition of a genuine deduction. Aristotle's more standard terms for this kind of argument

are “Eristic” (*Top.* 100^b23-25; 162^b3-5) and “Sophistical” (*Soph. el.* 164^a20-21; 165^b17-19), where both terms are *alienans* adjectives for Aristotle—no Sophistical or Eristic argument is a genuine one. The correct solution to this kind of false deduction is the correction of the question, and hence the resulting premise,⁴⁴ due to which (παρ' ὃ) there appears to be a deduction (*Soph. el.* 176^b33-35). Throughout the *SE* Aristotle uses this παρὰ-expression to identify what is responsible for the illusion of a genuine refutation or deduction (165^b24-25).⁴⁵ Thus, one solves these kinds of false deductions—the “Eristic” or “Sophistical ones”—by drawing a distinction (διελόντα—176^b36) that exposes the cause of its appearing to be a genuine deduction even though it is not one (for example one solves deductions due to homonymy (παρὰ τὴν ὁμωνυμίαν) by drawing a distinction between the different meanings of an ambiguous term that have been exploited).

Although Aristotle here only explicitly speaks about false deductions and their solutions, it is clear from his discussions of alternative solutions to refutations elsewhere in the *SE* that there are analogous kinds of solutions that correspond to two different kinds of refutations (e.g., *Soph. el.* 177^b27-34; 179^b7-12; ^b34-37; ^b37-180^a7).⁴⁶ Even a genuine

⁴⁴ Aristotle speaks sometimes of questions, and other times of propositions (προτάσεις) because in dialectical argumentation the propositions that form the premises of an argument are simply positive or negative answers to an interlocutor's questions (See Bobzien 2005, 258-259; Whitaker 1996, 101.) For passages in which Aristotle seamlessly substitutes ‘proposition’ for ‘question’ see 175^b10-12 and 176^b39-177^a1.

⁴⁵ Here I agree with Crivelli (2006, 141) that Aristotle fixes the meaning of the παρὰ + accusative expressions that he uses to name the individual fallacies at the beginning of ch. 4, when he introduces the refutations παρὰ τὴν λῆξιν as “the things that produce the illusion” (165^b24-25).

⁴⁶ In many of these examples Aristotle considers an alternative solution that identifies a false assumption at work in the refutation. Each of these alternative solutions thus appears to treat the refutation as genuine, and to offer the first kind of solution: one that discards the false premise or

refutation will call of some kind of solution because a refutation for Aristotle is just a deduction whose conclusion is a proposition that genuinely contradicts a statement targeted for refutation (*Soph. el.* 165^a2-3; 168^a35-37; 171^a4-7; *An. pr.* 66^b11) and a genuine contradiction is a result even more unacceptable than a false conclusion.⁴⁷ Like a genuine but false deduction, a genuine refutation calls for the first kind of solution: it either calls for one to discard as false the premise from which the contradictory conclusion follows, or to prove that the conclusion that contradicts the thesis to be refuted does not hold. Sophistical—i.e., merely apparent—refutations, on the other hand, call for the second kind of solution, which involves identifying the illusion due to which it appears to be a refutation without actually being one. Because sophistical refutations can appear to be refutations either by merely appearing to deduce, or by producing a conclusion that only appears to contradict the thesis targeted for refutation, the correct solution to a sophistical refutation is to draw a distinction that exposes the cause of its appearing either to deduce or to produce a contradiction without its actually doing so.

conclusion in the refutation. In these contexts Aristotle repeatedly claims that there must be the same correction (διόρθωσιν—cp. 176^b33-35) for sophistical arguments that depend on the same cause of illusion (177^b31-32; 179^b11-12). In response to each of these alternative solutions, Aristotle thus insists that his opponents offer the wrong kind of solution because each of these is a *sophistical* refutation, and the correct solution to such refutations is to identify the cause of its appearing to be a refutation without actually being one.

⁴⁷ This is evident from the fact that Aristotle identifies refutation (i.e., a deduction that produces a contradiction) as the primary goal of those who engage in competitive argumentation (*Soph. el.* 165^b12-22). Falsehood (i.e., the deduction of a false conclusion) is the secondary goal, followed by paradox, solecism, and babbling. On the relationship between false and impossible results in arguments see also *Cael.* 281^b2-25.

The contrast between these two kinds of solutions, and the kinds of refutations and deductions for which they are appropriate, underlies Aristotle's criticisms of the solutions that those who propound sophistical refutations and deductions offered in response to their own arguments:

[T6]: [1] οὐχ ἡ πάσης μοχθηρίας ἐμφάνισις λύσις ἐστίν· ἐγγωρεῖ γὰρ ὅτι μὲν ψεῦδος συλλελόγισται δεῖξαί τινα, παρ' ὃ δὲ μὴ δεῖξαι, οἷον τὸν Ζήνωνος λόγον, ὅτι οὐκ ἔστι κινηθῆναι. [2] ὥστε καὶ εἴ τις ἐπιχειρεῖ συνάγειν ὡς ἀδύνατον ἀμαρτάνει, καὶ [εἰ] μυριάκις ἢ συλλελογισμένος· οὐ γὰρ ἐστὶν αὕτη λύσις· [3] ἣν γὰρ ἡ λύσις ἐμφάνισις ψευδοῦς συλλογισμοῦ παρ' ὃ ψευδής· εἰ οὖν μὴ συλλελόγισται, †εἰ καὶ ἄληθές ἢ ψεῦδος† ἐπιχειρεῖ συνάγειν, ἡ ἐκείνου δῆλωσις λύσις ἐστίν

[1] [I]t is not the exposition of any flaw that constitutes a solution; for it is possible for one to prove that something false has been deduced, but not to prove what it is due to, e.g. in the case of Zeno's argument to prove that motion is impossible. [2] So that even if one were to try to establish that this is impossible he still is mistaken, even if he has deduced it ten thousand times over. For this is not the solution; [3] for the solution is an exposure of a false deduction, showing that due to which it is false. So then if one does not bring about a deduction and attempts to prove a truth or a falsehood, the clarification of that [i.e., that due to which it appears to be a deduction—176^b33-35] is the solution (*Soph. el.* 179^b17-26).⁴⁸

⁴⁸ The Greek text follows Ross 1958 except that in place of Ross' emendation at 179^b21 I read συνάγειν ὡς ἀδύνατον with D and u. This reading has been adopted in Bekker 1831, Waitz 1844-1846, Poste 1866, Strache and Wallies 1923, Forster 1955 and Dorion 1995, 376 n.364.

Throughout the *SE* Aristotle treats Zeno's arguments as paradigmatic examples of sophistical refutations (*Soph. el.* 170^b23; 172^a9; 179^b20; 182^b26; cp. *Top.* 160^b8). But this discussion is especially noteworthy for its implication that people who argue like Zeno do not merely propound sophistical arguments, but also offer their own solutions to them. In [1] he describes the type of solution he criticizes as an attempt to "prove that something false has been deduced." This is a description of the first kind of solution described in T5 (176^b29-30), which applies to genuine deductions and refutations that are nevertheless false because they contain a false proposition. But significantly, when he then considers a particular example of this kind of solution in [2], he describes this solution as an attempt "to prove that motion is impossible." This indicates an underlying motivation for offering such a solution: to reject that there is motion as a solution to a refutation or deduction is also way of advancing the doctrine that motion is impossible. The argumentative strategy here thus seems to be that one proves that motion is impossible by constructing a refutation on the assumption that it is possible, and then offers one's interlocutor a way out of the contradiction by suggesting that this assumption is false. If the answerer in a dialectical exchange rejects as false the thesis that motion is possible, the questioner will no longer have the answers he needs to construct a proof that motion is impossible. Accepting this doctrine makes the answerer immune to such a refutation. In what follows I will refer to this argumentative strategy as a "doctrinal solution".

In [3] Aristotle criticizes this methodology on grounds that it applies the wrong kind of solution to this kind of argument. Sophistical arguments like Zeno's, for Aristotle, fail to be genuine deductions (*μη συλλελόγισται*—179^b24) and the correct solution for such

arguments, as we saw in T5, is the correction of that due to which ($\pi\alpha\rho'$ ὅ—179^b19-20 & 24) the argument appears to be a refutation or deduction without being one (cp. 176^b33-35). Note that Aristotle's criticism is not that doctrinal solutions are never appropriate; his view is rather that they are only appropriate in cases in which a genuine but false deduction or refutation has come about. Aristotle's criticism of the sophists' doctrinal solutions is thus that they provide the wrong kind of solution to sophistical arguments: for Aristotle, sophistical arguments like Zeno's do not meet the standards for genuine deduction or refutation, and they therefore do not call for the kind of doctrinal solution that Zeno applies. Rather, sophistical arguments call for a solution that demonstrates that the argument merely appears to meet the formal standards of a genuine deduction or refutation. In what follows I will refer to this kind of solution to sophistical refutations and deductions as a "formal solution".

This discussion of the broader culture of Eristic refutations should give us pause before we dismiss Socrates' expectation that the brothers' will solve their refutations as ironic. Deriving contradictions and paradoxes was only part of what the Eristics did, and the passages I have discussed clearly imply that at least some Eristics were in the business of offering solutions to their refutations. These methodological passages from Aristotle's *SE* additionally provide us with a distinction between doctrinal and formal solutions, which will provide a useful framework in which to understand the difference between the kinds of solutions that Plato and Aristotle offer and those that their Eristic opponents present. In the following section, I will show that the Eristic brothers in the *Euthydemus*, as well as other practitioners of Eristic with whom they are compared, offer doctrinal solutions of precisely the sort Aristotle identifies. This will provide us with a better understanding of the

formidable challenge to which Plato and Aristotle were responding in their development of formal solutions to the same arguments.

3. DOCTRINAL SOLUTIONS TO ERISTIC REFUTATIONS

The notion of a doctrinal solution provides a useful framework for understanding why the eristic brothers of the *Euthydemus* consistently present refutations in explicit response to their interlocutors' requests that they prove some philosophical thesis. The best way to make sense of this practice, I will now suggest, is to understand the brothers as presenting the claims they are asked to prove as solutions to the contradictions and paradoxes they derive in their refutations. Here I will briefly survey a few of the brothers' doctrinal solutions in an attempt to piece together the larger doctrinal system that the brothers advance through this argumentative practice.

Perhaps the clearest example of a doctrinal solution comes in Euthydemus' first refutation at the beginning of the third Eristic episode. The argument immediately follows Socrates' and Cleinias' unsuccessful search for the knowledge that makes human beings happy (*Euthyd.* 288d5-293a7). Socrates calls on Euthydemus' help, and the latter offers either to teach Socrates this knowledge or to demonstrate that he already has it (293a8-b2). When Socrates then asks Euthydemus to demonstrate that he already has this knowledge, the Eristic presents a refutation that produces the apparent contradiction that Socrates both does and does not know at the same time:

[T7]: Οὐκοῦν σύ, ἔφη, ἐπίστασαι τι; — Ἔγωγε. — Οὐκοῦν ἐπιστήμων εἶ, εἴπερ ἐπίστασαι; — Πάνυ γε, τούτου γε αὐτοῦ. — Οὐδὲν διαφέρει· ἀλλ' οὐκ ἀνάγκη σε ἔχει πάντα ἐπίστασθαι ἐπιστήμονά γε ὄντα; — Μὰ Δί', ἔφην ἐγώ· ἐπεὶ πολλὰ ἄλλ' οὐκ

ἐπίσταμαι. — Οὐκοῦν εἴ τι μὴ ἐπίστασαι, οὐκ ἐπιστήμων εἶ. — Ἐκείνου γε, ὦ φίλε, ἦν δ' ἐγώ. — Ἦττον οὖν τι, ἔφη, οὐκ ἐπιστήμων εἶ; ἄρτι δὲ ἐπιστήμων ἔφησθα εἶναι· καὶ οὕτως τυγχάνεις ὧν αὐτὸς οὕτος ὅς εἶ, καὶ αὖ πάλιν οὐκ εἶ, κατὰ ταῦτα ἅμα.

And do you know something? [Euthydemus] said. — Yes, I do. — Then you are knowing, if you really know? — Of course, [I am knowing] in relation to that particular thing [that I know]. — That doesn't matter, because mustn't you necessarily know everything, if you are knowing? — How in heaven's name can that be, said I, when there are many other things I don't know? — Then if there is anything you don't know, you are not knowing. — Yes, my friend, [I am not knowing] in relation to that thing [I don't know], I said. — Are you any the less not knowing for all that? said he. And just now you said you were knowing, with the result that you are the same person you are, and again not [the same person] you are, in the same respects and at the same time (*Euthyd.* 293b7-d1).

Puzzlingly, Euthydemus takes this contradictory conclusion to show that Socrates always knows everything, and therefore also has the knowledge that he has been looking for. Now, unless this is an application of *ex contradictione quodlibet*, which I think is highly unlikely, the conclusion that Socrates is omniscient does not in any obvious way follow from the claim that Socrates both does and does not know. Rather, Socrates' own remarks on the argument suggest that Euthydemus offers the thesis that Socrates is omniscient as a solution to the contradiction he derived in his refutation:

[T8]: πῶς οὖν ἐπίσταμαι ἐκείνην τὴν ἐπιστήμην ἣν ἐζητοῦμεν; ὥς δὴ τοῦτο ἀδύνατόν ἐστιν τὸ αὐτὸ εἶναι τε καὶ μὴ, εἴπερ ἔν ἐπίσταμαι, ἅπαντα ἐπίσταμαι—οὐ γὰρ ἂν εἶην ἐπιστήμων τε καὶ ἀνεπιστήμων ἅμα—ἐπεὶ δὲ πάντα ἐπίσταμαι, καὶ ἐκείνην δὴ τὴν ἐπιστήμην ἔχω· ἄρα οὕτως λέγεις, καὶ τοῦτό ἐστιν τὸ σοφόν;

How do I know that knowledge we were looking for? Since it is impossible both to be and not to be the same thing, if I know one thing I know absolutely everything—because I could not be both knowing and not knowing at the same time—and since I know everything, I have this knowledge. Is this what you mean, and is this is your wisdom (*Euthyd.* 293d2-8)?

In order to prove that Socrates has the knowledge he was looking for, Euthydemus produces an Eristic refutation to a contradictory conclusion—that Socrates both is and is not knowing—and presents this thesis—that Socrates knows everything—as a solution to the contradiction. I take this thesis to be a doctrinal solution in the following way: if Socrates rejects as false the thesis that there is something he does not know—and thereby withdraws his assent to the denial in the contradiction—no questioner in a dialectical exchange will have the material he needs to produce the contradiction that Socrates both does and does not know. If Socrates accepts this thesis, his position is no longer susceptible to this refutation.

This is an example of one type of solution that the brothers advance in the face of such contradictions. This technique involves universally upholding the affirmation in a contradiction, and thereby utterly rejecting the denial. Another example of this same strategy

is Euthydemus' claim that his father is the father of everything, which he offers as a solution to the apparent contradiction that his father both is and is not a father:

[T9]: Καὶ ὁ Κτήσιππος ἐκδεξάμενος, Ὁ δὲ ὑμέτερος, ἔφη, αὖ πατήρ οὐ ταῦτά ταῦτα πέπονθεν; ἕτερός ἐστιν τοῦμοῦ πατρός;— Πολλοῦ γ', ἔφη, δεῖ, ὁ Εὐθύδημος.— Οὐκ ἂν συμβουλοίμην. ἀλλὰ πότερον, ὦ Εὐθύδημε, ἐμὸς μόνον ἐστὶ πατήρ ἢ καὶ τῶν ἄλλων ἀνθρώπων; — Καὶ τῶν ἄλλων, ἔφη· ἢ οἶει τὸν αὐτὸν πατέρα ὄντα οὐ πατέρα εἶναι;

Here Ctesippus took up the argument, saying, “well isn’t your father in just the same situation? Isn’t he other than my father?—Far from it, said Euthydemus [...]—I should not agree with that. But tell me, Euthydemus, is he just my father, or the father of everyone else as well?—Of everyone else as well, he replied. Or do you think the same man is both a father and not a father (*Euthyd.* 298b4-c3)?

Accepting such a thesis makes one immune to the refutation: if there is no way in which Euthydemus' father is not a father, a questioner can no longer truly formulate the contradiction that he is and is not a father because the answerer who holds such a thesis will not assent to the denial that Euthydemus' father is not a father.

The second kind of solution that the brothers employ involves maximally confirming the denial in a contradiction to the exclusion of the affirmation. Dionysodorus employs this technique in the argument that immediately precedes the one just considered, where he solves

the contradiction that Socrates' step-father, Chaeredemus, both is and is not a father by insisting that he is the father of nobody:

[T10]: Οὐκοῦν, ἢ δ' ὅς, ἕτερος ἦν Χαιρέδημος τοῦ πατρός; — Τοῦμοῦ γ', ἔφην ἐγώ.
— Ἄρ' οὖν πατήρ ἦν ἕτερος ὢν πατρός; [...] Οὐκουν καὶ ὁ Χαιρέδημος, ἔφη, ἕτερος
ὢν πατρὸς οὐκ ἂν πατήρ ἐστιν.

Then Chaeredemus was other than a father? [Dionysodorus] said. — Other than mine, at any rate, said [Socrates]. — Then he was a father while he was other than a father? [...] Then Chaeredemus is not a father if he is other than a father (*Euthyd.* 298a1-9).

Again, if one accepts the view that Chaeredemus is in no way a father, the questioner no longer has the assent he needs to formulate the contradiction that Chaeredemus both is and is not a father.

These patterns of resolving apparent contradictions indicate that, on the brothers' view, the only way of being something is to be it completely, to the exclusion of its opposite and the only way of not being something is not to be it at all, to the exclusion *its* opposite. They thus appear to have an Eleatic commitment to the idea that there is no middle ground between being and non-being.⁴⁹ I take the basic underlying view at work in these arguments to be the central axiomatic commitment in Parmenides' Way of Truth (Frr. 1-8 DK), according to which

⁴⁹ The view that the Eristic brothers of the *Euthydemus* are Eleatics is also held by Sprague (1962), Hawtrey (1981, 20-21), Dorion (2000, 47) and Canto (1987, 56 n.147 & 148, 57-58, 199 n. 105 & 108).

[T11]: [...] ἡ δὲ κρίσις περὶ τούτων ἐν τῷδ' ἐστίν,

ἔστιν ἢ οὐκ ἔστιν

[...] the choice about these things lies in the following:

[it] is or [it] is not” (DK 8.15-16; cp. DK 3).

This central commitment, as Sedley has argued,⁵⁰ is what underlies Parmenides’ rejection of the path of inquiry followed by backward-turning and two-headed mortals

[T12]: οἷς τὸ πέλειν τε καὶ οὐκ εἶναι τῶντὸν νενόμισται

κοῦ τῶντόν

“by whom it [i.e., what can be conceived or known] has been accepted as being and not being the same

and not the same” (DK 5.8-9).⁵¹

Two-headed mortals accept a variable world—the kind of world described in Parmenides’ Way of Opinion (Frr. 9-19 DK)—in which a thing can be said both to be and not to be.⁵² But

⁵⁰ See Sedley 1999, 114-116.

⁵¹ For this reading see Coxon 2009, 302-305.

⁵² For present purposes I do not take a stand on the controversial question whether this is a third path of inquiry (distinct from both the path of being and the path of non-being) or the second of only two paths discussed by Parmenides (the other being the way of being). I maintain only that this is a description of the path of inquiry pursued in the second half of Parmenides’ poem, the Way of Opinion, and that this path is, at least from the perspective of the Way of Truth, an utterly confused path of inquiry. For discussion of the question of the three paths of inquiry see Nehamas 1981.

such a position is utterly nonsensical from the perspective of the Way of Truth: claims about a thing's both being and not being violate the rigid law of contradiction, according to which a thing must either be completely, or not be at all. Analogously, Socrates and Ctesippus, like Parmenides' two-headed mortals, insist that Socrates both is and is not a knowing thing, and that Chaeredemus both is and is not a father. The brothers, like Parmenides in the Way of Truth, take such claims to be contradictions and insist that it must be one or the other: one can be either a knowing thing or a father completely, or else be neither of these things at all.⁵³

This same kind of Eleatic commitment also underlies the brothers' refutations that have to do with coming-to-be. For instance, in the first argument of the second Eristic episode, Dionysodorus argues that because Socrates wants Cleinias, who is ignorant, to become wise, which he is not, he wants Cleinias to cease to exist:

[T13]: Ὑμεῖς δέ, ἔφη, βούλεσθε γενέσθαι αὐτὸν σοφόν, ἀμαθὴ δὲ μὴ εἶναι; —
Ὡμολογοῦμεν. — Οὐκοῦν ὃς μὲν οὐκ ἔστιν, βούλεσθε αὐτὸν γενέσθαι, ὃς δ' ἔστι

⁵³ This analogy between Parmenides' arguments against the two-headed mortals and the brothers' arguments against Socrates and Ctesippus might be objected to on grounds that it involves an equivocal treatment of the Greek verb εἶναι. On this reading, Parmenides insists that one's choice is exclusively between positive and negative applications of a so-called *existential* use of εἶναι ([it] is / [it] is not), whereas the brothers usually insist on either positive or negative applications of a so-called *predicative* use of the same verb (X is F / X is not F). But while these uses of the verb are no doubt syntactically distinct, there are strong reasons for thinking that the verb does not have different meanings in these different syntactic uses (see esp. Brown 1986, 52-57; and 2003, 224-228). On this reading, in the claims 'X is not F' or 'X is F' the verb 'to be' does not have a different meaning than it does in the unsupplemented uses 'X is not' and 'X is'. I discuss a text that tells strongly against taking there to be a semantic distinction that corresponds to this syntactic distinction below in ch. 4 §4.

νῦν, μηκέτι εἶναι. [...] Ἄλλο τι οὖν, ἔφη, ἐπεὶ βούλεσθε αὐτὸν ὃς νῦν ἐστὶν μηκέτι εἶναι, βούλεσθε αὐτόν, ὥς ἔοικεν, ἀπολωλέναι;

But you people wish [sc. Cleinias] to become wise, [Dionysodorus] said, and not to be ignorant? — We agreed — Therefore, you wish him to become what he is not, and no longer to be what he is now? [...] Then since you wish him, what he is now, no longer to be, you apparently wish for nothing else but his death (*Euthyd.* 283c8-d6).

In light of the brothers' solutions to other arguments that involve evacuating the middle ground between being and non-being, I suggest that we should not view such an argument as a purely hostile refutation. We should rather view it as an attempt to call into question ordinary opinions about coming to be so as to give credence to a more controversial metaphysical picture that is not subject to these difficulties. The brothers' thus appear to have the same argumentative agenda that Plato attributes to Zeno of Elea in offering his paradoxes (*Parm.* 127d6-128e4), namely, to point out contradictions and paradoxes among ordinary two-headed opinions as a way of giving credence to a metaphysical picture, which, though controversial, is not susceptible to the same contradictions and paradoxes.⁵⁴

⁵⁴ Readers may find the association of Zeno with the Eristics surprising. Although Plato does not explicitly call him an Eristic, both he and Aristotle seem to understand his argumentation as akin to the Eristic argumentation that they confronted in their own time. In the *Parmenides* Plato describes Zeno's argumentation as an attempt "to battle against" (διαμάχεσθαι) the view that there are a plurality of things (*Parm.* 127a9-10). Such martial characterizations are ubiquitous in Plato's descriptions of Eristic (see e.g., *Euthyd.* 271c2-272b4). Plato additionally has Zeno in the *Parmenides* say that this argumentative practice was motivated by a youthful "love of victory" (φιλονικίαν—128d7), which is reminiscent of the youthful motivation leading to the corruption of dialectic into

In attributing this Eleatic commitment to Plato’s Eristics, I wish to remain agnostic about whether this commitment underlies Parmenides’ own inquiry universally—that is, whether this commitment also undermines the Way of Opinion—or whether it only applies to questions of being in the Way of Truth.⁵⁵ My claim is only that these Eristics operate within a development within the Eleatic tradition on which the central axiom of the Way of Truth forms the basis of a formidable argumentative practice. That Plato thought of matters similarly is especially evident in the opening lines of the *Sophist*. Upon learning from Theodorus that the newly-arrived visitor is from Elea and “a member of the group around Parmenides and Zeno,” Socrates’ *first assumption* about this stranger is that he is a “god of refutation” (θεὸς ὧν τις ἐλεγκτικός), which Theodorus corrects by claiming that he is not “among those who are enthusiasts about eristic arguments” (τῶν περὶ τὰς ἔριδας ἐσπουδακότων) (216a1-b8).⁵⁶ That Plato so intimately associates Eristics with Parmenides and Zeno suggests that he viewed them as intellectual heirs of these figures—perhaps heirs who took only part of the system, the Way of Truth, and ran with it—but heirs nevertheless.

“antilogic” that so exercises Plato in the *Republic* (539a8-c2). Aristotle seems to adopt Plato’s description of Zeno’s argumentation and aims in his characterization of Eristic as a kind of verbal battle directed at victory (*Soph. el.* 171^b21-27). Moreover, as we have seen, throughout the *SE* Aristotle treats Zeno’s paradoxes as paradigmatic examples of eristic refutations (see *Soph. el.* 170^b23; 172^a9; 179^b20; 182^b26; cp. *Topics* 160^b8).

⁵⁵ An influential set of views in Parmenides scholarship holds that the laws of the way of truth only apply to questions of being and reality; the way of opinion, on this view, is not subject to the same strictures because it is a description of the way the world appears, rather than the way it is. See e.g., Coxon 2009, 346; Nehamas 1981, 106-108; and Curd 2004, 98-126.

⁵⁶ Similar expressions for describing Eristic argumentation are quite common in Isocrates: “people interested in disputation” (περὶ τὰς ἔριδας σπουδάζοντες—*Antid.* 258) “people who spend their time in disputes” (οἱ περὶ τὰς ἔριδας διατριβόντοι—*De Pac.* 1; *Hel.* 1), or “people competent in Eristic discourses” (ἐν τοῖς ἐριστικοῖς λόγοις δυναστεύοντες—*Antid.* 261). See also Lachance 2019, 2 n.4.

The brothers' use of doctrinal solutions is another respect in which they appear to be closely aligned with the Megarians. Of early Megarian arguments, we know that Euclides and his early successors primarily, if not exclusively, employed a development of Socrates' refutational argumentation that they likely called dialectic, but which their opponents saw as hostile and therefore called "Eristic."⁵⁷ Of their positive philosophical views, we know that the early Megarians had strong Eleatic tendencies: later doxographers regard them as the 4th century heirs of Parmenides and Zeno, which is corroborated by the testimonies we have according to which Euclides regarded the good to be one and unchanging, and denied that things opposed to the good, things that come to be, perception, and appearances, have any being.⁵⁸ In light of the evidence according to which Eristic arguments were meant to be resolved, it stands to reason that early Megarian refutations were offered in support of their Eleatic doctrines. This is to say that the Megarians likely offered Eleatic doctrines—such as the denial of plurality, of coming to be, of motion etc.—as solutions to the contradictions generated by refutations that assume the existence of plurality, coming to be, and motion.⁵⁹

⁵⁷ See fn. 36 above.

⁵⁸ Frr. 24-27; 31 Döring.

⁵⁹ For similar views in the secondary literature see Henne 1843, 168-188; Mallet 1845, xvi-xviii; Wheeler III 1983; Gillespie 1911, 233-241; Sedley 1973, 70-73; 1997, 77-78; Coxon and McKirahan 2009, 26-27; Bailey 2012, 314-316. There is also good evidence for such an understanding of the early Megarians in Aristotle's methodological remarks in T6 above. This passage comes in a chapter in which Aristotle discusses and dismisses alternative solutions to famous sophistical refutations that he takes to be instances of the fallacy of accident. The examples that Aristotle considers in this passage, moreover, can all be attributed to early Megarians: the veiled figure, the elusive one (179^a33-34), and the Sorites (179^a35; ^b34-35) were all authored by Euboulides of Megara (Fr. 64 Döring), who was the second head of the Megarian school and who had a well-documented literary feud with Aristotle (Frr. 59-62 Döring). The other two fallacies Aristotle here discusses can also with some plausibility be attributed to the Megarians (See Edlow 1975, 432; Ebbesen 1981). It is thus in the

Our meager evidence for the arguments of the early Megarians does not permit us to say much more than this about the use of their arguments. But we do have a number of arguments from Diodorus Cronus—the most prominent figure of the later ‘Dialectical’ branch of the Megarians—whose use of the earlier Megarian arguments provides further evidence for how Eleaticism and Eristic argumentation might have been coupled in the work of Megarians contemporary with Plato and Aristotle.⁶⁰ Diodorus’ best preserved arguments are four refutations whose aim is to demonstrate the impossibility of motion, which clearly emulate Zeno of Elea’s arguments of the same number on the same topic.⁶¹ One of Diodorus’ arguments against motion demonstrates how Eubulides’ refutations might have been used to corroborate the Eleatic denial of motion. The argument relies on the idea that any predicate that can belong absolutely can also belong to a thing “by predominance”, a principle that Diodorus illustrated by analogy with Eubulides’ Sorites paradox:

[T14]: Ἴνα γάρ τι εἰλικρινῶς κινηθῇ, τουτέστιν ὅλον δι' ὅλου, πρότερον ὀφείλει νοεῖσθαι κατ' ἐπικράτειαν κινούμενον, ὃν τρόπον ἵνα τις κατ' εἰλικρίνειαν γένηται πολίος, ὀφείλει κατ' ἐπικράτειαν πεπολιῶσθαι, καὶ ἵνα τις κατ' εἰλικρίνειαν ληφθῇ

context of discussing solutions to these Megarian arguments that Aristotle chooses to distinguish his own way of solving sophistical refutations—a formal solution—with the doctrinal solutions that those who propounded these refutations offered for their own refutations (*Soph. el.* 179^b17-24). The fact that the solution Aristotle considers is an Eleatic doctrine—the denial of motion—further suggests that this would be the kind of solution these figures would have offered for their own refutations.

⁶⁰ Diodorus also has an Eleatic argument against perishing (Fr. 126 Döring), and is likely the author of an argument against coming to be (Sextus Empiricus *PH* 2.243, where the two previous arguments are by Diodorus; see also Sedley 1997, 110 n.56).

⁶¹ See also Sedley 1997, 84. Zeller (1844-1852, II 1, 189-194) was the first to distinguish four separate arguments against motion preserved in Sextus.

σωρός, ὁφείλει κατ' ἐπικράτειαν γεγονέναι σωρός· κατὰ τὸν ὅμοιον τρόπον ἡγεῖσθαι δεῖ τῆς κατ' εἰλικρίνειαν κινήσεως τὴν κατ' ἐπικράτειαν· ἐπίτασις γὰρ τῆς κατ' ἐπικράτειάν ἐστιν ἡ κατ' εἰλικρίνειαν.

For in order that a thing should move absolutely—that is, as a whole wholly—it must first be conceived as moving by predominance; just as, in order that a man may become completely grey-headed he must first become grey by predominance, and in order that a complete heap may be obtained, the heap must first be formed by predominance; in much the same way motion by predominance must precede absolute motion; for absolute motion is an intensification of that of the major part (*Sext. Emp. M X 114*).⁶²

Applying this principle to motion, Diodorus constructed a version of Eubulides' Sorites paradox to demonstrate the impossibility of motion. A body with three indivisible particles is moving, by the principle of predominance, if two of these parts are moving. We then proceed to add stationary parts until we have the absurd result that a body is moving, even though most of its parts are standing still (*Sext. Emp., M X 112-117*).⁶³ Here we need not assess the plausibility of the argument. For present purposes, it suffices to notice that Megarian arguments, like the Sorites, were used as arguments in support of Eleatic doctrines. Diodorus clearly did not offer this argument for purely refutational purposes. Sextus, in reporting these arguments against motion, lists Diodorus (along with Parmenides and Melissus) as a proponent of the view that motion does not exist (although he breaks rank with the orthodox

⁶² Text and (slightly modified) translation by Bury 1939–49.

⁶³ On this argument see Henne 1843, 183-188 and Sedley 1997, 92-3.

Eleatics in claiming that one can say that a thing “has moved”, but not that it “is moving” (Sext. Emp., *M X* 48)). Rather, arguments such as this seem to have the same formal purpose as Zeno’s arguments against motion and change: to demonstrate that our ordinary opinions about change imply contradictions as a way of motivating acceptance of the thesis that motion and change are impossible.

Finally, this connection between Eristic argumentation and the advancement of Eleatic doctrines is further supported by, and helps us to understand, Aristotle’s descriptions of the chief Eleatics—Parmenides, Melissus and Zeno—as Eristics. We have already seen that throughout the *SE* Aristotle treats Zeno’s paradoxes as paradigm examples of Eristic refutations (*Soph. el.* 170^b23; 172^a9; 179^b20; 182^b26; cp. *Topics* 160^b8), and that he treats Zeno’s attempt to prove that motion is impossible as a paradigm example of the kind of solutions that Eristics offer for their own refutations (T6 above). Moreover, his primary example of the Eristic refutation due to consequent is Melissus’ refutation in support of the thesis that everything is one (*Soph. el.* 167^b12-20; 168^b35-40; 181^a27-30). But perhaps the most explicit connection between the Eleatics and Eristic arguments comes in *Physics* I.2 where Aristotle argues that to examine whether what is is one and changeless does not belong to the study of nature. Here Aristotle claims that for a physicist to examine whether what is is one in this way

[T15]: ὅμοιον [...] πρὸς ἄλλην θέσιν ὅποιανούν διαλέγεσθαι τῶν λόγου ἕνεκα λεγομένων [...] ἢ λύειν λόγον ἐριστικόν, ὅπερ ἀμφοτέροι μὲν ἔχουσιν οἱ λόγοι, καὶ ὁ Μελίσσου καὶ ὁ Παρμενίδου· καὶ γὰρ ψευδῇ λαμβάνουσι καὶ ἀσυλλόγιστοί εἰσιν·

[...] is like arguing against any other thesis maintained for the sake of argument [...] or [like] offering a solution to an Eristic argument, which holds both of the argument of Parmenides and that of Melissus. For their arguments make false assumptions and fail to be deductions (*Phys.* 185^a7-10).

Here Aristotle claims that the arguments of these Eleatics are Eristic because they have the same kinds of errors that the Eristics' own arguments do: some of their arguments assume false things—and hence call for the kind of solution that involves discarding the falsehood (*Soph. el.* 176^b29-30)—and others fail to be deductions (ἀσυλλόγιστοι)—and therefore call for the kind of solution that exposes the illusion due to which there appears to be a deduction or refutation (176^b33-35). There are thus clear indications that arguments of Parmenides, Melissus and Zeno are Eristic arguments for Aristotle, and should be subjected to the same kinds of solutions as any other Eristic argument (see also *Soph. el.* 182^b25-27). But crucially, these are not arguments that are offered merely for the sake of producing a contradiction or a paradox; these figures used their deductions and refutations to establish controversial metaphysical doctrines. The fact that Aristotle classifies these figures as Eristics, and recommends the same treatment of their arguments as he does the arguments of figures like Euthydemus and Dionysodorus, should give us pause before we assume that those who employed Eristic arguments are merely in the business of propounding contradictions and paradoxes for argumentative victory.

4. PLATONIC AND ARISTOTELIAN FORMAL SOLUTIONS TO SOPHISTICAL REFUTATIONS

Contrary to a standard impression of Plato's and Aristotle's portrayal of Eristics, according to which these figures were simply charlatans who cared only about winning arguments, we

have seen that Eristic refutations were uniquely powerful tools for simultaneously challenging a philosophical opponent and advancing one's own philosophical agenda. Eristic refutations thus presented a significant challenge to Plato and Aristotle not only because Eristics sometimes derived paradoxes and contradictions based on important Platonic and Aristotelian commitments, but also because the Eristics' primary aim in offering these refutations was to present their own solutions to the paradoxes and contradictions they derived by demonstrating that their own doctrines were immune to the same contradictions and paradoxes.

That, then, was the problem. In what follows I will argue that both philosophers' solution to the problem of Eristic was to refine their conceptions of genuine philosophical argumentation in ways that allowed them to provide formal solutions to the Eristics' refutations. Doing so gave them a methodological distinction between themselves and the Eristics that provided them not only with a uniquely philosophical method but also with a principled way of resisting the Eristics' conclusions. The core argument of the remaining three chapters will be that Plato originally developed his conception of a genuine contradiction in explicit contrast to the contradictions derived in Eristic refutations and that Aristotle developed his conception of a valid deductive argument in direct opposition to the ways in which Eristics deduced their contradictions and paradoxes. I show that Plato made it a necessary condition for a genuine refutation that it satisfy the requirements he established for the derivation of a genuine contradiction and that Aristotle accepted and strengthened Plato's demarcation of dialectic from Eristic by making it a necessary condition for a refutation that its conclusion is deduced in accordance with the requirements he set down in his theory of deduction. I argue that their doing so provided both philosophers with the

logical resources necessary to diagnose Eristic refutations as fallacies, and thereby to resist the unpalatable metaphysical doctrines the Eristics advanced through their arguments.

II. AMBIGUITY AND FALLACY IN PLATO'S *EUTHYDEMUS*⁶⁴

Καὶ τὴν τῶν σοφισμάτων δὲ μέθοδον εὕροισιν
ἂν ὑπὸ τοῦ Πλάτωνος ὑπογεγραμμένην ἐν τῷ
Εὐθυδήμῳ, εἰ ἀκριβῶς ἐντύχοιμεν τῷ βιβλίῳ,
ὥστε ἐν αὐτῷ ὑποδεδειχθαι, τίνα μὲν παρὰ τὴν
φωνὴν ἐστὶ σοφίσματα, τίνα δὲ παρὰ τὰ
πράγματα, καὶ τὰς λύσεις αὐτῶν.

As for the practice of fallacies, we will find it
sketched out by Plato in the *Euthydemus*, if we
pay close attention to that book. We will find
traced out in it which fallacies are due to words,
which are due to things, and the solutions to
them” (Alcinous, *Didaskalikos*, VI.9).⁶⁵

1. INTRODUCTION

It is tempting to dismiss the above epigraph as an exaggerated defense of the master
by an overzealous Platonist. What Alcinous here credits to Plato is almost universally
thought to have been an Aristotelian innovation. In the *SE* Aristotle presents precisely the

⁶⁴ A version of this chapter is forthcoming in *Ancient Philosophy*.

⁶⁵ The Greet text follows Louis 1945. The translation is my own. There is some controversy about whether the author of this treatise is Alcinous, or Albinus, the teacher of Galen. For present purposes we need not settle the issue.

sort of treatment that Alcinous attributes to Plato: he classifies fallacies into those due to language and those outside of language (*Soph el.* 165^b23-27; 166^b20-27), explains why these arguments appear to be genuine (165^b23-168^a16), shows that they are in fact fallacious (168^a17-169^a21) and offers solutions to them (177^a9-181^b24). And although it is indisputable that the *Euthydemus* is the best place to search for Plato's treatment of fallacy—especially of those fallacies that exploit linguistic ambiguity—in its pages we are at least initially met with ample grounds for skepticism about Plato's awareness of fallacies and his ability to expose them. The dialogue consists of Socrates' report of a conversation he had the day before with the Eristic sophists Euthydemus and Dionysodorus, who present 21 Eristic refutations throughout a series of three advertisements for their education in "Eristic wisdom" (*Euthyd.* 272^b9-10). But although Plato's characterization of these Eristic brothers leaves little doubt about his disapproval of this kind of argumentation, this disapproval does not, for the most part, take the form of direct criticism and exposure of the illegitimate argumentative moves by which these Eristics twist their arguments toward absurd conclusions. Plato has Socrates directly explain the mechanics of only the first two fallacious arguments (*Euthyd.* 277d1-278c7), and a number of scholars have found even this diagnosis unsatisfactory;⁶⁶ thereafter, Plato has his protagonists criticize the remaining arguments with what looks more like moral rebuke than logical diagnosis. The *Euthydemus* thus seems to wear on its sleeve Plato's lack of understanding of fallacious argumentative moves like the exploitation of linguistic

⁶⁶ See e.g., Robinson 1941; 1942; and Stewart 1977, 26-29

ambiguity—on which so many of the sophisms presented in this dialogue turn—or at least his indifference about such fallacious inferences *per se*.⁶⁷

Despite these difficulties, Alcinous was by no means the last to understand the Platonic treatment of fallacies in terms of the Aristotelian.⁶⁸ Scholarship on the *Euthydemus* prior to the 20th century tended to assimilate the project of the two works, and drew liberally on Aristotle's technical apparatus for diagnosing fallacies in the *SE* as a heuristic tool for understanding similar fallacies in the *Euthydemus*.⁶⁹ There was thus a tendency to understand the two works as engaged in roughly the same project of exposing fallacies, and it was therefore taken to be unproblematic to describe the earlier Platonic project in terms of the later, systematic treatment of fallacy. However, beginning in the 1940's Richard Robinson challenged the assumption that this assimilation is appropriate and raised skepticism about Plato's ability to understand and solve the fallacies he depicted in his own dialogue.⁷⁰ This had a significant influence on the subsequent shape of scholarship on fallacies in the *Euthydemus*. A number of scholars followed Robinson either by extending his criticism of Plato's logical immaturity,⁷¹ or by arguing that Plato is simply not interested in offering the sort of analysis of fallacies that Aristotle offers.⁷² On the other hand, Robinson's challenge has led other scholars, most notably Rosamond Kent Sprague, to come to Plato's defense.

⁶⁷ Socrates' rare criticisms of the brothers in the *Euthydemus* suggest that Socrates' primary worry about the brothers' arguments is not so much that they are fallacious *per se*, but rather that they are useless for becoming virtuous and living a good life. See in particular *Euthyd.* 278b2-c5.

⁶⁸ The survey of the following paragraph owes much to Chance's careful survey of these trends (Chance 1992).

⁶⁹ See Routh 1784; Cousin 1827; Winckelmann 1833; Bonitz 1886; and Gifford 1905

⁷⁰ See Robinson 1941; 1942; 1953

⁷¹ See e.g., Stewart 1977.

⁷² See Chance 1992, 7-13

She, along with R.S.W. Hawtrey, represented a return to the state of scholarship prior to Robinson: both scholars draw liberally on the *SE* in their analyses of the Eristic episodes of the *Euthydemus* in an attempt to vindicate Plato's logical sophistication.⁷³ However, as Chance has convincingly noted, this reversion to the old assimilation of the two works does not actually answer Robinson's challenge: to show that the fallacies Plato depicts in the *Euthydemus* can be understood in terms of the later Aristotelian treatment does not show that Plato himself, in writing the *Euthydemus*, had the logical resources necessary to diagnose these arguments.⁷⁴ At least since Chance's 1992 commentary, scholarship on the *Euthydemus* has largely neglected the Eristic sections of the dialogue, and has almost completely ignored the question of Plato's awareness of fallacy.⁷⁵ The scholarly discussion of this question thus remains in a standstill: we have on one side scholars who maintain that Plato "doesn't present in his *Euthydemus* anything that even approaches a theory of solutions,"⁷⁶ the opposition, on

⁷³ See Sprague 1962; 1967; 1977; 1993; and Hawtrey 1981

⁷⁴ See Chance 1992, 9-11

⁷⁵ Most recent scholarship on the *Euthydemus* focuses on the Socratic, rather than Eristic sections of the dialogue. Those who have paid close attention to the Eristic episodes since Chance have not directly addressed the question of Plato's awareness of fallacies. M.M. McCabe treats the Eristic sections of the dialogue very seriously, but does not, for the most part consider the linguistic fallacies. On McCabe's view, it is not the case that the Eristics argue fallaciously; rather, they argue validly on the basis of radically distinct metaphysical commitments (see McCabe 1994; 2006; and 2013). Samuel Scolnicov also takes the Eristic sections of the dialogue quite seriously, and is especially interested in the Eristic conception of language, but does not directly address the questions about fallacy with which I will be concerned here (see Scolnicov 1981; 2000; and 2013). Finally, Georgia Sermamoglou-Soulmaidi has offered the most recent interpretation of the whole dialogue, and attempts to understand Plato's diagnoses of fallacies on their own terms, but largely leaves aside the question of Plato's awareness of fallacy and his relationship to Aristotle, focusing instead on the dramatic features of the dialogue (see Sermamoglou-Soulmaidi 2014).

⁷⁶ See Chance 1992, 8; cp. Dorion 1995, 102-103

the other hand, shows that we can describe the Eristic fallacies of the *Euthydemus* in terms of the explicit Aristotelian doctrine of fallacy and in doing so assumes, rather than defends, Plato's sophistication in the study of fallacies.

The present chapter aims to show that Plato does in fact have the logical resources necessary to expose the linguistic fallacies of the *Euthydemus*. I will focus on the three kinds of linguistic fallacy that make an appearance in the *Euthydemus* and argue that Plato has various means of exposing the forms of linguistic ambiguity that the Eristics exploit in their arguments. What I will mean in saying that Plato exposes these refutations is that he isolates some form of ambiguity in the argument and either explicitly demonstrates, or suggests in some more indirect way, how it was exploited to bring off the appearance of a genuine refutation. I first discuss the refutations that depend on lexical ambiguity in the first Eristic episode (*Euthyd.* 275d2-277c7), and defend Plato's exposure of these arguments against charges of its alleged inadequacy. I then turn to the more indirect means by which Plato exposes the brothers' use of syntactic and elliptical ambiguity later in the dialogue.⁷⁷ Throughout these discussions I will attempt to show that Plato provides his readers with the resources they need to expose these fallacies, and that we do not additionally need the technical apparatus of the *SE* in order to recognize that such arguments do not carry conviction. I will draw on passages from the *SE* in my discussion of similar passages in the *Euthydemus*, but my purpose in doing so will be to show that Aristotle recognizes Plato's

⁷⁷ I was led to think about Plato's indirect exposures of fallacies by certain remarks that Sprague has made about them (see 1977, 54-7). Sprague argues that Plato uses indirect means to show "that the sophistries are sophistries and ... in some cases to indicate the points of difficulty" (1977, 50). I will argue that Plato's indirect exposures do more than this, namely, I will show that these indirect exposures constitute formal solutions to the Eristic refutations they expose.

treatments of these fallacies as solutions and accepts most of them as adequate treatments of the fallacies in question.

However, it will still remain an open question whether Plato's exposure of these exploitations of ambiguity amounts to his having a systematic account of fallacy. I will conclude by considering this question in greater detail. To assess whether Plato's treatment of fallacies that depend on ambiguity constitutes an adequate explanatory account will require us to contrast Plato's exposures of linguistic fallacies with the kind of Aristotelian treatment that commentators have found missing. Because commentators do not generally agree about what in Aristotle's treatment of fallacy Plato lacks,⁷⁸ I will first clarify what I take it to mean to say that Aristotle has an explanatory account of fallacy before I examine whether Plato's treatment of linguistic fallacies falls short of this standard. On the view I will advance, Aristotle's treatment of fallacy includes an explanation of the two defining features of fallacious arguments: (1) that they appear to be genuine refutations or deductions but (2) are actually fallacious. With respect to a particular fallacy, to account for the first feature involves explaining why a particular argument appears to be genuine, and, as we saw in the previous chapter, for Aristotle the exposure of this appearance is the "solution" (λύσις) to a sophistical argument. On the other hand, to show that these arguments are fallacious is to demonstrate that a particular kind of argument fails to satisfy at least one of the criteria set down in the definition of a genuine deduction or refutation. I will argue that Plato does not demonstrate that the arguments he considers are fallacious, because he does not offer an

⁷⁸ Stewart takes Aristotle's "theorizing stage" in the science of fallacies to be "the identification of general features in argument types" (1977, 22). Robinson's criticism is less clear, but seems to rely on the fact that Plato has no technical terminology to describe fallacies (1941, 141; 1942, 102-103; 1953, 1-5).

explicit definition of genuine refutation or deduction with reference to which he could demonstrate that refutations that exploit these ambiguities are fallacious. However, I will maintain that Plato's exposures of linguistic fallacies are what I called in the previous chapter "formal solutions:" they adequately explain why these arguments appear to be genuine, even though this is not yet to demonstrate that they are fallacious.

2. LEXICAL AMBIGUITY

Euthydemus and Dionysodorus' first two arguments (*Euthyd.* 275d2-276c7 & 276d1-277c7) are the only refutations in the *Euthydemus* that Plato explicitly diagnoses. Each of the arguments begins with a disjunctive question about learning (μανθάνειν). The brothers' young interlocutor Cleinias is asked to choose between one of two opposite disjuncts, and in both arguments Euthydemus first refutes Cleinias' initial choice by arguing for the opposite disjunct ("T1": 276a3-b5; "T6": 277a1-b2), and Dionysodorus then refutes his brother by arguing for the disjunct that Cleinias initially chose ("T2": 276b6-c7; "T7": 277b5-c7). The brothers are about to refute Cleinias a third time when Socrates interrupts, and offers Cleinias his own interpretation of what the brothers have been up to (cp. T3 in Ch. 1). On Socrates' analysis, the brothers were trying to teach Cleinias about "the correct use of words" (περὶ ὀνομάτων ὀρθότητος) (277e3-4) by demonstrating how "the variance in words" (τὴν τῶν ὀνομάτων διαφορὰν) can be exploited in such a way that the same word applies to opposite things (287b4-7). In particular, Socrates explains that the brothers were trying to show Cleinias that he did not recognize two different uses of the word 'μανθάνειν,' the standard meaning of which is 'to learn' or 'to acquire knowledge' (λαμβάνη ἐπιστήμην) (hereafter: μανθάνειν₁), but which can also mean 'understand' (hereafter: μανθάνειν₂), in which case its meaning is closer to that of 'συνιέναι' (*Euthyd.* 277e3-278a5). According to Socrates, the

brothers were able to bring off these refutations because these two meanings of the term apply to opposite people: ‘μανθάνειν₁’ applies to ignorant people who learn what they don’t already know, whereas ‘μανθάνειν₂’ applies to wise people who understand and make use of what they already know (278a5-b2). With Socrates’ explanation in hand, I will survey the brothers’ arguments in the first Eristic episode and argue that he accurately exposes them as arguments that turn solely on the lexical ambiguity of ‘μανθάνειν.’⁷⁹

The brothers begin by asking Cleinias whether the wise or the ignorant μανθάνουσιν (*Euthyd.* 275D3-4). Cleinias answers that the wise μανθάνουσιν, and this answer becomes the thesis to be refuted (hereafter: “*refutandum*”) (*Euthyd.* 276a1-2). We can infer from the fact that he answers this way that Cleinias initially takes the word to mean ‘understand’ (μανθάνειν₂), since this is the meaning of the word that most naturally applies to the wise. Euthydemus then questions Cleinias about a situation—Cleinias’ own experience learning from his grammar teacher—which is rightly called a case of μανθάνειν, but under a different meaning of that term (i.e., μανθάνειν₁), which applies to the ignorant, rather than the wise (*Euthyd.* 276a3-b4). On the basis of this questioning Euthydemus then draws the conclusion that contradicts the *refutandum* (hereafter: “*refutans*”). But if we accurately translate the

⁷⁹ Few commentators have found Socrates’ explanation sufficient. Richard Robinson claimed that this diagnosis fails to recognize the “peculiar subtlety and formidableness” of equivocation and that Plato simply treats it as “one of those crass ambiguities out of which puns are made” (1942, 107). M.A. Stewart argued that the equivocation over ‘μανθάνειν’ is trivial and that Socrates has missed the real equivocation, which is that over the terms used in the opposite disjuncts of the first argument, ‘σοφός’ and ‘ἄμαθής’ (1977, 26-28). Finally, Rosamond Kent Sprague and R.S.W. Hawtrey hold that the arguments rely on a combination of fallacies. Sprague takes the equivocations over ‘μανθάνειν’ to work together with those over ‘σοφός’ and ‘ἄμαθής’ (1977, 51-53), and both she and Hawtrey take T6 to additionally rely on a fallacious combination (Sprague 1962, 5; 1933, 58-60; Hawtrey 1981, 58-60).

meanings of *μανθάνειν* employed throughout the argument, it becomes clear that no refutation has occurred:

[T1]: [question] πότεροί εἰσι τῶν ἀνθρώπων οἱ μανθάνοντες, οἱ σοφοὶ ἢ οἱ ἀμαθεῖς;
— [*refutandum*] ... ἀπεκρίνατο ὅτι οἱ σοφοὶ εἶεν οἱ μανθάνοντες. ... — [argument]
Καὶ ὁ Εὐθύδημος, Καλεῖς δέ τινας, ἔφη, διδασκάλους, ἢ οὐ; { – } Ὡμολόγει. { – }
Οὐκοῦν τῶν μανθανόντων οἱ διδάσκαλοι διδάσκαλοί εἰσιν, ὥσπερ ὁ κιθαριστὴς καὶ ὁ
γραμματιστὴς διδάσκαλοι δῆπου ἦσαν σοῦ καὶ τῶν ἄλλων παιδων, ὑμεῖς δὲ μαθηταί;
{ – } Συνέφη. { – } Ἄλλο τι οὖν, ἡνίκα ἐμανθάνετε, οὐπω ἡπίστασθε ταῦτα ἃ
ἐμανθάνετε; { – } Οὐκ ἔφη. { – } Ἄρ' οὖν σοφοὶ ἦτε, ὅτε ταῦτα οὐκ ἡπίστασθε; { – }
Οὐ δῆτα, ἦ δ' ὅς. { – } Οὐκοῦν εἰ μὴ σοφοί, ἀμαθεῖς; { – } Πάνυ γε. { – } Ὑμεῖς ἄρα
μανθάνοντες ἃ οὐκ ἡπίστασθε, ἀμαθεῖς ὄντες ἐμανθάνετε. { – } Ἐπένευσε τὸ
μειράκιον. { – } [*refutans*] Οἱ ἀμαθεῖς ἄρα μανθάνουσιν, ὦ Κλεινία, ἀλλ' οὐχ οἱ
σοφοί, ὥς σὺ οἶει.

[question] are οἱ μανθάνοντες the wise or the ignorant? — [*refutandum*] ... [Cleinias]
answered that the wise were the ones who understand (*μανθάνειν*₂). — [argument]
Then Euthydemus said, “Are there some whom you call teachers, or not?” — He
agreed that there were. — And the teachers are teachers of those who learn
(*μανθάνειν*₁), I suppose, in the same way that the music master and the writing master
were teachers of you and the other boys when you were pupils? — He agreed. — And
when you were learning (*μανθάνειν*₁), you did not yet know the things about which
you learned, did you? — No, he said. — And were you wise when you did not know

these things? — By no means, he said. — Then if not wise, ignorant? — Very much so. — Then while learning (μανθάνειν₁) of what you did not know, you learned (μανθάνειν₁) while you were ignorant? — The boy nodded — [*refutans*] Then it is the ignorant who learn (μανθάνειν₁), Cleinias, and not the wise, as you suppose (*Euthyd.* 275d1-b5).⁸⁰

Although there is no equivocation between the premises in the argument and the conclusion, the refutation is nevertheless merely apparent because the *refutans* only appears to contradict the *refutandum*; both claims employ the word ‘μανθάνειν,’ but not under the same meaning of that word. By having Socrates later explain the way these two meanings of the term apply to opposite people, Plato thus provides his readers with the resources they need to recognize that the exploitation of this ambiguity creates the mere appearance of a refutation without its reality.

Dionysodorus then bursts in, treats the conclusion of the argument just offered as a thesis to be refuted, and in T2 (*Euthyd.* 276b6-c7) presents an argument to the conclusion that the wise, rather than the ignorant, μανθάνουσιν (*Euthyd.* 276b6-c7). He questions Cleinias about a different kind of classroom situation, which is accurately described by the word ‘μανθάνειν,’ but under the other meaning of the word, which applies more naturally to the wise. He gets Cleinias to agree that, when grammar teachers would ask their students questions (ἀποστοματίζοι), it was the wise who understood (μανθάνειν₂) the questions that the teacher asked (ἀποστοματίζόμενα) (*Euthyd.* 276c3-6).

The precise meaning of the verb ‘ἀποστοματίζειν’ is difficult to determine, but the

⁸⁰ The Greek text follows Burnet 1903. Translations from the *Euthydemus* in this chapter follow Sprague’s translation, but are often extensively modified.

appropriate understanding of its meaning is essential for our understanding of both this argument and the one that follows. Plato's use of the word in these arguments (here and *Euthyd.* 277a3-7), and Aristotle's discussion of the present argument (*Soph. el.* 165^b31-34—to which I turn shortly) are our earliest and only 4th-century attestations. It is clear, however, that the LSJ definition, 'to teach by dictation,' does not capture the meaning of the word required by these passages. If this is the meaning of the word, why would Dionysodorus' questioning about ἀποστοματιζόμενα immediately suggest to Cleinias a situation in which wise students understand rather than one in which ignorant students acquire knowledge? The use of the verb in the following argument has the same effect on Cleinias: there he agrees that students with knowledge of grammar understand the things that a grammar teacher ἀποστοματίζει (277a4-6); it does not occur to him to answer that ignorant students learn these things. If the word meant 'teach by dictation' it would be equally, if not more, appropriate for Cleinias to think that the ignorant learn ἀποστοματιζόμενα. Because in each of the arguments in which the verb is used ἀποστοματιζόμενα are things that grammar teachers utter and that students with the requisite knowledge understand it is likely that Julius Pollux, the earliest grammarian to discuss the term, most accurately defines the present usage: "Plato uses the term of boys somewhere, meaning that they are questioned about what they have learned (μαθήματα) by their teachers" (*Onomasticon*, ii, 102).⁸¹ This is also the meaning of the word in later Greek, as in the Gospel of Luke where the experts in the Law and the Pharisees "interrogate [Jesus] about numerous topics" (ἀποστοματίζειν αὐτὸν περὶ πλειόνων) (*Ev. Luc.* 11.53). The word is thus used to describe something like an oral examination—an apt subject for questioning on Dionysodorus' part, since it is clear that the

⁸¹ Translation is my own, and the Greek text follows Bethe 1900.

wise, rather than the ignorant $\mu\alpha\nu\theta\acute{\alpha}\nu\epsilon\iota\nu_2$ in such scenarios. The word seems to be carefully chosen to suggest that the wise understand the subjects on which they are quizzed.

When we accurately translate the use of ‘ $\mu\alpha\nu\theta\acute{\alpha}\nu\epsilon\iota\nu$ ’ throughout the refutation it again becomes clear that the refutation is merely apparent:

[T2]: [*refutandum* (= *refutans* of T1)] Οἱ ἀμαθεῖς ἄρα $\mu\alpha\nu\theta\acute{\alpha}\nu\omicron\upsilon\sigma\iota\nu$, ᾧ Κλεινία, ἀλλ' οὐχ οἱ σοφοί, ὥς σὺ οἶει. — ... [argument] Τί δέ, ᾧ Κλεινία, ἔφη, ὁπότε ἀποστοματίζοι ὑμῖν ὁ γραμματιστής, πότεροι ἐμάνθανον τῶν παίδων τὰ ἀποστοματιζόμενα, οἱ σοφοὶ ἢ οἱ ἀμαθεῖς; { – } Οἱ σοφοί, ἔφη ὁ Κλεινίας. { – } [*refutans*] Οἱ σοφοὶ ἄρα $\mu\alpha\nu\theta\acute{\alpha}\nu\omicron\upsilon\sigma\iota\nu$ ἀλλ' οὐχ οἱ ἀμαθεῖς, καὶ οὐκ εὖ σὺ ἄρτι Εὐθυδήμῳ ἀπεκρίνω.

[*refutandum* (= *refutans* of T1)] it is the ignorant who learn ($\mu\alpha\nu\theta\acute{\alpha}\nu\epsilon\iota\nu_1$), Cleinias, [said Euthydemus], and not the wise, as you suppose — ... [argument] Well then, Cleinias, [said Dionysodorus] when the grammar teacher gave you an oral exam ($\acute{\alpha}\pi\omicron\sigma\tau\omicron\mu\alpha\tau\acute{\iota}\zeta\omicron\iota$), which of the boys understood ($\mu\alpha\nu\theta\acute{\alpha}\nu\epsilon\iota\nu_2$) the things about which they were examined ($\acute{\alpha}\pi\omicron\sigma\tau\omicron\mu\alpha\tau\acute{\iota}\zeta\omicron\mu\epsilon\nu\alpha$), the wise or the ignorant? — The wise, said Cleinias. — [*refutans*] Then it is the wise who understand ($\mu\alpha\nu\theta\acute{\alpha}\nu\epsilon\iota\nu_2$), and not the ignorant, and you gave Euthydemus a wrong answer just now (*Euthyd.* 276b4-c7).

Again, Socrates’ explanation shows that although the *refutans* and the *refutandum* both employ the term ‘ $\mu\alpha\nu\theta\acute{\alpha}\nu\epsilon\iota\nu$,’ they invoke different meanings of this term and thereby create the mere appearance of refutation.

M.A. Stewart has suggested that Socrates' analysis of this first refutation (T1 & T2) fails because it misses the more serious equivocation, namely that over the terms 'wise' and 'ignorant.'⁸² Sprague takes Stewart's point, but claims that the equivocation Socrates notices, and the one Stewart points out, work together in the argument.⁸³ If we instead take the equivocation to be over the terms 'σοφός' and 'ἄμαθής,' thinking that the former can mean either 'knowledgeable' (σοφός₁) or 'clever' (σοφός₂), and that the latter can mean either 'ignorant' (ἄμαθής₁) or 'stupid' (ἄμαθής₂) and take the first and second pairs of each to be opposites, we get different diagnoses of these two fallacies:

[T1*]: leaving the meaning of *μανθάνειν* fixed to the standard meaning, we would get the following diagnosis:

[*Refutandum*]: The clever (σοφός₂) are those who learn (*Euthyd.* 276a1-2).

[Summary of argument]: When Cleinias and his schoolmates learned about some topic, they were ignorant (ἄμαθής₁) of the things about which they were learning (276a7-b1).

[*Refutans*]: Therefore, the ignorant (ἄμαθής₁) are those who learn (276b4-5).

On this analysis, Euthydemus wrongly treats ἄμαθής₁ as the opposite of σοφός₂.

[T2*]: leaving the meaning of *μανθάνειν* fixed to the standard meaning, we get:

⁸² See Stewart 1977, 26-28.

⁸³ See Sprague 1977, 51-53.

[*Refutandum*]: The ignorant (ἄμαθής₁) learn (*Euthyd.* 276b4-5 (= *refutans* of T1)).

[Summary of argument]: The clever (σοφός₂) learn about the things about which they were questioned whenever their grammar teacher questioned them (c3-6).

[*Refutans*]: Therefore, the clever (σοφός₂) learn (c6-7).

According to this interpretation, Dionysodorus wrongly treats σοφός₂ as the opposite of ἄμαθής₁.

On the one hand, even if we grant Stewart and Sprague the claim that ‘σοφός’ and ‘ἄμαθής’ are equivocal, I do not think that the more plausible reading of ‘ἀποστοματίζειν’ outlined above would suggest that it is the clever, rather than the knowledgeable, who acquire knowledge. ἀποστοματίζειν is best understood as a practice of questioning students on their lessons, that is, about subjects on which they have become knowledgeable in the course of their instruction (note in this connection that Pollux calls the objects of examination μαθήματα (*Onomasticon*, ii, 102)). But moreover, even a brief survey of the LSJ entry on the term ‘σοφός’ indicates that it does not mean ‘clever’ in the sense needed here (i.e., able to learn). The term rather denotes acquired expertise (in crafts and practical and theoretical domains), rather than facility in learning.⁸⁴ To denote facility in learning Plato instead consistently uses ‘εὐμαθής’ (see e.g., *Chrm.* 159e3; *Resp.* 486c3)). ‘Ἀμαθής,’ on the other hand, can mean both ‘ignorant’ and ‘stupid,’ but because it is consistently used in these arguments as the opposite of ‘σοφός’ I suggest that its meaning is likewise univocal. The equivocality of ‘μανθάνειν,’ on the other hand, is hardly “crass” or “unreal.”⁸⁵ Its ambiguity is prevalent in Plato: in addition to the more ordinary meaning of the term (‘acquire

⁸⁴ Cp. Hawtrey 1981, 59

⁸⁵ See Robinson 1942, 107; Stewart 1977, 28.

knowledge’) Plato quite frequently uses it to mean ‘understand’ (see e.g., *Resp.* 372e4; 394c5; *Meno* 84d4). Moreover, Aristotle feels the need on two separate occasions to explain the equivocality of ‘μανθάνειν’ (see *Soph. el.* 165^b31-34 & *Eth. Nic.* 1143^a12-18), which we would hardly expect if the word were not in fact “said in many ways”. It is therefore much more plausible that ‘σοφός’ and ‘ἀμαθής’ are used univocally and that the real equivocation here, as Socrates suggests, is over different meanings of ‘μανθάνειν.’

Aristotle’s treatment of the argument currently under discussion is valuable for present purposes because it both corroborates the account I have given, and reveals that Aristotle regards the *Euthydemus* not only as a source for fallacious arguments, but also as a guide to their solution. In the case of equivocation in particular, Aristotle found in the *Euthydemus* the sort of diagnosis of fallacies that he himself is thought to have pioneered.⁸⁶ What Aristotle calls sophistical refutations due to homonymy (παρὰ τὴν ὁμωνυμίαν) are the first kinds of fallacy that Aristotle discusses in the *SE* and his first example of homonymy is borrowed from this passage in the *Euthydemus*:⁸⁷

[T3]: εἰσὶ δὲ παρὰ μὲν τὴν ὁμωνυμίαν οἱ τοιοῦδε τῶν λόγων, οἷον ὅτι μανθάνουσιν οἱ ἐπιστάμενοι, τὰ γὰρ ἀποστοματιζόμενα μανθάνουσιν οἱ γραμματικοί· τὸ γὰρ

⁸⁶ Many scholars draw a connection between this argument and *SE* 165^b31-34 (e.g., Sprague 1962, 1-33; Hawtrey 1981, 3; Narcy 1984, 204 n.258; Canto 1987, 277 n.106; 1989, 90 n.129; 199 n.109; Dorion 1995, 91-101). However, none of them has drawn attention to the fact that Aristotle treats this passage not only as a source for an example of the fallacy, but also as a successful solution to this argument.

⁸⁷ For more discussion of Aristotle’s understanding of ὁμωνυμία in the *SE* see fn. 152 in Ch. 4 §2.1 below.

μανθάνειν ὁμώνυμον, τό τε ξυνιέναι χρώμενον τῇ ἐπιστήμῃ καὶ τὸ λαμβάνειν ἐπιστήμην.

The following [is a refutation] due to homonymy: [1] those who know understand (μανθάνειν₂) [2] for those with knowledge of grammar understand the things about which they are examined. [3] For ‘μανθάνειν’ is equivocal [signifying] both to understand using knowledge or to acquire knowledge (*Soph. el.* 165^b31-34).⁸⁸

As stated, this is not an example of a refutation that depends on homonymy. What Aristotle gives us here is the conclusion of a refutation [1], a highly compressed argument for this conclusion [2], and an explanation of the equivocal term that was exploited in the full argument [3]. Unlike a majority of the refutations discussed in the *SE*, which must have been familiar to Aristotle’s original audience given the similarly elliptical ways he cites them, we have in the *Euthydemus* the full version of the argument to which Aristotle here alludes. That argument arrives at the same conclusion (“it is the wise who μανθάνουσιν” (cp. [1] here and the *refutans* of T2) on the basis of the same reasoning—namely, that it is the wise (or, as Aristotle puts it “those who know”⁸⁹) who understand the questions that a grammar teacher asks in oral examinations (ἀποστοματίζοι) (c3-6) (cp. [2] here and the argument of T2). Comparison with the *Euthydemus* passage also allows us to understand how the argument to which Aristotle refers is a refutation that depends on homonymy. The conclusion of this

⁸⁸ The Greek text of the *Sophistici Elenchi* follows Ross 1958. All translations from the *Sophistici Elenchi* are my own.

⁸⁹ It is worth noting that Aristotle’s substitution of ‘οἱ ἐπιστάμενοι’ for ‘οἱ σοφοί’ here is further corroboration for ‘the knowledgeable’ as the meaning of ‘οἱ σοφοί’ in the original argument.

argument in [1] is meant to contradict the interlocutor's (here unexpressed) original claim (i.e., the *refutandum*), that it is the ignorant, not the wise, who *μανθάνουσιν*. The fallacious refutation then proceeds, as reported in [2], by questioning an interlocutor about a situation, which is also described by the word '*μανθάνειν*,' but in a different sense of that term, one that more accurately applies to the wise rather than the ignorant [2]. The questioner is then able to conclude the opposite of the disjunct the interlocutor originally chose, but they were only able to do so, as Aristotle explains in [3], by exploiting two meanings of the same term.

Many scholars have correctly noticed the intertextuality between [1] and [2] in this passage and *Euthydemus* 276b6-276c7. But none of them appropriately credit Plato for Aristotle's exposure of this ambiguity (in [3]). [3] reproduces almost verbatim the glosses Socrates offers for the two meanings of '*μανθάνειν*' that the brothers exploit in the first Eristic episode (*Euthyd.* 277e3-278b2):

[T4]: ὁ δὲ καὶ ἐνδείκνυσθόν σοι τὸ ξένω, ὅτι οὐκ ἤδησθα τὸ μανθάνειν ὅτι οἱ ἄνθρωποι καλοῦσι μὲν ἐπὶ τῷ τοιῷδε, ὅταν τις ἐξ ἀρχῆς μηδεμίαν ἔχων ἐπιστήμην περὶ πράγματός τινος ἔπειτα ὕστερον αὐτοῦ λαμβάνη τὴν ἐπιστήμην, καλοῦσι δὲ ταῦτόν τοῦτο καὶ ἐπειδὴν ἔχων ἤδη τὴν ἐπιστήμην ταύτῃ τῇ ἐπιστήμῃ ταῦτόν τοῦτο ... – μᾶλλον μὲν αὐτὸ συνιέναι καλοῦσιν ἢ μανθάνειν, ἔστι δ' ὅτε καὶ μανθάνειν.

This is what the two visitors were pointing out: that you [sc. Cleinias] did not realize that people use the word '*μανθάνειν*' in this way, in the situation in which a person who has no knowledge of a thing in the beginning *acquires knowledge*, but also when he who has this knowledge already *uses it* to inspect the same thing ... (As a matter

of fact people call the latter ‘συνιέναι,’ but they do sometimes call it ‘μανθάνειν’ as well) (*Euthyd.* 277e5-278a5).

[T5]: τὸ γὰρ μανθάνειν ὁμώνυμον, τό τε ξυνιέναι χρώμενον τῇ ἐπιστήμῃ καὶ τὸ λαμβάνειν ἐπιστήμην

For ‘μανθάνειν’ is homonymous [signifying] both to understand using knowledge and to acquire knowledge (*Soph el.* 165^b31-34).

Aristotle thus owes to Plato not only this example, but also the exposure of the equivocation on which the fallacious refutation turns.

I therefore think that Socrates’ analysis—according to which ‘μανθάνειν’ is equivocal and the refutation depends on the fact that the two distinct meanings of the word apply to opposite people—is an adequate assessment of why this argument appears to be a genuine refutation without actually being so. Immediately after Socrates offers this explanation of the first argument, he tells Cleinias “there was something similar to this in the second question, when they asked you whether people learn what they know or what they do not know” (*Euthyd.* 278a8-b2). I will now spell out the exposure to which Socrates here gestures, and argue that the second argument exploits the same ambiguity in the same way, but in connection with a different pair of opposites to which these different meanings of the term apply—to known and unknown objects, rather than to wise and ignorant subjects.

The second argument (T6 & T7) is also about learning, but this time Euthydemus asks whether “οἱ μανθάνοντες μανθάνουσιν things they know, or things they do not know”

(*Euthyd.* 276d7-8). Cleinias' initial answer—that they *μανθάνουσιν* things they do not know—suggests that he answers with *μανθάνειν*₁ in mind. As Dionysodorus did in T2, in T6 Euthydemus then proceeds to ask Cleinias about a situation that can also be described as a case of 'μανθάνειν,' but one in which the term means 'understand' rather than 'learn.' When someone (presumably a grammar teacher) examines (*ἀποστοματίζει*) Cleinias, he examines him about letters, which Cleinias knows and understands (*μανθάνειν*₂), therefore Cleinias understands things he knows (*Euthyd.* 277a1-8). But the argument only apparently refutes Cleinias' initial claim, because although it appears to conclude the opposite—that the objects of *μανθάνειν* are things one knows—Euthydemus questions Cleinias and concludes under a different meaning of 'μανθάνειν.'

[T6]: [question] Πότερον γὰρ οἱ μανθάνοντες μανθάνουσιν ἃ ἐπίστανται ἢ ἃ μὴ ἐπίστανται; — ... [*refutandum*] ὁ μὲν Κλεινίας τῷ Εὐθυδήμῳ ἀπεκρίνατο ὅτι μανθάνοιεν οἱ μανθάνοντες ἃ οὐκ ἐπίσταντο ... — [argument] Τί δέ; ἦ δ' ὅς, οὐκ ἐπίστασαι σὺ γράμματα; { – } Ναί, ἔφη. { – } Οὐκοῦν ἅπαντα; { – } Ὡμολόγει. { – } Ὅταν οὖν τις ἀποστοματίζει ὅτιοῦν, οὐ γράμματα ἀποστοματίζει; { – } Ὡμολόγει. { – } Οὐκοῦν ὧν τι σὺ ἐπίστασαι, ἔφη, ἀποστοματίζει, εἴπερ πάντα ἐπίστασαι; { – } Καὶ τοῦτο ὡμολόγει. { – } Τί οὖν; ἦ δ' ὅς, ἄρα σὺ <οὐ> μανθάνεις ἅττ' ἂν ἀποστοματίζει τις, ὁ δὲ μὴ ἐπιστάμενος γράμματα μανθάνει; { – } Οὐκ, ἀλλ', ἦ δ' ὅς, μανθάνω. { – } Οὐκοῦν ἃ ἐπίστασαι, ἦ δ' ὅς, μανθάνεις, εἴπερ γε ἅπαντα τὰ γράμματα ἐπίστασαι.

[question] Do οἱ μανθάνοντες μανθάνουσιν things they know or things they do not know? — ...[*refutandum*] Cleinias answered Euthydemus that those who learn

(μανθάνειν₁) learn things they do not know ... — [argument] What then, [Euthydemus] said, don't you know your letters? — Yes, he said. — Then you know them all? — He agreed. — When some [sc. grammar teacher] gives an oral exam (ἀποστοματίζει), doesn't he examine (ἀποστοματίζει) [the students] about letters? — He agreed. — Then doesn't he examine (ἀποστοματίζει) you about something you know, if you really know them all? — He agreed to this too. — Well then, he said, you are not the one who understands (μανθάνειν₂) the things about which [the teacher] examines you, are you, but the one who doesn't know his letters is the one who understands? — No, he said, I am the one [who understands]. — [*refutans*] Then you understand (μανθάνειν₂) what you know, he said, if you in fact do know all your letters (*Euthyd.* 276d7-277b1).

As was the case of the first argument, Socrates' diagnosis reveals that the tension between the *refutandum* and *refutans* is only verbal and therefore only appears to refute Cleinias' initial claim.

Influenced by passages in which Aristotle seems to draw on this argument (*Soph. el.* 166^a30-1 and *Rhet.* 1401^a29-31), a number of scholars have suggested that Socrates' explanation of this fallacy is insufficient because the argument also involves a fallacy of composition.⁹⁰ In the *Rhetoric* passage to which these commentators refer, Aristotle alludes to a fallacy of composition that involves an inference from knowing letters (στοιχεῖα) to knowing the spoken word (τὸ ἔπος) composed of those letters. Moreover, many translators and editors amend the *SE* passage on the assumption that it identifies the same error

⁹⁰ See Hawtrey 1981, 64-5; Sprague 1962, 12; 1993, 12 n.19; Dorion 1995, 224-6.

displayed in the *Euthydemus* and *Rhetoric* passages.⁹¹ However, I doubt that Aristotle is discussing the present argument in either the *Rhetoric* or *SE* passages. Commentators who find a fallacy of composition here assume that the teachers are quizzing their students about words, or even propositions, and that Euthydemus infers that Cleinias knows these more complex things because he knows the letters of which they are composed. But we need not make this assumption for the argument to work, and indeed we shouldn't, since letters are the only subjects of examination mentioned in the argument. Euthydemus gets Cleinias to agree that he knows all his letters (*Euthyd.* 277a1-3) and that his teacher examines him *about letters* (a3-4). Because he knows the letters about which he is examined, Cleinias understands the subjects on which his teacher examines him (a6-8), and therefore understands things that he knows (a8-b2).

The assumption of intertextuality with Aristotle's examples of the fallacy of composition is therefore the only grounds for thinking there is an inference from knowing letters to knowing words in this argument. But the similarity between these examples is merely apparent. We've already seen that the inference from letters to words in the *Rhetoric* example is absent in the *Euthydemus*. But moreover, the kind of composition fallacy under discussion in the *SE* is of a different kind than the one commentators take to be operative in the *Euthydemus*. The alleged composition at work in T6 would be extra-linguistic: an illegitimate inference from the fact that one knows all of one's letters to the fact that one knows the words or even statements that are composed of these letters. This is a part-whole confusion that does not in any significant way depend on language. The Aristotelian fallacy of composition on the other hand is a linguistic fallacy (*Soph. el.* 165^b24-27), which involves

⁹¹ See Poste 1866; Forster 1955; Ross 1958; Pickard-Cambridge 1984; Dorion 1995, 224-6; cp. Schrieber 2003, 68-72

the illegitimate composition of linguistic items in a sentence that were originally construed separately (*Soph. el.* 166^a23-32). Thus when Aristotle cites as an example of this fallacy the inference “μανθάνει νῦν γράμματα εἴπερ ἐμάνθανεν ἃ ἐπίσταται” (*Soph. el.* 166^a30-31) he almost certainly does not have in mind an inference from the fact that one knows letters to the fact that one knows things composed of letters.⁹² The composition in question is linguistic, and most likely turns on whether one understands the word ‘γράμματα’ in combination with the first or the second occurrence of the word ‘μανθάνειν’ in the sentence. The statement would thus read “he now learns letters, if he has learned what he knows”, when we combine ‘γράμματα’ with the first occurrence of ‘μανθάνειν’; or it would read, “he now learns what he knows, if he has learned his letters”, if we understand ‘γράμματα’ in combination with the second occurrence of ‘μανθάνειν’. For present purposes, we need not work out the precise details of this controversial example; here it suffices simply to notice that Aristotle offers it alongside other examples of errors that clearly involve construing in combination linguistic items in a sentence that are meant to be taken separately (*SE* 166^a23-31), and not as an example of inferring knowledge of wholes from knowledge of their parts. There is therefore no need to assume that a fallacious inference from knowing parts to knowing wholes is at work in T6; Socrates’ analysis in terms of an equivocation over ‘μανθάνειν’ is sufficient.

As in the first argument, Dionysodorus treats the conclusion of T6 as a new thesis to be refuted and offers an argument based on the meaning of ‘μανθάνειν’ that applies to the things one does not know. He gets Cleinias to agree that μανθάνειν is a matter of “acquiring knowledge” (which is precisely the standard meaning Socrates gives to μανθάνειν₁— *Euthyd.*

⁹² Here I read ‘ἐμάνθανεν’ with all the manuscripts, rejecting Ross’ emendation.

277b5-278a1) and argues that because those who acquire things acquire what they do not yet have, those who acquire knowledge acquire what they do not yet know (c2-7). But again, the argument does not actually refute the conclusion of T6, because Dionysodorus exploits the very equivocation Socrates later points out:

[T7]: [*refutandum* (=refutans of T6)] Οὐκοῦν ἂν ἐπίστασαι, ἦ δ' ὅς, μανθάνεις, εἴπερ γε ἅπαντα τὰ γράμματα ἐπίστασαι. — ... [argument] εἰπέ γάρ μοι, τὸ μανθάνειν οὐκ ἐπιστήμην ἐστὶ λαμβάνειν τούτου οὗ ἂν τις μανθάνῃ; { – } Ὡμολόγει ὁ Κλεινίας. { – } Τὸ δ' ἐπίστασθαι, ἦ δ' ὅς, ἄλλο τι ἢ ἔχειν ἐπιστήμην ἤδη ἐστίν; { – } Συνέφη. { – } Τὸ ἄρα μὴ ἐπίστασθαι μήπω ἔχειν ἐπιστήμην ἐστίν; { – } Ὡμολόγει αὐτῷ. { – } Πότερον οὖν εἰσιν οἱ λαμβάνοντες ὅτιοῦν οἱ ἔχοντες ἤδη ἢ οἱ ἂν μὴ ἔχωσιν; { – } Οἱ ἂν μή. { – } Οὐκοῦν ὁμολόγηκας εἶναι τούτων καὶ τοὺς μὴ ἐπισταμένους, τῶν μὴ ἔχόντων; { – } Κατένευσε. { – } Τῶν λαμβανόντων ἄρ' εἰσιν οἱ μανθάνοντες, ἀλλ' οὐ τῶν ἔχόντων; { – } Συνέφη. { – } [refutans] Οἱ μὴ ἐπιστάμενοι ἄρα, ἔφη, μανθάνουσιν, ὧ Κλεινία, ἀλλ' οὐχ οἱ ἐπιστάμενοι.

[*refutandum* (=refutans of T6)] Then you understand (μανθάνειν₂) what you know, [Euthydemus] said, if you in fact do know all your letters — ... [argument] Tell me, [Cleinias, said Dionysodorus,] isn't learning (μανθάνειν₁) the acquisition of the knowledge about that about which one learns? — Cleinias agreed. — And what about knowing? he said. Is it anything except having knowledge already? — He agreed. — Then not knowing is not yet having knowledge? — He agreed with him. — And are those who acquire something those who have it already or those who do not? —

Those who do not. — And you have admitted, haven't you, that those who do not know belong to the group of those who do not have something? — He nodded. — Then the learners (μαvθάνειv₁) belong to those who acquire and not to those who have? — He agreed. — [*refutans*] Then it is those who do not know who learn (μαvθάνειv₁), Cleinias, and not those who know (*Euthyd.* 277a8-c5).

Again, the *refutans* only appears to contradict the *refutandum*.

The foregoing analysis shows that Socrates' direct exposure of the equivocal arguments in the first Eristic episode is sufficient. A question might arise here why Plato only *directly* exposes the first set of fallacies in the dialogue. My suggestion is that Plato does this to prime his readers for the exposure of Eristic refutations, to get them thinking about what has gone wrong in the brothers' arguments. As the dialogue proceeds, Plato does not directly expose any other fallacies by explaining their mechanics in the detailed way he exposes the first two. But I will argue that he does provide his readers with resources necessary for understanding what he takes the errors in the brothers' arguments to be. In what follows I examine some cases in which Plato indirectly exposes two other kinds of linguistic ambiguity that the brothers employ.

3. SYNTACTIC AMBIGUITY

One technique of indirect exposure that Plato uses elsewhere in the *Euthydemus* in order to expose the brothers' apparent refutations is imitation. In response to some of the brothers' arguments, Plato has his protagonists imitate the fallacious reasoning in the argument that has gone just before as a way of clarifying what in the preceding argument created the illusion of a real refutation. This technique is on display most clearly in a series of

six arguments in the third Eristic episode (*Euthyd.* 298b4-300e2) over the course of which Ctesippus, Socrates' dialectical ally, starts copying the brothers so as to give them a taste of their own medicine. Socrates in fact claims at the end of this final Eristic display that Ctesippus has achieved near-mastery of the Eristic art in his imitation of the brothers (*Euthyd.* 303e4-8). Ctesippus' imitation and eventual mastery of these argumentative strategies gives us insight into exactly what aspects of these Eristic arguments Plato took to be the causes of the appearance of refutation. Here I will discuss the last two fallacies in this episode and show that Ctesippus' responses to these Eristic arguments correctly isolate the exploitation of syntactic ambiguity as the means by which the brothers brought off their apparent refutations.

In the first of these arguments, Euthydemus argues that because his and his brother's cloaks are able to be seen, that the cloaks themselves are able to see:

[T8]: Πότερον δὲ ὁρῶσιν, ἔφη ὁ Εὐθύδημος, καὶ Σκύθαι τε καὶ οἱ ἄλλοι ἄνθρωποι τὰ δυνατὰ ὁρᾶν ἢ τὰ ἀδύνατα; — Τὰ δυνατὰ δήπου. — Οὐκοῦν καὶ σύ, ἔφη; — Κἀγώ. — Ὅρᾳς οὖν τὰ ἡμέτερα ἱμάτια; — Ναί. — Δυνατὰ οὖν ὁρᾶν ἐστὶν ταῦτα. — Ὑπερφυῶς, ἔφη ὁ Κτήσιππος. — Τί δέ; ἢ δ' ὅς. — Μηδέν. σὺ δὲ ἴσως οὐκ οἶε ὁρᾶν αὐτὰ

Tell me, said Euthydemus, do the Scythians and the rest of humankind see things capable of sight or incapable? — Capable, I suppose. — And do you do so too? he asked. — Yes, so do I. — And do you see our cloaks? — Yes. — Then these same cloaks are capable of sight — Absolutely, said Ctesippus. — Well, what do they see?

he said. — Nothing at all. And you, perhaps, don't suppose that you see them
(*Euthyd.* 300a1-5).⁹³

The exchange turns on a syntactic ambiguity in the phrase ‘δυνατὰ ὁρᾶν,’ which can mean either (1) ‘things that can see’ or (2) ‘things that can be seen,’ depending on how one construes it. Ctesippus initially affirms that the cloaks are “δυνατὰ ὁρᾶν” because he understands sense (2) (a2-3), but Euthydemus then proceeds to ask him what it is that their cloaks can see (a5). The question renders Ctesippus’ original response absurd, but Euthydemus only brings it off by changing the meaning of the phrase ‘δυνατὰ ὁρᾶν’ from (2) to (1). That this is what has gone wrong becomes all the more apparent when Ctesippus responds by repeating the same trick. He first accepts the brothers’ reading of the phrase in sense (1) and answers that their cloaks cannot see anything (μηδέν—a5), but then asks Euthydemus whether he acknowledges that he sees the cloaks (σὺ δὲ ἴσως οὐκ οἶσι ὁρᾶν αὐτὰ) (a6), and this question understands sense (2) of the phrase ‘δυνατὰ ὁρᾶν’. The fact that Ctesippus responds by bringing out the same syntactic ambiguity that Euthydemus exploited in the preceding exchange suggests that he has caught a glimpse into the mechanics of this fallacy. I suggest that Plato has Ctesippus respond in this way to direct his readers toward the same insight.

The argument that immediately follows also relies on a syntactic ambiguity, and Ctesippus also exposes it through imitation:

[T9]: Ἡ γὰρ οὐχ οἷόν τ', ἔφη ὁ Διονυσόδωρος, σιγῶντα λέγειν; — Οὐδ' ὁπωστιοῦν, ἦ

⁹³ Reading ‘ὁρᾶν αὐτὰ’ with T.

δ' ὅς ὁ Κτήσιππος. — Ἄρ' οὐδὲ λέγοντα σιγᾶν; — Ἐτι ἤττον, ἔφη. — Ὅταν οὖν λίθους λέγῃς καὶ ξύλα καὶ σιδήρια, οὐ σιγῶντα λέγεις; — Οὐκ οὖν εἴ γε ἐγώ, ἔφη, παρέρχομαι ἐν τοῖς χαλκείοις, ἀλλὰ φθεγγόμενα καὶ βοῶντα μέγιστον τὰ σιδήρια λέγεται, ἐάν τις ἄψῃται... ἀλλ' ἔτι μοι τὸ ἕτερον ἐπιδείξατον, ὅπως αὖ ἔστιν λέγοντα σιγᾶν. ... Ὅταν σιγᾷς, ἔφη ὁ Εὐθύδημος, οὐ πάντα σιγᾷς; — Ἐγώ γε, ἦ δ' ὅς. — Οὐκοῦν καὶ τὰ λέγοντα σιγᾷς, εἴπερ τῶν ἀπάντων ἐστὶν [τὰ λεγόμενα]. — Τί δέ; ἔφη ὁ Κτήσιππος, οὐ σιγᾷ πάντα; — Οὐ δήπου, ἔφη ὁ Εὐθύδημος. — Ἀλλ' ἄρα, ὦ βέλτιστε, λέγει τὰ πάντα; — Τὰ γε δήπου λέγοντα. — Ἀλλά, ἦ δ' ὅς, οὐ τοῦτο ἐρωτῶ, ἀλλὰ τὰ πάντα σιγᾷ ἢ λέγει;

But surely speaking of the silent is impossible, said Dionysodorus. — Entirely impossible, said Ctesippus. — Then neither is there silence of speaking? — Still less so, he answered. — But whenever you speak about stones and wood and pieces of iron, are you not speaking of silent things? — Not if I go by the blacksmiths' shops, he said, because there the pieces of iron are said to speak out and cry aloud if anyone handles them ... But prove me the other point, how is there silence of speaking? ... — Whenever you are silent, said Euthydemus, are you not silent with respect to all things? — Yes, I am, he said. — Therefore, you are also silent with respect to the speaking, if “the speaking” is included in all things. — What, said Ctesippus, all things are not silent, are they? — I imagine not, said Euthydemus. — Well then, my good friend, do all things speak? — All the speaking ones, I suppose. — But, he said, this is not my question, I want to know, are all things silent, or do they speak (*Euthyd.*

In the first part of this argument, Dionysodorus asks Ctesippus whether *σιγῶντα λέγειν* is possible, which Ctesippus emphatically denies (b1-2). His emphatic denial suggests that he understands the phrase to mean ‘for one who is silent to speak’ (taking ‘*σιγῶντα*’ as a masculine accusative singular and subject of ‘*λέγειν*’), and not to mean ‘to speak about silent things’ (taking ‘*σιγῶντα*’ as a neuter plural accusative and object of ‘*λέγειν*’), which, of course, would call for affirmation. Dionysodorus then “refutes” this claim by taking Ctesippus’ denial as though he meant it in the second sense, and explains that whenever Ctesippus speaks about stones, wood and iron, he speaks about silent things (*σιγῶντα λέγεις*), which shows that it is in fact possible “to speak about silent things” (*σιγῶντα λέγειν*). Ctesippus responds to Dionysodorus’ argument by exploiting a third possible ambiguity in the phrase ‘*σιγῶντα λέγειν*.’ Ctesippus “refutes” Dionysodorus’ claim that it is possible to speak of silent things, by showing that these allegedly silent things about which one can speak are not actually silent: in blacksmith shops, the iron cries out when blacksmiths work with it (b4-7). Here Ctesippus has pointed out a third possible ambiguity in the phrase ‘*σιγῶντα λέγειν*.’ in claiming that allegedly silent things (like iron) “speak,” Ctesippus is implicitly taking ‘*σιγῶντα*’ as the neuter plural subject of ‘*λέγειν*.’ Plato thus ingeniously marks what kind of apparent refutation has occurred here by having Ctesippus reverse-engineer the same kind of refutation the brothers brought against him.

⁹⁴ The ambiguities exploited in this argument are difficult to render in English in a way that doesn’t leave it a mystery why anyone would be deceived by such an argument. The best approximation in English of the ambiguity in *σιγῶντα λέγειν* is “speaking of the silent”, where “of the silent” can be read either objectively or subjectively.

The second part of the argument concerns the possibility of λέγοντα σιγᾶν, which can mean both ‘for one who is speaking to be silent’ (where ‘λέγοντα’ is the singular accusative subject of ‘σιγᾶν’) and ‘to be silent with respect to speaking things’ (where ‘λέγοντα’ is a plural accusative of respect with ‘σιγᾶν’). Ctesippus initially agrees that λέγοντα σιγᾶν is impossible, taking the phrase to mean ‘for one who is speaking to be silent’ (b2-3). Euthydemus then refutes Ctesippus’ statement: treating Ctesippus’ agreement as though he had claimed that “it is impossible to be silent with respect to speaking things”, he argues that, because when one is silent one is silent with respect to all things, and because speaking things are among all things, Ctesippus is silent with respect to speaking things (300c2-4). Ctesippus again demonstrates his grasp of this syntactic ambiguity by once more turning the meaning of Euthydemus’ phrase and making ‘all things’ (πάντα) the subject of both ‘λέγειν’ and ‘σιγᾶν,’ rather than the accusative of respect it was for Euthydemus (c4-7). Again, by having Ctesippus respond in this way, Plato draws our attention to the various ways in which one meaning of an ambiguous phrase can be used to refute a claim that was made under a different meaning of the same phrase.

In connection with passages such as these it is worth reiterating Sprague’s helpful reminder that Plato’s dialogues are written by Plato.⁹⁵ Sprague presents the tautology in hopes of correcting our tendency to credit Plato primarily with the view of his protagonists and the arguments and explanations they offer, and not to reflect on the more general understanding that would be required in order to compose a dialectical exchange. Instead of looking for Plato’s general awareness of things like linguistic ambiguity in the generally withheld explicit diagnoses of the fallacious arguments we find in Plato’s dialogues, we

⁹⁵ See Sprague 1977, 45.

should consider the level of general awareness of syntactic ambiguity that would be required to compose such an exchange. It seems to me that quite a sophisticated understanding of syntactic ambiguity would be necessary to compose exchanges such as these, in which the Eristic arguments offered, and the imitative responses to them, repeatedly exploit the various construals of these ambiguous phrases.

Plato's unique manner of depicting the way these arguments, and objections to them, functioned in their dialectical context, is of course sharply distinct from Aristotle's systematic treatment of these arguments. But this difference, it seems to me, should be rather explained in terms of the two philosophers' preferred ways of communicating their philosophical insights, rather than in their respective grasp of the mechanics of Eristic arguments. We should however notice that the aims of the two treatments of fallacies are not as different as they might initially seem. Indeed, one significant goal of Aristotle's *SE* is to provide answerers in an Eristic exchange with the ability to expose such refutations (chs. 19-33). In this connection, let us briefly consider Aristotle's discussion of the argument we just surveyed:

[T10]: παρὰ δὲ τὴν ἀμφιβολίαν οἱ τοιοῖδε ... [1] καὶ “ἄρ' ἔστι σιγῶντα λέγειν;” [2] διττὸν γὰρ καὶ τὸ σιγῶντα λέγειν, τό τε τὸν λέγοντα σιγᾶν καὶ τὸ τὰ λεγόμενα.

The following [is an apparent refutation] due to amphiboly (παρὰ τὴν ἀμφιβολίαν): ... [1] is speaking of the silent possible? [2] For 'speaking of the silent' is ambiguous: [meaning] both for the one speaking to be silent or for the things spoken of [to be silent] (*Soph. el.* 166^a12-14).

Here again we have only a reference to, rather than an actual example of, a fallacious refutation. In [1] Aristotle gives the question that would open up a fallacious argument, but does not present the argument. Instead, (in [2]) he explains the syntactic ambiguity that can be exploited in an argument that begins with such a question. This example is in fact referred to more than any other in the *SE*, but in none of these cases does Aristotle give us more than the question with which the argument opens (*Soph. el.* 166^a12; 171^a28-29; 177^a25-6), an explanation of the syntactic ambiguity the argument exploits (166^a12-14), or else refer to the argument by name: ‘τὸ σιγῶντα λέγειν’ (*Soph. el.* 171^a8; 177^a12).

A number of commentators have noticed that with the phrase ‘τὸ σιγῶντα λέγειν’ Aristotle refers to the Eristic refutation at *Euthydemus* 300b1-c4, where we see the full version of the refutation carried out.⁹⁶ What earlier commentators haven’t noticed is that Aristotle’s advice about how to solve refutations that exploit syntactic ambiguity also comes from the *Euthydemus*. Aristotle advises dialecticians to respond to such arguments as follows:

[T11]: ἐν ἀρχῇ μὲν οὖν πρὸς τὸ διπλοῦν καὶ ὄνομα καὶ λόγον οὕτως ἀποκριτέον, ὅτι ἔστιν ὥς, ἔστι δ' ὥς οὐ, ὥσπερ τῷ “σιγῶντα λέγειν” ὅτι ἔστιν ὥς, ἔστι δ' ὥς οὐ ... ἐὰν δὲ λάθῃ, ἐπὶ τέλει προστιθέντα τῇ ἐρωτήσῃ διορθωτέον· “ἄρ' ἔστι σιγῶντα λέγειν;”, “οὐ, ἀλλὰ τόνδε σιγῶντα”.

⁹⁶ See Nancy 1984, 204 n.258, Canto 1987, 277 n.106; 1989, 90 n.129; 199 n.109; Dorion 1995, 91-101.

At the start, then, one should reply with regard to an ambiguity, whether of a word or of a phrase, in this manner, that in one sense it is so, and in another not so, as e.g., that speaking of the silent is in one sense possible, and in another not possible ... If, however, the ambiguity escapes one, one should correct it at the end by making an addition to the question: “is speaking of the silent possible?” “No, but [to speak of] this person while he is silent [is possible]” (*Soph. el.* 177^a20-26).

Ctesippus does not at the start of the argument respond by distinguishing the various possible construals. The fact that he immediately responds to the question with emphatic denial suggests that the ambiguity initially escapes him. But, as we saw above, Ctesippus does respond to the conclusion that it is possible σιγῶντα λέγειν in exactly the way Aristotle suggests one should in such cases: by denying the conclusion, and by offering the opposite conclusion, which exploits another construal of the ambiguous phrase. In doing so, he demonstrates his awareness of how these phrases can be employed under different meanings so as to apparently contradict claims made with the same words, but under a different construal. Plato’s treatment of this argument thus enacts precisely the sorts of dialectical moves that Aristotle recommends to those who have come to a proper understanding of this kind of fallacy. I thus see no reason to think that Plato’s way of writing about fallacious arguments betrays a weaker grasp than Aristotle had of the way syntactic ambiguity can be exploited to render sophistical refutations apparently genuine. The fact that these exchanges in the *Euthydemus* provide the reader with many meanings of the ambiguous phrases in question and also with examples of how each of these meanings can be exploited to appear to

refute claims that were made under a different meaning tells strongly in favor of thinking that Plato had a sufficient grasp of the mechanics of such arguments.

4. ELLIPTICAL AMBIGUITY

Plato also indirectly exposes what I will call fallacies of elliptical ambiguity through imitation by having Ctesippus make a remark that turns on elliptical ambiguity in explicit response to two of the brothers' fallacies of this kind. At 299c8-e3, Dionysodorus concludes from Ctesippus' agreement that gold is a good, and that it is necessary to have goods “ἐν ἑαυτῷ,” that the happiest person is the one who has a talent of gold in his stomach and skull and a stater of gold in each eye. What Dionysodorus has done is take the claim that it is good to have gold “ἐν ἑαυτῷ” as though this phrase literally meant “inside oneself”, and in doing so he exploits a third kind of linguistic ambiguity. The original use of the phrase it is almost certainly elliptical. In a similar manner to phrases like ‘*chez moi*’ in French, in Classical Greek the reflexive with a preposition is sometimes used with an elided complement to denote one's home: for example in Xenophon's *Memorabilia* a man complains to Socrates that the water is too warm “παρ' ἑαυτῷ,” which in this context clearly means “at his own [house]” (Xen. *Mem.* 3.13.3). Because Dionysodorus is here discussing places one wants to keep one's gold, the natural way of understanding the claim that Ctesippus wants gold most of all “ἐν ἑαυτῷ” is as an affirmation that he wants to keep his gold in his home. But Dionysodorus takes this more natural and familiar use of the expression ‘ἐν ἑαυτῷ’ and treats it as though there were no elided complement, and simply meant “in oneself”. Dionysodorus thus concludes that Ctesippus wants gold in his stomach (ἐν τῇ γαστρὶ), in his head (ἐν τῷ κρανίῳ) and in each of his eyes (ἐν ἑκατέρῳ τῷ φθαλμῷ) (*Euthyd.* 299d6-e3).

It is clear that there is some ambiguity at work here in the phrase, but it is also clear

that the ambiguity is neither lexical nor syntactic ambiguity. Neither the preposition ‘ἐν’ nor the reflexive ‘ἐαυτῷ’ is lexically ambiguous the way words like ‘μανθάνειν’ are. Moreover, the phrase ‘ἐν ἐαυτῷ’ does not literally admit of multiple syntactical construals the way that the phrases ‘δυνατὰ ὁρᾶν’ and ‘σιγῶντα λέγειν’ do. The feature that distinguishes the ambiguity at work here from the forms of ambiguity discussed earlier is that this use of ‘ἐν ἐαυτῷ’ is an elliptical expression and calls for us to understand some further elided complement.

This form of ambiguity, which Plato goes on to expose, was later given the name ‘ellipsis’ by the Stoics, who seem to have worked out an explicit account of ellipsis ambiguity in connection with arguments of the sort Plato here treats indirectly.⁹⁷ This form of ambiguity is a unique feature of possessive pronouns, genitive expressions and reflexives with elided complements, all of which can admit of different construals when they are expressed elliptically and a more precise specification of the possession is omitted. In his treatise entitled *Περὶ τῶν παρὰ τὴν λέξιν σοφισμάτων* (*De Captionibus penes Dictionem*) Galen provides our only surviving explicit discussion of this kind of ambiguity, which he defines as follows:

[T12]: τετάρη δέ ἐστι παρὰ τὴν ἔλλειψιν, <ὥς> ‘σός ἐστιν [ὥς] υἱός’· καὶ γὰρ ἐλλείπει τὸ διὰ μέσου, οἷον δεσπότου ἢ πατρός.

The fourth [kind of ambiguity] is that due to ellipsis, for example “the child is yours”.

For the parenthesis is omitted, namely, [yours] as master or [yours] as father (*De*

⁹⁷ See Edlow 1975, 432-433

‘τὸ διὰ μέσου’ is an expression for rhetorical parenthesis,⁹⁹ but it is here used in a more technical sense to refer to the elided or expressed word that more precisely fixes the meaning of an elliptically ambiguous term.¹⁰⁰ It is easy to see how this form of ambiguity could be exploited in refutations: a *paidagogos* might answer affirmatively the question “is this child yours?” understanding “yours (as master)”, and the Eristic questioner might then exploit the elliptical ambiguity in the possessive pronoun and conclude that the child is the son of the *paidagogos* (i.e., the child is “yours (as father)”). Analogously, the reflexive pronoun in Dionysodorus’ argument is elliptically ambiguous, and can mean different things depending on whether one understands an elided parenthesis: in the original use of the expression, it simply denotes that Ctesippus wants gold in his own home, but Dionysodorus exploits the elliptical ambiguity in the words ‘ἐν ἑαυτῷ’—and treats this as a claim that Ctesippus wants gold inside of himself.

Ctesippus indicates that an ambiguity of this sort has been exploited when he responds to Dionysodorus’ ellipsis fallacy by citing another, related case of ellipsis ambiguity. He claims that the Scythians have gold “in their skulls, their very own [skulls]” (ἐν τοῖς κρανίοις ...τοῖς ἑαυτῶν) and, amazingly, they drink out of their own skulls, look inside them, and hold their own heads in their hands (*Euthyd.* 299e3-9). The fact that the Scythians kept the skulls of their defeated enemies, had them gold-plated, and drank from

⁹⁸ The text is corrupt. Here I accept Edlow’s reading (1975, 432).

⁹⁹ See Herodianus’ *de Figuris* in Spengel 1856, 83.

¹⁰⁰ See Edlow 1975, 432.

them was well known.¹⁰¹ The natural reading of ‘τοῖς’ in the initial phrase ‘τοῖς κρανίοις’ (which is here used in place of a possessive) is thus possessive in a weak sense: the Scythians keep their enemies’ skulls as their possessions.¹⁰² But this possessive use of the definite article is elliptically ambiguous, and Ctesippus’ subsequent collocation of the article ‘τοῖς’ (‘their’) with the parenthesis ‘ἐαυτῶν’ brings out a different meaning of the term, one which suggests that the Scythians are drinking out of their own personal heads. The most interesting feature of Ctesippus’ imitation of this ellipsis fallacy is the fact that he explains his intended meaning of ‘ἐν τοῖς κρανίοις ... τοῖς ἐαυτῶν’ with reference to another of Dionysodorus’ arguments that also relies on ellipsis ambiguity:

[T13]: Φασί γε οὖν, ὦ Εὐθύδημε, ἔφη ὁ Κτήσιππος, τούτους εὐδαιμονεστάτους εἶναι Σκυθῶν καὶ ἀρίστους ἄνδρας, οἱ χρυσίον τε ἐν τοῖς κρανίοις ἔχουσιν πολὺ τοῖς ἐαυτῶν, ὥσπερ σὺ νυνδὴ ἔλεγες τὸν κύνα τὸν πατέρα

They say, Euthydemus, said Ctesippus, that the happiest and best men are among the Scythians, who have a lot of gold in their skulls, *their very own* [skulls] (in the same way you were just now speaking about your dog, your father) (*Euthyd.* 299e5-6).

The argument to which Ctesippus alludes in order to indicate his peculiar use of the words ‘τοῖς ἐαυτῶν’ is an argument in which Dionysodorus, as Ctesippus does here, changes the

¹⁰¹ This practice is described by Herodotus (IV. 65) and in the *Dissoi Logoi* (II. 13).

¹⁰² On the use of the definite article in place of a possessive see Kühner and Gerth 1898, §461.2. That these definite articles are being used in a rather strong possessive sense, rather than meaning something like “the skulls in question” is suggested by the fact that Ctesippus refers to the argument that concludes “your dog is your father” with the phrase ‘τὸν κύνα τὸν πατέρα.’

meaning of an elliptically ambiguous possessive by collocating it with a different parenthesis than the one an interlocutor originally understood. In this earlier argument—which here Ctesippus simply calls “your dog, your father” (τὸν κύνᾱ τὸν πατέρα)—Dionysodorus concluded from Ctesippus’ agreement to the claims “the dog is yours” and “the dog is a father” that “the dog is your [sc. Ctesippus’] father” (*Euthyd.* 298e1-5). By connecting these two arguments I take Plato to be suggesting that just as Ctesippus changes the natural reading of ‘τοῖς κρανίοις’ (‘their skulls (as possessions)’) to mean ‘their very own skulls’ by collocating ‘τοῖς’ with ‘ἑαυτῶν,’ so in this earlier argument Dionysodorus changes the natural reading of ‘σός’ (i.e., ‘yours (as pet)’) to mean ‘yours (as father)’ by collocating ‘σός’ with ‘πατήρ.’ Thus, by explaining his use of ‘τοῖς ἑαυτῶν’ in his remark about the Scythians with reference to the dogfather argument, and by producing this example in explicit response to the gold-in-your-body argument, Ctesippus suggests that all three of these arguments rely on the same kind of elliptical ambiguity. Plato therefore exposes the exploitation of ellipsis in the gold-in-your-body and the dogfather arguments by having Ctesippus imitate Dionysodorus’ exploitations of this ambiguity, and by doing so, provides his readers with the resources necessary for understanding that the fallacy is brought about by the collocation of an elliptically ambiguous word with a different parenthesis than the one an interlocutor is likely to understand when it is elided.

Comparison with Aristotle’s treatment of one of these arguments again proves fruitful, in so far as he recognizes Plato’s treatment as a solution, even though he himself has a different analysis of why the argument appears to be genuine. In Ch. 24 of the *SE* Aristotle cites six sophistical refutations that he takes to depend on accident—roughly, the mistake of assuming that an attribute belongs in the same way to a subject and its accident—and then

discusses and dismisses earlier attempts to solve these fallacies in different ways. The final pair of arguments whose earlier diagnoses Aristotle discusses are those that begin with the questions “is the statue yours?” and “is the dog your father?” (*Soph. el.* 179a34-35). His criticism of the earlier solution to these arguments runs as follows:

[T14]: Ἐνιοὶ δὲ καὶ τῷ διττῷ λύουσι τοὺς συλλογισμούς, οἷον ὅτι σός ἐστι πατὴρ ἢ υἱὸς ἢ δοῦλος. καίτοι φανερόν ὥς εἰ παρὰ τὸ πολλαχῶς λέγεσθαι φαίνεται ὁ ἔλεγχος, δεῖ τοῦνομα ἢ τὸν λόγον κυρίως εἶναι πλειόνων. τὸ δὲ τόνδ' εἶναι τοῦδε τέκνον οὐδεὶς λέγει κυρίως, εἰ δεσπότης ἐστὶ τέκνον, ἀλλὰ παρὰ τὸ συμβεβηκὸς ἢ σύνθεσις ἐστίν· “ἄρ' ἐστὶ τοῦτο σόν;” “ναί.” “ἔστι δὲ τοῦτο τέκνον· σὸν ἄρα τοῦτο τέκνον.” ἀλλ' οὐ σὸν τέκνον ὅτι συμβέβηκεν εἶναι καὶ σὸν καὶ τέκνον.

Some people also use the principle of ambiguity to solve the [aforementioned] deductions, e.g., that he is your father, or son, or slave. Yet it is evident that if the appearance of a refutation depends upon a plurality of uses, the word or the expression in question ought to bear a number of literal senses. But nobody speaks of someone as being his child in the literal sense; if he is the child's master, rather, the combination is due to accident. “Is he yours” — “yes” — “and is he a child?” — “then the child is yours”, because he happens to be both yours and a child, but he is not your child (*Soph. el.* 179^b38-180^a7).

We should first note that the solution Aristotle discusses seems clearly to be the Platonic one, and that he treats it as an attempt to solve the argument, rather than a mere report of a fallacy.

Moreover, Aristotle's report on this fallacy corroborates the view advanced above, that what Plato means to expose in these arguments is an exploitation of some kind of ambiguity. Plato indicates what he thought went wrong in the dogfather argument by having Ctesippus connect this argument with an inference just like it, one that also collocates an elliptically ambiguous term with a word that fixes its meaning in a way different from that under which it was originally understood. Aristotle moreover seems to agree with Plato that collocation, or combination (σύνθεσις) is the mechanism by which the fallacy is brought off. However, unlike Plato, he thinks the collocation exploits accident (παρὰ τὸ συμβεβηκός) rather than a form of ambiguity. Aristotle rejects Plato's solution because he does not recognize ellipsis as a genuine kind of ambiguity: for Aristotle 'σὸς πατήρ' does not literally mean both 'your father' and 'your [possession who is a] father' in the same way that 'μανθάνειν' does literally mean 'to learn' and 'to understand.' Aristotle is thus operating with a more restricted conception of ambiguity than Plato.¹⁰³ But even though he disagrees about which feature of the argument is problematic, the two are still in partial agreement about the means by which this problematic feature is exploited in these arguments. For Plato, the problematic feature of the argument is an elliptical ambiguity in the possessive pronoun, and in the *Euthydemus*, he shows that this ambiguity is exploited by means of collocation: by collocating 'yours' and 'father', the Eristic fixes the meaning of the elliptically ambiguous term 'yours' with a different meaning than the answerer initially understood. Even though Aristotle instead thinks that the problematic feature of the argument has to do with a confusion about when accidents belong to their subject as well as the other accidents of that subject (*Soph. el.*

¹⁰³ Aristotle recognizes three kinds of linguistic ambiguity: Lexical ambiguity, syntactic ambiguity, and ambiguity in grammatical form, which produces fallacies that he calls "form of expression" (*SE* 168^a23-25). I discuss all three kinds of ambiguity in greater detail in chapter 4.

179^a35-39), he reveals his more general agreement with Plato about the means by which this feature is exploited when he claims that the combination is due to accident (παρὰ τὸ συμβεβηκὸς ἢ σύνθεσις ἐστίν) (*Soph. el.* 180^a4). It is thus noteworthy that Aristotle does not dismiss this kind of solution because it fails to expose how the Eristics brought off the appearance of a genuine refutation, but rather because he has a more narrow conception of ambiguity, and his own theoretical commitments about the use of accidents in deductions.

5. PLATO'S FORMAL SOLUTIONS TO LINGUISTIC FALLACIES

So far in this chapter I have tried to show that Plato has a rather sophisticated understanding of the forms of linguistic ambiguity he has his Eristics exploit in their refutations. Moreover, I have argued that the way Plato deploys these ambiguities in dramatic dialectical exchanges betrays a significant awareness of the way these forms of ambiguity can be exploited in arguments to create the appearance of refutation. We have also seen that Plato's treatment of these apparent refutations is either identical to, or at least not significantly different from the sorts of solutions Aristotle offers for the same arguments. Nevertheless, because Plato lacks Aristotle's explicit conceptions of genuine refutation and deduction, it remains an open question whether these exposures constitute adequate formal solutions. Here I will take a step back from these particular arguments and consider how Plato's solutions to these arguments measure up to the explanatory account of sophistical refutations that Aristotle offers. I will first outline what I take it to mean to say that Aristotle has an explanatory account of fallacy. I will then show that Plato successfully achieved one part of this project in his diagnoses of these apparent refutations.

Aristotle's treatment of sophistical arguments comes in the first half of the *SE*, where

he presents an account of sophistical refutations and deductions in two phases. Aristotle defines sophistical refutations in the first sentence of the *SE* as arguments that “appear to be refutations, but are actually fallacies (παραλογισμῶν), not refutations” (*Soph. el.* 164^a20-21). What I will call Aristotle’s explanatory account of sophistical refutations is then an explanation of what both parts of this definition mean. He first explains what it means for the thirteen sophistical refutations he recognizes to *appear* to be refutations or deductions (chs. 4 & 5) and then explains why each of these ways of appearing to refute or deduce actually fails to do so (ch. 6).

The first part of Aristotle’s account comes in chs. 4 and 5, where he divides the “ways (τρόποι) of [apparently] refuting” (165^b23) into those “due to language” and those “outside of language”:

<u>Due to language (ch. 4):</u>	<u>Outside of language (ch. 5):</u>
Homonymy: 165 ^b 30-166 ^a 6	Accident: 166 ^b 28-36
Amphiboly: 166 ^a 6-14	Qualification: 166 ^b 37-167 ^a 20
Combination: 166 ^a 23-32	Ignorance of refutation: 167 ^a 21-35
Division: 166 ^a 33-38	Consequent: 167 ^a 36-39
Accent: 166 ^b 1-9	Begging the question: 167 ^b 1-20
Form of expression: 166 ^b 10-19.	False Cause: 167 ^b 21-36
	Many questions: 167 ^b 37-168 ^a 16.

Contrary to standard practice, I have intentionally not referred to the items Aristotle classifies here as “fallacious arguments.” Aristotle begins this classification with the “ways of refuting due to language”, and he describes the items that are usually called the “linguistic

fallacies” as “the things that produce the illusion due to language” (τὰ μὲν παρὰ τὴν λέξιν ἐμποιοῦντα τὴν φαντασίαν) (*Soph. el.* 165^b24-25). This introduction to the classification thus suggests that what follows will be a catalogue of the sources of appearance in apparent refutations. This is in fact borne out by what follows: throughout these two chapters, Aristotle does not argue that the items he catalogues are fallacies; rather, for each of these 13 categories Aristotle isolates a different source—which he marks with the preposition παρὰ—of an argument’s appearing to be genuine without actually being so.¹⁰⁴ Thus, what is being classified here are not yet fallacies as such—we don’t yet have an account of what it means for an argument to fail to be a genuine refutation. It is rather a classification and explanation of the sources of appearance in sophistical refutations and deductions. In what follows I will refer to these sources as the 13 “causes of illusion”.

After he has classified these causes of illusion, Aristotle immediately introduces a new classification:

[T15]: Ἡ δὲ οὕτως διαιρετέον τοὺς φαινομένους συλλογισμοὺς καὶ ἐλέγχους, ἢ πάντας ἀνακτέον εἰς τὴν τοῦ ἐλέγχου ἄγνοιαν, ἀρχὴν ταύτην ποιησαμένους· ἔστι γὰρ ἅπαντας ἀναλῦσαι τοὺς λεχθέντας τρόπους εἰς τὸν τοῦ ἐλέγχου διορισμόν.

We should either divide apparent deductions and refutations as above, or else explain them in terms of ignorance of what refutation is, making that the source; for it is

¹⁰⁴ Here I am in agreement with Crivelli (2006, 141) that Aristotle fixes the meaning of the παρὰ + accusative expressions that he uses to name the individual fallacies, when he introduces the refutations παρὰ τὴν λέξιν as “the things that produce the illusion” (165^b24-25).

possible to reduce all the aforesaid ways [of apparently refuting] to the definition of a refutation (*Soph. el.* 168^a17-20).

It is clear that ignorance of the definition of a refutation is supposed to be some kind of source (ἀρχὴν—^a19) that is explanatory of these ways of apparently refuting, but it is not immediately clear what kind of cause it is or what is being explained. Particularly puzzling is the relationship between the division of fallacies offered here, and the one that immediately precedes it. On my view, much of the confusion over the relationship between these two classifications stems from the assumption that both of these passages are classifications of fallacies.¹⁰⁵ If, however, we recognize that the initial classification is a catalogue of the

¹⁰⁵ It is worth noting here that recognizing the distinct explanatory aims of the two classifications of fallacies helps us to understand one of the most puzzling features of these two classifications. In chapter five, “ignorance of the definition of refutation” is listed as one of the seven ways of refuting “outside of language” (167^a21-35). But then in chapter six, all these ways of refuting are explained in terms of ignorance of what refutation is, and puzzlingly, the fallacy earlier called “ignorance of refutation” is shown to be fallacious because it is an instance of “ignorance of refutation” (168^a17-21). If both classifications explain why these ways of refuting are fallacies, we have in chapter six the awkward explanation that the fallacy “ignorance of refutation” is a fallacy because it is an instance of itself. When we recognize that the two classifications do different explanatory work, this strangeness disappears. In the original classification, “ignorance of refutation” is shown to be a source of illusion: it is due to (παρὰ) an interlocutor’s ignorance of what a true refutation is that a sophistical refutation appears to be a genuine one. What Aristotle shows in this passage is simply that ignorance of the definition of genuine refutation is one of the possible sources of illusion in a sophistical refutation. The following classification then explains why arguments that depend on these sources of appearance are fallacies: arguments that fail to satisfy one of the criteria set down in the definition of a refutation, but appear to be genuine due to an interlocutor’s ignorance of true refutation are not genuine refutations *because* they do not satisfy the criteria necessary for a genuine refutation. The two classifications taken together teach us that those fallacies that appear to be genuine due to an interlocutor’s ignorance of what genuine refutation is (167^a21-35) are in fact not genuine because

causes of illusion, we are provided a reading according to which the two classifications together provide an explanatory account of the 13 apparent refutations and deductions as Aristotle understands them. Sophistical refutations, for Aristotle, are arguments that “appear to be refutations (τῶν φαινομένων μὲν ἐλέγχων), but are actually fallacies, not refutations (ὄντων δὲ παραλογισμῶν ἀλλ’ οὐκ ἐλέγχων)” (*Soph. el.* 164^a20-21). The initial classification, which isolates the features due to which these sophistical refutations produce the illusion of a refutation, explains why sophistical refutations and deductions appear to be genuine refutations or deductions. This account, however, does not offer us an explanation of why arguments that exploit these illusions do not constitute genuine refutations or deductions. The explanation of why arguments that rely on these causes of illusion are fallacies, rather than genuine deductions or refutations, comes in ch. 6, where Aristotle shows that each of the arguments that exploits one of these illusions fails to satisfy at least one of the criteria laid down in the definitions of genuine refutation and deduction. In this chapter he takes the definition of refutation “part by part” (168^a23) and shows that each sophistical refutation fails to satisfy one of the parts of this definition. Thus, the two classifications together, on the present reading, explain why the 13 forms of apparent refutation and deduction (1) appear to be refutations or deductions (chs. 4-5) but (2) are not actually genuine refutations or deductions (ch. 6). Because, for Aristotle, arguments that exploit these illusions are all possible fallacies (*Soph. el.* 169^a18-20), these two classifications together constitute Aristotle’s complete treatment of fallacy. Thus, if we take Aristotle’s account as the standard for having an explanatory account of fallacy, what it means to have such a theory is to have

arguments that exploit this ignorance fail to satisfy the criteria necessary for genuine refutation (168^b17-21).

an account of both (1) why fallacies appear to be deductions or refutations and (2) why they nevertheless fall short of the requirements for a genuine refutation or deduction.

Having such a treatment of fallacy, however, is a different matter than providing a solution to a fallacy, and there are indications in the *SE* that many people were offering solutions to fallacies before Aristotle offered his own systematic treatment. The second half of the *SE* considers apparent refutations from the perspective of the answerer in a dialectical exchange, and offers guidance on how an answerer should offer solutions to such refutations.¹⁰⁶ The contrasts Aristotle frequently draws between his preferred solution to a particular refutation and various other solutions on offer (e.g., *Soph. el.* 177^b27-34; 179^b7-12; ^b34-37; ^b37-180^a7) makes it clear that many people offering solutions to Eristic refutations before Aristotle wrote the *SE*. Of particular importance for present purposes are Aristotle's methodological remarks about solutions that we examined in the previous chapter (T5 & T6 in Ch. 1). In those passages Aristotle claims that to offer a solution to a sophistical argument is to expose "what it is due to" (*παρ' ὅ*). And as we have seen, Aristotle uses this *παρὰ*-expression to pick out the cause of illusion in an argument. To solve a sophistical refutation is therefore to expose the cause of illusion on which it depends; the solution consists in pointing out "that due to do which there appears to be a deduction" or a refutation (*Soph. el.* 176^b33-35 (=T5 in Ch. 1)). Thus, for example, to solve a homonymous argument, for

¹⁰⁶ In the medieval commentary tradition the two halves of the treatise are divided into two books (Ebbesen 1981, I. 10 & 13). Diogenes Laertius also appears to divide the *SE* into two books: *Περὶ ἐριστικῶν α' β'*, which is listed alongside to other works of Aristotle on Eristics which have been lost, *Λύσεις ἐριστικά δ'* and *Διαρρέσεις ἐριστικά δ'*, although the latter two books may be the same (Ebbesen 1981, 13).

Aristotle, involves showing that it exploited lexical ambiguity, and therefore only appeared to refute an interlocutor's claim, or only appeared to deduce about the same thing, because the argument uses the same word but exploits at least two different meanings of that word.

Providing a solution to a fallacious argument, in a dialectical context, thus does not require a complete theory of fallacy of the kind Aristotle has, but rather only part of that theory—an understanding of the “ways of producing an illusion” in arguments (165^b25). The fact that one can have this part of a theory of fallacy, but not the other, is corroborated by the fact that Aristotle in the *SE* frequently attributes this kind of solution to his contemporaries and predecessors: because Aristotle was the first person to develop a definition of deduction and refutation (*Soph. el.* 184^b1-2), and because demonstrating that an argument is not a genuine refutation or deduction requires one to show that it fails to satisfy criteria set down in this definition (cp. T15), it would not have been possible for Aristotle's predecessors to provide solutions to fallacies if doing so required that one explain why the argument is fallacious. In attributing solutions to other philosophers, including Plato (e.g., *Soph. el.* 165^b31-34; 177^a20-26; 179^b38-180^a7), Aristotle thus concedes that they understood some of the causes of illusion in fallacious arguments, even if they did not have all of the formal resources necessary for demonstrating that these arguments fall short of an explicit standard for genuine deduction and refutation.

We do not have evidence that Plato had the formal resources necessary to explain why the Eristic refutations he discusses in the *Euthydemus* are not genuine refutations, because doing so would require an explicit conception of genuine refutation to hold up as the standards of which Eristic arguments fall short. But the foregoing analysis of Plato's treatment of linguistic fallacies should make it clear that he did correctly identify a number of

ways Eristic refutations produce the illusion of being genuine arguments. His exposures of arguments that depend on lexical, syntactic and elliptical ambiguity successfully identify the ambiguous terms that are exploited in these arguments and provide his readers with the resources necessary for understanding how the exploitation of these ambiguities makes a refutation appear to successfully refute even though it does not actually do so. The task of exposing these illusions, moreover, goes a long way toward understanding why such arguments are illegitimate, even if one has not yet worked out all the formal details. Once one recognizes, for instance, that ‘μανθάνειν’ means different things when it applies to opposite people, one is no longer under the illusion that one has been refuted by arguments like those the Eristics offer. It is not additionally necessary to be offered an explicit definition of refutation, of which such an argument falls short, in order to be rid of the illusion that one has been refuted by such an argument. Thus, although Plato had not done the systematic work of defining genuine deductions and refutations, and therefore did not have a complete treatment of fallacy of the kind Aristotle does, his exposures of the causes of illusion due to ambiguous language nevertheless made significant progress in the demarcation of fallacious from genuine reasoning.

Refutations that exploit ambiguity, however, are not the only or even the most significant kinds of Eristic arguments that Plato exposes. In the following chapter I will survey Plato’s exposures of a pernicious kind of Eristic argument—which later came to be known as qualification or *secundum quid* fallacies—for which he not only exposes the causes of illusion, but relies on an explicit criterion for genuine refutations: namely, that a refutation must produce a contradiction that violates the Principle of Non-Contradiction, according to which opposites cannot belong to the same thing at the same time, in the same respect, and in

relation to the same thing. In his engagements with these Eristic arguments Plato not only anticipates Aristotle's diagnoses of particular fallacies, but also lays important groundwork for Aristotle's explicit definitions of genuine refutation and deduction.

III. THE ERISTIC BACKGROUND TO THE PRINCIPLE OF NON-CONTRADICTION

1. INTRODUCTION

The Principle of Non-contradiction (PNC) plays a central role in the philosophical work of both Plato and Aristotle. For Plato, the PNC is the basis of *Republic IV*'s celebrated argument for the tripartition of the soul (*Resp.* 436b9-c2). For Aristotle, it is the firmest first principle in first philosophy (*Metaph.* 1005^b11-23). Both, moreover, give an enormous amount of credence to the principle. Plato has Socrates claim in the *Republic* that “nothing will ever persuade [him] that the same thing can [...] be opposites at the same time (ἄμα), in the same respect (κατὰ τὸ αὐτὸ) and in relation to the same thing (πρὸς τὸ αὐτὸ)” (*Resp.* 436e8-437a2).¹⁰⁷ For Aristotle, the axiom that opposite predicates cannot belong to the same subject—when these “customary qualifications” have been specified—is the best known of all principles, without which we could not know anything that we know (*Metaph.* 1005^b13-17).¹⁰⁸

But while it is clear that the PNC is central to the work of both philosophers, both the context in which the principle was originally formulated and the reasons why it has the formulation it does remain obscure. Although it is relatively clear that Aristotle adopts his

¹⁰⁷ The Greek text of the *Republic* follows Slings 2003. All translations from the *Republic* are my own.

¹⁰⁸ The Greek text of the *Metaphysics* follows Ross 1929. All translations from the *Metaphysics* are my own.

formulation of the principle from Plato,¹⁰⁹ the principle's abrupt debut in *Republic IV* gives us little indication of how Plato originally came to accept the PNC or of the intellectual context in which he developed it. A closely related puzzle concerns the principle's precise formulation. Plato consistently specifies not only that opposite predicates cannot belong to the same subject, but also that they cannot do so at the same time (ἄμα), in the same respect (κατὰ τὸ αὐτὸ) and in relation to the same thing (πρὸς τὸ αὐτὸ). Aristotle follows suit, and regularly builds the same "customary qualifications" into his statements of the PNC (*Metaph.* 1005^b27-28). The question then arises why Plato and Aristotle take precisely *these* qualifications to be necessary. Unfortunately, the canonical discussions of this principle are of little help. Plato never explicitly delineates the necessity of these qualifications, and Aristotle says of these customary additions only that they are necessary in order to deal with

¹⁰⁹ There is a tendency among some scholars to reserve the label "PNC" for Aristotle's principle and to call the Platonic principle by various other names: (1) "The Principle of Opposites" (Robinson 1971, 38-40; Stalley 1975, 110; Lorenz, 2006, 18-34; Duncombe 2016, 39; Kamtekar 2017, 131); (2) "The Principle of Contraries" (Irwin 1995, 204; Bobonich 2002, 223-235) or (3) "The Principle of Non-Contrariety" (Price 1995, 39; 2009, 2; 2011). The hesitancy to identify the two principles is based on the thought that Aristotle's principle has to do with *contradictories* whereas Plato's has to do with *contraries*. However, Plato uses the word "opposites" (τὰναντία) to cover both contradictories and contraries, which is clear from the fact that he applies the principle to both kinds of predicates in the tripartition argument (e.g., resting/moving at *Resp.* 43cC6-7, which I take to be contradictories, and desire/aversion at *Resp.* 437c7-9, which I take to be contraries). Aristotle, on the other hand does sometimes formulate the principle in terms of contradictories (e.g., *Metaph.* 1005^b19-22), but, with equal regularity, he expresses it in terms of contraries (τὰναντία—1005^b26-26; cp. *Soph. el.* 180^a27-31 (=T5 in Ch. 4)). He in fact explicitly claims that the principle's being true of contradictories entails that it is also true of contraries, because a contrary is the privation of its opposite (*Metaph.* 1011^b15-22). In his application of the principle to concrete cases, Aristotle likewise applies it to both contradictories (double/not double—*Soph. el.* 167^a29) and contraries (lying/telling the truth—*Soph. el.* 180^b2-3). I therefore take the principle to apply to both kinds of opposites for both philosophers.

“sophistical annoyances” (*Int.* 17^a35-36) or “dialectical difficulties” (*Metaph.* 1005^b21-22).¹¹⁰

The present study will attempt to detail the intellectual context in which Plato originally formulated the PNC with a view to better understanding the reasons for its precise formulation. Taking my lead from Aristotle’s claim that the qualifications on the PNC are necessary in order to deal with “sophistical annoyances” and “dialectical difficulties,” I will explore the underappreciated use that Plato made of the PNC in his engagements with the refutational arguments of the Eristics. We will see that, when confronted with certain kinds of refutational arguments for which the Eristics were notorious, Plato uses the PNC to two ends. First, he appeals to the customary qualifications on the PNC in his diagnoses of Eristic refutations so as to mark a principled distinction between genuine contradictions, and the merely apparent contradictions with which Eristic refutations characteristically concluded. Second, in so doing, Plato operates with an account of genuine refutation according to which

¹¹⁰ *Int.* 17^a34-37: καὶ ἔστω ἀντίφασις τοῦτο, κατάφασις καὶ ἀπόφασις αἱ ἀντικείμεναι· λέγω δὲ ἀντικεῖσθαι τὴν τοῦ αὐτοῦ κατὰ τοῦ αὐτοῦ, —μὴ ὁμωνύμως δέ, καὶ ὅσα ἄλλα τῶν τοιούτων προσδιοριζόμεθα πρὸς τὰς σοφιστικὰς ἐνοχλήσεις (“And let this be a contradiction, an affirmation and a denial that are opposed. And by “opposed” I mean the [sc. contradiction] [is the affirmation and denial of] of the same [predicate] of the same [subject]—and not homonymously, and however many other such [sc. qualifications] we add to deal with the sophistical annoyances”). The Greek text of *De Interpretatione* follows the Minio-Paluello 1949. The translation is my own. *Metaph.* 1005^b17-22: ὅτι μὲν οὖν βεβαιοτάτη ἢ τοιαύτη πασῶν ἀρχή, δῆλον· τίς δ’ ἔστιν αὕτη, μετὰ ταῦτα λέγωμεν. τὸ γὰρ αὐτὸ ἅμα ὑπάρχειν τε καὶ μὴ ὑπάρχειν ἀδύνατον τῷ αὐτῷ καὶ κατὰ τὸ αὐτό (καὶ ὅσα ἄλλα προσδιορισαίμεθ’ ἂν, ἔστω προσδιορισμένα πρὸς τὰς λογικὰς δυσχερείας) (“So then, it is clear that such a principle is the firmest of all. Which [sc. principle] it is let us go on to say. For it is that the same thing cannot at the same time belong and not belong to the same thing in the same respect (and however many other [sc. qualifications] we might add, let them be added to deal with dialectical difficulties”).

the statement to be refuted, and the conclusion of the argument that refutes this statement, must together violate the PNC under all of the relevant qualifications the principle specifies. Plato's articulation of the PNC thus provides him not only with solutions to the Eristics' refutations, but also with a formal demarcation of his own dialectical argumentation from its close, but to his eyes, illegitimate, relative. We will see that each of the PNC's qualifications plays a significant role in dealing with these sophistical difficulties. This strongly suggests that the PNC takes the form it does because one of its most important applications was to guard against and expose the merely apparent contradictions generated by Eristic refutations.

I will conclude by considering the significance of Plato's resolution of these apparent contradictions against the background of the purpose that his Eristic opponents likely had in propounding them. As we saw in chapter 1, contrary to a standard impression in the scholarly literature, we have good reason to believe that Plato's Eristics are not merely interested in deriving contradictions, but that they do so in order to establish controversial philosophical doctrines that are immune to these same contradictions. In particular, we have good reason to think that Plato's Eristics use their refutations to support Eleatic monism—a doctrine that rejects the appearances that give rise to contradictions, instead maintaining that reality is exhausted by unitary, undifferentiated being. The Eristic refutations that Plato confronts, like Zeno of Elea's famous paradoxes, thus serve to motivate these Parmenidean doctrines like the denial of change, plurality, and the reality of the sensible world, because such doctrines offer a way out of the contradictions generated by the appearances that the Eleatics, and their Eristic heirs, so strongly reject. Against this background, Plato's diagnosis of the Eristics' contradictions as merely apparent has enormous metaphysical significance: by more carefully articulating the conditions under which an opposition represents a genuine impossibility,

Plato overcomes the Parmenidean challenge by demonstrating that apparently contradictory properties can coexist as genuine constituents of reality without any contradiction or paradox.

2. TWO PLATONIC STRATEGIES FOR RESOLVING APPARENT CONTRADICTIONS

The most memorable occurrence of the PNC comes in *Republic IV*, where Socrates employs it to show that the human soul, like Callipolis, is tripartite. The most general formulation of the PNC in this argument runs as follows:

[T1]: οὐδὲ μᾶλλον τι πείσει ὥς ποτέ τι ἂν τὸ αὐτὸ ὄν ἅμα κατὰ τὸ αὐτὸ πρὸς τὸ αὐτὸ τάναντία πάθοι ἢ καὶ εἶη ἢ καὶ ποιήσκειν.

Nothing will ever persuade us that the same thing, at the same time, in the same respect and in relation to the same thing could ever undergo, or be, or do opposites (*Resp.* 436e7-437a1).

The notion of a genuine contradiction that Plato's PNC forbids is one according to which opposite actions, passions or properties apply to a subject and four additional criteria are satisfied.¹¹¹ The first criterion concerns the subject of opposite predicates, and specifies that it must be *one and the same subject* to which these opposite predicates apply. I call this first criterion the "subject criterion." The other three conditions concern the opposite predicates. These criteria together require that a pair of opposite predicates apply to a subject *at the same*

¹¹¹ I use the expression 'actions' to cover the opposites that a subject does, 'passions' to cover those that a subject undergoes and 'properties' to cover the opposites that a subject is

time, in the same respect and in relation to the same thing. I call these qualifications of time, respect and relatives the ‘predicational modes,’ and when two opposite predicates apply to a subject in the same ways, under all of these predicational modes, I will stipulatively call them ‘genuine opposites.’ The PNC thus denies that genuine opposites can apply to one and the same subject.

Before Socrates applies the PNC to cases of psychological conflict, he provides a brief defense of the principle by considering two *prima facie* counterexamples (*Resp.* 436C5-E7). We will see later that these counterexamples are precisely the sort of putative contradictions that Plato’s formulation of the PNC reveals to be only apparently contradictory. But for now let us simply observe that Plato’s analysis of these counterexamples teaches us two things about how to analyze apparent violations of the principle. First, we learn that not all opposite predicates admit of qualification under all of the predicational modes. Secondly, Plato’s analysis of these counterexamples reveals two distinct strategies for resolving apparent contradictions.¹¹²

First of all, when Plato applies the PNC to concrete cases of opposition we learn that not all three of the predicational modes apply to every pair of opposite predicates. The two apparent counterexamples that Plato considers, which I will call “the dancer” and “the spinning top,” concern the opposites of rest and motion. However, Plato only specifies the qualifications of time and respect when he initially applies the PNC to these opposite predicates: “[It is impossible] for the same thing (τὸ αὐτὸ) at the same time (ἄμα) and in the same respect (κατὰ τὸ αὐτὸ) to stand still and to be in motion” (*Resp.* 436c5-6). On the other hand, in the subsequent tripartition argument, Plato only specifies the qualifications of time

¹¹² My analysis of Plato’s solutions to the two *prima facie* counterexamples owes much to Bobonich’s (2002, 223-235) and Lorenz’s (2006, 18-34) discussions of these passages.

and relatives when applying the PNC to the opposites of desire and aversion (see e.g., *Resp.* 439b3-6). Although Plato is not explicit about this, I think there is good reason for this discrepancy. On the one hand, rest and motion do not call for the relatives-qualification, because these are not, for Plato, in any relevant sense relational properties. On the other hand, desire and aversion are relational properties, and therefore must be opposed *in relation to the same thing* in order to actually conflict with each other. But moreover, according to Plato's so-called 'Principle of Qualification,' relational properties like simple, unqualified thirst are related to equally simple, unqualified objects like drink (*Resp.* 438a7-b2).¹¹³ And we will see shortly in the analysis of the spinning top example that the *κατὰ*-qualification applies when there are superficially similar, but nevertheless *differently qualified* kinds of actions, passions or properties at play in an apparent contradiction. Presumably, Plato does not analyze the opposition between simple desire and simple aversion in terms of the *κατὰ*-qualification precisely because he is considering *simple, unqualified* desire and aversion, and these activities do not admit of the kind of distinction between different kinds of desire and aversion that one would introduce with a qualification of respects (*Resp.* 437d7-e6). Thus for simple relational properties like desire and aversion one only needs to specify the time at which and relations in which they belong to their subjects. We therefore see that different sorts of oppositions call for analysis in terms of slightly different articulations of the PNC because it is not the case that every pair of opposite predicates admits of qualification under all the predication modes.

Secondly, Plato's analysis of the dancer and the spinning top brings to light two distinct strategies for resolving apparent violations of the principle. He applies the first kind

¹¹³ For a thorough treatment of this principle see Duncombe 2015, 45-56. See also Lorenz 2006, 28-31.

of analysis, which I will call the ‘subject solution’ to the dancer. The person in question is standing still but moving his head and hands, and Plato imagines someone inferring from this that the same person is both at rest and in motion at the same time (c9-11). Surprisingly, in both his statement and his resolution of this apparent contradiction, Plato only specifies the time at which the dancer’s rest and motion occur. Here Plato leaves off the other two qualifications presumably because motion and rest are not relational properties and because there are not distinct respects in which these opposites apply to the dancer.¹¹⁴ Thus, because the dancer’s motion and rest satisfy the one (and only) relevant predicate criterion by occurring at the same time, they are genuine opposites. And in cases where genuine opposites appear to apply to the same subject, the only way to resolve such an apparent contradiction is to show that these opposite predicates do not apply to *the same subject*. Plato does just this and claims that “one part of him stands still, and the other moves” (τὸ μὲν τι αὐτοῦ ἔστηκε, τὸ δὲ κινεῖται—436d1), i.e., the dancer’s head and hands do the moving, whereas the rest of him stands still.¹¹⁵ The subject solution thus resolves apparent contradictions by assigning

¹¹⁴ Below I offer an explanation for why the qualification of respects might be irrelevant in the case of the dancer.

¹¹⁵ A.W. Price (1995, 39-40; 2009, 2), has argued that this counterexample could also have been dismissed by qualifying the predicate instead of the subject, and saying that the person moves with respect to his hands and his head, but not with respect to his legs and torso. This is a possible reading of the Greek: τὸ μὲν...τὸ δὲ could in fact be accusatives of respect rather than nominatives, which would give us “the person is at rest with respect to one [part] of himself, and moves with respect to another” (436d1). If this is so, we would have to conclude that Plato uses what I call the “predicates solution” to solve both apparent counterexamples. However, Lorenz (2006, 23 n.9) has convincingly shown that the comparison of the dancer with a closely related application of the principle in the tripartition argument tells against reading τὸ μὲν...τὸ δὲ as accusatives of respect. The example runs as follows: “just as I suppose it is not to speak well of an archer [to say] that his hands push the bow and draw it toward him, but that the one hand (ἄλλη μὲν...χείρ) pushes it away and the other (ἐτέρα

genuinely opposite predicates to different subjects so as to show that these opposites do not apply to *the same thing*.

Plato applies the second type of solution, which I call the ‘predicates solution,’ to the more complex example of a spinning top. Unlike the dancing man, who has some parts that move and some parts that stand still, the top *as a whole* is said to be at rest and in motion at the same time (436b5-6). Plato therefore does not resolve this apparent opposition by assigning these opposites to different subjects. Rather, he says we should not take the spinning top as a violation of the PNC because:

[T2]: οὐ κατὰ ταῦτὰ ἑαυτῶν τὰ τοιαῦτα τότε μενόντων τε καὶ φερομένων, ἀλλὰ φαῖμεν ἂν ἔχειν αὐτὰ εὐθύ τε καὶ περιφερὲς ἐν αὐτοῖς, καὶ κατὰ μὲν τὸ εὐθὺ ἐστάναι

δέ) draws it toward him (439b8-11).” Both of these applications of the principle involve the predication of opposites to a composite object that is then corrected with a more accurate expression: in the first case motion and rest are predicated of the person as a whole, which is then corrected with the more accurate description that one part of him moves and another is at rest; in the second case, pushing away and drawing back are predicated of a pair of hands, which is then corrected with the more precise description that one hand pushes and the other pulls. Both examples therefore involve a composite object that appears to violate the PNC, but, when we assign these opposites to the relevant parts that are the proper subjects of these actions, it turns out that it is *not the same thing* that is doing the opposites, but two different things. This comparison helps to settle the issue whether τὸ μὲν...τὸ δέ, in the first counterexample is nominative or an accusative of respect because there is no grammatical ambiguity in the analogous example: ἄλλη μὲν...χείρ, ἑτέρα δέ... has to be nominative. In light of this comparison, I suggest that, in the first *prima facie* counterexample, we should take the parts to which Socrates attributes the opposing actions of motion and rest as nominative subjects, not as accusatives of respect. However, it is only important for present purposes to demonstrate that Plato makes available both the subject and predicates solutions in the *Republic*, and even if Plato means to apply the predicates solution to the dancer, the example of the bow nevertheless provides a clear example of the subjects solution.

– οὐδαμῇ γὰρ ἀποκλίνειν – κατὰ δὲ τὸ περιφερὲς κύκλῳ κινεῖσθαι.

It is not in respect of the same things of themselves that such things are resting and moving on such occasions, but we would say that these things have something vertical and something horizontal in themselves and in respect of the vertical it stands still (for it in no way inclines) and in respect of the round it moves in a circle (*Resp.* 436d8-e3).

The standard translation of the predication mode to which Socrates here appeals, κατὰ τὸ αὐτὸ, is “with respect to the same thing”, or “in the same respect.”¹¹⁶ I believe these to be the best available English translations, but they are nevertheless potentially misleading. To say that these opposites apply in different respects—that in one respect the subject moves, and in another it stands still—might suggest that the subject only *partially* hosts these opposite predicates, or even that, in applying this qualification, we are assigning the opposite predicates to different things (i.e., saying that the vertical thing stands still, and the round thing moves). And this would simply amount to applying a version of the subjects solution we saw in the case of the dancing man. But this would be unsatisfactory because Plato

¹¹⁶ The most thorough discussion of the meaning of this qualification can be found in Stalley 1975, 111-118, where this translation seem to have been first introduced. Before Stalley it was customary to translate the predication mode to which Socrates here appeals, κατὰ τὸ αὐτὸ, as “in the same part” (see e.g., Adam 1902, 246-247; Cornford 1941, 129-130; Kenney 1969, 244-245). For helpful discussions of this predication mode see Bobonich 2002, 529-30 n. 19; Lorenz 2006, 24; and Kamtekar 2017, 157-158 n.1. I am in agreement with this latter group of commentators in thinking that this qualification is ultimately used to specify the different kinds of motion at work in the case of the spinning top, but in the following I analyze additional contexts in which this qualification is employed in an effort to understand the work that this qualification does quite generally.

introduces the example of the spinning top in a way that is presumably meant to block this kind of analysis: unlike the dancing man case, some parts of whom move and other parts of whom stay at rest (436d1), things like spinning tops undergo rest and motion *as a whole* (d5-6).¹¹⁷ It is therefore worth briefly articulating exactly what work this qualification does, and the way in which its application resolves this apparent contradiction.

The κατὰ-locution that Socrates applies here was first introduced in *Republic* I, where Socrates and Thrasymachus have a dispute over how to understand the relationship between expertise and error. Here Socrates has just objected to Thrasymachus' definition of justice as "the advantage of the stronger" (τὸ τοῦ κρείττονος συμφέρον—338c3) by showing that since the strong—i.e., rulers—are liable to err, they will sometimes order their subjects to do things that are to their disadvantage (339b9-e8). Thrasymachus responds by chastising Socrates for not correctly understanding the conditions under which we ascribe expertise in ruling to a person:

[T3]: Συκοφάντης γὰρ εἶ, ἔφη, ὃ Σώκρατες, ἐν τοῖς λόγοις· ἐπεὶ αὐτίκα ἱατρὸν καλεῖς σὺ τὸν ἐξαμαρτάνοντα περὶ τοὺς κάμνοντας κατ' αὐτὸ τοῦτο ὃ ἐξαμαρτάνει; ἢ λογιστικόν, ὃς ἂν ἐν λογισμῷ ἀμαρτάνῃ, τότε ὅταν ἀμαρτάνῃ, κατὰ ταύτην τὴν ἀμαρτίαν; ἀλλ' οἶμαι λέγομεν τῷ ῥήματι οὕτως, ὅτι ὁ ἱατρὸς ἐξήμαρτεν καὶ ὁ λογιστὴς ἐξήμαρτεν καὶ ὁ γραμματιστής· τὸ δ' οἶμαι ἕκαστος τούτων, καθ' ὅσον τοῦτ'

¹¹⁷ Although it is only in the initial description of the spinning top that it is said to undergo these opposites *as a whole*, nothing Socrates says in his refinement of this description suggests that he would abandon this claim. As Bobonich has noted (2002, 230), it is not only the circumference of a top that engages in rotation—every coaxial point in the roundness of top moves in a circle; and it is not only the peg of the top that stands still—in respect of its verticality, the whole top stands still so long as it does not incline.

ἔστιν ὁ προσαγορεύομεν αὐτόν, οὐδέποτε ἀμαρτάνει· ὥστε κατὰ τὸν ἀκριβῆ λόγον, ἐπειδὴ καὶ σὺ ἀκριβολογῇ, οὐδεὶς τῶν δημιουργῶν ἀμαρτάνει.

You are being a sycophant in arguments, Socrates. When someone makes an error in the treatment of patents do you call him a doctor in respect of that very matter on which he errs? Or do you call the one who errs in calculation an accountant, whenever he errs, in respect of that error? Well I suppose we do express ourselves in words that, taken literally, do say that a doctor, or an accountant, or a grammarian errs. But in point of fact I think that each of these, in respect of his being what we call him, never errs, so that, in respect of the precise account (since you also give precise accounts) none or the craftsmen errs (*Resp.* 340d2-e3).

Here Thrasymachus draws a contrast between more and less precise ways of attributing activities to their subjects. In the ordinary way of speaking (ὥς ἔπος εἰπεῖν—341b5) we do say that craftsmen make mistakes (d6-8), but Thrasymachus insists that this is not sufficiently precise, since this error is not the respect in virtue of which we call a person a craftsman (340d2-4). The respect in virtue of which we ascribe expertise to a person, as both Thrasymachus and Socrates agree, is precisely their expertise (κατὰ τὴν τέχνην—341d3-4).¹¹⁸ It is when the knowledge of his craft fails him (ἐπιλιπούσης ἐπιστήμης) that a person

¹¹⁸ Although it is Thrasymachus who introduces this more precise way of attributing activities to a subject, and Socrates goes on to refute this view, Socrates does not, in what follows, question this theoretic framework Thrasymachus introduces. He in fact accepts it, and uses it to refute Thrasymachus on his own terms by showing that the expertise in respect of which one is called a ruler is actually expertise in benefitting one's subordinates, not one in being benefitted by them (341a5-342e11).

errs, and in making this error he is not a craftsman (340e3-4). Thus, in respect of his being the craftsman he is, the craftsman does not err, which is to say that although he may err in some other respects, he does not err *in the exercise of his craft*. By specifying the respects in which a subject does or does not err, one thereby introduces a distinction among the kinds of erring in question. More generally, by specifying the respects in which different activities, passions or properties apply to a subject, one introduces a distinction in the kind of activity, passion or property in question. This κατὰ-locution thus specifies the precise respect in virtue of which a subject does, is or undergoes something, and by doing so, one more precisely specifies the natures of the activities, passions or properties in question.

This is the same kind of precise account is at work in Socrates' resolution of the spinning top example. Although, in an ordinary way of speaking, it is true to say that things like spinning tops simultaneously undergo rest and motion, on the precise account, they do not undergo these opposites in the same respects. In claiming that the top stands still in respect of its verticality (τὸ εὐθύ—436e1; τὴν εὐθυωρίαν—e3), but moves in respect of its roundness (τὸ περιφερές—e2), Socrates assigns these passions to different internal respects of the subject. In doing so, he introduces a distinction in the kind of motion and rest in question. The kind of motion the top undergoes in respect of its roundness is “motion in a circle” (436e3), or rotation, whereas the kind of motion it fails to undergo in respect of its straightness is inclination (οὐδαμῇ γὰρ ἀποκλίνειν—e2). This more precise account of the kinds of motion at work thus reveals the contradiction to be merely apparent. This is because apparently opposite actions, passions or properties that apply to a subject in different respects are not (or at least not always) genuinely opposed to each other. In the present case, the strict opposite of rotation is failure to rotate. But the top does not stand still by failing to rotate, but

by failing to incline. And strictly speaking, the opposite of failing to undergo inclination would be to “incline either to the right or left or to the front or back” (436e3-4). By showing that the top undergoes motion and rest in different respects, Socrates has thereby also shown that it is different kinds of motion that the top as a whole does and does not undergo. This application of the *κατὰ*-qualification therefore reveals that the kinds of motion and rest in question are not genuinely opposed; rotating and failing to incline are superficially opposed—one is a kind of moving and the other is a kind of failure to move—but they are not genuine opposites.

This understanding of the *κατὰ*-qualification helps us further appreciate why Plato does not apply it in the same way in his resolution of the dancer or in the tripartition argument. This qualification applies in cases in which a subject hosts different kinds of actions, passions, or properties that are superficially but not genuinely opposed. In the case of the dancer, there are not different kinds of motion that he does and does not engage in: he simply moves his head and hands around, and the rest of him stands still. The motion in which he does and does not engage thus appears to be motion in the same respect.¹¹⁹ Similarly, the kind of desire with which Socrates is concerned in his argument for the separation of reason from desire—namely thirst—is simply thirst “in respect of its being thirst” (*καθ’ ὅσον δίψα ἐστὶ*—437d7; *καθ’ ὅσον διψῇ*—439a9; cp. *καθ’ ὅσον τοῦτ’ ἔστιν ὁ προσαγορεύομεν αὐτόν*—340d8-e1 (T3 above) & *καθ’ ὅσον ἄρχων ἐστίν*—341a1; 342e7). The kind of desire that appetite has is simple, unqualified desire for drink, and reason has a simple, unqualified aversion to drink.

This reading of the spinning top example provides us with a strategy of resolving

¹¹⁹ See Bobonich 2002, 231.

apparent refutations that is meaningfully distinct from the subjects solution we saw earlier. Here Socrates ascribes opposites to the very same subject, but shows that they do not belong to this subject in the same respect. Because the opposites of motion and rest do not apply to the top in the same ways, under all the relevant predication modes, the spinning top does not constitute a violation of the PNC. The predicates solution thus applies in cases in which opposite predicates belong to one and the same subject and it involves showing that the opposites in question are not opposed in the same ways, under all the relevant predication modes.

We have seen that Plato's defense of the PNC against these two counterexamples brings to light a distinction between genuine and apparent contradictions. The genuine contradictions that the PNC forbids are cases in which opposite predicates belong to the same subject in the same ways, under all the relevant predication modes. Plato's examination of these two counterexamples then reveals two ways in which a contradiction can be merely apparent. On the one hand, states of affairs in which two genuinely opposite predicates belong to different subjects do not count as real contradictions. On the other hand, when opposite predicates belong to the same subject, but not in the same ways, under all the relevant predication modes, they are only apparently contradictory. We can thus already see that the criteria that Plato specifies in his articulation of the PNC play an important role in excluding certain kinds of apparent contradictions from the class of genuine contradictions.

Finally, this defense of the principle in the *Republic* already gives us suggestive hints of the larger intellectual context in which the principle was employed. Immediately after he has diagnosed these counterexamples Plato has Socrates announce that “no statement of *this sort*” (οὐδέν ... τῶν τοιοῦτων λεγόμενον), i.e., no apparent contradiction, will persuade them

that the PNC does not hold (436e8-437a2), which suggests that such apparent contradictions are the sorts of challenges Plato’s articulation of the principle is designed to overcome. Moreover, Plato describes the imagined interlocutor who introduces these apparent counterexamples in distinctly Eristic terms when he calls this person an “inventor of subtleties” (κομπευόμενος) (436d5). Plato often uses this verb, and the cognate adjective, as synonyms for Eristics and their argumentation.¹²⁰ In fact, in one of Socrates’ discussions of the distinction between dialectic and Eristic later in the *Republic*, he contrasts the former—“fine and free arguments that vigorously search for the truth in every way for the sake of knowledge”—with “subtleties and Eristic quibbles (τὰ δὲ κομπῶ τε καὶ ἐριστικά)” (499a4-7). There are thus already indications in the *Republic* that the PNC is an important tool for Plato in confronting Eristics and their apparent contradictions.

I will now go on to show that the sorts of contradiction that Plato’s PNC exposes as merely apparent were precisely the sort that the Eristic sophists produced through their refutations. I will argue that by distinguishing apparent from genuine contradictions with his formulation of the PNC, Plato also draws a clear distinction between Eristic refutation and genuine dialectical refutation. I first turn to the *Sophist*, where Plato claims that genuine refutations—in explicit contrast to Eristic refutations—purge people of beliefs that imply genuine contradictions. I will then go on to analyze examples of Eristic refutations that Plato presents in the *Theaetetus* and *Euthydemus*. Here we will see that Plato applies the subject and predicates solutions in order to demonstrate that the conclusions of these Eristic

¹²⁰ At *Republic* 489b8 the verb is used to describe the “wise [sc. sophists] who knock at the doors of the rich”. At *Laches* 197d7 the dialogue’s namesake rebukes the sophist Prodicus and his reputation for fine-grained verbal distinctions under the same term. The adjective, κομπῶς, is also used in the superlative at *Theaetetus* 171a6 to describe a contradiction derived through an Eristic-style refutation of Protagoras’ view.

refutations are only apparent contradictions. In doing so, we will see that Plato not only exposes the contradictions of the Eristics as merely apparent, but also draws a clear distinction between Eristic refutation and true, dialectical refutation.

3. THE ROLE OF THE PNC IN PLATO'S ACCOUNT OF GENUINE REFUTATIONS

In the famous sixth division of the *Sophist*, the Eleatic Visitor and Theaetetus discuss a refutational expertise that prepares the way for learning by purging interlocutors of their inconsistent beliefs. Through cross-examination, experts in refutation, who are later called “noble sophists” (231b8), destroy their interlocutor's faith in their own wisdom by the following means:

[T4]: καὶ συνάγοντες δὴ τοῖς λόγοις εἰς ταὐτὸν τιθέασι παρ' ἀλλήλας, τιθέντες δὲ ἐπιδεικνύουσιν αὐτάς αὐταῖς ἅμα περὶ τῶν αὐτῶν πρὸς τὰ αὐτὰ κατὰ ταὐτὰ ἐναντίας.

They [sc. noble sophists], bringing [their interlocutor's] statements together, place them side by side, and, taking them up, demonstrate that they are opposed to each other at the same time, on the same subjects, in relation to the same things [and] in the same respects (*Soph.* 230b7-10).¹²¹

Here the Visitor claims that noble sophists attempt to purge their interlocutors of their inconsistent opinions (230b5-7) by showing that these opinions are opposed to each other under a familiar set of criteria. In fact, the four criteria that opposing beliefs must satisfy in

¹²¹ The Greek text follows Burnet 1900. All translations from the *Sophist* are my own.

order for there to be a refutation directly correspond to the four criteria necessary for a genuine contradiction according to the PNC of the *Republic*: the phrase “on the same subjects” corresponds to the subject criterion in the *Republic* formulation of the PNC, and the qualifications of time, relatives and respect correspond to the predicational modes. This account of refutational expertise therefore specifies that a refutation occurs when one demonstrates that a pair of statements together violate the PNC.

As many scholars have noticed, there can be little doubt that the description of noble sophistry as a practice that “expell[s] [an interlocutor’s] opinion of his own wisdom” (230b1) in order to prepare the way for learning (230c8-d4) is a description of Socratic refutation.¹²² I therefore take the refutational practice described here to be expertise in genuine refutation. And it is important to notice that the Eleatic Visitor puts this expertise in refutation in explicit contrast with Eristic refutations. In the immediately preceding fifth division, the Visitor defined the sophist as an Eristic who engages in verbal warfare and aims to make money through short question and answer refutations (224e6-226a5).¹²³ In the sixth division, the Visitor and Theaetetus then agree that the refutational expertise of the noble sophist is similar to the practice of the Eristic sophist they are trying to define, but they hesitate to identify the

¹²² See Cornford 1935, 177; 182; Trevaskis 1955, 36-49; Benardete 1960, 129-139: 138-139; Sayre 1969, 148; 157; Starr 1973, 486; 492; Klein 1977, 26; Cobb 1990, 16; Vlastos 1991, 23; Notomi 1999, 64-68; Hitchcock 2000, 62; McCoy 2007, 159-161.

¹²³ In the fifth division, Plato also invited a contrast between Eristic and Socratic argumentation. According to that division Eristic divides into two parts: a part that makes money, which is the part identified with sophistry, and one that wastes money, which is done for pleasure and involves—and here’s the Socratic association—“neglecting one’s own livelihood” and is called “babbling” (ἀδολεσχικοῦ) (*Soph.* 225d1-226a5). The description of the practice is a Socratic trope (see e.g., *Ap.* 36b3-d2), and the name of the expertise is likely an ironic reference to a charge frequently made against Socrates in Old Comedy (see the texts cited in Ch. 1 §1 and Hitchcock 2000, 62).

two and instead claim that noble sophists differ from Eristics the way gentle dogs differ from savage wolves (*Soph.* 231a6).

The precise nature of this difference is not explained in the sixth division, but later on in the *Sophist* Plato strongly suggests that the difference involves Eristics' failure to observe the relevant criteria necessary for a true refutation. Immediately after he and Theaetetus have solved the puzzle about how the great kinds blend with each other (251a5-259b7), the Visitor returns to the Eristics who gave rise to the puzzle (251b5-c6)¹²⁴ and claims that they do not engage in "true refutation" because they do not properly attend to the relevant qualifications. In contrast to the Eristics' way of handling arguments, the Visitor explains that the "difficult and fine" (259c4-5) way involves:

[T5]: [...] τοῖς λεγομένοις οἷόν τ' εἶναι καθ' ἕκαστον ἐλέγχοντα ἐπακολουθεῖν, ὅταν τέ τις ἕτερον ὃν πῃ ταὐτὸν εἶναι φῇ καὶ ὅταν ταὐτὸν ὃν ἕτερον, ἐκείνη καὶ κατ' ἐκεῖνο ὁ φησι τούτων πεπονθέναι πότερον. τὸ δὲ ταὐτὸν ἕτερον ἀποφαίνειν ἀμῇ γέ πῃ καὶ τὸ θάτερον ταὐτὸν καὶ τὸ μέγα σμικρὸν καὶ τὸ ὅμοιον ἀνόμοιον, καὶ χαίρειν οὕτω τὰναντία ἀεὶ προφέροντα ἐν τοῖς λόγοις, οὔτε τις ἔλεγχος οὗτος ἀληθινὸς ἄρτι τε τῶν ὄντων τινὸς ἐφαπτομένου δῆλος νεογενὴς ὢν.

¹²⁴ The identification of the young and the old late-learners described at 251b5-c6 is slightly controversial; but it is only important for present purposes that they engage in the kind of argumentative practice that the Eristics do. Plato's discussion of "the young" here should remind us of the way he cautions against introducing the young to dialectic too early in the *Republic*, because they often turn dialectic into a game of contradiction (ἀντιλογίαν) (*Resp.* 539a11-b6), which is the genus of argumentation to which Eristic belongs (*Soph.* 225b3-C10). The "old late learners" are sometimes taken to refer to Antisthenes, but the reference may also be to the old Eristic brothers of the *Euthydemus*, who advance something very like the view on predication described at *Soph.* 259b5-c6 at *Euthyd.* 285d7-286b5.

[...] being able to follow closely the things that a refuter says step-by-step and [to follow closely] the precise way and the precise respect in which [sc. an Eristic] says that either of these things happens: that what's different is the same in some respect or another or that what's the same is different. But to make that which is the same appear different to us in some respect or another, or vice versa, or to make what's large appear small or something that's similar appear dissimilar, well, to delight in always presenting opposites in arguments in this way is not true refutation, but the obvious new-born brain-child of someone who just came into contact with the things that are (*Soph.* 259c8-d6).¹²⁵

Here the Eleatic Visitor describes the Eristics' practice as a matter of making opposites appear to us as though they are genuinely opposed by showing that they are opposed in some respect or another (ἀμῇ γέ πη).¹²⁶ He recommends that those presented with such appearances attend more carefully to the precise way (ἐκείνῃ) and the precise respect in which (κατ' ἐκεῖνο) two opposite predicates in an apparent contradiction apply. The

¹²⁵ I begin quoting part way through Socrates' speech because the text in the beginning of the speech (259c7-8) is corrupt. But the general sense, that the section I have quoted presents the content of the refutation that we should follow carefully, is clear. My translation is a modified version of White's (1997).

¹²⁶ I take the indefinite adverb 'πη' to correspond to the expression 'κατά τι,' 'in some respect.' This linguistic equivalence is most apparent in Aristotle's discussions of the same kind of fallacies under consideration here, which I discuss in Ch. 4 §2.2. Aristotle frequently uses πη/ῇ and corresponding κατά-expressions interchangeably (e.g., καὶ λόγος ὁ αὐτὸς μὲν ἔσται σοφιστικὸς καὶ ἐριστικός, ἀλλ' οὐ κατὰ ταῦτόν, ἀλλ' ἢ μὲν νίκης φαινομένης <ἐνεκα>, ἐριστικός, ἢ δὲ σοφίας, σοφιστικός—*Soph. el.* 171^b31-33).

suggestion here is that the Eristics treat opposites predicates that merely apply to their subjects in some way or another as real contradictions, and take themselves to have refuted a person by producing such oppositions. In this way they clearly differ from practitioners of what he here calls “true refutation,” who, as we saw in T3, show that their interlocutors believe that opposites hold of the same subjects in precisely the same ways, under all the relevant predication modes.

The practice that Plato schematically attributes here to the Eristics, according to which their refutations traffic in opposites that somehow belong their subjects, but not in the way necessary for a genuine refutation, is masterfully on display in his more direct engagements with Eristic argumentation in the *Theaetetus* and *Euthydemus*. I will now turn to these dialogues, where we will see that Plato’s protagonists carefully follow the Eleatic Visitor’s advice. Plato has them respond to Eristic refutations by specifying the precise qualifications under which opposite predicates apply to their subjects in their applications of the subject and predicates solutions to apparent contradictions described in the *Republic*.

4. PLATO’S EXPOSURE OF ERISTIC REFUTATIONS IN THE *THEAETETUS*

A digression on Eristic argumentation makes a surprise appearance in the middle of Plato’s *Theaetetus*, just after Socrates has apparently refuted the thesis that knowledge is perception by showing that it entails that a person would at the same time know and not know the same thing (163a7-164b10). This refutation does not even satisfy its author, and Socrates immediately criticizes the argument he has just offered on grounds that it is not

philosophical, but “agonistic” (which is one of Plato’s synonyms for ‘Eristic’)¹²⁷ (*Theaet.* 164c8-d2). Thus begins a rich digression on Eristic argumentation in which Socrates, Theaetetus and Theodorus examine a number of Eristic arguments which open with what they call “the most clever question” (δεινότατον ἐρώτημα): “whether it is possible for the same person who knows something not to know the thing he knows” (*Theaet.* 165b3-4). That Plato encourages his readers to resolve these arguments by reflecting more carefully on the precise terms in which the derived contradiction is expressed is most evident in the first iteration of the “most clever question.” After Theaetetus initially denies that it is possible for the same person, at the same time, to know and not know the same thing, Socrates takes the role of the Eristic questioner, and tries to contradict this claim as follows:

[T6]: [1] {ΣΩ.} Λέγω δὴ τὸ δεινότατον ἐρώτημα, ἔστι δὲ οἶμαι τοιόνδε τι· “Ἄρα οἶόν τε τὸν αὐτὸν εἰδότα τι τοῦτο ὃ οἶδεν μὴ εἰδέναι;” {ΘΕΟ.} Τί δὴ οὖν ἀποκρινόμεθα, ὦ Θεαίτητε; {ΘΕΑΙ.} Ἀδύνατόν που, οἶμαι ἔγωγε. [2] {ΣΩ.} Οὐκ, εἰ τὸ ὁρᾶν γε ἐπίστασθαι θήσεις. τί γὰρ χρήσι ἀφύκτω ἐρωτήματι [...] ὅταν ἐρωτᾷ ἀνέκπληκτος ἀνὴρ, καταλαβὼν τῇ χειρὶ σοῦ τὸν ἕτερον ὀφθαλμόν, εἰ ὁρᾷς τὸ ἰμάτιον τῷ κατειλημμένῳ; [3] {ΘΕΑΙ.} Οὐ φήσω οἶμαι τούτῳ γε, τῷ μέντοι ἐτέρῳ. [4] {ΣΩ.}

¹²⁷ For example, the Eristic sophist discussed in the fifth division of the *Sophist* is later called “an Athlete in verbal combat” (τῆς γὰρ ἀγωνιστικῆς περὶ λόγους ἦν τις ἀθλητῆς) distinguished by his expertise in Eristic (τὴν ἐριστικὴν τέχνην ἀφορισμένος) (231e1-2). Moreover, in the *Meno*, Socrates contrasts a dialectical discussion of a definition of color with the less gentle method of “disputatious debaters” (ἐριστικῶν τε καὶ ἀγωνιστικῶν) (75c9). Aristotle adopts the verbal equivalence and announces the subject of the *Sophistici Elenchi* saying: περὶ δὲ τῶν ἀγωνιστικῶν καὶ ἐριστικῶν νῦν λέγωμεν (*Soph. el.* 165^b10-11). The interchangeability of the two terms is quite natural in Greek: ἐριστική is built from the root ἔρις (“strife”) and ἀγωνιστική from ἀγῶν (“competition”).

Οὐκοῦν ὁρᾷς τε καὶ οὐχ ὁρᾷς ἅμα ταῦτόν; [5] {ΘΕΑΙ.} Οὕτω γέ πως

[1] Soc. Well, then, here is the most clever question of all. It goes something like this, I think: ‘Is it possible for someone who knows something not to know this thing that he knows? Theod. What are we going to answer now, Theaetetus? Theaet. That it is impossible, I should think. [2] Soc. But it is not [impossible], if you posit that seeing is knowing. For what are you going to do with an inescapable question [...] when some undaunted fellow puts it to you: clapping his hand over one of your eyes, he asks you whether you see his cloak with the eye that is covered? [3] Theaet. I will say that I don’t see it with this one, but I do see it with the other. [4] Soc. So you both see and do not see the same thing at the same time? [5] Theaet. Yes, in that sort of way I do (*Theaet.* 165b2-c5).¹²⁸

The contradiction that Socrates expresses in [4] asserts that the opposite predicates of seeing and not seeing apply to Theaetetus at the same time and in relation to the same thing (i.e., in relation to the cloak). Because the κατὰ-qualification is absent from both the statement and the resolution of this apparent contradiction, we can assume that, for Plato, seeing, like desire and aversion in the *Republic*, is not the sort of activity whose subjects admit of this qualification. The opposites of seeing and not seeing therefore both belong to Theaetetus in the same ways, under all of the predicational modes relevant for describing this opposition. Thus, because these opposite predicates are genuine opposites, the appropriate solution to this apparent contradiction would be to assign these opposites to different subjects. And this

¹²⁸ The Greek text follows Burnet 1900. All translations from the *Theaetetus* are my own.

is precisely what we see Theaetetus do in [3], where he claims that he sees the cloak with one eye, but does not see it with the other.¹²⁹ Thus, as Theaetetus reaffirms in [5], the genuine opposites of seeing and not seeing only properly apply to him in a particular way: one eye is the subject of the seeing, and the other is the subject of its opposite.

I thus suggest that Plato has Socrates—playing the part of the Eristic—state the opposites in this precise manner in [4] and has Theaetetus apply the subjects solution in [3], and then reaffirm this solution in [5] because he wants his readers to think more carefully about the ways in which a proper handling of the PNC can be used to resolve these apparent contradictions. I will now go on to show that Plato also takes great care to get his readers thinking about the ways Eristics describe apparent contradictions in the *Euthydemus*. Here we will see that Plato’s protagonists employ the predicates solution to demonstrate that Euthydemus’ Eristic arguments only appear to refute their opponents.

5. PLATO’S EXPOSURE OF ERISTIC REFUTATIONS IN THE *EUTHYDEMUS*

Unlike the *Theaetetus*, where Eristic argumentation is treated in a methodological digression from the dialogue’s primary subject matter, Eristic argumentation is the focus of the *Euthydemus*. And many of the refutations that Plato’s Eristics offer in this dialogue conclude with contradictions that are formulated in ways that are deceptively similar to Platonic formulations of genuine contradictions. But in these arguments Plato has his interlocutors insist on specifying qualifications that have been left off or forbidden in the course of the

¹²⁹ It is worth noticing that the dative expression Plato uses to pick out the respective subjects of two genuine opposites is precisely the sort of expression he uses to pick out the relevant soul parts that are the proper subjects of desire and aversion in the tripartition argument (see *Resp.* 439b5).

refutation as a way of indicating that the contradiction is only apparent.¹³⁰ For the sake of brevity, I will examine just one particularly clear case that occurs at the beginning of the dialogue's third Eristic episode. Here Socrates relates Euthydemus' attempt to prove that he (Socrates) is omniscient:

[T7 (=T7 in Ch. 1)]: [1] Φέρε δὴ μοι ἀποκρίναι, ἔφη· ἔστιν ὅτι ἐπίστασαι; { – } Πάνυ γε, ἦν δ' ἐγώ, καὶ πολλά, σμικρά γε. { – } Ἀρκεῖ, ἔφη. [2] ἄρ' οὐνδοκεῖς οἷόν τέ τι τῶν ὄντων τοῦτο ὃ τυγχάνει ὄν, αὐτὸ τοῦτο μὴ εἶναι; { – } Ἀλλὰ μὰ Δί' οὐκ ἔγωγε. [3] { – } Οὐκοῦν σύ, ἔφη, ἐπίστασαι τι; { – } Ἔγωγε. { – } Οὐκοῦν ἐπιστήμων εἶ, εἴπερ ἐπίστασαι; { – } Πάνυ γε, τούτου γε αὐτοῦ. { – } Οὐδὲν διαφέρει· ἀλλ' οὐκ ἀνάγκη σε ἔχει πάντα ἐπίστασθαι ἐπιστήμονά γε ὄντα; { – } Μὰ Δί', ἔφην ἐγώ· ἐπεὶ πολλὰ ἄλλ' οὐκ ἐπίσταμαι. [4] { – } Οὐκοῦν εἴ τι μὴ ἐπίστασαι, οὐκ ἐπιστήμων εἶ. { – } Ἐκείνου γε, ὦ φίλε, ἦν δ' ἐγώ. [5] { – } Ἦττον οὖν τι, ἔφη, οὐκ ἐπιστήμων εἶ; ἄρτι δὲ ἐπιστήμων ἔφησθα εἶναι· καὶ οὕτως τυγχάνεις ὦν αὐτὸς οὗτος ὃς εἶ, καὶ αὖ πάλιν οὐκ εἶ, κατὰ ταῦτα ἅμα. Εἶεν, ἦν δ' ἐγώ, Εὐθύδημε· τὸ γὰρ λεγόμενον, καλὰ δὴ πάντα λεγεῖς.

[1] Come, then, answer me this, he [sc. Euthydemus] said: Is there anything you know?— Oh, yes, I said, in fact [I know] many things, though trivial ones.—That suffices, he said. [2] Now do you think it is possible for anything among the things that are not to be that very thing that it is?—Heavens no, not I.—[3] And do you know something? he said.—Yes, I do.—Then you are knowing, if you really

¹³⁰ For other examples see the second knowledge argument at 295e41-296d4, and the immediately following arguments about family relations at 295e4-296d4 and 297d3-298d6.

know?—Of course, [I am knowing] in relation to that particular thing [that I know].— That doesn't matter, because mustn't you necessarily know everything, if you are knowing?—How in heaven's name can that be, said I, when there are many other things I don't know?— [4] Then if there is anything you don't know, you are not knowing.—Yes, my friend, [I am not knowing] in relation to that thing [I don't know], I said.— [5] Are you any the less not knowing for all that? said he. And just now you said you were knowing, with the result that you are the same person you are, and again not [the same person] you are, in the same respects and at the same time.— [6] Very good, Euthydemus, I said, as the saying goes, “whatever you say is well said” (*Euthyd.* 293b7-d3).

The conclusion that Euthydemus draws in [5] relies on a version of the PNC which specifies the ἄμα- and κατὰ-qualifications: Socrates at the same time is and is not the same person in respect of the same things, i.e., he is and is not in respect of his being knowing and not knowing, respectively. On my view, Plato has Euthydemus put his conclusion in these terms in [5] and has Socrates immediately draw attention to the way Euthydemus expresses this conclusion in [6] because he wants us to think carefully about the principle on which this refutation relies and about which qualifications Euthydemus has accepted, and which ones he has left off and forbid.

A careful examination of the preceding argument reveals that the qualifications Euthydemus employs in his statement of the contradiction are not the only relevant qualifications at work in this argument. In [3], when Euthydemus tries to infer from the fact that Socrates knows something that he is “knowing” unqualifiedly, Socrates qualifies the

statement and adds that he is “knowing” only “in relation to that particular thing [he knows]” (τούτου γε αὐτοῦ) (293C3). But Euthydemus dismisses this qualification, claiming “it makes no difference” (c3-4). Again in [4], Euthydemus tries to show that if there is something Socrates does not know, then he is simply not knowing, but Socrates only accepts this premise qualifiedly, and claims that he is only not knowing “in relation to that thing [he does not know]” (ἐκείνου γε) (293c5-7). But yet again, Euthydemus dismisses this qualification (c7-8). It is thus clear that Socrates is trying to introduce an additional qualification into the discussion.

It might initially look as though this third qualification is different from the relatives-qualification employed in the *Republic* and *Sophist*, which was there expressed with the formula “πρὸς τὸ αὐτὸ”. But a brief survey of Platonic discussions of relational properties reveals that πρὸς τί and the genitive expressions employed here (τούτου γε αὐτοῦ; ἐκείνου γε) are completely interchangeable, and that Socrates is here introducing the familiar relatives-qualification. We can observe that a genitive expression is a natural substitute for πρὸς τι even within the *Republic* argument for tripartition. For example, when Plato first introduces his discussion of relatives, he expresses the related objects with a genitive expression: “However many things are such as to be related to something (του), those of a particular sort are related to something of a particular sort (ποιοῦ τινός), and those that are merely themselves are related to a thing that is merely itself (αὐτοῦ ἐκάστου μόνον)” (*Resp.* 438a7-b2). But when he goes on to apply the principle to particular examples, he expresses the related items with a πρὸς-expression: “the more is related to (πρὸς) the fewer, and the

double is related to (πρὸς) the half” (438b14-c1).¹³¹ The discussion of relatives in the *Republic* even includes a discussion of knowledge as a relative, and here Plato prefers the genitive for the *relatum* of knowledge: “knowledge itself is knowledge of learning itself (μαθήματος αὐτοῦ), or of whatever (ὅτου) one might posit knowledge to be” (438c7-8). In the same way, Plato expresses the πρὸς-qualification with genitives modifying ἐπιστημῶν in the present argument in the *Euthydemus*, presumably because this is the more natural linguistic expression for this qualification in this cases. This linguistic variance is therefore no obstacle to the hypothesis that the canonical formulation of the PNC is here being invoked in the *Euthydemus*.¹³²

By having Socrates add the relatives-qualification, Plato suggests that we can only accurately describe Socrates’ epistemic situation when we additionally specify the objects in relation to which he is and is not knowing. If we, unlike Euthydemus, allow Socrates this third qualification and express this opposition in terms of a PNC that specifies all of the relevant predication modes, it becomes clear that the conclusion Euthydemus draws is only apparently contradictory. For there to be a genuine contradiction, it would be necessary for the *same* person to be and not be at the *same* time, in the *same* respect, and in relation to the *same* things. But only three of these four conditions have been met. Although one and the

¹³¹ This equivalence of πρὸς and genitive expression of relatives in fact becomes standard philosophical usage: in his discussion of πρὸς τι in the *Categories*, Aristotle almost always prefers the genitive expression to πρὸς τι, even in his first example (6^a36-39).

¹³² Even in applications of the PNC in *Republic IV* this qualification permits various linguistic expressions, as for instance it does in Plato’s application of the PNC to the conflict of reason and appetite at 439b2-6 where περὶ τὸ αὐτὸ replaces πρὸς ταὐτὸν. There is, however, no doubt that Plato is applying the PNC and that περὶ stands in for πρὸς, presumably because this a more natural way of expressing this qualification in cases of desire and aversion.

same Socrates simultaneously is and is not in respect of his knowing, Socrates has rightly objected in [3] and [4] that *it is not the same thing* in relation to which he is and is not knowing (see τούτου γε αὐτοῦ—293c3 & ἐκείνου γε—293c5-7). Thus, although the same Socrates is and is not at the same time and in the same respect, it is not the case that he is and is not in relation to the same things. Socrates' qualifications therefore amount to an application of what I earlier called the predicates solution to apparent violations of the PNC. Here Socrates demonstrates that although opposite predicates belong to the same subject, these opposite predicates do not apply to the same subject in the same ways, under all of the relevant qualifications and therefore do not count as genuine opposites.

In the two Eristic exchanges I have discussed, we have seen that Plato has his interlocutors respond to Eristic refutations by describing an apparent contradiction in terms of a more precisely formulated version of the PNC. On the one hand, in Eristic refutations that involve genuine opposites, Plato has his interlocutors insist that these opposites belong to different subjects. This dialectical move amounts to an affirmation that it must be the *same* thing to which genuine opposites apply in order for there to be a violation of the PNC. On the other hand, in refutations where opposites apply to one and the same subject, Plato has his interlocutors demonstrate that the opposite predicates in question do not apply to this subject under all of the relevant qualifications. This dialectical move amounts to an affirmation that opposite predicates only constitute a genuine contradiction when they apply to the same subject at the same time, in the same respect and in relation to the same thing.

6. THE METAPHYSICAL SIGNIFICANCE OF PLATO'S PNC

My aim thus far has been to recover the intellectual background to the Platonic PNC so as better to understand the reasons for its precise formulation. That the Eristics played an

important role in Plato's development of the PNC is evident from the fact that each occurrence of the principle canvassed so far has some important connection to these figures and their argumentation. However, the picture I have presented so far might lead us to conclude that the principle originally had more to do with what is dialectically expedient than it does with what is impossible. But when we better appreciate the overall purpose the Eristics had in propounding the puzzles to which Plato's answer was a more carefully-articulated conception of genuine contradiction, it becomes less attractive to think of the qualifications Plato specifies as mere moves in a dialectical game. I will now go on to develop further the characterization of Eristic that I offered in chapter 1, with a view to understanding the significance of Plato's solutions to the arguments we have surveyed against the background of the Eristics' purposes in propounding them. On the view I outlined in chapter 1, the Eristics derived contradictions as but one part of a larger argumentative strategy, a strategy that also involved presenting controversial philosophical doctrines as solutions to the contradictions they produced. Chief among the doctrines to which the Eristics appealed in solving their refutations were central tenants of Eleaticism. Against this background the metaphysical significance of Plato's formulation of the PNC is evident: by more carefully articulating the conditions under which being and non-being *cannot* coexist in a single subject, Plato was able to demonstrate that the conclusions of Eristic refutations do not satisfy these conditions and therefore neither represent genuine impossibilities, nor call for the radical Eleatic solution.

There is a strong tendency in the literature on Eristic to think that those who offered these refutations were merely interested in winning arguments by reducing their dialectical

opponents to refutation and puzzlement.¹³³ But as we saw in chapter 1, even in his hostile and sometimes uncharitable characterization of the Eristics, Plato nevertheless concedes that they provide solutions to their refutations. An especially clear indication of this fact comes just after Theaetetus presents the solution I examined in T6, where Socrates describes the practice of the Eristics who offer these arguments as follows:

[T8]: Ἦλεγχεν ἂν ἐπέχων καὶ οὐκ ἀνιεῖς πρὶν θαυμάσας τὴν πολυάρατον σοφίαν συνεποδίσθης ὑπ' αὐτοῦ, οὗ δὴ σε χειρωσάμενός τε καὶ συνδήσας ἤδη ἂν τότε ἐλύτρου χρημάτων ὅσων σοὶ τε κάκεινῳ ἐδόκει.

[The Eristic] would keep on refuting you and not let you go until you were bound hand and foot by him—having been struck with wonder at his sought-after wisdom—then he would release you for however great a fee seemed right to both you and him (*Theaet.* 165d8-e4).

Here Socrates describes an Eristic binding a person through repeated refutations—in this case, repeated iterations of a refutation to the conclusion that one both knows and does not know the same thing (165d3-8)—and then “ransoming”, or “unbinding” (ἐλύτρου) the interlocutor from this burden on receipt of payment. One difficulty with the passage is the fact that Plato here, as he often does, speaks of *people*, rather than arguments, being refuted and “unbound”. But the idea here must be that a person is bound through refutation because their views are refuted, and that the person is released from this bondage by being offered

¹³³ See e.g., Robinson 1953, 425; Cornford 1935, 190; Friedländer 1930, 189; Chance 1992, 19; and Weiss 2000, 68-75.

solutions to these refutations. That Plato has something like this in mind is corroborated by his use of ‘ἐλύτρου’ for the interlocutor’s being ‘unbound’: the word comes from ‘λύειν,’ which is the standard term for providing solutions to a refutation (see e.g., Pl. *Grg.* 480e3; *Ar. Soph. el.* 176^b29-36; 179^b18-24). The practice that Plato describes here is thus one in which an Eristic presents repeated iterations of a refutation as a kind of educational advertisement, and then offers to provide solutions to those refutations for students who pay tuition. This is, furthermore, a practice for which we have explicit evidence in the later tradition of Eristic. We learn, for instance, that Zeno of Citium paid great sums of money to a practitioner of Eristic dialectic for solutions to his dialectical puzzles.¹³⁴ Thus, even in this clearly hostile depiction of the Eristics, Plato concedes that providing solutions was an important part of the overall practice of propounding Eristic refutations.

As we also saw in chapter 1, the *Euthydemus* depicts the Eristics offering solutions to their refutations. Euthydemus’ knowledge argument in T7 is such an example. The argument immediately follows Socrates’ and Clinias’ unsuccessful search for the knowledge that makes human beings happy (288d5-293a7). When their inquiry ends in failure, Socrates calls on Euthydemus’ help and the latter offers to show Socrates that he already has the knowledge he was looking for (a8-b2). What the Eristic then does is present the argument in T7, a refutation with the apparently contradictory conclusion that Socrates both does and does not

¹³⁴ καὶ πρὸς τὸν δείξαντα δ' αὐτῷ διαλεκτικὸν ἐν τῷ θερίζοντι λόγῳ ἑπτὰ διαλεκτικὰς ἰδέας πωθῆσθαι, πόσας εἰσπράττεται μισθοῦ· ἀκούσαντα δὲ ἑκατόν, διακοσίας αὐτῷ δοῦναι (“When a Dialectician showed him [sc. Zeno] seven dialectical forms in the mowing argument [NB: ὁ θερίζων was the name of a famous sophistical refutation—D.L. VII. 44], he asked how much he was selling them for. Being told a hundred drachmas, Zeno gave him two hundred. So great was his love of learning”) See von Arnim 1903, 279. On this connection to the later tradition on Eristic I am indebted to Stephen Menn’s unpublished typescript “Aristotle and the Sophists” (received: 8/17/2017).

know at the same time. Socrates' remarks on the argument suggest that Euthydemus offers the thesis that Socrates is omniscient as a *solution* to the contradiction he derived in his refutation:

[T9 (=T8 in Ch. 1)]: πῶς οὖν ἐπίσταμαι ἐκείνην τὴν ἐπιστήμην ἣν ἐζητοῦμεν; ὥς δὴ τοῦτο ἀδύνατόν ἐστιν τὸ αὐτὸ εἶναί τε καὶ μὴ, εἴπερ ἔν ἐπίσταμαι, ἅπαντα ἐπίσταμαι—οὐ γὰρ ἂν εἶην ἐπιστήμων τε καὶ ἀνεπιστήμων ἅμα—ἐπεὶ δὲ πάντα ἐπίσταμαι, καὶ ἐκείνην δὴ τὴν ἐπιστήμην ἔχω· ἄρα οὕτως λέγεις, καὶ τοῦτό ἐστιν τὸ σοφόν;

How do I know that knowledge we were looking for? Since it is impossible both to be and not to be the same thing, if I know one thing I know absolutely everything—because I could not be both knowing and not knowing at the same time—and since I know everything, I have this knowledge. Is this what you mean, and is this your wisdom (*Euthyd.* 293d3-8)?

In order to prove that Socrates has the knowledge he was looking for, Euthydemus produces an Eristic refutation to a contradictory conclusion, and presents this thesis as a solution to the contradiction. I take this thesis to be a solution in the following way: if we accept that Socrates is omniscient, then there is nothing he does not know, and the Eristic no longer has the material he needs to generate the contradiction that Socrates both does and does not know.

This same argumentative strategy is ubiquitous in the *Euthydemus*. In the face of contradictions that affirm and deny a given predicate of a given subject, the Eristics either universally uphold the affirmation in a contradiction to the exclusion of its denial, or maximally confirm the denial in the contradiction to the exclusion of its affirmation. In chapter 1 I showed that the general strategy of resolving contradictions that emerges from an analysis of the Eristics' arguments betrays their commitment to a radical and formidable philosophical view: that the only way of being something is to be it completely, to the exclusion of its opposite, and the only way of not being something is to not be it at all, to the exclusion of *its* opposite. These patterns of solution suggest a commitment to the Eleatic doctrine that there is no middle ground between being and nonbeing: with respect to any object about which one can inquire, one must say either "[it] is" or "[it] is not", but never both (DK B8 ll.15-16).¹³⁵ The refutations by which the brothers advance this view are often ridiculous, but the absurdity is very likely part of the point: in proposing these doctrinal solutions, the brothers utterly reject the appearances in terms of which the contradictions they derive are cast.

The hypothesis that Eleatic commitments underlie Euthydemus and Dionysodorus' argumentative practice is further corroborated by the brothers' use of arguments that Plato explicitly associates with Parmenides elsewhere. Euthydemus' two arguments against the possibility of speaking falsely (*Euthyd.* 283e7-284c8) are clear examples of this: the alleged impossibility of speaking falsely is precisely the sophistic puzzle that gives rise to Plato's

¹³⁵ DK B.8 ll.15-16: ἡ δὲ κρίσις περὶ τούτων ἐν τῷιδ' ἔστιν· ἔστιν ἢ οὐκ ἔστιν ("The choice concerning these things lies in the following: [it] is or [it] is not"). The Greek text follows Diels and Kranz 1974. Sedley has called this "Parmenides' Law 1": "There are no half-truths. No proposition is both true and false. No question can be coherently answered yes and no" (Sedley 1999, 115).

extended refutation of Parmenides in the *Sophist* (236d9-237e7). Parallels such as this one have led many interpreters to understand the brothers as Eleatics.¹³⁶ But this practice of offering doctrinal solutions to Eristic refutations reveals an even more direct and formidable way in which Plato's Eristics belong to this tradition. Their arguments share a similar formal purpose with Zeno of Elea's famous paradoxes, namely, to give credence to the central tenets of Eleatic monism by demonstrating that these doctrines provide solutions to the contradictions that follow when one assumes that things can both be and not be.

With this clearer picture of the opponents whose refutations Plato diagnoses with his PNC, we are now in a better position to recognize the principle's enormous metaphysical significance. By re-describing the contradictions that the Eristics derive in terms of the PNC, Plato provides us with a way of recognizing that there is no contradiction when two opposite predicates belong to a subject, so long as they do not belong to the same subject in the same ways, under all of the relevant predication modes. The notion of a genuine contradiction that the PNC forbids thus restricts the class of genuine contradictions in such a way that the contradictions of the Eristics clearly fall outside this class. The Eristics, like their Eleatic predecessors, take these oppositions to represent genuine contradictions and resolve them by denying the appearances that give rise to these contradictions of their reality. But once Plato has done the work of carefully articulating what kinds of oppositions constitute genuine contradictions, one will no longer be convinced by the Eristics' doctrinal solutions, which operate on the assumption that the conclusions they derive in their refutations actually contradict the thesis targeted for refutation. By accepting Plato's more sophisticated account of what constitutes a genuine contradiction, we are provided a way of understanding how

¹³⁶ See Sprague 1962; Hawtrey 1981, 20-21; Dorion 2000, 47; Canto 1987, 56 n.147 & 148, 57-58, 199 n. 105 & 108).

negative states of affairs like “not knowing” can coexist alongside their positive counterparts as genuine constituents of reality without contradiction.

I therefore conclude by noticing that the PNC has not only the restrictive function of more narrowly circumscribing the states of affairs that constitute genuine contradictions. It also has a metaphysically expansive effect in that it allows us to describe the way in which being and non-being are woven together without any contradiction or paradox. By way of engaging with some of his Eristic heirs, Plato refined Parmenides’ axiom, according to which one’s choice is exclusively between “[it] is and [it] is not” (DK B8 ll.15-16). In doing so, he opened up Parmenides’ forbidden path (DK B6 ll.8-9): he showed that things can indeed both be and not be, so long as they are not so at the same time, in the same respect and in relation to the same thing.

IV. CONTRADICTION AND DEDUCTION IN ARISTOTLE'S *SOPHISTICI ELENCHI*

1. INTRODUCTION

In chapters 4 and 5 of the *SE*, Aristotle offers an influential catalogue of thirteen kinds of apparent refutations.¹³⁷ In *SE* 6, he then argues that these “sophistical refutations” are fallacious by referring each of them to the condition in the definition of a genuine refutation that it fails to satisfy. Because a genuine refutation, for Aristotle, is a deduction (συλλογισμός) whose conclusion contradicts a statement maintained by one’s dialectical opponent (*Soph. el.* 165^a2-3; 168^a35-37; 171^a4-7; see also *An. pr.* 66^b11),¹³⁸ this argument involves showing that sophistical refutations fail to satisfy either the conditions specified in the definition of deduction, or those in the definition of a contradiction (*Soph. el.* 169^a18-21; 171^a1-11). We might therefore expect *SE* 6 to be an application of the famous accounts of contradiction and deduction that Aristotle offers in treatises that focus specifically on those topics: *De Interpretatione* and *Prior Analytics*.¹³⁹ Surprisingly, however, throughout this argument Aristotle relies on more comprehensive accounts of both contradiction and deduction than appear anywhere else in his logical works. The aim of this chapter is to show

¹³⁷ The influence of this catalogue is astonishing: Aristotle’s principal list of thirteen fallacies has been accepted with only minor additions and variations in virtually every treatment of fallacies since the *SE*. See Hamblin 1970, 9-50.

¹³⁸ For this interpretation of the basic form of the definition see Bolton 1994, 109; Woods and Hansen 1997, 217-239; Hitchcock 2000, 209; Schreiber 2003, 88; Crivelli 2006, 140; Malink 2014, 153-154.

¹³⁹ The *SE* presupposes familiarity with Aristotle’s other logical works. Aristotle introduces the project of the *SE* in Ch. 2 by outlining four kinds of argument that occur in speech: demonstrative, dialectical, examinational and eristic. He claims that demonstrative arguments were already covered in the *Analytics*, that dialectical and examinational arguments were already discussed elsewhere—which is surely a reference to the *Topics*—and that now all that is left for him to discuss is eristic arguments, which are the topic with which the remainder of the *SE* is concerned (165^a38-165^b11).

that the way Aristotle deploys the definition of refutation in exposing certain sophistical arguments has a great deal to teach us about his conceptions of contradiction and deduction, and about his reasons for formulating his definitions of these notions in the manner he does.

In his treatise largely devoted to the topic—*De Interpretatione*—Aristotle defines a contradiction as a pair of propositions that affirm and deny the same predicate of the same subject non-homonymously (*Int.* 17^a34-37).¹⁴⁰ The famous *Metaphysics* Γ discussion of the PNC adds further “customary qualifications” (*Metaph.* 1005^a28), specifying that a contradiction is a matter of a predicate and its contradictory belonging to the same subject at the same time (ἄμα) and in the same respect (κατὰ τὸ αὐτό) (*Metaph.* 1005^b17-22). But Aristotle marks these accounts of contradiction as incomplete: in both treatises, he explicitly claims that there are other, unstated qualifications that we must add to the definition in order to deal with “sophistical annoyances” (*Int.* 17^a36-37) or “dialectical difficulties” (*Metaph.* 1005^b21-22). This chapter begins by arguing that Aristotle’s diagnosis of the sophistical refutations whose contradictions are merely apparent reveals both what the other necessary qualifications are, and how they guard against sophistical difficulties. I will argue that in *SE* 6 Aristotle relies on three conditions for contradiction that he does not fully articulate in his more famous discussions of the notion: (1) the different occurrences of terms in two contradictory propositions must be identical linguistic expressions; (2) these linguistic expressions cannot be ambiguous; and (3) the predicates in two contradictory propositions must belong to their subjects under precisely the same set of qualifications, i.e., at the same time, in the same respect, in relation to the same thing, in the same place and in the same manner. We will furthermore see that each of these conditions plays an important role in

¹⁴⁰ I follow Whitaker (1996, 2) in taking the primary subject matter of *De Interpretatione* to be contradictions.

explaining why the contradictions produced in certain sophistical refutations are merely apparent. This suggests that Aristotle's reason for making them conditions on contradiction is precisely to guard against and expose the apparent contradictions produced in sophistical refutations.

According to a famous definition that appears in a number of Aristotle's works, a deduction is "an argument in which, once certain things have been set down, something other than the things laid down necessarily follows through the things laid down" (*Top.* 100^a25-7).¹⁴¹ After presenting this definition in the *Topics*, he goes on to give accounts of the various forms of deduction—demonstrative, dialectical, eristic and paralogistic—and claims that his treatment of these forms of deduction is a "description in outline" rather than a "precise account" (*Top.* 101^a18-22). This might be taken to mean that his account of the distinguishing features between different kinds of deduction is only an outline, but that this canonical definition of deduction is nevertheless a precise account. However, we will see that in the *SE* Aristotle appeals to criteria in the definition of deduction that cannot be immediately read off from Aristotle's canonical formulations of the definition. This suggests that the canonical definition of deduction is also something like a description in outline, which suffices in other contexts (*Top.* 101^a22-24), but turns out to be insufficient for the purposes of exposing sophistical arguments.¹⁴² Parts 3 and 4 of this chapter examine

¹⁴¹ Closely related definitions appear at *An. pr.* 24^b18-22; *Rhet.* 1356^b16-18; *Soph. el.* 164^b27-165^a2. For useful discussions of this definition of the deduction, and the meaning of its individual parts, see Frede, 1974, 15-23; Bolton 1994, 108-120; Smith 1997, 43-44; Striker 2009, 78-81; and Malink 2014, 154.

¹⁴² Both Bolton (1994, 109) and Malink (2014, 149) have noticed that we learn a significant amount about the details of Aristotle's definition of deduction in the *Sophistici Elenchi*. In Section 3.2 below I consider in detail one of the two additional criteria on deductions that Malink finds in *SE* 6.

Aristotle's diagnosis of certain sophistical refutations that only apparently deduce and which Aristotle exposes by appealing to criteria on deductions unattested in his other logical works. Here we will see that the same three conditions in the definition of a refutation that separate genuine contradictions from merely apparent ones are either requirements on the propositions (προτάσεις) of which deductions are composed, or on the relationships between those propositions. Aristotle includes these conditions in the definition of a deduction, I will argue, so as to delineate the class of genuine deductive arguments in such a way that sophistical inferences fall clearly outside it.

2. CONDITIONS ON CONTRADICTION IN ARISTOTLE'S DEFINITION OF REFUTATION

Aristotle defines sophistical refutations in the first sentence of the *SE* as arguments “that appear to be refutations but are in fact fallacies, not refutations” (*Soph. el.* 164^a20-21).¹⁴³ These two defining features—appearance of refutation and fallacy—then become the organizing principles of two subsequent classifications of sophistical refutations. In *SE* 4 and 5 Aristotle classifies the thirteen sophistical refutations according to the way they “produce the illusion” of a genuine refutation (*Soph. el.* 165^b24-27). Six of the thirteen refutations are “due to language” (παρὰ τὴν λέξιν)—which means that something linguistic is responsible for the appearance that they are refutations—and the remaining seven appear to be refutations because of something outside of language. At the beginning of *SE* 6 Aristotle then introduces a new classification—one that explains each of the apparent refutations in terms

¹⁴³ I read the καὶ in the sentence epexegetically, and thus take Aristotle to be offering a definition of sophistical refutations, following Forster 1955, 11; Pickard-Cambridge 1984, 278; Dorion 1995, 119; Schreiber 2003, 192; Fait, 2007, 99; Hasper 2013, 13; Malink 2014, 150.

of the definition of refutation (*Soph. el.* 168^a17-23). In this chapter, Aristotle argues that each of the earlier-classified apparent refutations fails to satisfy one of the conditions in the definition of a refutation. Unlike the prior classification, which explains why these refutations appear to be genuine, *SE* 6 is concerned with the second defining feature of these sophistical arguments: that are not refutations, but fallacies.¹⁴⁴

Aristotle's most complete articulation of the definition of a refutation in the *SE* runs as follows:¹⁴⁵

¹⁴⁴ There is some controversy about what the difference between the two classifications is (see Edlow 1977, 20; Dorion 1995, 91). We can infer from the way that these classifications were referred to in the medieval literature on fallacies that the interpretation I offer here is the traditional one. In the medieval literature on fallacies, the causes in terms of which sophistical refutations are classified in the chs. 4-5 are called the "causes of appearance" (*causae apparantiae*), that is, the causes of appearing to be refutations; the causes in the second classification are called the "causes of not being" a refutation (*causae non existentiae*), or the "causes of deficiency" (*causae defectus*) (see Ebbesen 1987, 115-117; Fait 2007, xix-xx). See n. 105 above for further discussion.

¹⁴⁵ I say "most complete", rather than "complete", because two conditions on refutations to which Aristotle appeals in *SE* 6 are not explicitly articulated in this definition. The first is the requirement that the conclusion must follow "because [the premises] are those ones" (τῷ ταῦτ' εἶναι), which refutations due to false cause fail to satisfy (168^b23-25). This requirement is, however, part of Aristotle's canonical definition of deduction in the *Prior Analytics* (24^b18-22), and Aristotle both assumes readers of the *SE* are familiar with that treatise (164^a38-^b11) and repeatedly insists that the account of refutation contains the account of deduction (e.g., 168^a34-^b38; 171^a1-5). The other requirement not articulated here is the condition that the propositions of which deductions and refutations are composed must predicate "one of one", which refutations due to many questions fail to satisfy (169^a6-18). On this criterion see Malink 2014, 157-158. But these exceptions aside, this is the formulation of the definition of refutation to which Aristotle refers in explaining why the apparent refutations are fallacious, and it is treated as the authoritative definition, to which he frequently refers as 'τὸν εἰρημένον διορισμόν' (see e.g., 176^a37).

[T1]: [1] ἔλεγχος μὲν γὰρ ἐστὶν ἀντίφασις τοῦ αὐτοῦ καὶ ἐνός, [2] μὴ ὀνόματος ἀλλὰ πράγματος, [3] καὶ ὀνόματος μὴ συνωνύμου ἀλλὰ τοῦ αὐτοῦ, [4] ἐκ τῶν δοθέντων ἐξ ἀνάγκης ([5] μὴ συναριθμουμένου τοῦ ἐν ἀρχῇ), [6] κατὰ ταῦτό καὶ πρὸς ταῦτό καὶ ὡσαύτως καὶ ἐν τῷ αὐτῷ χρόνῳ [...] ἔνιοι δὲ ἀπολιπόντες τι τῶν λεχθέντων φαίνονται ἐλέγχειν.

[1] A refutation is a contradictory proposition of one and the same [proposition one is refuting] ([2] not [merely] of [the same] word but of [the same] thing, [3] and of a word that is not synonymous, but the same [as the word in the proposition one is refuting])) [4] [sc. a contradictory proposition that follows] necessarily from the things granted ([5] when it has not been enumerated in the beginning) [6] in the same respect and in relation to the same thing and in the same manner and at the same time [...] Some, however, omit one of the said [conditions] and [merely] appear to refute (*Soph. el.* 167^a23-27).

According to this definition, a refutation is a specific kind of ἀντίφασις. Many commentators and translators take the word to mean “contradiction” as Aristotle defines it in *De Interpretatione*.¹⁴⁶

¹⁴⁶ The following commentators take ἀντίφασις to mean “contradiction”: Pickard-Cambridge 1984, 282; Forster 1955, 29; Hasper 2013, 18; Fait 2007, 15; Dorion 1995, 129; Swanson 2017, 156. The following take it to mean “contradictory proposition”: von Kirchmann, 1883; Bolton, 1993, 109; Schreiber 2003, 88; Colli 2003, 656; Malink 2014, 155.

[T2]: καὶ ἔστω ἀντίφασις τοῦτο, κατάφασις καὶ ἀπόφασις αἱ ἀντικείμεναι. λέγω δὲ ἀντικεῖσθαι τὴν τοῦ αὐτοῦ κατὰ τοῦ αὐτοῦ, μὴ ὁμωνύμως δέ, καὶ ὅσα ἄλλα τῶν τοιούτων προσδιορίζομεθα πρὸς τὰς σοφιστικὰς ἐνοχλήσεις.

And let this be a contradiction: an affirmation and a denial that are opposed. And by “opposed” I mean the [sc. contradiction] [is the affirmation and denial] of the same [predicate] of the same [subject]— not homonymously, and however many other such [sc. qualifications] we add to deal with the sophistical annoyances (*Int.* 17^a33-37).¹⁴⁷

But Aristotle’s claim in clause 4 of T1 that the ἀντίφασις is the conclusion of a deduction, which “[follows] necessarily from the things granted”, is a problem for this reading (cp. *Soph. el.* 164^b27-165^a2; 168^a21-22; *Top.* 100^a25-26; *An. pr.* 24^b19-20). This condition reveals that the ἀντίφασις in question is a contradictory proposition—i.e., a single affirmation or denial—rather than a contradiction, because a pair of contradictory propositions does not follow from the premises in a deduction. A contradictory pair—i.e., the sort of ἀντίφασις Aristotle defines T2—nevertheless does feature in a refutation: it is the combination of the contradictory proposition one deduces and a dialectical opponent’s original thesis that it refutes (*Soph. el.* 165^a2-3; 180^a24-31; 181^a2-3). Aristotle presumably uses ‘ἀντίφασις’ in T1 to mean ‘contradictory proposition’ because it is suitably neutral between affirmation (κατάφασις) and denial (ἀπόφασις): the conclusion one deduces will be an affirmation if the proposition to be refuted is a denial, and it will be a denial if this original proposition is an

¹⁴⁷ The Greek text of *De Interpretatione* follows Weidemann 2014. The translation is my own.

affirmation.¹⁴⁸ Clause [1] in the definition of refutation thus specifies that the conclusion of the deduction in a refutation must be a proposition that affirms or denies the very thing that was denied or affirmed in the proposition targeted for refutation.

Each of the remaining clauses in the definition further clarifies the role that this contradictory proposition plays in a refutation—either on the way in which it is deduced, or on its relationship to the original statement that it contradicts. Based on comparison with Aristotle’s canonical definitions of deduction, we can be confident that the two criteria in clauses 4 and 5 exclusively concern the deductive component of a refutation. We have just seen that clause 4 states the familiar requirement that the conclusion of a deduction must follow necessarily from the premises; clause 5, on the other hand, is equivalent to the familiar condition that the conclusion of a deduction be “something different from the premises” (cp. *Soph. el.* 164^b27-165^a2; *Top.* 100^a25-26; *An. pr.* 24^b19-20).¹⁴⁹

By contrast, the way that Aristotle appeals to the criteria in clauses 2, 3 and 6 in *SE* 6 suggests that these are conditions on the contradiction between the conclusion and the proposition it contradicts. Because Aristotle uses these criteria to explain why certain kinds of sophistical arguments fail to derive actual contradictions, I will suggest that these are precisely the qualifications to which Aristotle alludes in his canonical discussions of contradiction—the qualifications that must be added to the definition in order to deal with “sophistical annoyances” (*Int.* 17^a36-37) and “dialectical difficulties” (*Metaph.* 1005^b21-

¹⁴⁸ For other uses of ἀντίφασις to mean “contradictory proposition”, rather than “contradiction” see *Int.* 18^a11; 21^a22; 22^a39; *An. pr.* 34^b29; *Soph. el.* 180^a24-25; 30-31; 181^a2-3. See also Whitaker 1996, 79 n.1. For substitutions of the terms “affirmation” and “denial” for “conclusion” and “contradictory proposition” see *Soph. el.* 168^b11-14; 180^a24-29. That both the affirmation and denial in a contradiction are propositions (πρότασεις) is evident from *Int.* 20^b23-24.

¹⁴⁹ See Malink 2014, 154-155; Bolton 1994, 110-111; Swanson 2017, 162.

22).¹⁵⁰ In the remainder of section 2 I outline Aristotle’s diagnosis of the refutations that fail to satisfy these criteria—the six refutations due to language (§2.1), and refutations due to qualification (§2.2)—and argue that Aristotle includes these conditions in the definition of a contradiction in order to separate real contradictions from the merely apparent contradictions that sophists produce through these forms of apparent refutation.

2.1. LINGUISTIC CRITERIA ON CONTRADICTION

According to the conclusion of *SE* 6, the six sophistical refutations due to language (παρὰ τὴν λέξιν)—homonymy, amphiboly, form of expression, combination, division and accent—fail to be refutations “because the ἀντίφασις is merely apparent” (169^a19-20). Although we will see later that these same forms of refutation can also fail to deduce, here Aristotle takes them, in the first instance, to be fallacious because the *contradictions* they produce are merely apparent. Aristotle argues for this conclusion at the beginning of *SE* 6 by showing that each of these refutations fails to satisfy one of the two linguistic requirements in the definition of a refutation:

[T3]: ἔπειτα καὶ κατὰ τὰ μέρη τοῦ διορισμοῦ. τῶν μὲν γὰρ ἐν τῇ λέξει οἱ μὲν εἰσι παρὰ τὸ διττόν, οἷον ἢ τε ὁμωνυμία καὶ ὁ λόγος καὶ ἡ ὁμοιοσχημοσύνη (σύνηθες γὰρ τὸ πάντα ὡς τόδε τι σημαίνειν), ἡ δὲ σύνθεσις καὶ διαίρεσις καὶ προσωδία τῷ μὴ τὸν αὐτὸν εἶναι τὸν λόγον ἢ τὸ ὄνομα τὸ διαφέρον. ἔδει δὲ καὶ τοῦτο, καθάπερ καὶ τὸ πρᾶγμα ταυτόν, εἰ μέλλει ἔλεγχος ἢ συλλογισμὸς ἔσεσθαι

¹⁵⁰ Malink (2014, 155) and Weidemann (2002, 200-201) have both found the “other qualifications necessary to deal with sophistical annoyances” from T2 in clause [6] of T1. In what follows, I will argue that [2] and [3] are also criteria on contradictions to which Aristotle refers in T2.

And then [we can take] the definition [of a refutation] part by part. For among those [sophistical refutations] in language some are due to ambiguity, for example homonymy and amphiboly¹⁵¹ and form of expression (for in common usage every [word] signifies a certain “this”), while combination, division and accent depend on the statement or altered word not being the same. And this [i.e., that the statement or word be the same] is also necessary, just as [it is necessary] for the thing [signified by the statement or word to be] the same, if there is going to be a refutation or a deduction (*Soph. el.* 168^a23-30).

Here Aristotle classifies these six refutations into two groups according to the requirement in the definition of a refutation of which they fall short. The first group of refutations is due to ambiguity (παρὰ τὸ διττόν): each of these refutations employs a linguistic expression that signifies different things in its different occurrences. The first of these, refutations due to homonymy, exploit lexical ambiguity. Aristotle’s first example of this kind of refutation depends on the now-familiar ambiguity in the verb ‘μανθάνειν,’ which can mean either ‘to acquire knowledge’ or ‘to understand’ (165^b31-32 cp. Pl. *Euthyd.* 276b6-c7).¹⁵² Refutations

¹⁵¹ This is one of a number of passages in the *SE* where Aristotle substitutes ‘λόγος’ for ‘ἀμφιβολία.’ He does so to clarify that amphiboly is an ambiguity in a phrase, whereas homonymy is an ambiguity in a word. For other cases in which Aristotle associates ὁμωνυμία with ὄνομα and/or ἀμφιβολία with λόγος see 165^b29, 166^a15-16, 169^a23, 177^a21 and Dorion 1995, 244 n. 85.

¹⁵² This is an example of homonymy closely related to Aristotle’s understanding of that notion in the *Categories*, where he defines homonymy as a relationship between things that share a name, but have different definitions (*Cat.* 1^a1-2). Although in this canonical definition of homonymy it is *things* that are said to be homonymous, Aristotle is equally comfortable referring to the name that homonymous

due to amphiboly, on the other hand, exploit an ambiguity that arises through the combination of words that are not ambiguous in isolation (166^a17-21).¹⁵³ Aristotle's favorite

items share as itself being homonymous, or being said homonymously (see e.g., *GC* 322^b29-32; for other examples see Hintikka 1973, 9). In this usage, homonymy is not a relationship between things that differ in definition but share a name; it is a feature of an individual word that signifies such things. (When Aristotle speaks of words, rather than things as homonymous, he is often characterized as employing Speusippus' conception of the notion (Hambruch 1904, 28-29; Lang 1911, 25-26; Stenzel 1929, 1645.4-44; Cherniss 1944, 56-58; 1945, 40; Anton 1968, 315-326). For criticism of this consensus, and an incisive analysis of Aristotle's use of 'homonymy' see Barnes 1971). However, a single word signifying multiple things with different definitions is not the only ambiguity responsible for refutations due to homonymy. For example, Aristotle tells us the argument that concludes "the sick person is healthy"—because the one who recovers is healthy, and the sick person recovers—does not contradict the claim that "the sick person is not healthy", because 'the sick person (ὁ κάμνων)' in the conclusion signifies one who was previously sick, whereas in the proposition it contradicts, the same word denotes a person who is presently sick (165^b38-166^a6). This is an example of the same fallacy, but the two items signified share a definition. The homonymy responsible for the fallacy is therefore not restricted to words that signify multiple items with different definitions, but rather any individual words with a plurality of distinct referents (see also Schreiber 2003, 21-24).

¹⁵³ Plato seems to have used 'ἀμφίβολος' for an ambiguity in an individual word (*Cratyl.* 437a2-8), and in later treatments of fallacy 'ἀμφιβολία' seems to be used for ambiguity quite generally (e.g. *Sext. Emp. PH* II.256.1-3). But in the *SE* Aristotle uses the term exclusively to refer to ambiguous combinations of univocal words. One common form of the fallacy is an accusative with infinitive construction, where the noun or pronoun can be understood either as a subject or object of the verb in question (e.g., τὸ βούλεσθαι λαβεῖν με τοὺς πολεμίους ("to wish me to capture the enemies"/"to wish the enemies to capture me")). Another common form of this ambiguity arises with nouns that have the same form in the nominative and the accusative (e.g., ἄρ' ὃ τις γινώσκει, τοῦτο γινώσκει ("What someone knows, does he know this?"/ What someone knows, does this know?") ; ἄρα ὃ ὁρᾷ τις, τοῦτο ὁρᾷ ("What someone sees, does he see this?" / "What someone sees, does this see?") ἄρα ὃ σὺ φησ εἶναι, τοῦτο σὺ φησ εἶναι; ("What you assert to be, do you assert that that thing is? / "What you assert to be, do you claim that you are this thing?") (166a6-14). An exception to this regimented use of 'ἀμφιβολία' occurs at *Poetics* 1461^a25-26, where an individual word, πλείω, is said to be amphibolous.

example of amphiboly is that in the equally familiar phrase ‘σιγῶντα λέγειν,’ which can mean either ‘for one who is silent to speak’ or ‘to speak of silent things’ (166^a12-14 cp. Pl. *Euthyd.* 300b1-8). The third kind of refutation due to ambiguity, Form of Expression, exploits an ambiguity in grammatical category. The problematic component these refutations is a word that has the same grammatical form as some other class of words, but which signifies something that does not belong to the class of items signified by these other words with the same grammatical form. The potential error that arises in connection with such words is a category mistake: we assume, based on this similarity of expression, that the signified item belongs to a category to which it does not actually belong. For instance, an occurrence of the word ὑγιαίνειν “to be healthy,” denotes a condition, but it might incorrectly be taken to denote an activity based on its similarity in grammatical form to words like “τέμνειν” (“to cut”) and “οικοδομεῖν” (“to build a house”) (166^b15-18). The common feature of all three kinds of ambiguity is that the same linguistic expression signifies different things in its different occurrences.

In T3 Aristotle claims that the necessary part of a refutation that these three kinds of refutation leave off is the requirement that “the thing (πράγμα) [must] be the same” (^a28-29). The criterion in T1 in terms of which Aristotle exposes these fallacies is therefore the one expressed in clause 2, according to which the thing(s) signified by the same linguistic expression in a pair of contradictory propositions must be the same for the different occurrences of that expression. If the different occurrences of the same linguistic expression in two contradictory propositions do not signify the same thing(s)—either because of an exploitation of homonymy, amphiboly or form of expression—the two contradictory

propositions do not together constitute a contradiction.¹⁵⁴ I will call the condition that these three kinds of refutation fail to satisfy the “same-things-signified criterion”.¹⁵⁵

The second group of refutations in T3—those due to combination, division and accent—are fallacious for Aristotle because of an altered linguistic expression (^a27-28). Each of these refutations involves a word or statement in a proposition being altered from one occurrence to the next, either by combining a divided linguistic statement, by dividing a combined one, or by changing the accentuation from one occurrence of a word to the next (*Soph. el.* 166^a23-166^b9). The first two, refutations due to combination and division, are the inverses of one another, and depend either on words or a phrases originally expressed together being expressed separately, or vice versa.¹⁵⁶ For example, the claim “it is possible for someone, being good, to be a bad cobbler” (ἔστιν ἀγαθὸν ὄντα σκυτέα μοχθηρὸν εἶναι) is not contradicted by the claim “it is possible for there to be a good-bad-cobbler” (οὐκ ἔστιν ἀγαθὸν ὄντα σκυτέα μοχθηρὸν εἶναι) because the latter, combined expression is not the same

¹⁵⁴ At this stage I speak of this condition being violated only when an ambiguity is exploited in a pair of contradictory propositions. I will argue in § 3.3 that the requirement is stronger, and actually excludes the use of ambiguous linguistic expressions in the propositions of both contradictions and deductions, even when that ambiguity is not exploited.

¹⁵⁵ For the same assignment of linguistic criteria to linguistic fallacies, see Kirwan 1979, 39-44; Dorion 1995, 239; 248; Schreiber 2003, 57-8; 88 and 212 n. 26; Fait 2007, 120; 125; Malink 2014, 155-156; 158-159; Swanson 2017, 162 n. 14.

¹⁵⁶ Refutations due to combination and division, like those due to amphiboly, result through a combination of words, but the errors involved are of a different kind. In refutations due to amphiboly *the same* linguistic expression signifies different things in its different occurrences, whereas in refutations due to combination and division, the linguistic expressions in question are not the same, and they may, or may not, signify different things. But even when linguistic expressions altered through combination or division *do* signify different things, Aristotle still thinks this is not a case of ambiguity, because for an expression to be ambiguous it must be the very same expression that signifies different things (*Soph. el.* 177^b1-3).

as the former, divided one (*Soph. el.* 177^b13-15).¹⁵⁷ Finally, although according to Aristotle the final refutation due to language, accent, “gives rise to [sc. almost] no arguments, either written or spoken” (*Soph. el.* 177^b35-6), Aristotle adds it for the sake of completeness, because it does constitute another way in which the words employed in two contradictory propositions could fail to be the same (*Soph. el.* 165^b27-30). Refutations due to accent come about by changing accents on the words employed in the refutation such that the words used are no longer the same.¹⁵⁸ The common error that results in these three kinds of refutation is that the linguistic expression of altered terms in two contradictory propositions is no longer the same.¹⁵⁹

The criterion that these three refutations fail to satisfy is therefore the one expressed in clause 3 of T1, according to which the terms in a contradictory proposition must be linguistic expressions identical to those that occur in the proposition it contradicts (*Soph. el.* 167^a24-25). This condition, which I will call the “same-signifiers criterion”, adds that the linguistic expression of repeated terms in a contradiction, in addition to the things that these expressions signify, must be identical. Thus, on this criterion, the proposition ‘this is a ὄρος (‘mountain’)’ does not contradict ‘this is not a ὄρος (‘boundary’)’ because these linguistic expressions are not the same when one alters the aspiration from smooth to rough. Of course

¹⁵⁷ For this reading of the example see Hasper 2009, 124-125.

¹⁵⁸ For example: “Is it not the case that a house is where you lodge (τὸ οὐ καταλύεις)?” — “Yes.” — “And is it not the case that ‘you do not lodge’ (τὸ ‘οὐ καταλύεις’) is the denial of ‘you do lodge’?” — “Yes.” — “But you said that a house is where you lodge (τὸ οὐ καταλύεις). Therefore a house is a denial.” (177^b37-178^a2).

¹⁵⁹ *SE* 177^b35-36 suggests that the linguistic expressions in question can be either expressions in written or in spoken language, but nothing in what follows will turn on determining whether Aristotle is here thinking of written language, spoken language or both. For further discussion see Kirwan 1979, 43-44; Schreiber 2003, 60-76; Hasper 2009: 137-46; Malink 2014, 159 n.25.

in this case, the two words do signify different things, but Aristotle insists that the error in these three kinds of refutations is not ambiguity; rather, the error consists in statements being divided or combined or the accentuation of a word being altered in such a way that the linguistic signifiers are no longer the same (*Soph. el.* 177^b1-3). In fact, Aristotle repeatedly insists that statements that are divided and combined and words with altered accentuation *do not* always signify different things (*Soph. el.* 166^a35-36 & 177^a34-35).¹⁶⁰ The error is rather a difference in signifiers that may *or may not* denote different things. The clearest indication of this is the fact that the same-signifiers condition, as stated in the definition of a refutation, rules out even the use of synonymous terms—i.e., different linguistic expressions that signify the very same thing—in a contradiction (*Soph. el.* 167^a24-25).¹⁶¹ Thus, on this requirement, the proposition ‘this is a mantel (λῶπιον)’ and ‘this is not a cloak (ἱμάτιον)’ do not together constitute a contradiction even though the words ‘λῶπιον’ and ‘ἱμάτιον’ signify the very same thing (cp. *Top.* 103^a9-10).¹⁶²

¹⁶⁰ See also Hasper 2009, 138-9

¹⁶¹ “μὴ συνωνύμου” in the definition of a refutation thus rules out the use of expressions that have different linguistic form, but signify the same things. This is a rare usage of the word συνωνύμος in Aristotle, where it is a property of words rather than of things (See Dorion 1995: 239, Schreiber 2003: 212, Fait 2007, 120; and Malink 2014, 155 n.18). For Aristotle’s definition of the standard usage of συνωνύμος see *Cat.* 1^a6-8.

¹⁶² This is meant to be an illustration of a failure to satisfy the same-signifiers criterion, rather than an illustration of one of the three sophistical refutations that fails to satisfy it. This example would not be sophistical because it is not an apparent contradiction. The refutations that Aristotle considers sophistical are a *subset* of arguments that fail to be refutations, namely those that are not refutations, but, by exploiting a cause of illusion (165^b24-25), appear to be refutations. An argument that produced this contradiction would not be a sophistical refutation because it does not have the *appearance* of employing the same signifiers.

Aristotle's exposure of the six sophistical refutations due to language therefore brings to light two criteria on the language used in a contradiction that are hinted at, but not explicitly articulated in his canonical discussions of contradiction. Because Aristotle uses them to show that sophistical refutations due to language generate merely apparent contradictions, I suggest that these are among the qualifications that he includes in the definition of a contradiction that would suffice to deal with "sophistical annoyances" (*Int.* 17^a36-37).¹⁶³ The same-things-signified criterion was already suggested by Aristotle's claim in *De Interpretatione* that the contradiction needs to be "non-homonymous" (17^a35); but homonymy is only one of the three kinds of ambiguous expression that the same-things-signified criterion excludes from contradictions. The same-signifiers criterion, on the other hand, is otherwise unattested and has a significant implication for Aristotle's conception of contradiction. The fact that this criterion excludes even the use of synonymous terms in a contradiction reveals that, for Aristotle, the contradictions one produces in refutations are linguistic entities. If the contradiction that one derives in a refutation was supposed to be what is *signified by* the words one uses to express this contradiction, there would be no sense in Aristotle forbidding the use of synonymous terms—i.e., of different linguistic expressions that signify the very same thing—in a contradiction. And this is as it should be: Aristotle does not think there are any genuine contradictions out there in the world; the Principle of Non-contradiction (PNC) firmly denies their existence (*Metaph.* 1005^b17-22). Therefore, when one derives a real contradiction in a refutation, that contradiction is purely linguistic. But moreover, if the repeated terms in the contradiction were not identical linguistic expressions, we would have no guarantee that the signified state of affairs is impossible,

¹⁶³ Pace Malink (2014, 155) and Weidemann (2002, 200-201), who refer only to the criteria in clause 6 to explain this remark in *De Interpretatione*.

because the question would still remain whether the different terms signify the same thing. But if the contradiction is comprised of non-ambiguous identical linguistic expressions, we have assurance from this statement alone that the signified state of affairs is an impossible one. These two linguistic qualifications together guarantee that the contradiction one derives in a refutation would signify an impossible state of affairs out there in the world, were it true. The fact that the state of affairs signified by this verbal contradiction is impossible makes the derivation of such a contradiction sufficient for refutation.

2.2. PREDICATIVE CRITERIA ON CONTRADICTION

Aristotle’s diagnosis of what I call ‘refutations due to qualification’ in *SE* 6 reveals that they fail to satisfy a third kind of criterion on contradiction. Aristotle refers to these refutations in a number of ways: “that due to something being said either unqualifiedly (ἀπλῶς), or not unqualifiedly but in a particular respect (πῇ), in a particular place (ποῦ), at a particular time (ποτέ), or in relation to a particular thing (πρός τι)” (*Soph. el.* 166^b22-23); “those due to this being said in the strict sense (κυρίως) or in a particular respect (πῇ), in a particular place (ποῦ), in a particular manner (πῶς), or in relation to a particular thing (πρός τι)—that is, not unqualifiedly (μὴ ἀπλῶς)” (*Soph. el.* 180^a23-24); and, in the most terse form, “those due to [something being said] in a particular respect (πῇ) and unqualifiedly (ἀπλῶς) (*Soph. el.* 168^a11 & 169^b10).¹⁶⁴ The latter expression was rendered in Latin *secundum quid et*

¹⁶⁴ In none of his discussions of the fallacy does Aristotle enumerate each of the five modes of qualification that he explicitly employs throughout the *SE*. The same is true, for example, of Aristotle’s invocations of the doctrine of the categories, where he rarely gives a complete list (e.g., *Top.* 103^b25-29; *Soph. el.* 166^b12-14; and *Metaph.* 1028^a2-4). Since Aristotle never compiles an exhaustive list of these qualifications, it remains an open question whether the five predicational modes that Aristotle explicitly invokes in the *SE* are exhaustive. Nevertheless, in none of the passages

simplicitur, which gives us the traditional name of the fallacy, *secundum quid*.¹⁶⁵ Aristotle recognizes three different ways in which this fallacy can occur: (1) when a proposition qualified under one of these predicational modes is treated as though it was said without qualification (*Soph. el.* 166^b38-167^a6); (2)—the inverse of (1)—when what is said without qualification is treated as though it were said qualifiedly (*Soph. el.* 167^a7-16); or (3) when what is said under some particular set of qualifications is qualified in a different way, but treated as though it were qualified in precisely the same way, under the same set of these predicational modes (*Soph. el.* 167^a16-20; 180^a28). I refer to these refutations as ‘due to qualification’ instead of the traditional ‘*secundum quid*’ because although not all forms of the fallacy depend on something’s being said both *quid* and *simplicitur*, they do all depend on a problematic deployment of qualifications.

In *SE* 6 Aristotle briefly argues that these refutations are not genuine because “the affirmation and the denial are not of the same” (*Soph. el.* 168^b11-12). There are two ways in which an affirmation and denial can fail to be the same as a result of this fallacy. On the first two forms of the fallacy described above, one of the contradictory propositions holds unqualifiedly (ἀπλῶς) or in the strict sense (κυρίως) whereas the other holds only in a particular respect (πῃ), in a particular place (ποῦ), in a particular manner (πῶς), in relation to

in the *SE* where Aristotle mentions these predicational modes (*Soph. el.* 166^b22-23; see also ^b37-38; 168^b11; 169^b10; 170^a6-8; 180^a23-^b39; 181^a1-14), nor in Aristotle’s discussions of qualified and unqualified propositions elsewhere in his logical works does he mention any qualification other than these five (these are *Top.* 115^b11-35, where he discusses propositions that are qualified κατά τι, ποτέ or ποῦ in contrast with their being unqualified; *An. pr.* 49^a27-28, where he speaks of propositions in a deduction that are unqualified as opposed to being qualified πῃ or πῶς (on this passage see §4 below); and *Rhet.* 1402^a13-17 where he speaks of propositions that qualified κατὰ τί and πρὸς τί as opposed to their being unqualified).

¹⁶⁵ See Schreiber 2003, 141.

a particular thing (πρὸς τι), at a particular time (ποτέ), or holds under some combination of these predicational modes. For example, the proposition ‘dying unjustly is preferable to dying justly’ does not contradict the claim ‘what is just is preferable to what is unjust’ because they are not propositions of the same kind—the latter proposition holds unqualifiedly, whereas the former holds in a particular manner (ὡδί—180^b34) (180^b21-23; 28-31).¹⁶⁶ Or again, one does not contradict the proposition that ‘power in one’s city is good’ by showing that it is not good for this person now or there, because a proposition qualified in terms of time or place is not the same as an unqualified one (*Soph. el.* 180^b11-14).¹⁶⁷

The second way in which two contradictory propositions fail to be the same corresponds to the third form of the fallacy described above. In such cases, both contradictory propositions are qualified, but they are not qualified in the same ways, under the same set of predicational modes, i.e., they are not qualified in the same respect (κατὰ ταὐτὸ), in relation to the same thing (πρὸς ταὐτὸ), in the same manner (ὡσαύτως), in the same place (ἐν τῷ αὐτῷ τόπῳ) or at the same time (ἐν τῷ αὐτῷ χρόνῳ / ἄμα).¹⁶⁸ Instances of

¹⁶⁶ The qualification of manner (for which Aristotle uses the expressions πῶς, ὥς, ὡδί, ὡδέ, ὡσαύτως) is the least well specified of these five predicational modes. In his discussion of qualification fallacies his only examples of the qualification of manner are the adverbs of manner ‘δικαίως’ and ‘ἀδίκως’ (180^b21-39). And in his treatment of refutations due to form of expression, Aristotle also speaks of the adverb ‘ταχέως’ as denoting manner (ὥδε—178^b5). I suggest in light of these few examples that the qualification of manner is any qualification under one of the so-called ‘adverbs of manner.’

¹⁶⁷ This is Aristotle’s only example of a qualification of place in the *SE*, but the final chapter of *Topics* II contains other examples, for example, “it is beneficial in certain areas (e.g., in infected places) to follow such and such a diet, but it is not beneficial without qualification” (115^b18-20); “there can be only one thing somewhere, but there cannot be only one thing without qualification” (115^b20).

¹⁶⁸ The difference in the kind of expression used to describe these predicational modes corresponds to the form that the fallacy takes. Aristotle uses indefinite adverbs to describe a contrast between a

this fallacy involving two differently qualified propositions appear to have been an especially important type of sophistical argument for Aristotle, since they are his paradigm example of ignorance of the definition of refutation—which Aristotle takes to be the underlying cause that explains why each of the individual sophistical refutations is fallacious (*Soph. el.* 168^a17-20).¹⁶⁹ In fact, in both of the passages in which Aristotle discusses ignorance of the definition of refutation, he illustrates it with an example of this kind of qualification fallacy (*Soph. el.* 167^a21-35; 181^a1-14). His first set of examples runs as follows:

[T4]: ἔνιοι δὲ ἀπολιπόντες τι τῶν λεχθέντων φαίνονται ἐλέγχειν, οἷον ὅτι ταὐτὸ διπλάσιον καὶ οὐ διπλάσιον· τὰ γὰρ δύο τοῦ μὲν ἐνὸς διπλάσια, τῶν δὲ τριῶν οὐ διπλάσια. ἢ εἰ τὸ αὐτὸ τοῦ αὐτοῦ διπλάσιον καὶ οὐ διπλάσιον, ἀλλ' οὐ κατὰ ταὐτό· κατὰ μὲν γὰρ τὸ μῆκος διπλάσιον, κατὰ δὲ τὸ πλάτος οὐ διπλάσιον. ἢ εἰ τοῦ αὐτοῦ καὶ κατὰ ταὐτὸ καὶ ὡσαύτως, ἀλλ' οὐχ ἅμα· διόπερ ἐστὶ φαινόμενος ἔλεγχος.

qualified and an unqualified proposition: πῇ (180^b2-7), ποῦ (180^b7; 11-14), πῶς (180^b31-34), πρὸς τι (180^b7-10), and ποτὲ (180^b7; 11-14). When both propositions are qualified, but in different ways, he describes the predicational modes with corresponding expressions that capture the propositions' failure to be qualified in the same ways: 'κατὰ ταὐτὸ' for sameness of respect (ἢ) (167^a31-33; 181^a11-14—on the equivalence of καθ' αὐτὸ/ἢ and κατὰ τι/πῇ see *Soph. el.* 171^b32-33; *An. post.* 74^b28-32; and Code 1986, 349) 'πρὸς ταὐτὸ' for sameness of relation (πρὸς τι) (167^a29-30), 'ὡσαύτως' for sameness of manner (ὡς/ὡδί) (167^a35), and ἐν τῷ αὐτῷ χρόνῳ or ἅμα for sameness of time (ότε) (167^a33-34). For qualifications of place Aristotle only considers cases in which an unqualified proposition is apparently contradicted by a denial that it only holds in a particular place (180^b11-14) but in connection with a pair of propositions qualified in terms of place he would presumably use the expression 'ἐν τῷ αὐτῷ τόπῳ.'

¹⁶⁹ On the relationship between Ignorance of Refutation as a cause of illusion in sophistical arguments, and Ignorance of Refutation as an explanation for why each of the individual sophistical refutations fail to be genuine refutation see fn. 105 above.

Some people omit some one of the [conditions] mentioned [in the definition of a refutation] and give a merely apparent refutation, [showing] (e.g.) [1] that the same thing is both double and not double—for two is double in relation to one, but not double in relation to three.¹⁷⁰ [2] Or, [it may be, they show that] it is both double and not double in relation to the same thing, but not that it is so in the same respect—for it is double in respect of length, but not double in respect of breadth. [3] Or, it may be, they show it to be both double and not double in relation to the same thing and in the same respect and in the same manner but not that it is so at the same time, and therefore their refutation is merely apparent (*Soph. el* 167^a28-34).

In this passage Aristotle considers three apparent contradictions a sophist might try to derive and shows that none of them is actually contradictory because, in each successive iteration, the sophist leaves off at least one of the qualifications necessary for a genuine contradiction. The first apparent contradiction unqualifiedly asserts that the same thing is double and not double (*Soph. el.* 167^a29). To explain how such a contradiction could be merely apparent, Aristotle considers a mathematical example and claims that two is double in relation to one but not double in relation to three (*Soph. el.* 167^a29-30).¹⁷¹ The opposites, double and not double, apply to the same subject, two, but they do not belong to it in relation to the same

¹⁷⁰ The genitive expressions used here are, for Aristotle, equivalent to the *πρός τι* qualification. Evidence of their equivalence comes from Aristotle's in his discussion of *πρός τι* in the *Categories*, where Aristotle almost always prefers the genitive expression to *πρός τι*, even in his first example (6^a36-39).

¹⁷¹ The genitive expressions here, as in *Euthyd.* 293c2-7, are used in place of the *πρός*-qualification, *pace* Schreiber (2003, 145) who takes Aristotle to employ the *κατά*-qualification here.

thing. This opposition therefore does not satisfy the qualification of relatives (πρὸς ταὐτό). Here Aristotle explicitly applies what I have called the ‘predicates solution’ to apparent contradictions, one quite similar to the implicit solution we saw Plato apply to Euthydemus’ knowledge argument (T7 in Ch. 3). By appealing to the relatives-qualification in this way, Aristotle, like Plato, suggests that opposite predicates that can apply to a subject in relation to different things are genuinely opposed only when they apply to this subject in relation to the same thing.

The second iteration then builds the relatives-qualification into the statement of the contradiction, and claims that the same thing is double and not double in relation to the same thing (*Soph. el.* 167^a31). Aristotle apparently understands this statement as applying to a pair of three-dimensional objects and resolves it by claiming that a further necessary qualification, the “respects-qualification” (κατὰ ταὐτό), has not been satisfied: object A might very well both be and not be the double of object B, but it could only be so by being double in respect of length (κατὰ τὸ μῆκος), but not double in respect of breadth (κατὰ τὸ πλάτος) (*Soph. el.* 167^a31-33). This is an application of the same kind of predicates solution that we saw Plato apply to the example of the spinning top (*Resp.* 436e3-4). As was true there, by distinguishing the respects in virtue of which the object in question is and is not double, Aristotle draws a distinction between two different ways of being double. A doubles B in length, but it does not double B in breadth. For there to be a genuine contradiction here, A would need to be both double and not double B in the same respect. Because this is not the case, the contradiction again is merely apparent. By insisting on the respects-qualification, Aristotle suggests that opposite predicates that can apply to a subject in different respects only constitute a contradiction when they apply to this subject in the same respect.

Finally, Aristotle imagines a case in which the same thing is double and not double in relation to the same thing, in the same respect and in the same manner, and resolves it by claiming that this could occur only if such opposites belong to the subject at different times (*Soph. el.* 167^a33-34).¹⁷² Just as we saw in Plato's treatment of similar kinds of refutations, on Aristotle's account, it is only by failing to specify the precise ways in which a pair of propositions are qualified under one, or some combination of, these predicational modes that

¹⁷² Michael of Ephesus and the author of the *Anonymous Heiberg*, both of them likely relying on an earlier collection of scholia, suggest that by 'ὡσαύτως' Aristotle means that one proposition does not hold potentially and the other actually, but either both potentially or both actually (Ps.-Alex.-2, 45.24-9; Duffy 1992, 15). Micheal of Ephesus offers the following example: "For the one who says that 'one who is asleep has sight, and one who has sight sees, therefore one who is asleep sees' does not refute a person who says that the one who is asleep does not see; for 'the one who has sight sees' signifies [on the one hand] having and not being active, but being able to be active, and [on the other hand] being already active" (Greek text follows Wallies 1989, translation is my own). The idea these commentators share is thus that 'ὡσαύτως' in the definition of a refutation specifies that two propositions that predicate opposites of the same subject do not generate a contradiction when one of these predicates applies to its subject potentially, and the other applies to the same subject in actuality. In order to constitute a contradiction, the opposite predicates must either both apply potentially, or both apply actually; and this is what it means, according to these commentators, for these predicates apply "in the same manner". There is, however, no evidence in the *SE* that the qualification of manners does this work. On the contrary, Aristotle's discussion of the qualification of manner in the *SE* suggests that it is a qualification that involves adverbs of manner (178^b5; 180^b21-3). The trouble that probably led these commentators to offer this speculation is that the present example here is not well elaborated: in the previous two iterations of apparent contradictions we had different subjects—numbers and three-dimensional objects—but here we have no indication of what the subject is, and therefore have little help in understanding what it would mean for something to be double and not double in the same manner. But precisely specifying the nature of the contradiction is presumably not relevant to the point Aristotle wants to make here; his point is simply that if opposites apply to the same subject in the same ways under all of the *other* relevant predicational modes, the only way this could be the case would be by these opposites, so qualified, applying at different times.

sophists are able to make differently qualified contradictory propositions appear to constitute a genuine contradiction.

Although Aristotle usually employs these expressions involving sameness—κατὰ ταὐτὸν, πρὸς ταὐτὸν, ὡσαύτως and ἅμα—in connection with *differently qualified* propositions, it is nevertheless equally true of the first two forms the fallacy that the two propositions in question are not qualified *in the same ways* (e.g., an unqualified proposition, and one qualified in a particular respect are not qualified in the same respect). Aristotle thus speaks of the failure common to all forms of the fallacy as a failure to produce a contradiction in which the affirmation and denial are qualified “in the same respect, in relation to the same thing and in the same manner” (*Soph. el.* 170^a6-7). All refutations due to qualification thus fail to satisfy the criterion in clause [6] of the definition of a refutation (T1), according to which the contradictory proposition and the proposition it contradicts must be qualified in the same respect (κατὰ ταὐτὸν) in relation to the same thing (πρὸς ταὐτὸν) in the same manner (ὡσαύτως) and at the same time (ἐν τῷ αὐτῷ χρόνῳ) (*Soph. el.* 167^a26-27).¹⁷³

The predicational modes have some overlap with the “customary qualifications” that Aristotle uses to qualify the contradictions whose possibility the PNC forbids (*Metaph.* 1005^b27-28). This is unsurprising given the fact that, in *SE* 25, Aristotle connects the error in refutations due to qualification with the failure to produce a contradiction that violates the PNC; in so doing, he suggests that the predicational modes are another set of conditions that separate the real contradictions produced through genuine refutations from the sophistic ones that are only apparently so:

¹⁷³ Schreiber (2003, 144) and Swanson (2017, 162 n. 14) assign the fault to the same criterion.

[T5]: λυτέον σκοποῦντι τὸ συμπέρασμα πρὸς τὴν ἀντίφασιν, εἰ ἐνδέχεται τούτων τι πεπονθέναι. τὰ γὰρ ἐναντία καὶ τὰ ἀντικείμενα καὶ φάσιν καὶ ἀπόφασιν ἀπλῶς μὲν ἀδύνατον ὑπάρχειν τῷ αὐτῷ, πῇ μέντοι ἐκάτερον ἢ πρὸς τι ἢ πῶς, ἢ τὸ μὲν πῇ τὸ δ' ἀπλῶς, οὐδὲν κωλύει. ὥστ' εἰ τόδε μὲν ἀπλῶς τόδε δὲ πῇ, οὐπω ἔλεγχος, τοῦτο δ' ἐν τῷ συμπεράσματι θεωρητέον πρὸς τὴν ἀντίφασιν.

One must solve [sc. refutations due to qualification] by examining the conclusion in relation to its contradictory, whether it can be qualified on one of these points. [PNC:] For opposites and contradictories—i.e., affirmation and denial—cannot without qualification belong to the same thing. However, nothing prevents each of them from belonging in a certain [i.e., different] respect, or in a certain relation or in a certain manner, nor [does anything prevent] one from belonging in a certain respect and the other without qualification. Hence there is not yet a refutation if the one [is said] without qualification and the other [is said] in some respect and one should assess this for the conclusion in relation to its contradictory (*Soph. el.* 180^a27-31).

According to this passage, an affirmation and denial in a refutation only count as a contradiction when they affirm and deny the same predicate of a subject, or predicate opposites of a subject, in the same way, under the same set of predicational modes. The PNC asserts that two contradictory propositions that are qualified in the same way—either by both being unqualified, or by both being qualified in precisely the same way—cannot both be true. Refutations due to qualification, on the other hand, do not violate the PNC because the contradictions they produce do not contain predications that are qualified in the same ways. I

thus suggest that these sophistical refutations are precisely the sort of “dialectical difficulties” to which Aristotle appeals elsewhere in justifying the addition of the predicational modes to the PNC (*Metaph.* 1005^b21-22). Aristotle apparently adds these conditions to his definition of a contradiction in order guard against sophistical contradictions counting as genuine ones.

Throughout §2 I have surveyed the way Aristotle uses the criteria in the definition of a refutation to show that certain sophistical refutations generate merely apparent contradictions. Aristotle’s use of these criteria, I have argued, reveals both what the criteria for a genuine contradiction are, and how they allow Aristotle to deal with sophistical difficulties. Because the apparent refutations Aristotle exposes in the *SE* are supposed to exhaust all the kinds of apparent refutations (*Soph. el.* 165^b24-27; 166^b20-27; 170^a9-10), we can be confident that the three conditions in T1 that Aristotle uses to expose apparent contradictions also exhaust the qualifications that he thinks are necessary to separate genuine from merely apparent contradictions. Each of these qualifications on the notion of a genuine contradiction thus plays an important role in explaining why sophistical refutations only generate apparent contradictions. This suggests that Aristotle included these three conditions in his definition of contradiction precisely in order to exclude sophistical contradictions from the class of genuine ones.

In the remainder of this chapter, I argue that the sophistical refutations I have discussed can also fail to satisfy the same-things-signified, the same-signifiers, or fail to be appropriately qualified under the predicational modes in the way that they *deduce*. Because Aristotle’s strategy in *SE* 6 is to show that these arguments are fallacious with reference to the *definition* of a refutation, the fact that these errors in language and qualification produce apparent *deductions* indicates that these three criteria are also built into the definition of

deduction. And the fact that the same criteria that separate genuine from apparent contradictions are also requirements on deduction strongly suggests that Aristotle includes them in his definition of deduction for a similar reason: to demarcate genuine deductive reasoning from the merely apparent deductions of the sophists.

3. LINGUISTIC CONDITIONS ON DEDUCTION

We have seen that, for Aristotle, refutations due to language are fallacious because the *contradictions* they produce do not satisfy the linguistic criteria in the definition of a refutation. But I will now go on to show that refutations due to language can also fail to satisfy these linguistic criteria in the way that they *deduce*.¹⁷⁴ We have in fact already seen Aristotle explicitly claim this in T3, where he says that both linguistic conditions are necessary if there is going to be a refutation *or a deduction* (*Soph. el.* 168^a28-29). In the following two sections, I will explain in greater detail how deductions can fail to satisfy each of these two criteria. In §3.3 I will then argue that the linguistic criteria can be requirements on both contradictions and deductions because the same-things-signified criterion is ultimately a condition on the propositions (προτάσεις) of which both contradictions (*Int.* 20^b23-24) and deductions (*Soph. el.* 169^a12-13; *An. Pr.* 42^a32-35; 45^b4-8) are composed, and the same-signifiers criterion is a requirement on the relations between the propositions of both contradictions and deductions. We will thus see that these linguistic criteria allowed Aristotle not only to separate genuine from sophistical contradictions, but also to demarcate genuine deductions from their sophistic counterparts.

¹⁷⁴ See Poste 1866, 115–6; Dorion 1995, 250; Fait 2007, 130–1; Malink 2014, 162 n. 31; Swanson 2017, 165-166.

3.1. THE SAME-THINGS-SIGNIFIED CRITERION

In *SE* 10 Aristotle explicitly claims that certain deductions are fallacious because, in them, the same linguistic expressions do not signify the same things in their different occurrences:

[T6]: Ὅλως τε ἄτοπον τὸ περὶ ἐλέγχου διαλέγεσθαι ἀλλὰ μὴ πρότερον περὶ συλλογισμοῦ· ὁ γὰρ ἔλεγχος συλλογισμὸς ἐστίν, ὥστε χρή καὶ περὶ συλλογισμοῦ πρότερον ἢ περὶ ψευδοῦς ἐλέγχου· ἔστι γὰρ ὁ τοιοῦτος ἔλεγχος φαινόμενος συλλογισμὸς ἀντιφάσεως. διὸ ἢ ἐν τῷ συλλογισμῷ ἔσται τὸ αἷτιον ἢ ἐν τῇ ἀντιφάσει (προσκεῖσθαι γὰρ δεῖ τὴν ἀντίφασιν), ὅτε δ' ἐν ἀμφοῖν, ἂν ἢ φαινόμενος ἔλεγχος. ἔστι δὲ ὁ μὲν τοῦ “σιγῶντα λέγειν” ἐν τῇ ἀντιφάσει, οὐκ ἐν τῷ συλλογισμῷ, ὁ δὲ “ἂ μὴ ἔχοι τις, δοίη ἄν” ἐν ἀμφοῖν, ὁ δὲ ὅτι ἡ Ὀμήρου ποίησις σχῆμα διὰ τοῦ “κύκλος” ἐν τῷ συλλογισμῷ. ὁ δ' ἐν μηδετέρῳ ἀληθοῦς συλλογισμὸς

It is completely absurd to discuss refutations without first discussing deductions; for a refutation is a deduction, therefore it is necessary to discuss deduction before discussing false refutation, for such a refutation is an apparent deduction of a contradictory proposition, which is why the cause [sc. of not being a refutation] will be either in the deduction or in the contradictory proposition (for it is necessary to add “the contradictory proposition” [to the definition of a refutation]) and sometimes in both, if it is an apparent refutation. [A1] The argument about “speaking of the silent” has the cause [of not being a refutation] in the contradiction, not in the deduction, [A2] while the one [that concludes] “he is able to give what he does not have” has it in both, and [A3] the one [that concludes] that the poem of Homer is a shape through

the [middle term] “κύκλος” [has the cause of not being a refutation] in the deduction.

The [argument that has the cause of not being a refutation] in neither [the contradiction nor the deduction] is a true deduction (*Soph. el.* 171^a1-11).

Each of these examples exploits one of the three kinds of linguistic ambiguity Aristotle recognizes: A1 depends on amphiboly (i.e., syntactic ambiguity), A2 depends on form of expression (i.e., ambiguity in grammatical form) and A3 depends on homonymy (i.e., lexical ambiguity).¹⁷⁵ Here Aristotle thus provides an example of each kind of refutation that fails to satisfy the same-things-signified criterion (*Soph. el.* 168^a24-25 in T3). Now, although these three refutations fail to satisfy the same condition, the way in which they do so is importantly distinct: they can do so either in the contradiction (A1), in the deduction (A3) or in both (A2). Let us compare the first and last example, which we can reconstruct as follows:

[A1]: Speaking of the silent argument:

[Original statement to be refuted]: It is impossible for silent things to speak (σιγῶντα λέγειν).

[Deduction]: You speak about stones

Stones are silent things

Therefore, you speak about silent things (i.e., σιγῶντα λέγειν (“speaking about silent things”) is possible) (cp. Pl. *Euthyd.* 300b1-d7 (=T9 in Ch. 2)).

¹⁷⁵ A1, the speaking of the silent argument, is one of Aristotle's earlier examples of amphiboly (166^a12-14); Aristotle discusses A2 in greater detail later in chapter 22, where he presents solutions to refutations that depend on form of expression (178^a37-^b7); Aristotle's discussion of A3 in the *Posterior Analytics* reveals that it depends on homonymy (*An. po.* 77^b27-33).

[A3]: Homeric cycle argument:

The poem of Homer is a κύκλος (i.e., an epic cycle).

A κύκλος (i.e., a circle) is a shape

Therefore, the poem of Homer is a shape (cp. Ps.-Alex.-1 *In. Soph. el.* 82.29-30).¹⁷⁶

A1 is an apparent refutation because it exploits the syntactic ambiguity in the expression “speaking of the silent” (σιγῶντα λέγειν), which can mean either (1) “for one who is silent to speak” (taking σιγῶντα as masculine singular accusative *subject* of λέγειν) or (2) “to speak about silent things” (taking σιγῶντα as a neuter plural accusative *object* of λέγειν) (cp. T10 in Ch. 2). The original statement denies the possibility of speaking of the silent under the first meaning, and the conclusion of the deduction affirms its possibility under the second. A1 therefore produces a merely apparent contradiction because although this linguistic expression in the affirmation and denial is the same, it does not signify the same things in its different occurrences. A3 fails to satisfy the same criterion: it exploits a lexical ambiguity in the word κύκλος, which signifies an epic cycle in the first premise and a circle in the second. However, in A3 the failure to signify the same things is not one that pertains between two contradictory propositions, but between two premises in a deduction.¹⁷⁷ The same-things-signified criterion, according to which not only the language used, but also the things that these words signify must be the same (167^a23-24), therefore cannot be a condition that

¹⁷⁶ Greek text follows Wallies 1898.

¹⁷⁷ Another refutation that fails to satisfy this criterion in the deduction can be found at 165^b34-38, on which see Swanson 2017, 164-166.

exclusively concerns the nature of the contradiction a refutation produces; it is also an otherwise unattested requirement on the language used within deductions.¹⁷⁸

3.2. THE SAME-SIGNIFIERS CRITERION

Aristotle is also committed to the idea that the same-signifiers criterion is a requirement on deductions in addition to contradictions. This becomes clear in his elucidation of the remark in T3 that it is necessary for repeated terms in a deduction to be identical linguistic expressions in their different occurrences:

[T7 (continuation from T3)]: ἔδει δὲ καὶ τοῦτο, καθάπερ καὶ τὸ πρᾶγμα ταυτόν, εἰ μέλλει ἔλεγχος ἢ συλλογισμὸς ἔσεσθαι, οἷον εἰ λώπιον, μὴ ἱμάτιον συλλογίσασθαι ἀλλὰ λώπιον. ἀληθὲς μὲν γὰρ κάκεῖνο, ἀλλ' οὐ συλλελόγισται, ἀλλ' ἔτι ἐρωτήματος δεῖ εἰ ταυτόν σημαίνει, πρὸς τὸν ζητοῦντα τὸ διὰ τί.

And this [i.e., that the expression or word is the same] is also necessary, just as [it is necessary] for the thing [signified by the word or expression to be] the same, if there

¹⁷⁸ Malink (2014, 164) has also discussed A3, but fails to recognize that Aristotle explicitly tells us that the same-things-signified criterion is a requirement on deductions. He argues that, for Aristotle, A3 fails to satisfy one or the other, or both, of two criteria: (1) the requirement that the conclusion follow necessarily from the premises (Clause 4 in T1) and (2) the requirement that the propositions in an argument satisfy the requirement that propositions predicate ‘one of one’ (which is a criterion to which Aristotle appeals in diagnosing refutations due to many questions (*Soph. el.* 169^a6-18)). However, *pace* Malink, Aristotle has already explicitly told us in T3 that both refutations *and deductions* that depend on ambiguity are fallacious because they fail to satisfy the same-things-signified criterion (168^a28-29).

is going to be a refutation *or a deduction*. For example, if [the deduction concerns] a cloak [it is necessary] not to deduce about a mantle, but about a cloak. For the former [i.e., the argument that deduces about a mantle] is also true, but it has not been deduced, rather, there is need of a further question, if it signifies the same thing, for the one who asks the reason why (*Soph. el.* 168^a28-33).

Here Aristotle illustrates the necessity of the same-signifiers criterion with an example of a deduction that violates this condition. The example is economically expressed in a way that renders reconstruction difficult,¹⁷⁹ but the following reconstruction based on Sophonias' paraphrase of the *SE* seems to capture Aristotle's meaning adequately:

[A4]: Every mantel is preventative of frost and heat for the body

Everything preventative of frost and heat for the body is useful

Therefore, every cloak is useful (*Anon. In. Soph. el.* 35.15-36.6).¹⁸⁰

¹⁷⁹ There is some controversy about how to understand the example. In particular, some commentators take the example to be one whose defect is in the contradiction rather than in the deduction (see Poste 1866, 19; Schreiber 2003, 90; Pickard-Cambridge 1984, 284). The traditional interpretation, which I present here, is supported by *Ps.-Alex.-1 In. Soph. el.* 57.25-31, *Anonymous In. Soph. el.* 35.15-36.7, von Kirchmann 1883, 12; E. Rolfes 1918, 13; Forster 1955, 37; Colli 2003, 660; Dorion 1995, 133; and Hasper 2013, 20. For a lucid analysis of the interpretive options, and a strong argument in favor of the traditional interpretation, which I follow here, see Malink 2014, 160-161.

¹⁸⁰ Greek text follows Hayduck 1884. The translation is my own.

In saying that the conclusion of this argument is *also* true (κακεῖνο—^a31), Aristotle implicitly contrasts this illegitimate deduction with an argument whose conclusion is also true, but which is, by contrast, genuinely deduced.¹⁸¹

[A5]: Every mantel is preventative of frost and heat for the body

Everything preventative of frost and heat for the body is useful

Therefore, every mantel is useful.

We know from Aristotle's use of similar examples that the Greek words for cloak (λόπιον) and mantel (ἱμάτιον) are synonymous—they are different linguistic expression that signify exactly the same thing (*Top.* 103^a9-10; 25-27; *Phys.*185^b19-20; 202^b12-13; *Metaph.* 1006^b25-8). The passage therefore has a remarkable upshot: Aristotle denies that arguments such as A4—ones that substitute synonymous terms—are deductions. Marko Malink, with whom I am in agreement on the reconstruction of this example, has rightly noticed that this passage clearly indicates that, for Aristotle, deductions have an essentially linguistic nature.¹⁸² This helps to correct a common understanding of Aristotelian deduction, which goes back to Alexander of Aphrodisias, according to which “a deduction has its being not in the words but in what is signified by the words” (*In An. pr.* 372.29-30).¹⁸³ But if deductions

¹⁸¹ Here I am also in agreement with Malink (2014, 161 n.29).

¹⁸² See Malink 2014, 162-163.

¹⁸³ The Greek text follows Wallies 1883. For similar claims in Alexander see 84.15-17 & 373.16-17. Similar views are held by some of Aristotle's contemporary interpreters. For example, Barnes (1996, 186-187) has argued that Aristotelian formulae such as “If A is predicated of every B...” are “intended in part as semantic descriptions of categorical sentences.” Morison (2012, 182) has argued similarly that “Aristotle articulates the *semantic* content of the premisses and conclusion in question.

really “[had] their being” in the things signified, Aristotle would not deny arguments like A4, which substitute synonymous terms, the status of deductions.¹⁸⁴ *Pace* Alexander, it is not the case that “where the same object is signified, [sc. Aristotle] looks to what is signified, and not to the expressions” (*In An. Pr.* 84.16-17). Even in cases where the same object is signified, the linguistic expressions denoting that object must be identical for there to be a deduction.

I cannot, however, agree with Malink that Aristotle nowhere explains what deductive criterion arguments like this violate. Malink ingeniously infers that, in making claims like this, Aristotle implicitly relies on a deductive condition like the following: “any deduction can be obtained from a schema of deduction by replacing every occurrence of a given schematic letter by the same linguistic expression”.¹⁸⁵ According to Malink, then, A5 is an instance of a legitimate, three-term deductive schema such as,

A is B

B is C

He does not give any hints as to how they should be expressed in Greek.” I do not dispute Morison’s point that Aristotle is not particularly concerned with the precise linguistic expression of logical relationships between the terms in the premises in a deduction (2012, 186-187). Aristotle allows for a variety of apparently interchangeable expressions—‘A is predicated of all B,’ ‘A belongs to all B,’ ‘A follows all B,’ ‘B is in A as a whole’—to signify this relationship. But this passage in the *SE* strongly suggests that Aristotle is very much concerned with the ways in which the terms of a deduction are expressed in Greek.

¹⁸⁴ Crivelli (2012, 139) also holds the view that Aristotelian deductions are essentially linguistic entities.

¹⁸⁵ See Malink 2014, 168. Kirwan (1979, 38) has similarly argued that the two linguistic criteria together “parallel the requirements for instantiating a schema.”

Therefore, A is C

Whereas A4 relies on an illegitimate schema such as

A is B

B is C

Therefore, D is C.

First of all, as Malink himself admits, schemata of deductions employing schematic letters are otherwise absent from the *Topic* and *SE*, and it is unlikely that the concept of a deductive schema was available to Aristotle when he wrote these treatises.¹⁸⁶ But even more significantly, Aristotle *does* explicitly tell us which deductive criterion arguments like the cloak deduction fail to satisfy. Aristotle introduces the example in T6 as an explanation for why the same-signifiers criterion is necessary for there to be either a refutation *or a deduction* (168^a28-29). Moreover, this claim is part of an argument in which Aristotle explains the fallacious nature of sophistical refutations by appealing to the different parts of the *definitions* of genuine refutation and deduction (168^a19-23). This gives us strong reason for thinking that certain arguments fail to be *deductions* because they do not satisfy the same-signifiers criterion, and that this condition, like the same-things-signified criterion, is a requirement on Aristotelian deductions.¹⁸⁷

¹⁸⁶ See Malink 2014, 168.

¹⁸⁷ Another example of a deduction that fails to satisfy the same-signifiers criterion can be found at *Soph. el.* 177^b37-178^a3.

Thus, as was true of the terms in contradictions, Aristotle explicitly requires that the repeated instances of terms in a deduction that are meant to signify the same things be expressed using identical linguistic expressions. As we saw in the discussion of the linguistic criteria on contradiction, so long as the same-things-signified criterion is also satisfied, the same-signifiers criterion on contradictions *guarantees* in a way that blocks any further objections that the contradiction one produces in a refutation signifies an impossible state of affairs, so long as both contradictory propositions are true. I suggest that Aristotle makes the same-signifiers criterion a requirement on deductions for a similar reason: he wants the combination of terms in a deduction to guarantee that the signified explanatory relationship between items in the world holds, so long as the premises are true. As Aristotle says in T7, the conclusion of A4 (“every cloak is useful”) is true, just as the conclusion of A5 is, but the former has not been deduced because “there is need of a further question, if it [i.e., ‘cloak’] signifies the same thing [sc. as ‘mantel’], for the one who asks the reason why” (168^a31-33). If we substitute ‘cloak’ for ‘mantel’, we do not guarantee that the conclusion that every cloak is useful holds, because the question still remains whether ‘cloak’ and ‘mantel’ signify the same thing. But if the major term is the same linguistic expression in its repeated instances, as it is in A5, no further questions need to be answered in order for us to be assured that every mantel is useful. Just as the combination of the two linguistic criteria on contradictions *guarantees* that, if both propositions are true, the signified state of affairs is an impossible one, these two linguistic criteria on deductions together *guarantee* that the signified explanatory relationship between items in the world holds.

3.3. THE LINGUISTIC CRITERIA AS CONDITIONS ON PROPOSITIONS

So far we have seen that, in the argument of *SE* 6, Aristotle explicitly appeals to two otherwise unattested linguistic conditions on deduction in order to expose arguments that fail to deduce either by an exploitation of linguistic ambiguity or by an alteration of linguistic signifiers. But this argument appears to stand in tension with its conclusion, which states:

[T8]: πάντες οἱ τόποι πίπτουσιν εἰς τὴν τοῦ ἐλέγχου ἄγνοιαν, οἱ μὲν οὖν παρὰ τὴν λέξιν, ὅτι φαινομένη <ή> ἀντίφασις, ὅπερ ἦν ἴδιον τοῦ ἐλέγχου, οἱ δ' ἄλλοι παρὰ τὸν τοῦ συλλογισμοῦ ὅρον.

All the ways of refuting fall under ignorance of refutation, [refutations] due to language because the contradictory proposition is [merely] apparent—which was the proper mark of refutation—and the others [are merely apparent] due to the definition of deduction (169^a18-21).

Here Aristotle seems to suggest, contrary to what we have seen, that the six linguistic fallacies fail to satisfy criteria that exclusively concern the nature of a contradiction in a refutation.¹⁸⁸ But note first that this passage does not necessarily exclude the possibility that

¹⁸⁸ This claim has vexed many commentators, who have noticed a tension between T8 and T6, where Aristotle is clearly committed to the idea that some sophistical refutations due to language fail to deduce (see Poste, 1866, 22; 115-116; Dorion 1995, 250; Fait 2007, 130-131; Malink 2014, 162 n.31, all of whom simply charge Aristotle with contradicting himself). Only Swanson (2017, 191-194) has attempted to provide a solution. According to Swanson, when Aristotle says that the refutations due to language are merely apparent “because the ἀντίφασις is merely apparent”, he uses “ἀντίφασις” as an abbreviation of his already abbreviated definition of refutation: “a deduction together with the

some refutations due to language fail to deduce. The assertion that all the sophistical refutations “fall under ignorance of refutation” (*Soph. el.* 169^a18-19) is just a claim that the project Aristotle announces at the beginning of *SE* 6—of “explain[ing] [sophistical refutations] in terms of ignorance of refutation” (*Soph. el.* 168^a18-19)—is now complete. That project involved referring each sophistical argument to the individual criterion in the definition of refutation that it violates (*Soph. el.* 168^a19-23). Instead of repeating which criterion each fallacy violates, here in T8 Aristotle concludes by briefly referring the two broad classifications of fallacies—those due to language, and those outside of language—to the two general kinds of criteria in the definition that they violate: criteria on the nature of the contradictory proposition ([1]-[3] in T1), and those that specify the way this contradictory proposition is deduced ([4]-[6] in T1).¹⁸⁹ We therefore need not read this as a claim that

contradictory” (cp. 165^a2-3). What the conclusion of *SE* 6 says on Swanson’s reading is therefore simply that the refutations in language are fallacious because of the definition of a refutation, whereas those outside of language are fallacious because of the definition of deduction alone. But I doubt Swanson’s reading can work. For evidence that we should read ἀντίφασις in the conclusion this way, Swanson argues that in the definition of a refutation in T1, and also at 175^a36-37, Aristotle also employ ἀντίφασις as an abbreviation for “deduction of a contradictory proposition.” But as we have already seen in my analysis of T1, this would create a redundancy in the definition: we don’t need to add “deduction” to clause [1] of the definition of refutation because clauses [4] and [5] in that definition already provide deductive criteria that clearly indicate that the ἀντίφασις in clause [1] is the conclusion of a deduction. The same problem applies to Swanson’s use of 175^a36-37, which says “a refutation is a non-homonymous contradictory proposition from certain things” (ὁ ἔλεγχος ἀντίφασις μὴ ὁμώνυμος ἐκ τινῶν). This is of course elliptical, but the fact that a refutation is a certain kind of deduction is not captured by Aristotle’s use of ἀντίφασις but rather by his claim that the ἀντίφασις is “from certain things”, i.e., that it is the conclusion of a deduction that follows from certain premises.

¹⁸⁹ So far I have treated clause [6] in the definition of a refutation, which articulates the predicates criteria, as specifying the nature of the contradiction. And as we have seen, Aristotle does expose contradictions as merely apparent for failing to satisfy the predicational modes enumerated in this

linguistic fallacies are always and only failures to produce genuine contradictions. All that Aristotle claims here is that refutations due to language violate criteria that are expressed as requirements on the ἀντίφασις in the formulation of the definition on which he relies in this argument (i.e., T1). This leaves open the possibility that, although Aristotle expresses these criteria, in this definition, as qualifications on the nature of a contradictory proposition, they are also conditions in the definition of deduction.

I suggest in what follows that the linguistic criteria are conditions on deductions, in addition to contradictions, because the same-things-signified criterion is part of the definition of a proposition (πρότασις)—the simple predicative statements of which both contradictions and deductions are composed—and the same-signifiers criterion is a condition on the relations between the propositions in both contradictions and deductions.¹⁹⁰ Thus, according to this reading, the linguistic criteria in the definition of a refutation specify the nature of contradictory propositions, and the requisite relationships between them, *not* insofar as they are contradictory, but insofar as they are propositions. This explains how both contradictions

criterion. But in the definition of a refutation, the predicates criteria are grouped together with clauses [4] and [5] and specify the way in which the conclusion follows. In the following section I show that the predicates criteria are also requirements on deduction. All I am suggesting at present is that, in the definition of a refutation to which Aristotle appeals in the passage at hand, the predicates criteria are presented as qualifications on the way in which one deduces a conclusion.

¹⁹⁰ In contrast to contemporary usage of the word “proposition”, a proposition for Aristotle is a linguistic expression. He defines a proposition as “a sentence (λόγος) affirming or denying something of something” (*An. pr.* 24^a16-17) and defines a sentence as “a significant utterance (φωνή σημαντική) one of the parts of which is significant in separation—as a saying (φάσις), not as an affirmation” (*Int.* 16^b26-28). These definitions together imply that propositions are significant utterances (see Crivelli 2012, 113-114)

and deductions can fail to satisfy these two criteria: they are conditions on the propositions of which both contradictions and deductions are composed.

We saw in section 2 that the contradictory proposition mentioned in the definition of a refutation is the conclusion of a deduction. Aristotle calls it a “contradictory proposition” because this term captures the fact that the conclusion of a refutation can be either an affirmation (κατάφασις) or a denial (ἀπόφασις) (*Soph. el.* 168^b11-12 & 180^a23-31). Because, for Aristotle, affirmations and denials are propositions (*An. Pr.* 24^a16-17), the conclusion of a refutation is a proposition. And he additionally holds that contradictions (*Int.* 20^b23-24) refutations (*Soph. el.* 169^a12-13) and deductions (*An. Pr.* 42^a32-35; 45^b4-8) are all composed of propositions.¹⁹¹ This is significant for the present purposes because, for Aristotle, criteria in the definition of a proposition are clearly part of the definition of both refutation and deduction, as he makes clear in his diagnosis of refutations due to many questions:

[T9]: Οἱ δὲ παρὰ τὸ τὰ πλείω ἐρωτήματα ἐν ποιεῖν ἐν τῷ μὴ διαρθροῦν ἡμᾶς τὸν τῆς προτάσεως λόγον. ἢ γὰρ πρότασις ἐστὶν ἐν καθ' ἑνός· [...] ἐπεὶ δ' ὁ συλλογισμὸς ἐκ προτάσεων, ὁ δ' ἔλεγχος συλλογισμὸς, καὶ ὁ ἔλεγχος ἔσται ἐκ προτάσεων. εἰ οὖν ἡ πρότασις ἐν καθ' ἑνός, φανερόν ὅτι καὶ οὗτος ἐν τῇ τοῦ ἐλέγχου ἀγνοίᾳ· φαίνεται γὰρ εἶναι πρότασις ἢ οὐκ οὔσα πρότασις.

Those [refutations] due to making several questions into one consist in our failure to articulate the account (λόγον) of a proposition. For a proposition [predicates] one of one (ἐν καθ' ἑνός). [...] Now since a deduction is composed of propositions and a

¹⁹¹ On Aristotle's use of πρότασις for conclusions in addition to premises in an argument, see Smith 1989, 155; Crivelli and Charles 2011; and Crivelli 2012, 113-114.

refutation is a deduction, a refutation, too, will be composed of propositions. If, then, a proposition predicates one of one, it is obvious that this fallacy too consists in ignorance of what a refutation is; for, in it, what is not a proposition appears to be one (*Soph. el.* 169^a6-16).

Here Aristotle appeals to a criterion on propositions to show that refutations due to many questions are not genuine. In doing so, he clearly indicates that at least this propositional criterion—that propositions predicate one of one—is a condition in the definition of both refutation and deduction.¹⁹²

Aristotle's discussion of ambiguity in *SE* 17 strongly suggests that he also takes the same-things-signified criterion to be part of the definition of a proposition:

[T10]: Εἰ δὲ τὰ δύο ἐρωτήματα μὴ ἐν ἐποίει τις ἐρώτημα, οὐδ' ἂν ὁ παρὰ τὴν ὁμωνυμίαν καὶ τὴν ἀμφιβολίαν ἐγένετο παραλογισμός, ἀλλ' ἢ ἔλεγχος ἢ οὐ. τί γὰρ διαφέρει ἐρωτῆσαι εἰ Καλλίας καὶ Θεμιστοκλῆς μουσικοὶ εἰσιν ἢ εἰ ἀμφοτέροις ἐν ὄνομα ἦν ἑτέροις οὗσιν; εἰ γὰρ πλείω δηλοῖ ἑνός, πλείω ἠρώτησεν. εἰ οὖν μὴ ὀρθὸν πρὸς δύο ἐρωτήσεις μίαν ἀπόκρισιν ἀξιοῦν λαμβάνειν ἀπλῶς, φανερόν ὅτι οὐδενὶ προσήκει τῶν ὁμωνύμων ἀποκρίνεσθαι ἀπλῶς οὐδ' εἰ κατὰ πάντων ἀληθές, ὥσπερ ἀξιοῦσιν τινες.

¹⁹² This is the second criterion on deductions that, according to Malink, we only learn about in the *Sophistici Elenchi* (the other is the requirement that deductions must conform to a three-term schema) (2014, 157-158). I agree that this is more explicit in the *Sophistici Elenchi*, but unlike the criteria I discuss here, we can infer this criterion with relative ease from things Aristotle says in his other logical works (see e.g. *Int.* 17^a20-26; *An. pr.* 24^a16-17; 42^a32-35; 45^b4-8).

If nobody ever made two questions into one question, the [fallacy] due to homonymy and amphiboly would not have come about, but either a refutation or no refutation. For how does asking whether Callias and Themistocles are musical differ from if both, though being different people, shared a single name? *For if [the name] signified more than one thing, one asked more than one question.* Now, if it is not right to ask to be given without qualification one answer to two questions, it is clear that it is not proper to answer without qualification any homonymous [questions], not even if it is true in all cases, as some think [is right] (*Soph. el.* 175^b39–176^a5, emphasis mine).

This discussion of illegitimate questions has immediate implications for Aristotle’s view of propositions because the propositions of which dialectical refutations and deductions are composed are simply answers to an interlocutor’s questions.¹⁹³ According to this passage, then, an answer to the question ‘are Callias and Themistocles musical?’ is not a proposition because it does not predicate one of one. A refutation containing such a statement is an instance of the fallacy of many questions because it fails to satisfy this condition on propositions (*Soph. el.* 169^a6-16 (=T8)). Analogously, for Aristotle, if there are two different people named Callias, an answer to the question “is Callias musical?” is not a proposition. A refutation that contains such a sentence is an instance of the fallacy of homonymy because the word ‘Callias’ does not signify one and the same thing. But Aristotle uses this example to make a more general point: that any question containing an expression that “signifies more than one thing” is not a legitimate question (176^a2-3). This claim therefore also commits Aristotle to the idea that answers to such questions fail to be propositions, because they

¹⁹³ See Bobzien 2005, 258-259; Whitaker 1996, 101.

signify more than one thing. Additional evidence of this is Aristotle's claim earlier in the same chapter that an answerer's exposure of an Eristic's ambiguous question is a matter of "correcting the deficiency of the proposition" (175^b12). This suggests that, for Aristotle, the same-things-signified criterion, which forbids the use of expressions that do not signify one and the same thing, is ultimately a requirement on individual propositions.¹⁹⁴

This explains why, as we saw in T5, refutations due to ambiguity can fail to be refutations either because the contradiction is merely apparent, or because the deduction is so. In a refutation, both the deduction of a contradictory proposition, and the contradiction between this contradictory conclusion and an original thesis, are composed of propositions. Therefore, Aristotle denies any argument whose contradictory propositions or premises are composed of ambiguous linguistic expressions the status of a refutation or a deduction because, by signifying more than one thing, these are not genuine propositions.¹⁹⁵ This reveals how restrictive a condition the same-things-signified criterion is. The requirement that refutations due to ambiguity violate is simply a criterion on the linguistic expressions of which single propositions are composed. This implies that even in cases in which ambiguous

¹⁹⁴ This account of Aristotelian propositions is corroborated by *De Interpretatione* 8, which, as Bobzien has convincingly shown (2005, 258-264; 2007, 301-312), denies that sentences that employ ambiguous terms count as propositions: "A single affirmation or denial is the one that *signifies* one of one [...] But if one name is assigned to two things, which do not make up one thing, there is not a single affirmation nor a single denial. For example, if someone assigned the name 'cloak' to horse and to human being 'a cloak is white' would not be a single affirmation" (*Int.* 18^a12-21) (The translation is my own and follows Weidemann 2014).

¹⁹⁵ Although Aristotle speaks only of homonymy and amphiboly here, the generality of his claim that "if the word signifies more than one thing, one asked more than one question" (176^a2-3) suggests that the same analysis would apply to refutations due to form of expression, which, like homonymy and amphiboly, fails to satisfy the same-things-signified criterion because certain peculiarities of grammatical form make it the case that a single word can signify more than one thing.

linguistic expressions are not exploited to signify different things in their different occurrences, or in cases in which an ambiguous predication is nevertheless true of all of the things signified (176^a5-6), one still fails to have a contradiction or deduction simply because ambiguous linguistic expressions are not permissible components of propositions.

Aristotle does not connect the same-signifiers criterion to propositions the way he does with the same-things-signified criterion. However, because he clearly demonstrates that certain refutations fail to satisfy this criterion in the way they deduce (*Soph. el.* 168^a30-33 (=T7); 177^b37-178^a3), it is also quite plausibly a condition on propositions. I take it to be a requirement that specifies what it means for terms in different propositions to be the same in their different occurrences. Taking this condition as a requirement on the relationship between terms in propositions provides us with an account of the way in which this linguistic criterion can also be a condition on both contradictions and deductions: it simply specifies that the terms in the propositions of either a contradiction or a deduction that are meant to signify the same thing must be identical linguistic expressions in their different occurrences. Accordingly, sophistical refutations that depend on combination, division and accent can fail to satisfy this criterion either in the way a conclusion is deduced, or in the putative contradiction it produces; the way in which it fails depends simply on which propositions in the refutation contain altered linguistic expressions.

4. PREDICATIVE CONDITIONS ON DEDUCTION

We saw in section 2.2 that refutations due to qualification involve two contradictory propositions that fail to contradict each other under the predicational modes in the definition of a refutation. But these refutations, like the linguistic fallacies, can fail to do so not only in the kinds of contradictions they produce, but also in the way the conclusion is deduced. Like

the same-things-signified and same-signifiers criteria, the predicational modes thus turn out to be a third otherwise unattested requirement on deductions, whose presence in the definition of deduction is best explained as part of Aristotle's effort to demarcate genuine from sophistic reasoning.

We have already seen that the conclusion of *SE* 6 states that refutations outside of language—which include refutations due to qualification—are fallacious “because of the definition of deduction” (*Soph. el.* 169^a18-21 (=T7)). Many of Aristotle's examples of the fallacy—in which the misapplications of qualifications has to do with the way one deduces a conclusion—corroborate this claim. Aristotle's first example of the fallacy is such a case:

[T11]: Οἱ δὲ παρὰ τὸ ἀπλῶς τόδε ἢ πῇ λέγεσθαι καὶ μὴ κυρίως, ὅταν τὸ ἐν μέρει λεγόμενον ὡς ἀπλῶς εἰρημένον ληφθῇ, οἷον, εἰ τὸ μὴ ὄν ἐστι δοξαστόν, ὅτι τὸ μὴ ὄν ἔστιν· οὐ γὰρ ταὐτὸ τὸ εἶναί τί τι καὶ εἶναι ἀπλῶς. [...] φαίνεται δὲ διὰ τὸ πάρεγγυς τῆς λέξεως καὶ μικρὸν διαφέρειν τὸ εἶναί τι τοῦ εἶναι.

Those [refutations] due to this being said unqualifiedly, or in some respect (i.e., not qualifiedly) [come about] whenever what is said in part is taken as having been said without qualification, for example, “if what is not is an object of opinion, what is not is”, for “to be something” and “to be without qualification” are not the same [...] but they appear to be the same because they are so close in expression: “to be something” differs little from “to be” (*Soph. el.* 166^b37-167^a6).

The argument somehow fails to observe the familiar Aristotelian distinction between “being” and “being something.” Commentators sometimes treat the difference as one between the “existential” and “predicative” meanings of the verb “to be”.¹⁹⁶ But the present passage tells strongly against this reading: because Aristotle treats this refutation as fallacy of qualification, and because the fallacy of qualification is a fallacy that depends on something *outside* of language (*Soph. el.* 166^b21-23), the difference between the propositions ‘what is not is an object of opinion’ and ‘what is not is’ cannot be an equivocation over two different meanings of the verb ‘εἶναι.’¹⁹⁷ In his descriptions of refutations due to qualification, Aristotle uses ‘τι’ as a generic term that covers qualification under any of the predicational modes (see *Soph. el.* 169^b9-12 & esp. *Rhet.* 1402^a3-5). Aristotle thus suggests that the difference between these propositions has to do with qualification: the statement “what-is-not is an object of thought” is a qualified predication of being (τὸ εἶναι τι), whereas the statement “what is not is” is an unqualified predication of being (εἶναι ἀπλῶς). But crucially, in pointing out this difference, Aristotle is not diagnosing a failure of two propositions to *contradict* each other, but a failure that involves *deducing* an unqualified predication from a qualified one.

This example, like the majority of Aristotle’s examples in the *SE*, is a reference to, rather than a statement of a complete argument.¹⁹⁸ But in *Prior Analytics* 38 Aristotle

¹⁹⁶ See e.g., Kirwan 1979; Schreiber 2003, 142-143; Fait 2007, 118; Crivelli 2006, 100 n.2.

¹⁹⁷ This passage is in fact some of the best evidence for the view that the Greek verb εἶναι does not have the same meanings as its English counterpart does in its respective supplemented and unsupplemented *syntactic* uses (see Brown 1986, 52-57; and 2003, 224-228).

¹⁹⁸ For Aristotle, there are no deductions with only one premise, as we have here (see *An. pr.* 40^b35-6). Some have argued that the conception of deduction in the *SE* is different than that in the *Prior Analytics*. On this reading, the present example might actually be a deduction on the *SE* conception of deduction, because Aristotle’s examples here do not conform to the schemata in the *Analytics* (see

provides illuminating and more fully articulated examples of both correct and incorrect ways of deducing qualified and unqualified conclusions:

[T12]: Οὐχ ἡ αὐτὴ δὲ θέσις τῶν ὅρων ὅταν ἀπλῶς τι συλλογισθῇ καὶ ὅταν τόδε τι ἢ πῇ ἢ πῶς, λέγω δ' οἷον ὅταν τἀγαθὸν ἐπιστητὸν δειχθῇ καὶ ὅταν ἐπιστητὸν ὅτι ἀγαθόν· ἀλλ' εἰ μὲν ἀπλῶς ἐπιστητὸν δέδεικται, μέσον θετέον τὸ ὄν, εἰ δ' ὅτι ἀγαθόν, τὸ τὶ ὄν

The setting out of the terms is not the same when something is deduced without qualification and when this [is deduced] qualifiedly, either in some respect or in some manner; and I mean [by without qualification], for example, when the good is proved to be an object of knowledge and [by qualifiedly I mean] when that [the good] is good [is proved to be] an object of knowledge. But if [it] has been proved to be an object of

Hitchcock 2000; Gobbo 1997, 330-333). This is in line with a general consensus according to which the *SE* was written before the *Prior Analytics*, where Aristotle first employs three-term schemata of arguments with schematic letters (see Ross 1949, 6; Kneale and Kneale 1962, 234; Bochenski 1963, 22; Barnes 1981, 43-48; Rist 1989, 76-82, Smith 1994, 140; 149; Dorion 1995, 25-7; Hitchcock 2000). There are, however, good reasons for thinking that, even if the *SE* was written before the *Analytics*, it has been revised in light of that treatise: the introduction to the *SE* presupposes familiarity with the *Analytics* (see fn. 139 above). And *pace* Hitchcock (2000, 208) certain logical formulations in the *SE* are characteristic of the *Analytics* (see e.g., 166^b28-36; 169^a23-4; 180^a26-29). Hitchcock (2000) has, moreover, argued that 49 of Aristotle's 64 fully expressed examples do not fit the two-premise, three-term schemata of the *Prior Analytics*. While I cannot here address these arguments in full, I think a more plausible hypothesis is that Aristotle's examples in the *SE* are references to, rather than articulations of, complete arguments (this is evident for the cases in which we have the complete arguments to which Aristotle refers (cp. e.g., Pl. *Euthyd.* 277E3-278B2 & *Soph. el.* 165^b31-34; *Euthyd.* 300B1-C4 & *Soph. el.* 166^a12-14; 171^a8; 28-30; 177^a12; ^a25-6; *Euthyd.* 298E4-5 & *Soph. el.* 179^a34; ^b14; ^b39; 180^a4)).

knowledge without qualification, one must put as middle term “that which is”, but if that [the good] is good [is proved to be an object of knowledge], [one must put as the middle term] “that which is so qualified” (*An. pr.* 49^a27-31).¹⁹⁹

The relevance of this passage for our understanding of Aristotle’s fallacy of qualification is evident from the fact that the qualifications under which Aristotle speaks of conclusions being deduced— $\pi\tilde{\eta}$ and $\pi\tilde{\omega}\varsigma$ —are among those that he uses to name the fallacy of qualification. The three examples that Aristotle goes on to offer are two examples of a legitimate application of these predicational modes in deductions—cases in which the conclusion is deduced on the basis of premises that are qualified in precisely the same way (A6 & A8)—and an illegitimate use of these qualifications, in which the premises and conclusion are not qualified under the same predicational modes (A7). Here is the first:

[A6]: There is knowledge that it is so qualified ($\tilde{\epsilon}\tau\iota\ \tau\iota\ \tilde{\epsilon}\nu$) of something so qualified ($\tau\iota\ \tilde{\epsilon}\nu$)

The good is something so qualified ($\tau\iota\ \tilde{\epsilon}\nu$) (i.e., the good is something good—cp. ^a29-30)

Therefore, there is knowledge that it is so qualified ($\tilde{\epsilon}\tau\iota\ \tau\iota\ \tilde{\epsilon}\nu$) of the good (i.e., there is knowledge that the good is good—cp. ^a29-30; ^a35-36) (*An. pr.* 49^a31-36).

This is an example of a qualified conclusion that follows from qualified premises—premises in which both the major and middle term are qualified the same way as the desired

¹⁹⁹ The Greek text follows Ross 1964. The translation is my own.

conclusion. Aristotle then immediately denies that we can deduce this qualified conclusion if the major term and middle term are both *unqualified*:

[A7]: There is knowledge that it is (ὅτι ὄν) of what is (τὸ ὄν)

The good is

Therefore, there is knowledge that it is so qualified (ὅτι τι ὄν) of the good (i.e., there is knowledge of the good that is good) (*An. pr.* 49^a36-39).²⁰⁰

Instead, the conclusion that we actually get from these unqualified premises is also unqualified:

[A8]: There is knowledge that it is of what is

The good is

Therefore, there is knowledge that it is of the good (i.e., there is knowledge that the good is) (*An. pr.* 49^a39-^b1).²⁰¹

Both A6 and A8 are genuine deductions in which the conclusion follows on the basis of premises that are qualified in the same way that the conclusion is. A7, by contrast, is not a deduction, because a qualified conclusion does not follow on the basis unqualified premises. Aristotle's reason for denying A7 the status of a deduction has eluded commentators on the

²⁰⁰ εἰ δὲ τὸ ὄν μέσον ἐτέθη καὶ πρὸς τῷ ἄκρῳ τὸ ὄν ἀπλῶς καὶ μὴ τὸ τι ὄν ἐλέχθη, οὐκ ἂν ἦν συλλογισμὸς ὅτι ἔστιν ἐπιστήμη τἀγαθοῦ ὅτι ἀγαθόν

²⁰¹ οὐκ ἂν ἦν συλλογισμὸς ὅτι ἔστιν ἐπιστήμη τἀγαθοῦ ὅτι ἀγαθόν, ἀλλ' ὅτι ὄν, οἷον ἐφ' ᾧ τὸ Α ἐπιστήμη ὅτι ὄν, ἐφ' ᾧ Β ὄν, ἐφ' ᾧ Γ ἀγαθόν.

Prior Analytics,²⁰² but analyzing it as a fallacy of qualification, as specified in the *SE*, helps to illuminate both of these texts. The explanation for why A7 fails to be a deduction is, I suggest, that the propositions in the deduction are not qualified under the same predicational modes.

Aristotle's definition of a refutation in the *SE* further corroborates this reading of the predicational modes as requirements on the way a conclusion follows: "A refutation is a contradictory proposition [...] [4] [that follows] necessarily from the things granted [...] [6] in the same respect and in relation to the same thing and in the same manner and at the same time [...] (*Soph. el.* 167^a23-27 (=T1)). The natural reading of the predicational modes in this passage is as specifications on the way in which a conclusion must follow—namely, that it must follow on the basis of premises that are qualified in the same way. This, I suggest, is how we should make sense of Aristotle's claim in the conclusion of *SE* 6 that refutations due to qualification are fallacious "because of the definition of deduction", that is, they do not satisfy a requirement that, *as stated in the definition of a refutation*, specifies the requisite nature of the deduction (*Soph. el.* 169^a20-21 (=T8)). The predicates criteria are requirements about the way in which a conclusion is deduced, and are therefore part of the definition of deduction.

There still remains the problem of how to reconcile the conclusion of *SE* 6 with Aristotle's recommendation that one solve refutations due to qualification by "examining the conclusion in relation to its contradictory, whether it [sc. the conclusion] is able to admit some one of these [sc. qualifications]" (*Soph. el.* 180^a24-25; ^a29-31 (=T5)). These remarks suggest, contrary to what we see in the conclusion of *SE* 6 and in the examples we just

²⁰² See e.g., Smith 1989, 170-171; Striker 2009, 227-229.

examined, that the error in these arguments is exclusively in the contradiction that the refutation produces. I suggest instead that such remarks do not amount to an explanation of *why* all refutations due to qualification are not genuine; rather, here Aristotle simply prescribes a way of recognizing *that* these arguments are not genuine refutations. We have seen that the predication modes are criteria on both contradictions and on the propositions that make up a deduction. As was true of the linguistic fallacies, refutations due to qualification can therefore also fail in the contradiction, in the deduction, or in both (cp. T6). For the refutations that fail to satisfy the predication modes in the contradiction alone, or in both the contradiction and the deduction, following Aristotle advice that we examine the conclusion in relation to the contradictory proposition clearly reveals that such arguments fail to be genuine refutations. The potentially problematic case is the refutation due to qualification that only fails in the deduction, but whose conclusion is qualified in the same way as the proposition targeted for refutation. But even in these cases, checking the conclusion against the contradictory proposition to see “whether it is able to admit some one of these [sc. qualifications]” reveals the refutation to be merely apparent. The only way the stated conclusion of such a deduction is legitimately able to admit of different qualifications is in light of the differently qualified premises from which it follows (cp. the modification of A7 in A8). And when one modifies the qualification in the conclusion in light of the premises from which it follows, the two contradictory propositions in the refutation will no longer be qualified in the same way, and therefore will not constitute a genuine contradiction. Aristotle’s advice on how to solve refutations due to qualification therefore helps one to recognize that a real refutation has not occurred, regardless of whether the error in the refutation ultimately lies in the contradiction, in the deduction, or in both.

Finally, the hypothesis that these predicational modes, as well as the linguistic criteria, detail the nature of legitimate propositions in refutations and deductions helps us to understand Aristotle's concluding remarks to his initial account of sophistical refutations (*SE* 4-11). Here he claims that the study of sophistical refutations is part of the work of the dialectician "because the systematic research of propositions comprises this study as a whole" (ή γὰρ περὶ τὰς προτάσεις μέθοδος ἅπασαν ἔχει ταύτην τὴν θεωρίαν—172^b7-8). Aristotle's point, I take it, is that dialecticians acquire a proper understanding of propositions by examining and exposing sophistical refutations such as these. By working out explanations for why these refutations appear to be, but in fact are not, genuine refutations, the dialectician conducts research in the study of propositions and discovers the form they must take if they are going to comprise a genuine refutation or deduction.

5. CONCLUSION

I have argued that the *SE* is an important resource for our understanding of Aristotle's logical theory because it explicitly attests three conditions for both contradiction and deduction that are hinted at, but not explicitly articulated elsewhere in Aristotle's logical works. I suggest that we get these more precise accounts of both contradiction and deduction in the *SE* because the conditions we learn about here are specifically designed to demarcate these notions from the merely apparent sophistical contradictions and deductions under consideration in this treatise.

In his canonical discussions of contradiction Aristotle claims that some of the predicational modes (*Metaph.* 1005^b19-20), a version of the same-things-signified criterion (*Int.* 17^a35) and other, unstated qualifications, must be added to the definition of contradiction in order to deal with "sophistical annoyances" (*Int.* 17^a36-37) and "dialectical

difficulties” (*Metaph.* 1005^b21-22). We saw in part 2 that Aristotle’s definition of a refutation requires that the two contradictory propositions in a refutation be composed of non-ambiguous and identical linguistic expressions, and that these propositions be qualified in the same ways, under the same set of predicational modes. The fact that Aristotle appeals to these criteria for contradiction in order to expose as merely apparent the contradictions produced in sophistical refutations suggests that he includes these conditions in the definitions of contradiction and refutation precisely in order to separate real contradictions and refutations from the merely apparent sophistical ones. We then saw in parts 3 and 4 that these same three criteria on contradiction are also part of Aristotle’s definition of deduction. The fact that these conditions explain why certain forms of inference are not genuine strongly suggests that Aristotle includes them in the definition of deduction precisely in order to separate genuine deductions from their merely apparent sophistic counterparts. I therefore suggest that it was in no small part through an effort to distinguish his own philosophical enterprise from closely-related sophistic practices that Aristotle achieved what he himself regarded as among his greatest philosophical accomplishments: the discovery of a general method of deductive reasoning.

V: CONCLUSION

In the concluding chapter of the *SE* Aristotle offers a surprising assessment of his own position in the enterprise to which he is drawing a conclusion. After summarizing the results of both the *Topics* and the *SE*,²⁰³ Aristotle adds that we should not fail to notice what has happened with regard to the present enterprise (πραγματείαν) (183^b16-17). He explains that those who make discoveries do so by making gradual advances on the results that have been handed down by earlier figures working in the same domain (183^b17-20). His example of such a progression is the craft of rhetoric: starting with the first founders of the discipline, rhetoricians like Tisias, Theodorus and Thrasymachus have made gradual advances with the result that, by Aristotle's time, rhetoric has achieved considerable breadth (183^b29-34). By contrast with later innovations, the first discoveries in an enterprise are the smallest in their breadth, but are nevertheless the most potent (183^b23-25), since they make possible all subsequent developments. Aristotle then uses this framework to describe what he has just accomplished: he claims that the present enterprise (ταύτης τῆς πραγματείας) is not like the rhetoric of his time: it is not the case that one part of it existed, and another part of it had not been brought to completion; on the contrary, according to Aristotle, "absolutely nothing existed" (οὐδὲν παντελῶς ὑπῆρχεν) before he turned his attention to it (183^b33-36).

What exactly Aristotle means by "the present enterprise" is controversial. Because this remark comes at the end of a treatment of sophistical argumentation, it is tempting to think that Aristotle must be claiming absolute originality in the study of sophistic argumentation. There are several different ways of understanding Aristotle's originality in

²⁰³ This is some of the best evidence for the view that the *SE* is not a separate treatise, but rather the 9th book of the *Topics*. See Brunschwig 1967: XIX; 1989: I.487; 1991: 424; Dorion 1995, 24-25; 418.

the study of fallacies. On one version of this view, held by the many commentators discussed in Ch. 2, Aristotle claims to be the first to offer solutions to sophistic refutations.²⁰⁴ But to read Aristotle's claim to absolute originality along these lines is rendered implausible by Aristotle's extensive engagement throughout the treatise with previous attempts to diagnose the errors in sophistic arguments (e.g., *Soph. el.* 177^b27-34; 179^b7-12; ^b34-37; ^b37-180^a7). And although, in many of these engagements with his predecessors, Aristotle discusses these prior contributions only to dispute their adequacy, we also saw in Ch. 2 that Aristotle clearly accepts and adopts many of Plato's diagnoses of sophistic arguments as adequate (see e.g., *Soph. el.* 165^b31-34 cp. *Euthyd.* 276b4-c7; *Soph. el.* 177^a20-26 cp. *Euthyd.* 300b1-c7).²⁰⁵

Other commentators, in an attempt to still understand this remark as one about Aristotle's work on fallacy, claim that Aristotle is the first to offer a *rigorous* or *systematic* classification of fallacies.²⁰⁶ But even this qualified reading does not square nicely with Aristotle's emphatic claim that before he undertook this enterprise "absolutely nothing existed" (οὐδὲν παντελῶς ὑπῆρχεν) (183^b36). This claim that he has no predecessors is meant to align Aristotle's contribution with the earliest work in the rhetorical tradition, which Aristotle attributes to the "first founders" of rhetoric, who came before Tisias, the author of

²⁰⁴ See Robinson 1941, 141; 1942, 102-3; 1953, 1-5; Ryle 1968, 70 & 78; Sprague 1967, 560-561; 567-568; Stewart 1977, 22; Chance 1992, 11.

²⁰⁵ At 174^b23-27, Aristotle also recognizes that a character in a lost dialogue called *Mandroboulos*—which Sophonias (*Anon. in. Soph. el.* 40, 14 in Hayduck 1884) identifies as a dialogue in the Platonic fashion (possibly a dialogue by Speusippus)—solves a refutation that depends on double meaning, and cite the solution with approval (on this lost dialogue see Bywater 1883; Tarán 1981, 243; Ebbessen 1981, 339; Dorion 1995, 324-325 n.248).

²⁰⁶ See Hamblin 1970, 60-61 and Fait 2007, 224.

the first systematic handbook on rhetoric (183^b30-31).²⁰⁷ In claiming that absolutely nothing existed before him, he is not aligning himself with figures like Tisias, who come after the first contributions to a study and systematize it; he is aligning himself with those who make the very first attempt at developing a new intellectual enterprise. But even more problematic for this view are the clear indications in the text of the *SE* that others had attempted to offer systematic classifications of fallacies. Aristotle reports that some people held that all refutations are due to homonymy (177^b7-9), and in *SE* 10 he discusses an alternative classification of arguments into those that are directed at words and those directed at thoughts (170^b12-14), and proponents of this view seem to have diagnosed fallacies with reference to this general classification (170^b16-25).²⁰⁸

There is, finally, a third option for taking Aristotle's claim as one about his originality in the study of fallacies, namely, that he is the first to diagnose sophistic reasoning with reference to an explicit conception of genuine argumentation.²⁰⁹ Unlike his predecessors in the study of fallacies, Aristotle explains why all of the sophistical refutations are fallacious with the aid of explicit definitions of genuine refutation and deduction (*SE* 6). He refers each

²⁰⁷ On Tisias see Rademacher 1951, 28-35.

²⁰⁸ There are a wide variety of proposals about the author of this classification. Aubenque takes it to have a sophistic origin (1962, 121). Poste argues, on the basis of a fragment of Eudemus quoted by Simplicius (*in Phys.* 98,1) that the classification is Plato's (1866, 31 n.1). Cherniss (1944, 57 n.47), Anton (1968, 320 n.17) and Tarán (1981, 414-418) all take the author to be Speusippus. For a helpful discussion of the different positions taken see Dorion 1995, 261-264. Another contemporary we know that have offered systematic diagnoses of fallacies is Xenocrates, to whom Diogenes attributes two books on solutions to fallacies (*DL* IV 13) .

²⁰⁹ Grote argues that Aristotle's treatment of sophistry differs from that of his predecessors in the study of fallacy because the latter "had treated the sophistical modes of refutation without reference to the Syllogism and its general theory" (1872, 134).

fallacy to the clause in the definition of a refutation that it fails to satisfy, and, in doing so, explicitly shows that each of these sophistical arguments fails to be a genuine refutation. But while Aristotle was much more ambitious and explicit in doing so, we saw in Ch. 3 §3 that Plato does have an explicit account of refutation, according to which the contradiction it produces must violate the PNC. And we have seen that Aristotle adopts the criteria on refutation that Plato established and likewise requires that the predicates in the contradictory propositions of a refutation hold of their subjects in the same respect, in relation to the same thing, and at the same time (Ch. 4 §2.2). Moreover, in his same discussion in *SE* 10 of his opponents who classify arguments into those directed against the word and those directed against the thought, he chastises certain opponents on grounds that it is absurd to discuss refutation without first discussing deduction (since a refutation is a kind of deduction), which seems clearly to concede that some of his predecessors *had* discussed refutation in the context of diagnosing sophistical arguments (171^a1-5). Thus, even this reading would make Aristotle's claim that "absolutely nothing existed" before him an overstatement.

Thus, the enterprise that Aristotle claims to have originally discovered cannot be the study of sophistical arguments if we do not want to saddle Aristotle with more or less gross exaggerations of his originality. And a better way of understanding Aristotle's claim is available. When Aristotle returns to the contrast between rhetoric and his own project later in the same chapter, he is more explicit about the nature of his enterprise:

[T1]: καὶ περὶ μὲν τῶν ῥητορικῶν ὑπῆρχε πολλὰ καὶ παλαιὰ τὰ λεγόμενα, περὶ δὲ τοῦ συλλογίζεσθαι παντελῶς οὐδὲν εἶχομεν πρότερον λέγειν ἢ τριβῇ ζητοῦντες πολὺν χρόνον ἐπονοῦμεν.

And while there existed many and venerable accounts of rhetorical arguments, we had absolutely nothing to say *about deducing* before we toiled for a long time, investigating through practice and experience (*Soph. el.* 184^a8-184^b3).

These two claims to originality in this chapter (183^b36 & 184^b1-2) are sometimes taken to refer to different enterprises: the former is thought to declare originality in the study of the fallacies that arise through dialectic, whereas the present passage seems to assert originality in the development of a general system of deduction.²¹⁰ But it is much more attractive to understand them as claims about the same enterprise. On the one hand there are strong linguistic parallels between the two claims (οὐδὲν παντελῶς ὑπῆρχεν—183^b36 & παντελῶς οὐδὲν εἶχομεν πρότερον λέγειν—184^b1-2).²¹¹ But more significantly, while Aristotle is not the first to offer solutions to sophistical arguments, nor the first offer a systematic classification, nor even the first to diagnose a sophistical refutation in terms of a conception of genuine refutation, it is indisputable that Aristotle had no predecessors in his development of a general theory of deduction.²¹²

Support for this reading, as well as an explanation for why Aristotle speaks of deduction as his accomplishment at the end of the *SE*, comes at the beginning of *SE* 34, where he recapitulates the goal of his project in the *Topics* and *SE*:

²¹⁰ Aubenque, 1961, 10; 1962, 74; 1970, 292; 1989, 211 n.12.

²¹¹ As Dorion (1995, 418) has noted.

²¹² For this reading of both claims to originality see Brunschwig 1967, xix; 1989, 487; 1991, 425; and Dorion 1995, 414-415 & 418.

[T2]: Προειλόμεθα μὲν οὖν εὐρεῖν δύναμιν τινα συλλογιστικὴν περὶ τοῦ προβληθέντος ἐκ τῶν ὑπαρχόντων ὡς ἐνδοξοτάτων· τοῦτο γὰρ ἔργον ἐστὶ τῆς διαλεκτικῆς καθ' αὐτὴν καὶ τῆς πειραστικῆς. ἐπεὶ δὲ προκατασκευαστέον πρὸς αὐτὴν διὰ τὴν τῆς σοφιστικῆς γειτνίασιν, ὥστ' οὐ μόνον πείραν δύνασθαι λαβεῖν διαλεκτικῶς ἀλλὰ καὶ ὡς εἰδῶς, διὰ τοῦτο οὐ μόνον τὸ λεχθὲν ἔργον ὑπεθέμεθα τῆς πραγματείας, τὸ λόγον δύνασθαι λαβεῖν, ἀλλὰ καὶ ὅπως λόγον ὑπέχοντες φυλάξομεν τὴν θέσιν ὡς δι' ἐνδοξοτάτων ὁμοτρόπως.

So then, we had set out to discover a certain capacity for deduction concerning an issue put forward from the most acceptable premises available. For this is the work of dialectic *per se* as well as of examination. But since there is annexed to it, because of its resemblance to sophistry, that it is able not only to conduct a test dialectically, but also as if having knowledge, for this reason we set before ourselves not only the stated task of the enterprise—to be able to secure an argument—but also how, when subjected to an argument, we may similarly guard the thesis through what is as acceptable as possible.

This task is precisely the one announced in the first sentence of the *Topics*:

[T3]: Ἡ μὲν πρόθεσις τῆς πραγματείας μέθοδον εὐρεῖν ἀφ' ἧς δυνησόμεθα συλλογίζεσθαι περὶ παντὸς τοῦ προτεθέντος προβλήματος ἐξ ἐνδόξων, καὶ αὐτοὶ λόγον ὑπέχοντες μηθὲν ἐροῦμεν ὑπεναντίον.

The purpose of the [present] enterprise is to discover a method by which we will be able to deduce about any problem put forward from acceptable opinions, and also will ourselves, when we are subjected to an argument, avoid saying anything contrary.

T2 and T3 both suggest that, for Aristotle, there are two parts to a satisfactory treatment of dialectical argumentation. The first task is to investigate and impart a method of dialectical deduction, a means by which one can produce deductions based on the most acceptable propositions available. This is the essential task of dialectic and of examination (πειραστική),²¹³ both of which Aristotle treats in the *Topics* (cp. *Soph. el.* 165^b9-10).²¹⁴ But secondly, one should also be able to defend one's own arguments when one is subjected to cross-examination. In T2 Aristotle explains that this additional goal was necessary because of dialectic's resemblance to sophistry. In Ch. 1 we both saw how close this resemblance is, and why it is a threat to Plato and Aristotle. Here Aristotle suggests an additional way in which sophistical arguments threaten the enterprise of dialectic: even those who secure genuine

²¹³ πειραστική, examination, is a kind of dialectical argument that takes as its premises things known by an answerer, and are necessarily known by anyone who claims to have knowledge about a particular matter (*Soph. El.* 165^b3-6). Its aim is to expose an interlocutor's pretensions to knowledge; it is "the kind of dialectic that considers not the person with knowledge, but the ignorant person who pretends to have knowledge" (171^b4-6). For a useful treatment of Aristotle's conception of πειραστική see Bolton 2013. Aristotle's descriptions of the argumentative practice reveal that this is essentially a description of the Socratic *elenchus* (see esp. *Soph. el.* 183^a37-^b8 and Vlastos 1983; Leshner 1987; Bolton 1993; and Dorion 1995, 411-412).

²¹⁴ Examination is only explicitly discussed in the *SE* and *Metaphysics* (1004^a25-26), but many commentators plausibly conjecture that when Aristotle says he has discussed this argumentative practice, along with dialectic, elsewhere, he refers to his discussion in *Topics* VIII 5 of those who argue "for the sake of examination" (πείρας ἔνεκα—159^a25) (see Ticot 1939; Forster 1955; Pickard-Cambridge 1984; and Dorion 1995, 214-215).

dialectical arguments appear to be refuted by the sophists who question them on their arguments. Hence, the second stated goal of Aristotle's enterprise, which he accomplishes in the *SE*, is to furnish those who conduct deductions with, as Grote put it, "defensive armor against sophistical cross-examination."²¹⁵ The common goal of the *Topics* and *SE* is thus to investigate and impart a secure system of dialectical argumentation. On this reading, then, Aristotle's aim in the *SE* is not primarily to offer a study of fallacy, but rather to develop an integral part of his account of deduction.

These programmatic statements about the project in the *Topics* and *SE* suggest that the *SE* is no afterthought to the *Topics*, but rather an indispensable part of Aristotle's account of dialectical argumentation. It was an explicit *desideratum* in Aristotle's development of a method of dialectical argumentation that it guards against these sophistical difficulties. The *SE* thus does not merely provide practical advice on how to deal with sophistical problems: it completes the account of deduction in the *Topics* by expounding the features of genuine refutation and deduction that separate these argumentative enterprises from their sophistic counterparts. The preceding chapter offered an account of how Aristotle does this: in order to guard against these sophistical difficulties, Aristotle established explicit requirements on deduction and refutation that exclude sophistical reasoning from the class of genuine deductions and refutations.

Although Aristotle speaks only of dialectical refutations and deductions in these programmatic statements of his aim in the *Topics* and *SE*, there are clear indications throughout the *SE* that Aristotle takes sophistic arguments to be an obstacle not only to a secure account of dialectical argumentation, but to deduction in all of its forms. On

²¹⁵ See Grote 1872, 129

Aristotle's regimented usage, Eristics and Sophists employ the same arguments, but they present a threat to different people. Eristics appear to conduct dialectical arguments, whereas sophists seek out apparent demonstration (φαινομένης ἀποδείξεως ἐφίενται) (171^b27-29). But although the aims are different, the modes of argumentation are the same: Sophists and Eristics exploit of the same causes of appearance that Aristotle details and exposes in this treatise (171^b25-33). And Aristotle's solution to this common threat is to develop a secure method of deduction in general, with reference to which he can diagnose all of these sophistical arguments as fallacies. Sophistical and Eristic arguments thus threaten the entire enterprise of deduction, and this, I take it, is why Aristotle in T1 speaks quite generally of the enterprise he has established—in part as an antidote to these sophistic challenges—as “the process of deduction” (τοῦ συλλογίζεσθαι).²¹⁶

Once we appreciate Aristotle's stated goal in the *SE*—to defend genuine deductions and refutations against these sophistic deceptions—it should no longer surprise us that we learn about certain features of Aristotle's conceptions of refutation and deduction only in this treatise. What I've tried to detail in the preceding chapters are precisely these features of Aristotle's accounts of genuine deduction and refutation, together with their Platonic antecedents, that are specifically designed to be defensive armor against sophistical

²¹⁶ In fact, a number of commentators have taken the final chapter of the *SE* not only to conclude Aristotle's project in the *Topics* and *SE*, but as a conclusion to his work on deduction quite generally (Aubenque 1962: 74; Saint-Hilaire, 1838: I.424; 440-443; II.79. Grote 1872, 133-134; Mansion 1961, 67; Dumont, 1986, 13). Support for this idea comes from the second chapter of the *SE*, where Aristotle presents his discussion of eristic arguments as the final installment in a treatment of the four kinds of arguments that occur in discussion. He tells us: “demonstrative arguments have been discussed in the *Analytics*, dialectical arguments and arguments of examination have been discussed elsewhere [i.e., in the earlier books of the *Topics*]. Now we must discuss competitive and Eristic arguments” (165^b8-11).

challenges. There is certainly more to be learned about Aristotle's accounts of deduction and refutation by examining the way he deploys his definitions of these notions in his exposures of the fallacies I have not treated here. I have not considered Aristotle's diagnosis of fallacies of accident and consequent for failing to produce conclusions that follow necessarily (168^a34-168^b10; 168^b27-169^a5), or his treatment of question-begging arguments as failures to produce a conclusion that is different than the premises (168^b25-26), or his exposure of fallacies of false cause for failing to produce conclusions that follow because of the stated premises (τῷ ταῦτα εἶναι) (168^b23-25). There is no doubt much to be learned from these discussions, and I plan to pursue each of these topics in further research. But I have not considered them here because these requirements on deduction are not so intimately tied to Aristotle's efforts to demarcate genuine reasoning from its sophistic counterpart as are the requirements on refutation and deduction I have examined here.²¹⁷

The requirements on refutation and deduction with which I have been concerned, however, reveal that the same concern that drove much of Plato's work, an anxiety about the close proximity of sophistry to genuine philosophical argumentation, played an important role in shaping Aristotle's overall conceptions of refutation and deduction. A significant part of Aristotle's celebrated discovery of logic, arguably his greatest philosophical achievement, was the result of his adopting and carrying through to completion Plato's mission to firmly demarcate genuine from sophistic reasoning.

²¹⁷ Aristotle, for example, treats the fallacies of begging the question and false cause at length in *Prior Analytics* II 16-18, a context in which there is no concern obvious with sophistic problems, and Aristotle diagnoses with both kinds of argument as fallacies in a mere five lines in the *SE* (168^b22-26).

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