

Parmenides' Doxa and the Norms of Inquiry: A Case Study of the Fragments on Astronomy

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The poem of Parmenides falls into three parts. In the proem, the goddess announces that she will tell the kouros two things: (1) “the unshaken heart of well-persuasive truth,” and (2) “the opinions of mortals.” The rest of the extant poem is occupied by these two topics. The Truth from Fragments 2 to 8.50 contains a series of deductions which yield the signs (σήματα) of what-is as something unchanging, ungenerated, imperishable, a whole of a single kind, and complete. The remaining part of the poem from Fragment 8.51 to Fragment 19 constitutes the Doxa and outlines the dualistic cosmology underlying the changing, multifarious, perishable world of sense experience, which by its very nature lacks the features of what-is and becomes characterized by the goddess as “untrustworthy” and “deceptive”.

For this reason and others, much of the scholarly sentiment regarding the Doxa has traditionally been disparaging of its philosophical value, relegating it to a mere dialectical exercise, a warning, or a ‘negative ideal model’ for inquiry which illustrates the best possible cosmological model that nevertheless still falls short of truth.¹ As a result, the Truth has garnered focus as the philosophically significant section of the poem. But given its length relative to the whole poem, as well as the accuracy and ingenuity of some of the observations recorded in the Doxa, this part of the poem already demands the reader’s attention. Given this, it is difficult to believe that it was written to serve a wholly negative purpose. There is, accordingly, an emerging appreciation for the scientific innovation evidenced by the Doxa’s descriptions of phenomena belonging to the sensible world. This raises a critical question about whether, in dismissing the Doxa, we are missing something important about the philosophical contribution of the poem and about Parmenides’

¹ For views of the Doxa as a dialectical exercise, see G.E.L. Owen, “Eleatic Questions,” *The Classical Quarterly* 10, no. 1 (1960): 84-102; M.R. Cosgrove, “What are “True” Doxai Worth to Parmenides? Essaying a Fresh Look at this Cosmology,” *Oxford Studies in Ancient Philosophy* (2014) 46: 1-31. For an interpretation of the Doxa as a warning, see A. Nehamas, “Parmenidean Being/Heraclitean Fire, in *Presocratic Philosophy: Essays in Honour of Alexander Mourelatos*, eds. V. Caston and D.W. Graham (New York: Ashgate, 2002): 45-64. For views of the Doxa as a negative ideal model, see A.A. Long, “The Principles of Parmenides’ Cosmogony,” in *Studies in Presocratic Philosophy 2: The Eleatics and the Pluralists*, eds. D.J. Furley and R.E. Allen (New York: Routledge, 1975): 82-101; J. Barnes, *The Presocratic Philosophers* (London: Routledge, 1982); L.M. De Rijk, “Did Parmenides Reject the Sensible World?” in *Graceful Reason* ed. L.P. Gerson (Toronto: Pontifical Institute of Mediaeval Studies, 1983): 29-53; D. Gallop, *Parmenides of Elea* (Toronto: University of Toronto Press, 1984); B. Inwood, *The Poem of Empedocles*, 2nd edn. (Toronto: University of Toronto Press, 2001); P.K. Curd, *The Legacy of Parmenides: Eleatic Monism and Later Presocratic Thought*, 2nd edn. (Las Vegas: Parmenides Publishing, 2004); J. Warren, *Presocratics*, (London: Routledge, 2007); P.L. Miller, *Becoming God: Pure Reason in Early Greek Philosophy* (New York: Bloomsbury, 2011); J. Bryan, *Likeness and Likelihood in the Presocratics and Plato* (Cambridge: Cambridge University Press, 2012). Throughout this chapter, I refer to these interpretations of the Doxa as ‘negative’ views. Other possibilities for negative interpretations are outlined at S. Tor, “Parmenides’ Epistemology and the Two Parts of his Poem,” *Phronesis* 60 (2015): 4. ‘Positive’ interpretations are those that interpret the Doxa as making a substantial philosophical contribution beyond merely serving as a dialectical exercise, a warning, or a negative ideal model.

role in the history of philosophy and science. My aim in this chapter is to explore and motivate the possibility of an interpretation which treats this part of the poem as philosophically interesting in its own right.²

First, I set aside the question about the ontological status of Doxastic things and provide some considerations for why the Doxa deserves our serious attention by focusing on Fragments 10, 14, and 15—the fragments on astronomy. Next, I suggest a more positive place for the Doxa within the context of the poem as a whole, through a discussion of the poem’s embedded notion of inquiry as a goal-directed activity governed by domain-specific norms that are dictated by features of the objects proper to each kind of inquiry. I suggest that reading the poem as carving out these norms challenges some of the traditional interpretive assumptions about the status of the Doxa. Here, I contrast the purely “rationalist” norms that govern inquiry into what-is—the essences or natures of things—in the Truth with the contents of the Doxa, which appear to be the results of rigorous, principled empirical investigation into the world of sense experience. Each type of inquiry yields epistemic improvement for the inquirer, so long as she correctly identifies the domain of her inquiry and proceeds in adherence to the zetetic norms proper to that domain. The “deceptiveness” of inquiry into Doxastic things is not, I argue, an inherent feature of inquiry in this domain, but the consequence of misinterpreting the domain to which the object of inquiry belongs and thus, of violating Parmenides’ general zetetic principle, with the wrong expectations about the kind of information the inquiry will produce. This, I suggest, constitutes Parmenides’ diagnosis of the errors of the Ionian natural philosophers—i.e. that they attempt to answer questions about fundamental reality and first principles with methods that are proper to investigating only the mechanics of the changing, contingent sensible world.

On my reading, far from serving as a mere dialectical exercise, warning, or ‘negative ideal model’ that outlines the illusory world of appearances, the Doxa demonstrates that the sensible world is a legitimate domain of inquiry that, when successful, produces empirical knowledge that contributes to the inquirer’s epistemic improvement. The Doxa’s role in the overall poem is therefore entirely complementary to the Truth. Together, they constitute a demonstration of what there is to know and how, as responsible inquirers, we can go about acquiring knowledge.

I. In Defence of the Doxa: The Fragments on Astronomy

There are at least two important considerations against interpretations of the Doxa that minimize its philosophical significance in Parmenides’ poem. One consideration is the extensive length of the Doxa relative to the other parts of the poem. A second consideration is its content. Specifically, it contains a detailed description of a diverse scope of scientific theories.³ In this section, I take each consideration in turn and show how together, they provide background motivation for reading the Doxa as a section of the poem that offers a positive philosophical contribution and deserves our serious attention.

First, while the Truth survives in near entirety at approximately seventy-eight lines, it is generally thought that the surviving text of the Doxa, which constitutes roughly a third of the extant poem at forty-four lines, is only about a tenth of what one would have found in the original poem.⁴

² I call the items, phenomena, and processes that belong to the world described in the Doxa (i.e. those lacking Fragment 8’s signs) ‘Doxastic things’ for brevity, following Tor, “Parmenides’ Epistemology”.

³ Tor “Parmenides’ Epistemology,” 4-5 also briefly raises these two considerations as objections to negative interpretations of the Doxa.

⁴ See J. Palmer, *Parmenides & Presocratic Philosophy* (Oxford: Oxford University Press, 2009):160 for estimates of the length of the original poem.

This means that in comparison to the Truth, the Doxa comprised a much more substantial proportion of the original poem. We might say, then, that the Doxa already demands our attention due to its relative length. For dismissing it is tantamount to dismissing most of the poem, raising a question about why Parmenides would write so much about a topic which he ultimately did not believe requires the serious attention of the reader.

Second is the content of the Doxa. In this part of the poem, the goddess sketches a cosmology composed of the interaction between light and night, which contains a detailed exposition of various theories pertaining to phenomena that belong to the sensible world, including topics in astronomy, geography, theogony, and embryology. Much of the recent work on the Doxa has focused on the scientific ingenuity evidenced by its contents. In my discussion here, I will take the fragments on astronomy as a case study of the systematicity and scientific rigour that underlie the accounts that appear in the Doxa. Later, I will use these findings to discuss the methodology behind the hypotheses that appear in Doxa.

Of the Doxa's fragments on astronomy, Fragments 10, 14, and 15 stand out as a set of texts that have been embraced by both Parmenides scholars and specialists in the history of science. It is worth considering them in full.

εἴσῃ δ' αἰθερίαν τε φύσιν τά τ' ἐν αἰθέρι πάντα
σήματα καὶ καθαρὰς εὐαγέος ἡελίοιο
λαμπάδος ἔργ' αἰδηλα καὶ ὀππότεν ἐξεγένοντο,
ἔργα τε κύκλωπος πεύσῃ περίφοιτα σελήνης
καὶ φύσιν...

You shall know the nature of the aether and all the signs
in the aether, and the destructive works of the shining sun's pure
torch and whence they came to be,
and you shall learn the wandering works of the round-faced moon
and its nature...⁵ (fr. 10.1-5)

νυκτὶ φάος περὶ γαῖαν ἀλώμενον ἀλλότριον φῶς...
A light by night, wandering around earth with borrowed light⁶... (fr. 14)

... αἰεὶ παπταίνουσα πρὸς αὐγὰς ἡελίοιο.
... always gazing toward the rays of the sun. (fr. 15)

Taken together, these texts contain evidence for several striking insights about the behaviour of various celestial bodies. First is the observation about the source of the moon's light. Fragments 14 and 15 together constitute a treatment of the sun and the moon in relation to each other. In fr. 14, we find two observations about the moon: first, that it wanders or revolves around the earth, and second, that the moon is not self-illuminating, and "borrows" its light from some other source. Fragment 15 explains that the source of lunar light is the sun, because the light side of the moon is

⁵ The translations in this chapter are my own, made in consultation with P. Curd, *A Presocratics Reader: Selected Fragments and Testimonia*, 2nd edn. (Indianapolis: Hackett, 2011): 55-65 and D. W. Graham, *The Texts of Early Greek Philosophy: Part I* (Cambridge: Cambridge University Press, 2010): 203-242.

⁶ I read this fragment with the MSS νυκτὶ φάος in place of Scaliger's νυκτιφαῆς. For a defence of the MSS reading, see A.P.D. Mourelatos, "The Light of Day by Night' nukti phaos, Said of the Moon in Parmenides B14," in *Presocratics and Plato: A Festschrift at Delphi in Honor of Charles Kahn*, eds. R. Patterson, V. Karasmanis, and A. Hermann (Las Vegas: Parmenides Publishing, 2012).

always facing the sun, reflecting the sun's light. Fragment 10 further supports this hypothesis about the source of the moon's light. For first, it describes the sun as a "shining," "pure torch"—as something that emanates light, thereby lighting other things. It also repeats the characterization of the moon as something that "wanders", or as something that moves. If we can understand the moon as a moving thing, we can hypothesize that the movements of the moon are responsible for lunar phases. By tracking lunar phases, we observe that the side facing the sun is always the side that is luminous. Fragments 10 and 15 therefore provide empirical evidence for the claim at fr. 14. The three fragments together ascribe heliophotism (or solar illumination) to the moon and explain that lunar phases are caused by the reflection of the sun's light on the moon.

As far as primary evidence is concerned, Fragments 14 and 15 are sometimes cited as the earliest securely attested record for the discovery of heliophotism. But heliophotism also appears in testimonia as a hypothesis held by Thales, Pythagoras, Anaxagoras, and others. As a result, some believe that the discovery of heliophotism precedes Parmenides, and that it was merely recorded by him in the *Doxa*.⁷ However, Daniel Graham has convincingly argued through a critical survey of the testimonia attributing this view to earlier philosophers, that heliophotism must in fact be a Parmenidean discovery.⁸ Indeed, while there is no consensus on this question, scholarly sentiment seems to be slowly shifting towards a view of Parmenides as the discoverer of various astronomical phenomena, including those that appear in the *Doxa*.⁹

Alexander Mourelatos argues that fr. 10 explains an additional phenomenon—its mention of the "destructive works of the shining sun's pure torch" is a reference to how the sun's glare dims certain bands of the sky as it moves along its annual circuit. In other words, fr. 10 tells us that the presence and absence of the sun's glare explains the disappearance and reappearance of constellations and stars. This includes the alternating disappearance and reappearance of the Morning Star and the Evening Star, which Mourelatos points out is inferentially connected to the realization that the Morning Star and the Evening Star are the same celestial entity—a discovery attributed to Parmenides by Aëtius in Fragment A40a.¹⁰

Indeed, many of the significant astronomical discoveries that are attributed to Parmenides in testimonia do not appear explicitly in the *Doxa*. At Fragments A1 and A44, for example, the

⁷ See for example L. Tarán, *Parmenides: A Text with Translation, Commentary and Critical Essays* (Princeton: Princeton University Press, 1965): 245–246 and A.H. Coxon, *The Fragments of Parmenides*, revised ed. (Las Vegas: Parmenides Publishing, 2009). For the view that Fragments 14 and 15 do not imply heliophotism, see for example H. Diels, *Parmenides Lehrgedicht* (Berlin: Reimer, 1897); T. Heath, *Aristarchus of Samos* (Oxford: Oxford University Press, 1912); Gallop, *Parmenides*, 85 (1984). For a criticism, see Tarán, *Parmenides*, 245–246 and Coxon, *Fragments*, 374–375.

⁸ See D. W. Graham, "La Lumière de la lune dans la pensée grecque archaïque," in *Qu'est-ce que la Philosophie Présocratique*, eds. André Laks and Claire Louguet (Villeneuve d'Ascq: Presses Universitaires du Septentrion, 2002).

⁹ On questions about the reliability of the testimonia specifically as they pertain to Parmenidean astronomy, see the discussions at D. W. Graham, *Science Before Socrates* (Oxford: Oxford University Press, 2013): 88–92 and A. Finkelberg, "The Cosmology of Parmenides," *The American Journal of Philology* vol. 107, no. 3 (1986): 303–317, which point to Parmenides as the original discoverer of these phenomena. See Palmer, *Parmenides*, 161–2 for a brief discussion of scholarly sentiment on the contents of the *Doxa* as Parmenides' own reflections and discoveries.

¹⁰ A. P. D. Mourelatos, "Parmenides, Early Greek Astronomy, and Modern Scientific Realism," in *Early Greek Philosophy: The Presocratics and the Emergence of Reason*, ed. J. McCoy (Washington: The Catholic University of America Press, 2012). These observations are also discussed in G. Casertano "Parmenides—Scholar of Nature" in *Parmenides, Venerable and Awesome*, ed. N.-L. Cordero (Las Vegas: Parmenides Publishing, 2011): 21–58 and G. Cerri, "The Astronomical Section in Parmenides' Poem," in *Parmenides, Venerable and Awesome*, ed. N.-L. Cordero (Las Vegas: Parmenides Publishing, 2011): 81–94.

doxographer Diogenes Laertius attributes to Parmenides the view that Earth is spherical, while Fragments A37 and A44 outline Parmenides' geocentric model of the cosmos.¹¹

But if we are concerned with whether the *Doxa* is worthy of serious philosophical consideration, why should we worry about the testimonia? While the discoveries and views attributed to Parmenides in the testimonia do not explicitly appear in the surviving fragments of the *Doxa*, they are nevertheless an important piece of the puzzle. This is not only because, as Mourelatos shows, some of the views that are attributed to Parmenides in the testimonia are inferentially relevant to what we find in the fragments of the *Doxa*, but because they help paint a picture of Parmenides as a rigorous scientist concerned with using observable data to support his hypotheses and speculative theories about the mechanics of the world of senses.

Putting together these considerations, it is difficult to believe that Parmenides would compose a lengthy, highly-detailed, and innovative exposition of the results of what was clearly a rigorous investigation if he really believed that the realm of this investigation was in fact *not* worthy of analysis, and further, that his reasons for developing it would be merely to warn his readers, or to provide an example of a metaphysical confusion or a negative ideal model.¹² Neglecting the *Doxa* as a significant philosophical and scientific achievement therefore hinders our full appreciation of Parmenides as a revolutionary figure in the history of science. Importantly, in doing so, we risk missing something vital about the poem, as I hope the rest of this chapter will show.

II. The World of Sense Experience as a Domain for Inquiry

Discussions of Parmenides' *Doxa* typically focus on questions about the ontological status of Doxastic things relative to the ontological status of what-is. Shaul Tor points out that the focus on this question yields the traditional response that Doxastic things belong to the illusory world of appearance and sense experience, in sharp contrast to the fundamental reality of what-is. He argues, in addition, that this characterization of Doxastic things has resulted in a negative view of the *Doxa*'s overall contribution.¹³ In the previous section, I set aside questions about the ontological status of Doxastic things and suggested that certain features of the *Doxa* merit an interpretation of the poem that is predicated on a different assumption—namely, that the *Doxa* makes a positive contribution that merits serious attention. In this section, my goal is to suggest that Doxastic things are a legitimate domain for inquiry that, when successful, produces empirical knowledge.¹⁴

To start, the poem's focus on the theme of inquiry and knowledge is well-attested in the literature. The poem's theme is summarized as follows by Charles Kahn:

“As perceptive readers have always seen, the narrative of the journey to the goddess is an allegorical representation of Parmenides' enterprise as a quest for knowledge... The problem

¹¹ The view of Earth as spherical is also attributed to Parmenides by Aëtius at *Dox.* 380, 13-18. See C.H. Kahn, *Anaximander and the Origins of Greek Cosmology* (Indianapolis: Hackett, 1994): 80, 234 for critical analysis of the nature of these testimonia. For responses to Kahn, see the discussions referenced in fn. 9 and fn. 10 above. For a discussion of possible tensions between Fragments A37 and A44, see Finkelberg “The Cosmology”.

¹² This latter point is defended in Tor, “Parmenides' Epistemology,” 5.

¹³ See Tor, “Parmenides' Epistemology,” 4.

¹⁴ Tor's reading is correct in its assumption that interpretations of Parmenides should take up the *Doxa* as an important part of the poem. The reading I suggest here is congenial to the one defended in “Parmenides' Epistemology”, insofar as it takes Parmenides' epistemology to be the central lens through which the whole poem is interpreted. However, Tor's central thesis is that the two parts of the poem are examples of different kinds of knowledge—i.e. divine knowledge in the Truth and mortal knowledge in the *Doxa*. My focus is not on different kinds of knowledge, but on Parmenides' notion of inquiry.

Parmenides raises from the beginning of his poem is not the problem of cosmology, but the problem of knowledge, more exactly, the problem of the search for knowledge...”¹⁵

Indeed, the poem begins with the goddess’ comment at the end of the proem, in which she welcomes the young man by claiming that she will guide him on a journey into two domains for epistemic exploration—the elements of Truth and the opinions (δόξας) of mortals.

This theme is further pronounced in the subsequent fragment, where the goddess tells the kouros about “the only routes of inquiry (διζήσιός) that are for knowing (νοῆσαι).”¹⁶ This comment narrows the scope of the goddess’ exposition. For it is not an account of inquiry simpliciter that she shares with the kouros; rather, it is a particular kind of inquiry—i.e. inquiry that, when successful, produces knowledge. Thus, the goddess’ references to inquiry throughout the rest of the poem are references to a goal-directed activity, where the goal is knowledge. The language of “routes” of inquiry is metaphorical for ways of investigating, and the ways of investigating are, as we shall see, distinguished by the domains for investigation. In what follows, we should therefore expect to find out about the domains of inquiry that will help us achieve this goal—attaining knowledge. These ways, she explains, are the route of inquiry into what-is and the route of inquiry into what-is-not. By the end of Fragment 2, then, there appear to be two domains for inquiry, which are distinguished by their respective objects: what-is and what-is-not.

At this point, in establishing whether the world of the Doxa counts as a domain of inquiry, we confront the notoriously difficult question about the number of routes for inquiry endorsed by the goddess. Because this question is discussed at length elsewhere in this volume, here I will briefly summarize some of the big picture textual problems and endorse the three-route orthodoxy.¹⁷

The confusion about the number of routes for inquiry arises from the fact that two routes (the route of what-is and the route of what-is-not) are introduced in Fragment 2, while at Fragment 6.3, the goddess describes a “backward-turning” route in which “what-is and what-is-not are thought to be the same and not the same.”¹⁸ Historically, two-route readings have read the goddess’ comment at fr. 2 as exhaustive, and they have identified the two routes as the route of what-is and the route of what-is-not, while three-route readings have treated fr. 6.3’s “backward turning” path as a separate, “mixed” third route whose objects are what-is-and-is-not, including Doxastic things.¹⁹

¹⁵ C. H. Kahn, “The Thesis of Parmenides,” *The Review of Metaphysics* 22 (1969): 704-5.

¹⁶ I translate νοῆσαι as “knowledge” to denote an epistemic success term. For a defence of this translation, see Kahn, “Thesis”; Coxon, *Fragments*; A. P. D. Mourelatos, *The Route of Parmenides: Revised and Expanded Edition* (Las Vegas: Parmenides Publishing, 2008).

¹⁷ See M. Evans, “How Many Roads?” in this volume.

¹⁸ The manuscript of Fragment 6.3 contains a lacuna in a crucial part of the text in which the goddess claims, “For <...> you from this first route of inquiry, and then from that, on which mortals, knowing nothing, wander...” Diels supplies εἰργω so that the line reads “I forbid you”, while Cordero and Nehamas supply forms of ἄρχω so that the line reads either “I begin for you” or “You will begin”. See, N.-L. Cordero, “Les Deux Chemins de Parménide dans les Fragments 6 et 7,” *Phronesis* 24 (1979): 1-32; A. Nehamas, “On Parmenides’ Three Ways of Inquiry,” *Deucalion* 33/4 (1981): 97-111. See the discussion of this debate at Curd, *Legacy*, 51-63. See also Evans, “Roads” for a discussion of the implications of the various supplements for the number of routes.

¹⁹ For recent three-route interpretations, see Palmer, *Parmenides* and M.V. Wedin, *Parmenides’ Grand Deduction: A Logical Reconstruction of the Way of Truth* (Oxford: Oxford University Press, 2014). For a brief survey of the historical precedent for three-route readings, see C. C. Smith, “Toward a Two-Route Interpretation of Parmenidean Inquiry,” *Epoché* 24(2) (2020): 279-297, which defends a two-route interpretation on which the route of what-is-not is not a route. For canonical suggestions of the two routes as the route of what-is and the route of what-is-not, see Cordero, “Deux Chemins”; Nehamas “Three Ways”; Curd, *Legacy*.

Two-route readings have the advantage that the interpretation fits with the poem's overall theme of duality (for example, between what-is and what-is-not, Truth and Doxa, Light and Night). But traditional two-route readings have trouble paying the Doxa its dues, and in relegating Doxastic things to the route of what-is-not, they fail to sufficiently take into account the differences in how the route of what-is-not and the route of Doxastic things are each described. For instance, it is emphasized throughout the poem that the route of Doxastic things is a 'mixed' path of is-and-is-not, while the route of what-is-not is always simply the route of what-is-not *as such*—i.e. it is not described as mixed with what-is. In addition, the goddess prohibits inquiry along the route of what-is-not, as a “path entirely unable to be investigated” for the reason that one can neither “know (γνοίης) what-is-not” nor can one “point it out (φράσαις)”. But the Doxa arrives to us as an account of things we can point out in the world around us, so that its contents, in some straightforward sense, *are* identifiable. We can, for instance, reliably indicate the moon or the sun. Second, by the goddess' own lights, Doxastic things are attached to some kind of epistemic value. This is indicated throughout the poem by the presence of various knowledge and learning verbs whose objects are Doxastic things. At the end of fr. 1, for example, the goddess claims that one must learn (πυθέσθαι) both matters pertaining to Truth, as well as the opinions (δόξας) of mortals. Verbs pertaining to learning or knowledge appear throughout the Doxa as well. At fr. 8.51, the goddess asserts, “From here on, learn (μάνθανε) mortal opinions...” attaching one such verb to the contents of the Doxa, which appear subsequent to these instructions. These verbs also appear in the astronomy fragment, fr. 10, which is quoted above. There, the nature and signs of the aether are both objects of the knowledge verb εἶσσι. Likewise, the nature and movements of the moon are the objects of the learning verb πύσσι. That Doxastic things are the objects of learning verbs suggests that we can learn about them, which suggests that we can, indeed, engage in inquiry about them. By the same token, that they are objects of knowledge verbs suggests that we can know them. The way Doxastic things are described therefore explicitly counts against treating them simply as what-is-not *as such*.²⁰ Two-route readings that relegate Doxastic things to the route of what-is-not, then, cannot offer a fully satisfactory account of the Doxa or of the differences in the language the goddess employs throughout the poem to describe Doxastic things in contrast to what-is-not.

Three-route readings fare substantially better on this score. By treating the route of Doxastic things as separate from the route of what-is-not, the differences between how the two routes are characterized is fully taken into account, leaving open the possibility that there might be a positive place for the Doxa.²¹

However, as we have seen, when the goddess describes the second route in fr. 2—i.e. the route of what-is-not—we are forbidden from inquiring into it. For she claims that it is a route “entirely unable to be investigated” due to its inconceivability. The practical impossibility of inquiry into what-is-not also turns up at fr. 6.1-2, where the goddess explains, “It is right both to say (λέγειν) and to think (voεῖν) that it is what-is: for it can be, but nothing is not.” Here, again, the binary between what-is and what-is-not is brought to our attention. The possibility of inquiry into what-is is framed as an ability to speak and think about it. If we add to this the qualification that the kind of inquiry under discussion is an inquiry that produces knowledge, we can see that inquiry into what-is-not is impossible not only because we cannot speak, think about, or indicate nothing at all, but also because inquiring into nothing would not produce any kind of epistemic

²⁰ Nor does the changing, perishable, non-eternal world described in the Doxa belong on the route of what-is, for it lacks the signs described in fr. 8.

²¹ Though, of course, three-route readings still endorse a negative interpretation of the Doxa. See especially Wedin, *Grand Deduction* and Owen, “Eleatic Questions”.

improvement. We might say, because inquiry along this route is impossible, that it is not a genuine route at all. Indeed, this is exactly what the goddess says:

...κέκριται δ' οὖν, ὥσπερ ἀνάγκη,
τὴν μὲν ἔαν ἀνόητον ἀνώνυμον, οὐ γὰρ ἀληθῆς
ἔστιν ὁδός, τὴν δ' ὥστε πέλειν καὶ ἐτήτυμον εἶναι.
... and it has been decided, as is necessary,
to leave the one [route] inconceivable and unnamed, for it is not a true
route, so that the other [route] is and is genuine. (fr. 8.16-18)

Importantly, the claim that the route of what-is-not is not a genuine route is not equivalent to the claim that it is not a route at all. For the latter of these two claims would have the goddess contradicting fr. 2's claim about there being two routes, of which what-is-not is one. To avoid this, we can take the route of what-is-not as merely a nominal route meant to establish the conceptual space for inquiry through a formal consideration of what-is and its negation. In order for a route to be genuine, we must be able to speak and think about it in a way that produces knowledge. Since the route of what-is-not turns out to be a nonstarter, the goddess further explores the conceptual space between what-is and what-is-not by offering an additional route for inquiry that falls in between the two as an intermediate. We can read fr. 6 as a programmatic comment about how the rest of the poem proceeds—i.e. from the first route of inquiry (the route of what-is), and from there, “backward-turning” route of mortals. The rest of the poem adheres to this signpost as she describes the characteristics of what-is through a series of deductions in fr. 8 and directly after, moves to her exposition of Doxastic things.

Given that we have good reasons to separate Doxastic things from what-is-not, this suggests that the mixed, “backward-turning” route of mortals is not the route of what-is-not. Rather, it is a new, genuine route introduced by the goddess at fr. 6.3, which fits into the conceptual space between what-is and what-is-not established in fr. 2 by mixing what-is with what-is-not. This is to say that Doxastic things combine elements of both what-is and what-is-not, given their nature as changing, multifarious entities, processes, and phenomena that are at the same time something (but do not exhibit the signs of what-is in fr.8) and not nothing (by virtue of being available for thought and speech). The goddess' statement in fr. 2 about stating the only routes for inquiry, then, is not completed until fr. 6.3, when the mixed route of Doxastic things is finally offered as a domain for inquiry.

We have, then, three routes for inquiry—the route of what-is, the route of what-is-not, and the route of what-is-and-is-not. While the route of what-is-not is only a nominal route, the route of what-is and the route of what-is-not are genuine routes. This means that their objects are available for thought and speech, and if successful, inquiry along these two routes produces knowledge. In the next section, I suggest that the poem as a whole is an exposition of zetetic norms, where the kind of inquiry under consideration is inquiry conceived as a goal-directed activity with norms that are domain-specific. The world described in the Doxa is one such zetetic domain with its own set of zetetic norms.

III. Two Genuine Domains of Inquiry, Two Sets of Zetetic Norms

Recent work in contemporary epistemology has focused on inquiry, and in particular, on the norms of inquiry. The idea, roughly, is that in the pursuit of information, there seem to be certain rules about how one ought to go about obtaining the information one seeks. This is a question

about the norms one should conform to when inquiring. Say, for example, that I want to know whether it is currently raining outside in my location. To find out, I can go outside, look through the window, or check the current weather on my phone. These all conform to a norm of inquiry—namely, that if my goal is to find the answer to some question (e.g. whether it is currently raining in my location), then I should do what is required to get the answer to that question (e.g. look outside the window). This zetetic norm is a basic norm of instrumental rationality.²² But there are, of course, other norms of inquiry.²³ We might say that if our inquiry is not governed by certain zetetic norms, there is a good chance that the goal of our inquiry—whether it is knowledge or something else—will not be achieved.²⁴

In the previous section, I suggested that Parmenides’ goddess is interested in inquiry as a goal-directed activity that aims at knowledge and that she offers two genuine routes for knowledge-producing inquiry: the route of inquiry into what-is and the route of inquiry into what-is-and-is-not (or into Doxastic things). It remains to be seen what inquiry in these two domains in fact entails. In this section, I suggest that in fr. 8, the goddess offers an example of inquiry into what-is, while in the Doxa, she offers examples of inquiry into what-is-and-is-not. In her demonstrations, we find zetetic norms which turn out to be domain-specific.

In fr. 8, the goddess follows through on her promise to guide the kouros along inquiry into what-is and leads him through a series of deductions, unravelling the signs that point to its characteristics. The distinctiveness and rigour of the rationalist methodology that appears in this fragment has been noted.²⁵ That this fragment constitutes an *a priori* series of arguments that are propelled not by the evidence or justification provided by sense experience, but by reason alone, is rooted in both the nature of the arguments themselves and the language the goddess uses to introduce the arguments.

With respect to the significance of the goddess’ language, at fr. 7.4, directly before guiding the kouros along inquiry into what-is, she warns, “...judge (κρίναι) by reasoning (λόγῳ) the examination spoken by me.” Two things are noteworthy about this. First, since this line precedes the account of inquiry into what-is, we can safely assume that “the examination” in question is inquiry into what-is. Second, it tells us that the method for inquiry into what-is must proceed by reason—i.e. not by sense experience. Importantly, this instruction is given in the imperative, which we can read as having normative force. Because it appears as part of a directive, the idea is effectively that the kouros indeed *must* or *should* use reason—and not “an aimless eye” or “an

²² This norm is articulated in J. Friedman, “The Epistemic and the Zetetic,” *The Philosophical Review* 129(4) (2020): 501-536.

²³ In the context of the history of philosophy, for example, it has been argued that for Aristotle, because animal generation is a single, goal-oriented process, inquiry into animal generation is governed by a zetetic norm which dictates that understanding the goal of the process of generation must be prior. See J.G. Lennox, *Aristotle on Inquiry: Erotetic Frameworks and Domain-Specific Norms* (Cambridge: Cambridge University Press, 2021): 88.

²⁴ Throughout this paper, I have been referring to the product of successful Parmenidean inquiry as either “knowledge” or “epistemic improvement” interchangeably to reflect the ambiguity in the various connotations of the different knowledge and learning verbs in the poem (since epistemic improvement can come in different forms, including knowledge, understanding, a more accurate credence, etc.). I do not take the use of different ‘epistemic’ verbs to indicate a systematic, deliberate choice reflective of technical use on Parmenides’ part. However, the goal of inquiry is a robust problem in contemporary epistemology. For a view of knowledge as the aim of inquiry (and a survey of other possibilities), see C. Kelp, “Two for the Knowledge Goal of Inquiry,” *American Philosophical Quarterly* 51(3) (2014): 227-232. For an epistemic improvement view of the aim of inquiry, see J. Haas and K. M. Vogt, “Incomplete Ignorance,” in *Epistemology After Sextus Empiricus*, eds. K. M. Vogt and J. Vlasits (Oxford: Oxford University Press, 2020): 254-267.

²⁵ Wedin, *Grand Deduction* represents a thorough appreciation of this by reconstructing a detailed version of the poem’s deductions in formal logical notation.

echoing ear”—to judge the arguments that reveal the characteristics of what-is. This constitutes a zetetic norm for inquiry in this domain (call it ZP₁ for ‘zetetic principle 1’):

ZP₁: Inquiry in the domain of what-is must be governed by reason and cannot proceed by the evidence of the senses.

The arguments of fr. 8 follow ZP₁. Take, for example, the statement by the goddess at fr. 8.13-16 that “the decision about these things is in this: is or is not.” As Wedin argues, the claim in these lines is that the justification for whether what-is is generated and perishing must be based on ‘is or is not’. In other words, the arguments about what-is must be governed by the law of the excluded middle, an a priori premise that was introduced in fr. 2.²⁶ The arguments of fr. 8 in fact produce at least four deductive consequences that take principles stated in fr. 2, fr. 3, and fr. 6 as assumptions. Discussing all of these arguments would take a much larger project than this chapter, so let’s take the argument for the conclusion that what-is is indivisible and continuous as an example of inquiry into what-is, as it is demonstrated throughout fr. 8. This will be sufficient as an instance of ZP₁ at work in the Truth. The text reads:

οὐδὲ διαιρετόν ἐστιν, ἐπεὶ πᾶν ἐστιν ὁμοῖον·
οὐδὲ τι τῇ μᾶλλον, τό κεν εἴργοι μιν συνέχεσθαι,
οὐδὲ τι χειρότερον, πᾶν δ' ἔμπλεόν ἐστιν ἐόντος.
τῷ ζυνεχὲς πᾶν ἐστιν· ἐὼν γὰρ ἐόντι πελάζει.
Nor is it divisible, since it is all alike,
and not at all more here and less there, which would keep it from holding together,
but it is all full of what-is.
Therefore, it is all continuous; for what-is draws near to what is. (fr. 8.22-25)

The argument for the continuity of what-is runs as follows. First, something’s not being more here and less there is equivalent to it being full of what-is. If it does turn out that something is more here and less there, or that it is not full of what-is (i.e., if either of the two claims in the previous premise fails), this would prevent what-is from holding together. But since neither of those two claims fails, what-is draws near to what-is. This is just what it means for what-is to be continuous. Therefore, what-is is continuous. The argument for the indivisibility of what-is appears as a companion to this. Based on fr. 8.22, we get the following conditional: if what-is is all alike, then it is not the case that what-is is divided. Equivalently, if what-is is divided, then it is not the case that what-is is all alike. From the assumption what what-is is divided, if we accept that what-is has parts, and that those parts are not “all alike” (i.e., that they are different) then it would be possible for what-is-not to be. But since we know that what-is-not cannot be, what-is either has no parts or its parts are identical to itself. If it has no parts, it is indivisible. If its parts are identical to itself, they are all alike and do not count as true parts, which entails that what-is is indivisible. Therefore, what-is is indivisible.²⁷

Constructing this argument and determining the truth of its premises does not require perceptual evidence or verification from the empirical world. For in fr. 4.1, the characteristics of what-is are “absent” and yet “securely present to the mind.” They are absent insofar as one cannot perceive them with the senses. We cannot touch the imperishability of what-is with our hands or see its completeness with our eyes, for example. But we can grasp those features of what-is with the

²⁶ For a detailed defence of this, see Wedin, *Grand Deduction*, 9-11.

²⁷ For the logic behind this argument, see Wedin, *Grand Deduction*, 105-109.

mind, though reasoning. The proper method for inquiring into what-is is determined by the characteristics of what-is and our means of grasping those characteristics. Because the characteristics of what-is are imperceptible, we cannot use perception to grasp them—hence, ZP₁. We can therefore read the argument for the continuity and indivisibility of what-is as an example of the goddess demonstrating inquiry into what-is by using ZP₁. Indeed, additional examples of ZP₁ are in operation throughout fr. 8, where the goddess establishes that what-is is also ungenerated and imperishable (fr. 8.5-21), motionless (fr. 8.26-31), and complete (fr. 8.32-49).

This is in sharp contrast to what we read in the Doxa. Earlier, I explained that fr. 15 and elements of fr. 10 act as evidence for the conclusion in fr. 14. In those texts, the evidence for heliophotism is that (1) the moon moves around earth, (2) as the moon moves around earth, we can observe different lunar phases, or differences in the amount of light the moon receives, (3) the illuminated part of the moon is always facing the sun, and (4) the amount of light the moon receives depends on its position relative to the sun. Claims (1) through (4) are grounded in perceptual, observable evidence of the behaviour and appearance of the moon in relation to the sun. If we wanted to verify these claims, there would be no way to do so from the armchair, so to speak. Rather, we must rely on sensory data collected from our observations of the moon and the sun.

By comparing inquiry into what-is in fr. 8 with inquiry into what-is-and-is-not in the Doxa, we can observe the emergence of distinct norms of inquiry. In particular, we find a different zetetic norm at work in the world of Doxastic things than in the domain of what-is. Call it ‘ZP₂’ for ‘zetetic principle 2’:

ZP₂: Inquiry in the domain of what-is-and-is-not must be governed by sense experience (and cannot proceed by reason alone).

Earlier, I explained that the characteristics of what-is, along with our means for grasping those characteristics determine ZP₁. Similarly, because the characteristics of Doxastic things are available to sense experience, and cannot be grasped or verified through reason alone, our perceptual capacities are the appropriate means for grasping them. This determines ZP₂.

The fragments on astronomy serve as an appropriate case study for ZP₂ in practice, given the accuracy of the hypotheses, as well as the fact that the kinds of observations (e.g., of the lunar phases) that would ground the claims in those texts are clear enough. However, it is not immediately obvious what observations would ground some of the other hypotheses that appear in the Doxa. For instance, nothing in the extant fragments of the Doxa seems to serve as evidence for fr. 17’s hypothesis that males are conceived in the right part of the uterus and females in the left.²⁸ Indeed, while this bizarre-sounding hypothesis might strike us as an example of mistaken ancient “empirical” theorizing, if our thesis is that inquiry into Doxastic things is governed by sense experience, then it is worth exploring what observations might have grounded it. A testimony on

²⁸ That fr. 17 describes the efficient cause of sex differentiation as the position of the conception of the fetus in the uterus is suggested in G.E.R. Lloyd, *Polarity and Analogy: Two types of argumentation in Early Greek Thought* (Cambridge: Cambridge University Press, 1966): 17 and 50. This reading of fr. 17 has been challenged in O. Kember, “Right and Left in the Sexual Theories of Parmenides,” *The Journal of Hellenic Studies* 91 (1971): 70-79 on the grounds that the fragment can also be interpreted as hypothesizing that a fetus that is already male, for example, is conceived on the right side of the uterus (so that the fetus’ position in the uterus is determined by its sex, and not the other way around). However, the context in which fr. 17 is quoted in Galen’s *Commentary on Book VI of Hippocrates’ Epidemics* II.46 is a lengthier explanation not of how the side of the uterus the fetus is in is determined by the sex of the fetus, but of how the sex of the fetus is influenced by the side of the uterus it is in. The context of fr. 17 therefore clarifies that the favourable interpretation of fr. 17 is the one I assume here.

Parmenides from Aristotle at *De partibus animalium* ii.2.648a29-31 helps us with this. There, Aristotle attests that according to Parmenides, females are warmer than males, on the grounds that heat is determined by an abundance of blood. At *De generatione animalium* iv.1.765b17-28, Aristotle claims that “Anaxagoras and others” hypothesized that females are hotter than males on the grounds that females have more blood than males, and that the claim about females having more blood than males is tied to the observation that females menstruate.²⁹ Since the left is supposed to be hot, and the right is supposed to be cool, the idea is that the warmer sex is conceived in the left part of the uterus, while the cooler one is conceived in the right part.³⁰ Hence, even the bizarre hypothesis in fr. 17, incorrect as it may be, is governed by ZP₂.

We can therefore generalize from the demonstrations of inquiry into what-is in the Truth and of inquiry into what-is-and-is-not in the Doxa, a general principle that guides inquiry for Parmenides—call it the ‘general zetetic principle’ (GZP):

GZP: Inquiry must be governed by the norms proper to the domain to which the object under investigation belongs.

As we have seen, what underlies this principle for Parmenides is that both what-is and Doxastic things are available as objects of inquiry. Because they have different characteristics (the former is not accessible by sense perception, while the latter are not accessible by reason alone) successful inquiry into each type of entity will require the inquirer to proceed by sets of norms that are determined by the object under inquiry. If the inquiry is successful, accounts of both types of things yield epistemic improvement for the inquirer.

Positive interpretations of the Doxa, however, must contend with the fact that the accounts in the Doxa are purportedly disparaged by the goddess herself as “deceptive” (fr. 8.51), while the route of is-and-is-not is described as the “backward-turning” path (fr. 6.9) in which there is “no true trust” (fr. 1.30). It is also characterized as the path of helpless, confused mortals who “know nothing” (fr. 6.4-5). Taken at face value, these negative descriptions of the Doxa count explicitly in favour of negative readings. However, if I am right that Parmenides is committed to something like GZP, and that he accepts Doxastic things as legitimate objects for an epistemically valuable type of inquiry, then an alternative reading of these texts would neutralize this evidence as explaining what would happen if an inquirer violates GZP in the process of inquiring.

One way to violate the norm would be to mischaracterize the object of inquiry, and therefore to attempt an inquiry guided by the wrong set of norms. For example, I might mistake inquiry into the source of the moon’s light for inquiry into what-is. I might then try to discover facts about lunar phases the same way that I would discover facts about what-is—i.e., without observing them at all, and by relying on my commitment to certain a priori principles to tell me why the moon appears to change. In this case, my inquiry would fail on the grounds that it was not guided by the proper norm; reasoning from the law of noncontradiction, for instance, will not tell me what I want to know about the moon. My inquiry would fail for the same reason if I tried to investigate what-is by observing the perceptible world around me. In both scenarios, the inquiry fails because using the wrong method of investigation either does not yield an account at all or it produces an account that is incorrect and therefore does not contribute to the inquirer’s epistemic

²⁹ Although Parmenides is not named in the testimony at *GA*, the reference to “others” is generally taken to include him. See Lloyd, *Polarity* and the arrangement of the testimonia in Coxon, *Fragments*, 132-133.

³⁰ See J. Mansfeld, “Parmenides from Right to Left,” *Études Platoniciennes* 12, (2015): paragraph 15-17 on the directionality of hot and cold in Greek thought.

improvement. However, note that the risk here is not merely a matter of one's inquiry failing because it is guided by the wrong set of norms—it's that one has inquired using the wrong set of norms *because* one has misinterpreted inquiry into a Doxastic thing for inquiry into what-is (or vice versa).³¹ The force of GZP is therefore that it is crucial for the inquirer to correctly identify the domain of inquiry. In other words, even if I can recognize that my inquiry into lunar phases ought to be guided by my observations of the moon, the account produced by that inquiry only has epistemic value if I acknowledge that lunar phases are explicitly a Doxastic thing. Lunar phases do not count as what-is, or as fundamental reality. The goddess' insistence on mortal error highlights precisely this—the human tendency to misinterpret inquiry into Doxastic things as inquiry into what-is, and vice versa. We can therefore add a further refinement to GZP:

GZP *: Inquiry must be governed by the norms proper to the domain to which the object under investigation belongs AND both the object of inquiry and the account produced by the inquiry must be accurately construed by the inquirer as belonging to that domain.

The “deceptiveness” of inquiry into Doxastic things is therefore not an inherent feature of inquiry in this domain. Indeed, the epistemic value of inquiry into what-is-and-is-not is emphasized at fr. 1.3: “Nevertheless, you will learn these [accounts of Doxastic things] too—how it were right that the things that seem be reliably, being indeed the whole things.” Doxastic things, in addition to what-is, are after all a part of the “whole of things”. As mortals, we live in a world that we navigate using our senses. As such, Doxastic things are available to us as objects for investigation and as items and processes that we can, in some sense, reliably come to know. Their deceptiveness is the result of our own “two-headedness”—of the fact that as mortal inquirers, we are capable of knowing things both through abstract reasoning and through empirical theorizing. The goddess' commentary on mortal error in fr. 6 amounts to this: if we are not careful, we can drive ourselves into a kind of epistemic “helplessness” that renders us unable to keep our minds from “wandering”, given our capacity to engage in different kinds of inquiry.

IV. Some Lessons

At the beginning of this chapter, I argued that negative readings of the Doxa do not offer a satisfying explanation of its role in the poem of Parmenides. I therefore set out in search of an interpretation of the Doxa that adequately accounts for both its substantial length relative to the poem as a whole, as well as the accuracy and highly detailed nature of its descriptions of Doxastic things. In order to do so, I used philological and conceptual clues in the poem to establish that the route of Doxastic things (what-is-and-is-not) constitutes a route of inquiry for knowing, as the ‘mixed’ path of mortals, distinct from both the route of what-is-not and the route of what-is. Using the fragments on astronomy, as well as the arguments in fr. 8 for the continuity and indivisibility of what-is, I showed that throughout the course of the poem, the goddess demonstrates that inquiry is governed by domain-specific zetetic norms, which are subsumed under a refined version of what I called the ‘general zetetic principle’. According to this principle, inquiry must be governed by the norms proper to the domain to which the object under investigation belongs, and both the object of inquiry and the account produced by the inquiry must be accurately construed by the inquirer as belonging to that domain. The norms of inquiry for Parmenides are domain-specific because

³¹ Cf. Tor, “Parmenides’ Epistemology,” 33-34 where mortal error is construed as a mix-up between knowledge of Doxastic things and divine knowledge (of what-is).

the objects belonging to the two domains for inquiry have different characteristics and are therefore available to mortal inquirers by different means—either through reasoning or through empirical observation. Deception and confusion are therefore not inherent to inquiry into Doxastic things. Rather, the goddess' warnings about inquiry along this 'mixed' path are grounded in the mortal habit of violating the norms of inquiry—in mistaking accounts of Doxastic things for an account of what-is. This habit is what causes inquiry to fail and leads mortals away from the goal of epistemic improvement either in the form of empirical knowledge, or of knowledge of what-is.

To close, I suggest that the joints at which Parmenides carves his views of inquiry and the views of mortal error that are presented in the poem are both targeted at the Ionian tradition that precedes him. While Parmenides accepts that the natural world is a legitimate domain for inquiry that, if successful, can produce empirical knowledge, he warns us that if, as inquirers, we seek to identify fundamental reality or first principles, we cannot successfully do so by investigating the perceptible world or by using norms proper to inquiry into the world of sense experience to guide our investigation. It is precisely the confusion of Doxastic things for what-is which led the Ionians to posit water, air, or a limitless mass as first principles. Their conclusions about first principles are reached as a result of erroneously inquiring into what-is by looking to the perceptible world, instead of by using reason alone to derive a priori principles by which successful investigation into what-is proceeds. Parmenides is therefore both a champion of the sensible world as an acceptable source for knowledge, and a critic of the Ionian natural philosophers, who commit the category mistake of positing that the very same elements of the perceptible world *are* what-is (or at the very least, that they provide important insights into what-is). The Doxa, then, is a significant contribution in its own right, not only because it is a dossier of the achievements of Parmenides as a rigorous, principled scientist, but because it is also a glimpse into Parmenides' sophisticated philosophical meditations on how to inquire successfully in any domain.