Parmenides of Elea and Xenophanes of Colophon:

the Conceptually Deeper Connections

Alexander P. D. Mourelatos

In the interpretation of Parmenides of Elea, there is a certain vulgate, one widely represented in general histories of philosophy and indeed assumed by philosophers broadly.[[1]](#endnote-1) The metaphysical tenor and thrust of the philosophy of Parmenides, according to this vulgate, is *holistic* *monism*: "all things are one," in Greek, *hen to pan*. As it may be recalled, Parmenides reached his metaphysical conclusions by initially reflecting on the language of *to mē on* or *to ouk on* (either of which may be translated as "what is not," or "non-being," or "not being"). Famously, or notoriously, he did rule that there is something conceptually and logically unacceptable in speaking or thinking of "not being." Ascribing that initial philosophical move to Parmenides is certainly beyond dispute. The vulgate, however, adds that he must also have reflected on the language of "different" (*heteron*) and "other" (*allo*); and then he proceeded to draw powerful metaphysical inferences in the following way: If, with respect to some A and some B, we are to hold that A is "different from" (or "other than") B, or vice versa, then we are committed to holding that "A is not B" and "B is not A." But if grasping "not-being" is inherently impossible, it should likewise count impossible that we should conceive more narrowly of "A's not being B," or of "B's not being A." Once distinctions of any sort are logically disallowed, the metaphysical conclusion seems inevitable: *hen to pan*, "all things are one." The epistemological corollary of holistic monism is that the world humans experience, fraught as it is with plurality and pervasively splintered by distinctions, is ultimately and fundamentally an illusion.

As is well known, Parmenides presented his philosophy in the form of a poem, in epic style, in two parts: *alētheia*, "reality" or "truth" (and often capitalized, "Truth"); and *doxai* *brotōn*, "opinions of mortals," standardly referred to by scholars as *doxa*, or (capitalized) *Doxa.* Many of the modern interpretations of Parmenides that conform to the vulgate concentrate on "Truth," and then pay scant attention to the details of *Doxa.*  This concentration of interest in the poem's first part is, in one way, quite understandable. For, even though ancient reports suggest that, of the two parts, *Doxa* was much longer, the loss of material from the second part and the fragmentation of what has been preserved from it is far more drastic than what is the case for "Truth."[[2]](#endnote-2)

Very striking about the second part of Parmenides' poem, nonetheless,especially once its nearly fifty lines are supplemented by pertinent testimonia from later sources, is *Doxa*'s rich content of "breakthrough" scientific discoveries of the middle (or early middle) decades of the 5th century BCE, and possibly even earlier. This content includes the realization that the moon is illuminated by the sun, that the earth has spherical shape, and that the Morning Star and the Evening Star are the same luminary, and therefore a "wandering star," a planet. Interpreters who adhere to the vulgate are led, almost inevitably, to proposing an "exempli gratia" or concessive or ironic rationale for the length of *Doxa* and for its riches in scientific content. *Doxa*'s message, accordingly, is: "*even* human science at its best is an illusion." Also assumed by advocates of the vulgate is that the discoveries instanced in *Doxa* could not have been made by metaphysician Parmenides; they ought to be attributed to scientifically minded predecessors of his, the prime candidates being Pythagoras of Samos or some early students or followers of the latter.

Origins of the "vulgate" and of the "Eleatic" succession

The vulgate unmistakably has its origins in Plato. At *Prm.* 128b, the Platonic Socrates, presented by Plato as interrogating old Parmenides, states: "You assert in your poem that the all is one." And in the dialogue *The* *Sophist*, the "Eleatic Stranger," now cast by Plato as a spokesman for Parmenides, offers this historical-hermeneutic comment:

And our own Eleatic tribe, having started from Xenophanes and even earlier, proceed in their argumentation in this way: that the things collectively spoken of as "the all" are a single thing. (*Soph*. 242d)

Aristotle adopts this Platonic glossing of Parmenides' metaphysical position, as is evident at *Metaph.* 986b27 and ff., where we have a compendious account of Parmenides' philosophy. Moreover, just a few lines earlier, Aristotle presents Xenophanes as "the first to have advocated monism (*prōtos henisas*)," and he reports that Parmenides "is said to have been a pupil of [Xenophanes]" (986b18 ff.~~)~~.

Given the twin Plato-Aristotle authority, the view of an "Eleatic School" or "Eleatic Succession," comprising Xenophanes, Parmenides, Zeno, and Melissus, soon took hold in the post-Aristotelian tradition, especially after it was reinforced and propagated by the Peripatetic treatise *De Melisso, Xenophane Gorgia* (usually abbreviated MXG).[[3]](#endnote-3) It is quite significant in this connection that after the MXG, Xenophanes gets at least twenty attestations as "Eleatic philosopher"—from Cicero all the way to Albertus Magnus.[[4]](#endnote-4)

In the scholarship of at least the first half of the twentieth century, Xenophanes (in his Eleatized identity) is hermeneutically disadvantaged in the same way Parmenides' *Doxa* has been disadvantaged by the prevalence of the Parmenides vulgate*.* For if the second part of Parmenides' poem is merely an *exempli gratia* display of doctrines that are not put forward by the poem's author, there is lesser motivation for expending effort in reconstructing the poem's second part. Correspondingly, if Xenophanes is a proto-Parmenides, whose monism is simply focused on the one God, the details of Xenophanes' physical doctrine are downgraded as of lesser interest.

Parmenides vulgate and "Eleatization" of Xenophanes: the discounting of both

With respect to Parmenides, the hermeneutic option of downgrading the significance of the elements of scientific knowledge in the *Doxa*, supposedly because of "Pythagorean" anticipation, was decisively undercut in one of the breakthrough moments of twentieth-century scholarship: Walter Burkert's *Weisheit und Wissenschaft: Studien zu Pythagoras, Philolaos und Platon*(1962).[[5]](#endnote-5) Burkert demonstrated that Pythagoras of Samos (6th century BCE) was not what late ancient sources portray him to have been, viz., a scientific genius who, quite on his own, made fundamental breakthrough discoveries in astronomy and mathematics. Rather, as Burkert shows, he was a mystic and "shaman-like" figure who preached a doctrine of soul-transmigration and promoted and led a special "purificatory" way of life. Even those of his early 5th century successors who are classed in the ancient tradition as *mathēmatikoi* appear to have pursued primarily not mathematics proper but arithmological mysticism. The first "Pythagorean" figure for whom we have good evidence of interest, as well as of accomplishments, in the combination of mathematics, astronomy, and speculative cosmology that may properly count as "Pythagorean" is Philolaus of Croton, whose writings postdate those not only of Parmenides but even of Anaxagoras, Zeno of Elea, and Empedocles.[[6]](#endnote-6)

This "dethroning" of Pythagoras has opened up the possibility of viewing the development of science in the 6th through 5th centuries BCE in a new light: not as the miraculous outcome of endeavors by a *prōtos heuretēs*, "first discoverer" (scil., Pythagoras) but rather as a gradual process in which different figures and in various contexts, including Parmenides in his *Doxa*— and as I shall presently argue, even Xenophanes—played a part. And almost in parallel to this revamping of the history of science in the 5th century, the Parmenides vulgate, and the cognate narrative of the "Eleatic Succession" are no longer dominantly favored among scholars.

As it has often been pointed out, the formula *hen to pan*, "All things are one," is conspicuously absent in the Parmenides fragments.[[7]](#endnote-7) Closest to it in Parmenides' poem are these lines:

Nor was it at some time past (*pot' ēn* ), nor will it be (*estai*), since it is now (*nyn estin*), all of it together (*homou pan*,or "all of it as whole"), one (*hen*), cohesive (*syneches*, or "continuous").(B8.5-6)[[8]](#endnote-8)

The contrast between the two formulations (Parmenidean and Platonic/Aristotelian) is glaring. Whereas in the latter the subject is insistently "the all" (Plato, *to pan*; Aristotle, *ta panta*), in Parmenides, the pronoun *pan* does not bear the article, and when it occurs it functions as part of a compound grammatical predicate: "all of it together one." Indeed, naming the subject as "the All" appears to be studiously avoided throughout the poem. Rather, the subject at issue is either pointedly suppressed or is schematically referred to as *to eon*, "what is" or "whatever is"—both in the text cited above and in all of Parmenides' deductions.

Accordingly, in the second half of the twentieth century, several Parmenides interpretations have been put forward that read the Parmenidean deductions of the nature of *to eon*, "what-is," distributively: not as compelling us to assume that these deductions envisage a single all-encompassing and undifferentiated entity (*to pan*, "the All," or *to hen*, "the One") but rather as putting forward *criteria* for what qualifies as *to eon* "what-is," or delineating the "boundaries" or "*limits*" (*peirata*) within which we are to seek to find it (cf. *hodoi dizēsios*, "routes of quest/inquiry").[[9]](#endnote-9) These criteria or limits are expressly stated and argued for in the main argument of fragment B8 in "Truth":

(i) *agenēton* and *anōlethron*, "not (subject to) being born or to perishing";

(ii) *mounogenes*, "of a single kind/ sui generis";

(iii) *adiaireton*,"not subject to division," *xyneches pan*, "all of it continuous/cohesive";[[10]](#endnote-10)

(iv) *akinēton*, "immobile, not subject to motion";

(v) *ouk . . . ateleutēton* or *tetelesmenon*, "complete" or "fully realized," "not subject to/not admitting of development or actualization."

As the Parmenides vulgate ceased being accepted as the standard, scholarly accounts of Xenophanes, correspondingly and increasingly, have approached with reserve the ancient reports that Xenophanes was the teacher of Parmenides and founder of the Eleatic school.[[11]](#endnote-11) It is not my intention in this presentation either to rehabilitate the ancient Eleatization of Xenophanes or to attempt further to undermine it. What I shall put forward for consideration is evidence that, beyond the simplistic association "One God – One Being" of the Eleatized Xenophanes, and beyond the Parmenides vulgate, there are a number of philosophically captivating conceptual affinities in the philosophies of these two Presocratics. These affinities have not been fully pondered and appreciated. At the very least, they provide some independent support for the teacher-pupil link. But more importantly, they enhance our insight into the thought of each of these early philosophers.

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So that we may explore deeper connections between these two Presocratics, an interpretative synopsis of the essentials of Xenophanes' philosophy is obviously in order. Drawing on my own studies of the topic over the last two decades (see Bibliography), the next five Sections of this presentation aim to provide such a synopsis.

Xenophanes' critique of traditional beliefs about the gods

Distinctive and often dwelled upon in accounts of Presocratic philosophy is Xenophanes' fierce critique of traditional beliefs about gods (those worshipped by Greeks, in the first instance; but also gods worshipped by non-Greeks). His phrasing hints of outrage at the way in which poets, and in particular Homer and Hesiod, attribute to the gods acts of deceit, thievery, and adultery (B1=D8, B12=D9).[[12]](#endnote-12) Xenophanes observes that what underlies religious beliefs and practices, whether among Greeks or among peoples of the far north or of deep Africa, is a penchant for anthropic bias and a motive of *philautia* ("self-love" with a strong tinge of vanity).[[13]](#endnote-13) The latter two terms are not, to be sure, ones Xenophanes himself uses; but they accurately capture the outlooks he deplores and the behaviors and practices he censures. Significantly, he points up ethnic or racial bias in the various conceptions and depictions of gods (B15=D13); and he sarcastically comments that, if animals could sculpt or paint, they would make their gods appear, in the correspondingly respective ways, zoomorphic (B15=D14).

The deprecation of *philautia* is also of note in Xenophanes' broader social critique. Vanity and self promotion, he judges, was at the root of the social decline that ultimately led to the takeover of his home city of Colophon by the Medes:

They would go forth to the agora wearing mantles all purple . . . .

Boastful . . . drenched with perfume. (B3=D62; Laks-Most translation)

Vanity, or—to borrow the psychologically more precise term used by Laks-Most in their outline of the Xenophanes chapter and in chapter-section titles—"self-projection"[[14]](#endnote-14) is also what drives the cult of the athlete among Greeks. The wins by athletes in competitions in Olympia are in themselves of "slight" civic value (B2=D61.19 *smikron polei harma*). And yet, the citizenry in each of the Greek *poleis* lionizes its Olympic champions and showers them with gifts and honors. In doing so it projects (irrationally, illegitimately, and vaingloriously) upon itself the feats and fame of those individual athletes—trivial as these feats are in Xenophanes' own estimate (B2=D61.6-19),

 Overall scheme and the "one god"

With respect of the material constituents of the universe, Xenophanes is decidedly not a monist but a dualist: his two fundamental material entities are earth and water. Under "water" he includes all sorts of vaporous stuff, including mist and clouds; but he also includes fiery stuff, lightning, light, and fire itself. The two cosmic constituents interpenetrate,[[15]](#endnote-15) of course, and mix locally to form compounds (including living things, B29=D25). In cosmographic terms, this takes place in relatively small regions. But there is an enormous, single, planar, and roughly horizontal cosmic "limit" (*peirar*) that separates the two cosmic masses (B28=D41.1).[[16]](#endnote-16) Far from its being imagined as a "yawning gap" or *chasma* in some remote recondite region (to recall how Hesiod spoke of the limits of heaven and earth),[[17]](#endnote-17) the limit Xenophanes speaks of is utterly familiar and omni-present: the sharp separation between terrestrial ground (including the bottom of sea, lakes, and other bodies of water) and everything above-ground. Most of the time (except when we are swimming or sailing) that single cosmic limit is "visible at our feet" (*para posin horatai*). Below that limit, earth extends downwards ad infinitum (*es apeiron*).

We have no preserved quotation which might give us the expected complement: that the above-ground domain of cosmic water also extends ad infinitum.[[18]](#endnote-18) But the geometric logic of a "*single*-cosmic-limit" doctrine, together with the doctrine of earth's ad infinitum stretch downwards, makes nearly inevitable the following two elaborations of Xenophanes' cosmology: (i) the earth's upper surface must also be conceived as spreading ad infinitum; (ii) the realm of super-terrestrial water should also be assumed to extend ad infinitum both in altitude and in lateral spread.

Despite his determined critique of traditional religious belief, Xenophanes appears to accede to belief in the existence of (plural) gods as beings of super-human power and (indefinitely) extended longevity—purged, of course, of moral deformities. But, most importantly, he posits the existence of a single deity (B23=D16), which, compared both to all gods and to all human beings, is "greatest" (*megistos*). Very much in line with his critique of traditional conceptions of the divine, and specifically his critique of anthropism, Xenophanes adds: "not in any waysimilar to mortals, either in bodily frame (*demas*) or in [manner] of thought." The supreme deity's awareness of things is absolutely holistic.[[19]](#endnote-19) The deity, in other words, simultaneously sees and hears everything that occurs in the universe in all directions at any one time. Moreover, its awareness of occurrences is pan-historical—of all that has happened, all that is going on currently, and all that will ever happen. (B24=D16)

Except for an isolated remark, in a polemical context in which Xenophanes indulges the language of "mortals," we find notable absence in the Xenophanes texts about the single deity of any theme of creationism,[[20]](#endnote-20) providence, or divine interventionism. Within the universe that extends to infinity in all three dimensions, the one God "always remains at rest in the same position,[[21]](#endnote-21) not at all moving, nor is it fitting to him to travel elsewhere at one time or another " (B26=D19).

And yet, even as Xenophanes' deity is always at rest, it has the power "far from exercising any toil or effort (to) make all things quiver (*kradainei*)"; and it does so simply and directly "by mind's thought (*noou phreni*)" (B25=D18). The phrase *noou phreni* transparently refers to what we call mental causation. Healthy humans have the capacity to focus mind's attention on something at will: to recall a memory, to envisage a plan, to resolve to proceed in one way or other—and so on and so forth with purely mental undertakings. Other projects require use of limbs or tools or collaboration with other humans. But within the special realm of mental causation, human power is sovereign and unlimited. What we can accomplish only within that circumscribed realm of our own *noos* and *phrēn*, Xenophanes' deity can accomplish with effects beyond its *noos* and *phrēn*, and at universal range. Things are made to "quiver" psychokinetically, directly through the deity's unique power.

Xenophanes' astrometeorology

Beyond what has been said already in this synopsis about earth as cosmic constituent (infinite spread and depth; its being penetrated at places by water and even by fire), there is nothing distinctly Xenophanean that needs to be added.[[22]](#endnote-22) But there is much to say about the second material constituent of his universe: water. Xenophanes' water, rather like Anaximenes' air, comes in a variety of states of rarefaction/condensation. At one extreme, water can present itself as earth-like in solidity: as snow or as ice. In its most familiar guises, it is the water we drink, or that we feel as flowing over our limbs or over our whole body, and it is also the water we float upon in rivers, lakes, and the sea. But it can also present itself as mist, fog, cloud, vapor; and also as lightning, starlight, and sunlight.

The case of lightning is especially suggestive for Xenophanes. For it invites the inference that high measures of internal tension are lurking within water in its more rarified states, and the tension may at times be (quite literally) "expressed" as lightning, either because of a sudden external blow of high-elevation wind, or spontaneously; but in either case because of heightened internal tension that is likened to a "fevered" or "inflamed" state (cf. *pyrousthai*, *pepyrōmenon*).

At this juncture, we note yet another philosophically fruitful modification of the views of Anaximenes (or, indeed, of Anaximander or Thales). The received reports suggest that the early "material monists" had fastened on the material constitution of things without identifying superordinate *kinds* and subordinate *types* or *species* of constituted things that are conspicuously prominent and of major importance in cosmology. By contrast, Xenophanes speaking globally of the immense variety of things or phenomena "suspended above the earth" (*meteōra*), he identifies them and collects them under generic types and sub-types: "clouds" (*nephē*; singular *to* *nephos*); and "(small) cloud-formations" (*nephelia*). The formula "this is (actually or in reality) a cloud" must have appeared repeatedly in his physicalist or speculative physico-reductive accounts, as may be inferred by the *kai touto*, "that too, this as well" in his explanation of the rainbow:

What they call the (goddess) Iris, that too (*kai touto*) is in reality (or 'in its nature,' *pephyke*) a cloud. (B32=D39)

The same "de-personalizing" and "physicalizing" that is instanced in the case of the the minor goddess Iris is applied more strikingly to Helios (the sun-god), to Selene (the moon-goddess), and doubtless apropos a large segment of the pantheon of divinities which the Greeks had associated with astronomical and meteorological phenomena. Under the cosmic genus of "cloud," Xenophanes collects, in the first instance, the very wide variety of what humans, from the most remote antiquity to his own time, had recognized as clouds proper. It is relevant to notice in this connection that today's meteorologists distinguish and classify, under the intermediate genera of "cumulus, cirrus, and nimbus," at least thirty distinct species.[[23]](#endnote-23) The spectacularly diverse variety of forms of ordinary clouds (only a small number of which had been named by the ancients) obviously served to encourage Xenophanes to include under the highest genus of *nephos* special or non-ordinary cloud types: in addition to the rainbow, other forms of iridescence, the Dioscuri (St. Elmo's fire); shooting stars; comets; probably the northern lights; fixed stars; planets; as well as the moon and the sun (Laks-Most 2016, D28-D38—with the many cross-references, ibid., to "A" and "B" entries in Diels-Kranz). The pattern of "family resemblances" between ordinary and non-ordinary clouds is obvious and intuitive—and I have reviewed cases of suggestive "transitional" types (between ordinary and non-ordinary clouds) that served to extend Xenophanes' grand generalization (Mourelatos 2002a and 2008).

In the case of lightning, we have conspicuous evidence that some interior agitation of a cloud (let alone exterior agitation by a strong high-altitude wind) results in the emission of light and fire. Drawing on this phenomenon as clue, Xenophanes reasoned that, in the case not only of lightning but that of all non-ordinary clouds, there must be some internal agitation that produces the luminosity. Thus, in the case of St. Elmo's fire, his explanation is:

The things which on ships [on their masts or rigging] show up looking like stars are [in reality] small clouds (*nephelia*) that glow (or "emit light," *paralamponta*) because of a special motion. (A39=D38)

The above testimonium from Aëtius is supplemented by one, in the same source, which significantly bears the heading "about comets, shooting stars, and *dokides*." The translation of *dokis* remains undetermined; the most likely guess being "special type of comet." But the wide scope in the phrasing is very telling:

All things of this sort (*panta ta toiauta*) are either coalescences (*systēmata*) or sudden bursts (*kinēmata*) of clouds that are in an inflamed state (*pepyrōmenōn*). (A44=D37)

Other testimonia speak of *pyridia*, "tiny flares," which the non-ordinary clouds of Xenophanes either contain within themselves or can draw out of, or somehow receive from, the domain of super-terrestrial vapors. This has motivated Laks-Most and others to give the translation "ignited" for the perfect-tense *pepyrōmenōn.* But usage shows that the verb form *pyrousthai* carries primarily the middle-voice sense, "to be in a fevered (or 'inflamed') state."

I believe the evidence reviewed in this Section strongly favors assuming that, in Xenophanes' cloud-astrophysics, the cause of steady and non-reflected luminosity is a certain agitation (cf. *poia kinēsis*) in the vaporous stuff that constitutes a cloud. The source and the nature of that *kinēsis* is not far to seek: in all likelihood it is that "quivering motion" which the supreme deity imparts to the universe.

Xenophanes' epistemology

Remarkably, for a thinker this early in the history of philosophy, Xenophanes is the author of five epistemological pronouncements. In B36=D51 he declares his empiricism by stating preference for "the things which (the gods) show forth so that mortals may view them with their eyes*.*" At B18=D53, he proclaims that there is no such thing as a revelation of the nature of things by the gods at some "first" in human history. Rather, "mortals as they keep searching (or 'as they pursue inquiry,' in due course find [[24]](#endnote-24) something that is better (*ameinon*)."

Most famous is the third of his epistemological statements. I give its full translation, including plausible alternative renderings:

And no man has (ever) come to be nor will there (ever) be some man who possesses knowledge of what is clear either about gods or about what I say (or "argue, put forth, pronounce," *legō*) about all things. Indeed, even if in the best case [[25]](#endnote-25) someone should have the good fortune to say something that is altogether fulfilled (*tetelesmenon*, also "verified, born out, confirmed, conclusive"), in this case as well (or "likewise, no more so," *homōs*), he himself has no knowledge; rather opinion (*dokos*, literally "a manner of taking/accepting," "reception," "assumption") is wrought over all things (*epi pasi tetyktai*; alternatively "has been cast over/prevails over all men"). (B34=D49)

In a somewhat more upbeat tone, speaking either of his own claims or of those by others, he states: "Let these things be received (*dedoxasthō*)[[26]](#endnote-26) as appropriately similar (*eoikota*) to what is true (*etymoisi*)*.*" (B35=D50).

Epistemic comparativism and the antithesis of "unlimited ranges" vs. "limits"

The curiously tempered satisfaction with the modest standard of the *ameinon*, "what is better," which stands out in B18=D53, gains significance when placed in Xenophanes' fifth epistemological remark,

If god had not created yellow honey, they (mortals) would say that figs are much sweeter. (B38=D52, Laks-Most translation)

Comparatives occur rather frequently in the verses of Xenophanes, and I have been inclined to argue that Xenophanes' epistemological position is characterized better as "comparativism" rather than as skepticism (Mourelatos 2014 and 2016). With respect to any *dokos*, there can be, and there will always be, one that is "better." Now if we take the examples of "better" and "sweeter" and pair them with adjectives that can be applied to the two Xenophanean material constituents (earth and water), we have at least the intimation of evidence that *unlimited ranges* are built into the cosmological fabric of Xenophanes' universe. Just as there is no absolutely sweet flavor and no conclusive explanation, it is also true that in the universe itself there is no absolutely "deep," but only and always "deeper"; no "high" but always "higher"; no "farthest"—whether to the east, west, north, or south—but always "farther along" in all directions of travel. Of course, between the "up" and the "down" there is the single cosmic *peirar*, "limit," that separates them, viz., the one "we see by our feet." And even though the Xenophanean conception of a supreme deity was poignantly introduced in a comparison with the (lesser) "greatness" instanced by *anthrōpoi* and by the *theoi* of tradition, the exact measure of *megistos*, "greatest," applied to his supreme deity, constitutes manifestly an absolute limit. It is logical to assume that all other properties Xenophanes assigns to the supreme deity likewise represent an absolute limit vis-à-vis whatever the germane unlimited range might be. The antithesis of unlimited vs. limit, which becomes so important two generations later in the thought of Philolaus, shows the first hints of appearance in Xenophanes.

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Keeping in mind the above interpretative synopsis of the philosophy of Xenophanes, I turn to exploring connections with Parmenides that have not been sufficiently attended to, or even noticed.@@@Resume search for cuts@@@

Parmenides' *Doxa* and the dualist cosmology of Xenophanes

It is rather odd for any reader, but especially for those who accept the Parmenides vulgate, that the scheme Parmenides disparages as one which does not offer *pistis alēthēs* ("genuine opinion/ true credence/ true trust") should be *specifically a dualistic* scheme of "Night" and "Light." [[27]](#endnote-27) Supporters of the vulgate explain Parmenides' choice of dualism (rather unconvincingly) as simply a *minimal* pluralism of just two fundamental entities. Parmenides' intended message, accordingly, would be that any pluralism of more than two entities would be a fortiori not acceptable.

Curiously it has not been sufficiently noticed that the Parmenidean scheme of *Doxa* shows a marked resemblance to the dualistic cosmology of earth and water in Xenophanes. In assessing the affinity between the two dualisms, the first half of the relevant project works straightforwardly: Parmenides describes the "Night" of *Doxa* in the following terms: "a body (*demas*) that does not invite perception (*adaē*),[[28]](#endnote-28) is thick-textured, and heavy" (B8.59=D8.64). The descriptions apply transparently to earth—whether speaking of earth-stuff generally, or specifically apropos Xenophanes' earth. In the case of the other half in the dualistic scheme, however, we seem at first blush not to have correspondence. The opposite to earth in Xenophanes is water, whereas in Parmenides the opposite of "Night" is "Light," identified as "the ethereal fire of flame " and then described as "something gentle (also 'mild' or 'balmy,' *ēpion*)" and "greatly light in weight (or in texture, *meg' elaphron*)" (B8.52-53=D8.61-62). Beyond this obvious disparity between the two dualisms, it is quite astonishing that there in only a single mention of water in what has been preserved from the *Doxa*: "Parmenides in his poem (*stichopoieia*) called the earth 'water-rooted' (*hydatorizon*)" (B15a=D35).

And yet the line just quoted serves as clue to accounting for the seeming disparity between the Xenophanean and Parmenidean dualisms. The notion that the earth has its roots in water reminds us that in Parmenides' scheme the earth is already thought of as a distinct shaped body, with celestial bodies circling it. There is no longer a cosmic horizontal separation between the terrestrial and the super-terrestrial domain. In Xenophanes the latter domain, as we saw, encompasses oceans, seas, lakes, rivers, mist, vapors, and ordinary clouds; but it also encompasses the grand variety of non-ordinary clouds that endogenously emit light. With the single cosmic limit of Xenophanes removed, Parmenides can distribute water to other cosmic regions: partly to the interior of the spherical earth, to serve as the latter's "rooting"; partly to the surface of the earth; and partly on the lower layers of the super-terrestrial domain. He can then concentrate his astrophysical explanations on the upper layers, the domain of what he calls Fire or Light. These upper layers are the same ones on which Xenophanes had concentrated his project of astrometeorology. The younger cosmologist, Parmenides, called those regions Fire and Light; the older one (encouraged perhaps by Anaximenes) had theorized that they are cloud-like super-fine or sublimated formations of water. The difference between the two dualistic accounts is essentially verbal.

 Xenophanes, Parmenides, and their uses of the explanatory "is"

A special, yet quite elementary, use of the third person of the verb "to be" is common in illocutionary acts whereby a person of relative authority corrects a mistaken notion by a learner, or interlocutor. For example: the child sees a dragon, but the parent reassures that what appeared threatening *is* an oddly shaped bush; Don Quixote sees fierce giants, but his squire tells him that what the Don is seeing *is* windmills. The "is" in such cases is often reinforced by adverbs such as "actually," "really," "in fact," "only," "just." Growing out of this simple grammatical pattern are more sophisticated uses of the "is" of explanatory identity, such as "water *is* a chemical compound of hydrogen and oxygen." In yet more sophisticated uses, we have what today's philosophers might call "inter-theoretic identity," as in "the sodium-chloride molecule *is* an assembly of charged particles." Such scientific or philosophical uses of the "is" of explanatory identity come up often in the context of explanation or "reduction" of something which is empirically manifest to some more fundamental reality, as, for instance, the "reduction" of biological processes to ones of electro-chemistry.

The use of "is" which at the start of the preceding paragraph, I referred to as "common," is certainly one of the universals of ordinary language. The uses I called "more sophisticated" make their appearance (not, of course, with the examples I cited above) already at the beginnings of physics and astronomy in pre-Classical Greece. In *The Route of Parmenides* (1970, 2nd edn. 2008), I argued that Parmenides' deduction of the fundamental properties of *(to) eon*, "what-is" or "being," or— more in line with his own language in B8 of "Truth"—the "criteria for" *to eon*, and the logically appropriate *peirata*, "limits within which" *to eon* is to be found, was inspired by reflection precisely on the speculative or explanatory use of the *esti*, "is," of identity.

Already in the original edition of *Route* I had cited Xenophanes B29=D25 ("earth and water *are* all, etc.") and B32=D39 (the rainbow fragment) as relevant parallels for making sense of Parmenides' "is" of explamatory identity. My subsequent studies of Xenophanes have convinced me not only that in Xenophanes' physics and astro-meteorology we have yet more such parallels, but also that in that same context we have clear evidence of the fundamental conceptual affinity, at this early stage of philosophy, between the scheme "X is in reality Y" (explanatory identity) and the Ionian scheme "X came to be from Y." In the handout I offer first a display of the relevant texts (whether verbatim citations from Xenophanes' poetry or testimonia) that give clearest instances of his project of "physicalizing" or "de-anthropicizing" celestial phenomena.[[29]](#endnote-29)

Handout, A part, Point to it. Do not read

X is (in reality) Y, verbatim citations

B29=D25 All things (*panta*) that come into being and grow **are** (*esth'= esti*) earth and water.

B32=D39 What they call "Iris" [the goddess of the rainbow] that too (*kai touto*) **by nature is** (*pephyke*) a cloud.

X is (in reality) Y, testimonia

Cf. Diels-Kranz A1=D24, . . . and the soul (*psychē*) [**is**] breath (*pneuma*).

A43 =D29 [The moon] **is** a compacted cloud (*pepilēmenon*; or "is a cumulus cloud") in an inflamed state (*pepyrōmenon*).[[30]](#endnote-30)

A44=D37 [About comets, shooting stars, and *dokides*] All these [**are**] coalescences (*sytstēmata*; or "gatherings," or "formations") or [sudden] movements (*kinēmata*; or "bursts")[[31]](#endnote-31) of clouds in an inflamed state (*pepyrōmenōn*).[[32]](#endnote-32)

A39=D38 [Concerning the phenomenon of the "Dioscuri"= St. Elmo's Fire] What appear on boats like stars are small clouds (*nephelia*) that glow (*paralamponta*) because of a special kind of [internal] motion (*kata tēn poian kinēsin*).

In the second part of the hand-our I aim" to show that, in the context of Xenophanean astrometeorology, even the "dynamic" or more properly Ionian scheme of "X came to be from Y" is very close semantically to the "is" of explanatory identity. Note in particular the three starred items.

[Handout, B part, Point to it. Do not read]

X comes to be from Y, verbatim citations

B33=D26 All of us (*pantes*) **come about from** (*ekgenomestha*) earth and water.

X comes to be from Y, testimonia

Cf. Diels-Kranz A33=D22; cf. A32=D23 . . . the sun **comes to be out of** (*ek*) a gathering (*athroizomenōn/athroizesthai*) of small flames (*pyridiōn*).

\*cf. A40=D28a The sun **is** **constituted out of** (*einai . . . ek*) clouds in an inflamed state (*pepyrōmenōn*).

A32=D23 The stars **come to be from** the clouds (*ek tōn nephōn*).

\*A38=D36a (The stars, both fixed and planets) **are** **constituted out of** (*synistasthai . . .ek*) clouds in an inflamed state (*pepyrōmenōn*).

\*A38=D36b (The stars) **have been** **constituted out of** (*synestanai . . . ek*) clouds.

The audiences of this rhapsode and physicalizing cosmologist will have heard Xenophanes recite *nephos kai touto pephyke*, "This too is in its nature a cloud," as a refrain that tended to assume the character of a slogan.

Given what we know of Parmenides' interests, it is not far-fetched that he ruminated on the many uses of explanatory “is" in Xenophanes' project along lines as follows: Why "earth and water"? why "just water"? why "cloud formations"? If on the subject-side of the "is" (what we today would call the explanandum) we have something manifest and familiar, why should we not, on the other side (what we would call the explanans) have something strikingly different and profound? What are the criteria for real, or metaphysically fundamental, or ultimate "what-is"?

"Things unlimited" vs. "limits" in the two philosophies

Pervasively important in Xenophanes, as we saw earlier, is the thematic antithesis between "limit" and "unlimited ranges." In Parmenides, it is the "limit" side of the antithesis that has prominence. Among the properties deduced for "what-is" in the central argument of B8=D8 are three that involve derivatives of the verb *teleein*: *ouk ateleutēton*, "not incomplete"; *ateleston*, "not to be yet completed" (or "not subject to completion"); *tetelesmenon*, "complete." Moreover, we are repeatedly told that the "what-is" is to be found within—or even "tightly held within"— *peirata*, "limits, bounds," and *pedai*, "bonds, shackles." But the "unlimited," as I am about to show, far from being absent from the poem, in fact plays a major role as foil to the theme of *peirata*. Indeed, it is the target of the elenchus in the overall argument.

Of special interest is the disparaging way in which Parmenides speaks of *to ge mē eon*, "the thing which supposedly (*ge*) is not" in B2.6-8=D6.7-8:

(i) It lies, as it were, on "a path from which no tidings ever come" (*panapeuthea atarpon*);[[33]](#endnote-33) or, as Laks-Most translate, is something that "cannot be inquired into at all."

(ii) Of that entiity (or, as the particle *ge* immediately suggests, "non-entity"), there can be "no knowing," or "no acquaintance with" (*oute gnoiēs*).

(iii) Nor can there be any "pointing to it" or "attention focused on it" (*oute phrasais*).

Later in the same main fragment (B8.17-18=D8.21-22), we are reminded that the "what-is-not" (or more precisely its cognate "route of inquiry") is to be "let go of" (*eān*) as *anoēton*, "not thinkable/not conceivable/ not graspable," as also *anōnymon*, "nameless/not nameable," and indeed that the *hodos*, "route, path," with which it is associated is "not a true route" (*ou gar alethēs* . . . *hodos*).

The usual explanation—especially among advocates of the vulgate—for these affirmed impossibilities and strongly urged injunctions is that Parmenides subscribes to the "referential theory of meaning": all words function as names of things, and in the case of non-existent things, words that purport to refer to them, have no meaning. An obvious oddity of the referential theory is that meaning and sense should be at the mercy of vicissitudes in the external world. Accordingly, if a particular named object is wiped out from the universe, supposedly the word by which it was known also loses meaning.[[34]](#endnote-34) But Parmenides may well have had different, more inherently linguistic, reasons for objecting to the language of "what is not."

Between the second and the third of the first set of alleged impossibilities—the ones to which I have assigned Roman numbers in the preceding extract—a fourth one intervenes in the text at B2.7=D6.7, *ou gar anyston.*[[35]](#endnote-35) Worth special notice is that the -*tos* verbal adjective *anyston* is framed by two immediately contiguous "perfective" (in the terminology of verb aspect) forms: viz., the aorist optatives *gnoiēs*, "should get to know/ succeed in knowing"; and *phrasais*, "should succeed in singling out." The choice of aorist (perfective verb aspect) indicates that what is at issue are mental acts, respectively, of cognition (*gnoiēs*) and of directing one's attention (*phrasais*) that meet criteria of determinacy and closure. As a result of this framing of *anyston*, the -*tos* adjective evokes and brings to the fore the inherent meaning of the verb *anyō*, from which the cognate verbal adjective *anyston* is derived. Inherently, *anyō* is an "achievement" or "accomplishment" verb,[[36]](#endnote-36) standardly conveying the sense of verbs such as "complete, consummate, perfect, fulfill, conclude." What Parmenides finds objectionable in "is not" discourse is a fault that arises strictly within language: not absence of a denotation in the external world, but rather lack of definiteness, failure of determinacy *in the words themselves*. In short, for Parmenides, the language of "is not" fails because of its vagueness. By negating the -*tos* adjective that derives from *anyō*, Parmenides intends to convey that in using the language of "is not" the mental acts at issue (of cognition in the first case, and of attendance or attention, in the second) fail to be completed, fail to have the sharpness, determinacy, and closure that is required for such acts.[[37]](#endnote-37)

Other than the hapless "mortals" of Parmenides' *Doxa*, are there perhaps some actual thinkers (among Parmenides contemporaries or predecessors) against whom a charge of semantic indeterminacy can be made to stick? Xenophanes, I submit, would be a very good candidate. Yes, the one cosmic limit and the supreme deity offer cases of indisputable determinacy. Other cases of determinacy can be obtained by appending reference points and measures, e.g., "at the narrowest width of the Peloponnese isthmus " or "a trench that is ten *kalamoi* deep from the earth's surface." But given Xenophanes' metaphysical and epistemological comparativism, the vast majority of expressions we employ in describing the world are inherently vague: for example, "deep," "high," "fast," "slow," "bright," "dark," "to the west," "sweet," "wise," "good"—and so on ad infinitum." Moreover, and crucially so in a comparison between the doctrines of Xenophanes and Parmenides, adding the negation particle to any of the words mentioned above aggravates the vagueness enormously. Vague and indefinite as "sweet" is, there is even greater indefiniteness in the "not sweet." For once we add the particle of negation, the negated phrase points us to something that spans not only across all the many varieties of the "bitter" but also all the varieties of the "insipid" and of the "tasteless," and perhaps (as promoters of the vulgate specially recognize) of the "other than sweet" as well.

As we refine our understanding of Parmenides' rejection of the language of "what is not" and of "is not," then it emerges that, in the thematic antithesis of Limit vs. Unlimited, the connection between the older emigrant to Magna Graecia and the latter region's younger, native, and more famous metaphysician is historically significant For, in the case of Xenophanes the antithesis is pervasive in his metaphysical and epistemological scheme; in the case of Parmenides, it involves the fundamental objection against the language of "is not," the very objection that drives his entire metaphysical project.

The teacher–student issue

With all these parallelisms and intriguing comparisons, might the tradition that posits Xenophanes as a teacher of Parmenides be right after all? As the Eleatization of Xenophanes lost favor in recent decades, the testimonium (A1=D1) that Xenophanes had composed a poem about the colonization of Elea has not received much attention. But other than scholarly diffidence, there is not anything connected with the testimonium itself to impugn its authenticity and veracity. On the contrary, Xenophanes' own experience of emigration from Colophon to the region of Magna Graecia and Sicily gives more than incidental support to the possibility that he was interested in the history of the colonization of Elea. In his vocation as itinerant rhapsode, a public festival in Hyelē (the proper Ionic form of the Athenianized name "Elea") would have provided the best venue for recitation of his historical poem, and it is not unlikely that young, or early adult, Parmenides would have been in the audience—assuming that the two of them had not met already in the course of Xenophanes’ frequent touring of the cities of Magna Graecia.

It may be objected, to be sure, that there are many differences and contrasts between the two thinkers (including the significant thematic antitheses pointed out in what precedes). But a pupil is not necessarily an acolyte, as we know already from such famous cases in antiquity as those of Socrates–Plato, Plato–Aristotle, and even (pace the Parmenides vulgate) Parmenides–Zeno.[[38]](#endnote-38) So, even instances of conspicuous opposition in doctrine (e.g., Xenophanes' flat-earth and infinite universe vs. Parmenides’ centrifocal cosmos, with spherical earth) may reflect moments or aspects of a teacher-student pairing.

From Parmenides to Aristotle and back to Xenophanes

The Parmenidean demands on the nature of "what is" (four by one count, five by another),[[39]](#endnote-39) taken together, are so stringent, that it is difficult to select a Presocratic figure whose philosophy meets all of them.[[40]](#endnote-40) Especially refractory are two demands: absolute indivisibility (*adiaireton*); and completeness (*tetelesmenon*). With respect to indivisibility, the Atomists, for example, must settle for only *physical* indivisibility. The demand for *completeness* excludes any entity the conception of which involves dynamic or dispositional properties—what in Aristotle would be "powers" and "potentialities.".

A quite special philosophical entity that does meet the Parmenidean criteria emerges in ancient Greek philosophy more than one century later: Aristotle's God. Very little commentary or adaptation is needed to show that Aristotle's "unmoved mover" meets all five of the criteria posited for Parmenides' *to eon*, "what-is."[[41]](#endnote-41) Apart from the remarkable affinity between Parmenides’ "what-is" and Aristotle's unmoved mover, if we should look in particular for a theological conception that prefigures Aristotle's unmoved mover, Xenophanes' supreme deity has a strong claim for meriting consideration, but not because of the Eleatizing of the latter. The core idea of an entity that moves other things without itself exercising any motion is revolutionary;[[42]](#endnote-42) and that core is found both in Xenophanes and in Aristotle. It is a case of historical irony (and also a great pity) that Aristotle himself, failing to appreciate the connection, dismissed Xenophanes as *agroikos*, "uncouth rustic, not sophisticated."[[43]](#endnote-43)

The larger picture

With all that has been argued in the preceding Sections kept in mind, we are now in a position to contemplate a reverse hermeneutic rapprochement: not one that Eleatizes or Parmenidizes Xenophanes, but rather one which, by seeking a better appreciation of the older philosopher, enhances our understanding of the yoiunger philosopher as well. The emigrant from Colophon to the Greek West, in his long life, became a fierce critic of all forms of self-projection, vanity, and self-flattery. Significantly, he judged that there was vanity and anthropism, in the first instance, in the way Greeks and non-Greeks project human modes of agency and behavior upon the supposed divinities that were widely associated with astronomical and meteorological phenomena. He boldly theorized that all super-terrestrial phenomena can be explained in purely physical terms: they involve a grand variety of cloud-types and of "quivering" motions (some of an endogenous special kind; some exogenous as familiarly observed). Moreover, going beyond this reductive physicalism, he also theorized that all motion in the world is ultimately imparted in some uniquely direct way by a supreme divinity, while that divinity remains absolutely unmoving. Consistently with his radical critique of traditional notions about gods, he insisted on purging this supreme divinity of human-like features—with the notable exception of its having, or (better put) of its *being*, a mind that possesses *noēma/noēmata*, "awareness, perception(s), thought(s)." This divine mode of awareness is omni-directional, omni-spatial, and omni-temporal: in short, it is a holistic mode of awareness, one radically unlike the different forms of perception humans exercise. Despite its mention of "mind" and mental awareness, and despite of the hint of mental causation or psychokinesis, the Xenophanean conception of the supreme divinity is arresting, revisionary, paradoxical, and even revolutionary in its avoidance of anthropist bias.

In the younger intellect and native son of Magna Graecia, Parmenides, we find a correspondingly mind-bending and revolutionary conception applied, this turn, not to a supreme divinity but rather more broadly and abstractly to fundamental or ultimate reality, *to eon*, "what-is." To be sure, the opposition to anthropic bias is not as openly proclaimed in Parmenides as it is in Xenophanes. But there are recurrent hints of it: in the assurance Parmenides’ goddess gives to her initiate that he has been taken to a road that "lies far from the beaten track of men" (B1.27-28=D4.27-28); also in the contrast between "Truth" and the views of *brotoi*, "mortals," with frequent disparagement of those views; and even in the compositional device of a veritable throng of anthropomorphic deitiesin the poem, with the manifest invitation to hearers/readers to interpret these figures symbolically. Beyond all this, we have the astonishing circumstance that, of all constructs in early and classical philosophy, it is in Aristotle's unmoved mover (eminently a product of critique of anthropist bias) that we have an entity that fulfills best the Parmenidean criteria for "what-is."

In the entire history of ideas, we have a long succession of philosophical schemes that uphold the peculiarly human way of perceiving things. In pre-classical antiquity, Protagoras and the Sophists gained fame by advocating, and even aggressively promoting, anthropism. In the Hellenistic period and in later antiquity, the Skeptics are ideologically akin to the fifth-century Sophists. With the remarkable one exception of Aristotle's doctrine of the unmoved mover, even Plato, Aristotle, and the Stoics show anthropic bias inasmuch as they make the intuitively familiar paradigm of *making*—whether apropos world processes generally or specifically in reference to a divine craftsman—central in their schemes. In modern times, the peculiarly human way of experiencing the world is accepted and explored in empiricism, pragmatism, conventionalism, phenomenalism, modern skepticism.

Through much of the history of modern science, there was no difficulty in making scientific advances within the framework of standard human perception, extending the latter by the ever-progressive development of germane scientific instruments. Moreover, in its theoretical or postulational constructions, science could easily draw on and exploit suggestive analogies drawn from the framework of standard human perception—for example conceiving of an atom as consisting of a nucleus surrounded by associated electrons, by analogy with a fixed star and its satellites. But starting in the twentieth century and continuing into the twenty-first, the "scientific" or "postulational" image of the world—as revealed by progress in physics, astrophysics, and cosmology—has found it compelling, even unavoidable, to introduce theoretical constructs that court paradox as they break away decidedly from the comforting familiarities of standard human perception.[[44]](#endnote-44) At the remote ancient Greek beginning of this long historical process, Xenophanes' conception of the supreme deity and Parmenides’ austere and mind-bending conception of "what-is" ought to be viewed as prophetic of today's and of the future's yet more advanced versions of the scientific or postulational image of the world.

Bibliography @@Not complete@@

Barnes, Jonathan 1979. *The Presocratic Philosophers*, 2 vols. (London: @@@, )

Brémond, Mathilde, 2020. "How did Xenophanes Become an Eleatic Philosopher?"

 *Elenchos*, 41, pp. 1-26.

Burkert, Walter. *Lore and Science in Ancient Pythagoreanism*: transl. Edwin L. Minar, Jr., Harvard University Press, 1972

Curd, Patricia, 1998. *The Legacy of Parmenides* (Princeton, 1998).

Diels, Hermann (citeed as "Diels-Kranz"), *Die Fragmente der Vorsokratiker.* 6th edn., revised by W. Kranz, 3 vols. Berlin: Weidmann, 1952.

Furth, Montgomery, 1968. "Elements of Eleatic Ontolog." *Journal of the History of Philosophy*y, 6, pp. 111-32. Repr. in Mourelatos 1974/1993, pp. 241-270.

Huffman, Carl. *Philolaus of Croton: Pythagorean and Presocratic,* Cambridge: Cambridge University Press,1993.

Kenny, Anthony, 1963. *Action, Emotion, and Will.* New York: Humanities Press.

André Laks and Glenn W. Most 2016 (cited simply as Laks-Most), *Early Greek Philosophy.* 9 volumes. Loeb Classical Library, vol. nos. 524-532. Cambridge, MA; London: Harvard University Press.

Lesher, J. H., 1992, *Xenophanes of Colophon: Fragments: A Text and Translation with Commentary*, Toronto: University of Toronto Press.

——— 2002/ substantially revised 2019. "Xemphanes." *Stanford Encyclopedia of Philosophy.*

Mourelatos, A. P. D., 1974/1993. *The Pre-Socratics: A Collection of Critical Essays.* Garden City, N.Y.: Doubleday.—Second edn. 1993, Princeton: Princeton University Press.

——— 1976. “Determinacy and Indeterminacy, Being and Non-Being in the Fragments of Parmenides,” *Canadian Journal of Philosophy*, suppl. vol. 2, pp. 45-60.

——— 1978. “Events, Processes, and States,” *Linguistics and Philosophy*, 2 (1978), 415-34. Reprinted in Philip J. Tedeschi and Annie Zaenen, edd., *Tense and Aspect* [= *Syntax and Semantics*, 14 (1981)], New York, Academic Press, 1981, pp. 191-212; also in Roberto Casati and Achille C. Varzi, edd., *Events*, The International Research Library of Philosophy, Aldershot, Hampshire, 1996.

———1989/1990. “ ‘X Is Really Y’: Ionian Origins of a Thought Pattern,” in K. J. Boudouris, ed., *Ionian Philosophy,* Athens, International Association for Greek Philosophy, 1989, pp. 280-290.—Also published in Modern Greek translation, in K. I. Boudouris, ed., *Ιωνική Φιλοσοφία*, Athens, International Association for Greek Philosophy, 1990, pp. 127-139

———2002a. “La Terre et les étoiles dans la cosmologie de Xénophane” [Earth and Stars in the Cosmology of Xenophanes; transl. C. Louguet], in A. Laks and C. Louguet, eds., *Qu’est ce que la philosophie présocratique?* Lille, Presses Universitaires du Septentrion, , pp. 331-350.

———2002b. “Xenophanes’ Contribution to the Explanation of the Moon’s Light,” *Philosophia* (Athens), 32, pp. 47-59.

———2002c. “Xenophanes aus Kolophon,” transl. B. Strobel, in *Der Neue Pauly*: *Enzyklopädie der Antike*, ed. Hubert Cancik and Helmuth Schneider, 16 vols. in 19, Stuttgart and Weimar, Verlag J. B. Metzler, vol. 12/2, columns 628-32.

———2008. “The Cloud-Astrophysics of Xenophanes and Ionian Material Monism,” in *The Oxford Handbook of Presocratic Philosophy*, edd. Patricia Curd and Daniel W. Graham, Oxford and New York, Oxford University Press, pp. 134-68.

———2010. “The Epistemological Section (29b-d) of the Proem in Timaeus’ Speech: Discussion of M. F. Burnyeat’s Analysis, and a Comparison with Xenophanes B34 and B35,” in *Plato’s* Timaeus *Today*, edd. Richard D. Mohr and Barbara M. Sattler, Las Vegas, Parmenides Publishing, pp. 225–247.­­­­­

———2013. “Xénophane et son «astro-néphologie» dans les *Nuées*,” trans. Myrto Gondicas and André Laks, in *Comédie et Philosophie: Socrate et les «Présocratiques» dans les* Nuées *d’Aristophane*, edd. André Laks and Rosella Saetta Cottone, Études de littérature ancienne, 21, Paris, Éditions Rue d’Ulm, pp. 31–60.

———2014. “The Conception of *eikōs/eikos* as Epistemic Standard in Xenophanes, Parmenides, and in Plato’s *Timaeus*,” on Jenny Bryan, *Likeness and Likelihood in the Presocratics and in Plato* (Cambridge, 2012), *Ancient Philosophy*, 34, pp. 169-191*.*

——— 2016. “ ‘Limitless’ and ‘Limit’ in Xenophanes’ Cosmology and in His Doctrine of Epistemic ‘Construction’ (*dokos*),” *Logical Analysis and History of Philosophy*, 19 (2016), volume on *Ancient Epistemology*, edd. Katerina Ierodiakonou and Pieter Sjoerd Hasper, Münster, Mentis, pp. 16-37.

———2020. "All the Texts for Xenophanes of Colophon: Critical Discussion of Benedikt Strobel & Georg Wöhrle, 2018 (see below), *Rhizomata*, 8, pp. 1–17.

———2021. “Anthropomorphism and Epistemic Anthropo-philautia: the Early Critiques by Xenophanes and Heraclitus,” in *Ancient Ethics and the Natural World* [= Festschrift in honor of Sarah Broadie], edd. Barbara Sattler & Ursula Coope, Cambridge, Cambridge University Press. (Earlier version of the section on Xenophanes has appeared in Greek in *Ariadne*, 23/24 [2016-17/2017-2018], pp. 219-231.)

Solmsesn, Friedrich, 1971. "The Tradition About Zeno of Elea Re-Examined, *Phronesis*, 16, pp. 116-41. Repr. in Mourelatos 1974/1993, pp. 368-393,

Benedikt Strobel & Georg Wöhrle (Elvira Wakelnig & Christian Vassallo, collaborators), *Xenophanes von Kolophon*, Traditio Praesocratica 3 (Berlin/ Boston: De Gruyter, 2018)

Vendler, Zeno, 1967. *Linguistics in Philosophy.* Ithaca: Cornell University Press.

1. ENDNOTES

 The qualifications "general" and "broadly" are meant as significantly restrictive. For, in the scope of my opening sentence, I intend *not* to include modern interpreters, whether philosophers or classicists, among whom—as will be indicated in what follows—the "certain vulgate" is in fact not favored. [↑](#endnote-ref-1)
2. What has come to us from "Truth," in total, is close to 80 lines in 7 distinct fragments. From *Doxa* not only do we have significantly fewer lines—just less than 50 in all—we also have the drawback that these come in 12 distinct fragments. The longest continuous text from "Truth" comes quite remarkably to 54 lines (B7.1-5, plus the first 49 lines of the main fragment, B8). Indeed, the latter two fragments (B7 and B8) provide us with the longest continuous text for early Greek philosophy before Empedocles or Melissus. By contrast, the longest text from *Doxa* is the 12 lines of the rest of the main fragment B8, after line 49. Other medium-size fragments from *Doxa* run between 7 and 3 lines; and 4 fragments are of just single isolated lines. Even the 12 lines after line 49 give us no details concerning specific cosmological issues. For they are more of a preliminary characterization of the *Doxa* scheme as a whole, in a transition to it from "Truth." [↑](#endnote-ref-2)
3. Falsely attributed to Aristotle, MXG played an influential role as part of the Aristotelian corpus. [↑](#endnote-ref-3)
4. See Strobel-Wöhrle 2018, p. 451, "Xenophanes als Eleat." For an even more recent, comprehensive, and critical analysis of the stages of Eleatization of Xenophanes, see Brémond 2021. By concentrating not on the emergence of holistic monism as the supposedly common Eleatic doctrine but specifically on the Eleatization of Xenophanes, she diagnoses the crucial shift as occurring with Theophrastus' account (pp. 17 ff.). [↑](#endnote-ref-4)
5. Ten years later in English translation by Edwin L. Minar: Burkert 1972. [↑](#endnote-ref-5)
6. The account of Philolaus proposed by Burkert has been reinforced and amply supported by the masterly analysis of the fragments and testimonia for Philolaus in Huffman 1993. [↑](#endnote-ref-6)
7. This is rightly emphasized in Brémond 2020, p. 12 n. 58. [↑](#endnote-ref-7)
8. The expression *syneches* might also be taken adverbially as "continuously." But note the occurrences at B8.23 of *synechesthai* and at B8.25 of the alternate form *xyneches*. Given that the first is explicated in the very next line by *empleon*, "altogether full," and the second, in the same line (B8.25) by *eon eonti pelazei*, "what-is clings to what-is," the translation "cohesive" at B8.6 seems more apt. [↑](#endnote-ref-8)
9. Listed quite selectively, only by way of example: Furth 1968; Mourelatos 1970/2009; Barnes 1979, Curd 1998. [↑](#endnote-ref-9)
10. See above, n. 8 [↑](#endnote-ref-10)
11. Thus the foremost English-language authority on Xenophanes, James Lesher, in his superb and even definitive article s.v. in the *Stanford Encyclopedia of Philosophy* (2002/2019), after noting the "verbal similarities between Xenophanes’ description of the 'one greatest, unmoving god' and Parmenides’ account of a 'motionless, eternal, and unitary being,' " finds himself compelled to caution the reader, "But the Xenophanes who speaks to us in the surviving fragments is a combination of rhapsode, social critic, religious teacher, and keen student of nature" (section 7, "Xenophanes' Legacy"). [↑](#endnote-ref-11)
12. From here forward, all references to Presocratic texts are given first with the Diels-Kranz 1952 number first ("A" prefix for testimonia; "B" for purported quotation); I then give the text number (for the author at issue) in Laks-Most 2016. [↑](#endnote-ref-12)
13. Mourelatos 2021. [↑](#endnote-ref-13)
14. Laks-Most 2016, pp. 5 and 25-26. [↑](#endnote-ref-14)
15. Some of earth thrusts upwards to form what we know as high mountains; and "water drips into subterranean caves" (B37=D44); and fire from-time-to-time thrusts out of volcanoes (A48=D45). [↑](#endnote-ref-15)
16. Laks-Most correctly translate by making the demonstrative pronoun be the subjecr of the statement: "This [my emphasis] is the limit of the earth (*gaiēs gar tode peirar*): one sees it at our feet." [↑](#endnote-ref-16)
17. *Theogony* 736-40=Laks-Most, vol.1, ch. 2 [Cosm], T5.–Cf. ibid., T4, T18. [↑](#endnote-ref-17)
18. We do have unambiguous testimony (in A41a=D31) that Xenophanes' sun—or (speaking more accurately in the language of Xenophanean astrometeorology—the quotidian solar cloud, moves in a straight line from east to west ad infinitum: *es apeiron proïenai.* But the reference to "infinity" here is obviously non-precise. The testimonium also offers an explanation of solar and lunar eclipses (including the total disappearance of the moon at New Moon) as occurring *kata sbesin*, "by virtue of extinguishment." So, the indefinite transit of the sun westward has the limited sense of "till the next solar eclipse." [↑](#endnote-ref-18)
19. By contrast, the human eye, as is universally known, has a limited field of vision and range, and within that field there must be a point of focus. Human aural perception is correspondingly directional and limited in range; and human awareness and human thought must proceed discursively and with ever-shifting mental focus. By saying "sees as a whole (*oulos*), perceives as a whole, hears as whole," Xenophanes intends that the supreme deity's awareness of the world is omni-perceptual. [↑](#endnote-ref-19)
20. At B38=D52 we find reference to god's "having created" (*ephyse*) honey. But the *theos* here is not the one supreme god but one or another of the plural gods (see shortly above) of traditional belief. [↑](#endnote-ref-20)
21. Interestingly, in this universe of masses that extend to infinity, the supreme deity's position could no be referred to as "the center of the universe." [↑](#endnote-ref-21)
22. B27=D27 offers the common observation about the birth of plants and the death of all living thing: "For it is out of earth (*ek gaiēs*) that all [plants (?) come]; and it is into the earth (*eis gēn*) that all [living things] end their life (*teleutāi*)." [↑](#endnote-ref-22)
23. A wall-chart commonly sold at natural history museums and nature stores displays thirty types: Sky Guide, Greenwood Station, Seattle, WA; copyright 1989, A. L. Rangano [↑](#endnote-ref-23)
24. The imperfective forms *zētountes* and *heuriskousin* convey both protracted activity and the contingencies of trial-and-error. [↑](#endnote-ref-24)
25. Placed ahead of all that follows, *ta malista* is felt as applying *apo koinou* (in common) not only to the entire *ei gar* hypothetical clause but also to *tychoi*, and to *tetelesmenon*. [↑](#endnote-ref-25)
26. In accordance with Wilamowitz's widely accepted emendation of the *dedoxsthai* of the MSS. [↑](#endnote-ref-26)
27. Thematically, the options for a logical foil to "Truth" would seem to be two. The first option might be some "material monist" pre-Parmenidean scheme—perhaps that of Thales, perhaps (with better evidence) that of Anaximenes or Heraclitus. The Parmenidean charge against any one of these schemes would be that it violates the strict criteria for "oneness" posited in "Truth." The alternative option, even in the absence of a historical candidate (except perhaps Hesiod), ought to be a scheme of exuberant or even insouciant pluralism. [↑](#endnote-ref-27)
28. Aptly relevant in the translation of *adaēs* is the contrast between *emphanes* and *aeides* inLaks-Most 2016, D62, which in Diels-Kranz appears only in the source context for B13. [↑](#endnote-ref-28)
29. I generally adopt the translations in Laks-Most 2016, and I then explain in footnotes the cases in which I give a different translation. [↑](#endnote-ref-29)
30. As indicated at Laks-Most D29, in the MSS we have the variants πεπιλημένον and πεπυρωμένον, and the nonce word πεπυρωλημένον. I adopt the Mansfeld-Runia preference (cited at Laks-Most 2016, D29) for πεπυρωμένον πεπιλημένον. [↑](#endnote-ref-30)
31. Whereas *kinēsis* is "movement" or “motion," the -*ma* noun-ending in *kinēma* conveys the sense of "jolt" or "coup." [↑](#endnote-ref-31)
32. See above, at @@@, for my disputing of the translation "ignited" for *pepyrōmenōn*. [↑](#endnote-ref-32)
33. Cf. my preferred translation. [↑](#endnote-ref-33)
34. Referentialists have, of course, special remedies for this oddity. [↑](#endnote-ref-34)
35. Both Diels-Kranz and Laks-Most place this *gar*-clause (explanatory) within parenthesis marks. This is, to be sure, for two good reasons: the clause interrupts the "neither . . . nor" (*oute*. . . *oute*) construction; and a grammatical subject ("the path"? or "the what is not"?) fails to appear immediately forthcoming. Accordingly, the parenthetical clause is parsed as an impersonal statement of impossibility and given the quite flat and abstract translation, "for this is not possible." [↑](#endnote-ref-35)
36. In the terminology of Vendler 1967, Kenny 1963, and adopted in Mourelatos 1978. [↑](#endnote-ref-36)
37. Laks-Most appear to me to have sensed this by translating *ou gar anyston* with "for this is impracticable." The considerations offered here supplement the argument I have offered in Mourelatos 1976. [↑](#endnote-ref-37)
38. See Solmsesn 1971. [↑](#endnote-ref-38)
39. I listed five at the end of the Section on "Parmenides vulgate and 'Eleatization' of Xenophanes: the discounting of both" (above, p. @@@). Others count four by allowing some merging of closely related pairs. [↑](#endnote-ref-39)
40. Modern accounts of post-Parmenidean philosophy often view the "Pluralist "or "Neo-Ionian" metaphysical schemes of the fifth century as alternative attempts at implementing the criteria for "what-is" Parmenides had posited. Judged by that standard, the verdict generally is that all such schemes fail. @@Barnes referenc@@ [↑](#endnote-ref-40)
41. Amazingly, since Aristotle's astronomy requires not just a single "prime" unmoved mover but rather a fairly large plurality of auxiliary unmoved movers, even the "one or many?" issue that appears left open by the Parmenidean deductions is likewise left metaphysically undecided in Aristotle, who nonetheless allows for "many" not for metaphysical reasons but as may be determined by the facts of astronomy. [↑](#endnote-ref-41)
42. In Homer, Zeus' nod of assent suffices to bring about a long train of events (*Iliad* I.526-27). But that train involves physical actions by a host of intermediary agents who implement Zeus' will by acting and moving quite physically. [↑](#endnote-ref-42)
43. In a comparison of Parmenides with Xenophanes and Melissus, Aristotle curtly dismisses the latter two (*apheteoi . . . . kai pampan*) and dubs them as *mikron* *agroikoteroi*, "in some small measure as uncouth rustics" (A21=R12) *.*  [↑](#endnote-ref-43)
44. My colleague Cory Juhl, more knowledgeable about philosophy of science than I am, gave me the following list of poignantly paradoxical elements or aspects of today's Scientific Image: **1.**  A time before which there was no time.  (The big bang?). **2.**  Black holes, which are invisible, and from which nothing can escape. **3**.  Four-dimensional spheres (or in general, four-dimensional shapes that don’t ‘fit’ into three-dimensional space). **4**.  Waves of empty space (gravitational waves). **5.**  Particles that cannot exist by themselves, but always in pairs or triplets (quarks), so that if you try to isolate them, new quarks are produced. **6.**  Fields, which are invisible but permeate all of space and affect things. **7.**  Forces, which are invisible but cause things. **8.** Light waves, (in classical cosmology), which are waves but don’t have a medium, they are not waves of any substance. **9.** Universes that exist, but at no particular distance from ours (on some theories, I think), i.e., objects in these universes are not at any particular distance from objects in ours. **10.** Pairs of events that are not definitely at the same time nor definitely at different times. **11.**  Clocks or processes that proceed more slowly simply because they are moving. **12.** Nothing has a definite single shape or size (relativity of size/shape). [↑](#endnote-ref-44)