

## NOTES AND DISCUSSIONS

### SOCRATES' "TRAGIC" DEFINITION OF COLOR (PL. *MENO* 76D–E)

In the course of his discussion with Gorgias' admirer Meno, Socrates agrees to give a definition of color in such a way that Meno will best be able to follow it, namely κατὰ Γοργίαν (Pl. *Meno* 76C4). Socrates, making sure that Meno understands and accepts beforehand the terms of the definition, asks, "Do you speak<sup>1</sup> κατὰ Ἐμπεδοκλέα of effluences (ἀπορροαί) of things?" When Meno replies in the affirmative, Socrates continues, "And (do you speak of ) pores into which and through which the effluences make their way?" Then Socrates gets Meno to agree that different effluences fit different pores and, finally, that there is something that Meno calls "sight." When the ground has thus been fully prepared, Socrates delivers himself of a definition of color, prefaced grandly with a quotation from Pindar<sup>2</sup>: ἐκ τούτων δὴ "σύνης ὁ τοι λέγω," ἔφη Πίνδαρος. ἔστιν γὰρ χροὰ ἀπορροή χρημάτων<sup>3</sup> ὅψει σύμμετρος καὶ αἰσθητός (76D3–5). Meno readily approves of this definition, because, Socrates suggests, it has been given in a manner that is familiar to him (κατὰ συνήθειαν). Socrates goes on to point out that this definition of color could provide a pattern according to which "sound and smell and many other such things" could be defined (presumably by substituting ἀκοή or ὁσφρήσει for ὅψει). When Meno indicates his approval of this as well, Socrates says, "Yes, Meno, that's because the answer is tragic (τραγικὴ γὰρ ἔστιν, ὦ Μένων, ἡ ἀπόκρισις), and so it is more to your liking than the answer concerning shape" (76E3–4).

There have been a number of attempts to explain what Plato means here by "tragic," many of them recorded and briefly refuted in Bluck's commentary and in his 1961 article on this passage.<sup>4</sup> According to Bluck, the word "alludes . . . to the 'high-flown' language of the definition of colour, and at the same time to the

1. The verb is plural (λέγετε 76C7). "The plural will be intended to include both Meno and Gorgias, or possibly Gorgias' followers in general," R. S. Bluck, ed., *Plato's "Meno"* (Cambridge, 1961), ad loc.

2. The same quotation is used at *Phdr.* 236D2. According to E. des Places, *Pindare et Platon* (Paris, 1949), 175, "le vers avait passé en proverbe."

3. The manuscripts read σχημάτων, but T has the γρ.-variant χρημάτων, for which Hermann Diels argues convincingly in "Gorgias und Empedokles," *SB Berlin* (1884): 343–68, at 348–50. Diels is followed by Mario Untersteiner, ed., *Sofisti. Testimonianze e frammenti*, vol. 2 (Florence, 1961), 74. The corruption σχημάτων is easily explained by the earlier discussion between Meno and Socrates (74B–76A) concerning the definition of σχῆμα.

4. Bluck, *Plato's "Meno"*, ad loc. and "On ΤΡΑΓΙΚΗ: Plato, *Meno* 76E," *Mnemosyne* 14 (1961): 289–95. The treatments that Bluck discusses and adequately dismisses are: F. A. Wright, "A Note on Plato's Definition of Colour," *CR* 34 (1920): 31–32; W. C. F. Anderson, "Plato's Definition of Colour (*C.R.* XXXIV, p. 31)," *CR* 34 (1920): 101; Edmonde Grimal, "À propos d'un passage du *Ménon*: Une Définition 'tragique' de la couleur," *REG* 55 (1942): 1–13; T. G. Rosenmeyer, "Gorgias, Aeschylus, and *Apatē*," *AJP* 76 (1955): 225–60, at 226–27, referring to U. von Wilamowitz-Moellendorf, *Platon*, vol. 2 (Berlin, 1919), p. 146, n. 1.

'grandiose' and 'difficult' nature of its subject-matter."<sup>5</sup> But it seems odd that Plato should have used the word τραγικός to mean "high-flown" when he could have used some other word of similar meaning that lacked the specifically "tragic" connotations that commentators have found inappropriate here.<sup>6</sup> For the definition of color that Socrates gives is explicitly associated with Empedocles and Gorgias, neither of whom was a tragic poet. Even the poetic tag that is used to introduce the definition is taken, not from the works of a dramatist, but from Pindar. It is true, as Bluck points out,<sup>7</sup> that "Diogenes Laertius (viii, 70) attributes to Empedocles a τραγικὸν τύπον," but this is clearly not adequate evidence that something spoken "in the manner of Empedocles" (not to mention something spoken "in the manner of Gorgias") can legitimately be described as "tragic." In any case, κατὰ Ἐμπεδοκλέα need not necessarily mean "in the manner of Empedocles." While the phrase certainly can mean "in the manner of Empedocles," there is another possibility. At *Cratylus* 401D4, for example, Socrates refers to those who "believe καθ' Ἡράκλειτον that all the things that exist are in motion and none of them remains fixed." This has nothing to do with the manner or style of Heraclitus; rather it refers to those who adhere to the very doctrine propounded in the famous statement about the river (B 12 D–K = 40 M). And similarly, at *Phaedrus* 229E5, Socrates says, "I am not yet able κατὰ τὸ Δελφικὸν γράμμα to know myself," referring to the very wording of the Delphic maxim. And earlier in the same dialogue (227B9) Socrates had introduced a direct quotation from Pindar with the words κατὰ Πίνδαρον.<sup>8</sup>

There is, in fact, good reason to believe that Socrates' definition of color originates with Empedocles. The evidence was presented clearly and convincingly over one hundred years ago by Hermann Diels,<sup>9</sup> and can be briefly summarized here. Socrates' definition is as follows: ἔστιν γὰρ χροῖα ἀπορροή χρημάτων (or σχημάτων) ὅψει σύμμετρος καὶ αἰσθητός. According to Theophrastus, Empedocles held that "colors move toward the (organ of) vision as a result of the effluence."<sup>10</sup> Aëtius reports that "Empedocles declared color to be that which fits into the pores of the sense of sight."<sup>11</sup> The term ἀπορροή is securely attested for Empedocles by a quotation from his poem in Plutarch: πάντων εἰσὶν ἀπορροαί, ὅσας ἐγένοντο.<sup>12</sup> And the

5. Bluck, *Plato's "Meno,"* ad loc. and "On ΤΡΑΓΙΚΗ," 293–95. Sharples likewise translates "high-flown" and comments (R. W. Sharples, ed., *Plato, "Meno"* [Warminster, 1985], ad loc.), "Alluding to the recondite and impressive sound of the theory." Thomas Buchheim, ed., *Gorgias von Leontinoi. Reden, Fragmente, und Testimonien*, Philosophische Bibliothek, vol. 404 (Hamburg, 1989), 189, on the other hand, considers the tragic character to consist in the fact that the definition encapsulates a difficult and involved matter in a terse and manageable formula, which conceals its own inadequacy by shrouding it with a veil of mystery. Needless to say, evidence is not presented that encourages us to believe that this is characteristic of tragedy.

6. For instance, δγκώδης (*Meno* 90A7), σεμνός (*Gorg.* 502B1), ὑψηλός (*Euthd.* 289E4), ὑψηλο-ο-γούμενος (*Resp.* 545E3). At *Phdr.* 257A5 Socrates describes as ποιητικός a speech that contains the only occurrence in Plato of the word ἀπορροή outside of *Meno* 76C–D.

7. Bluck, *Plato's "Meno,"* ad loc. and "On ΤΡΑΓΙΚΗ," 295. It is surprising that Bluck (and others) have not referred to D.L. 8.57–58, where Empedocles is said, on the authority of Aristotle, to have composed tragedies. But it is difficult, if not impossible, to accept this testimony, and *TrGF* (no. 50) is surely right to follow Heraclides (*FHG* vol. 3, p. 169, fr. 6) and the *Suda* (ε 1101) in distinguishing the Acragantine philosopher from the tragedian (if, indeed, the latter is not a figment). Cf. G. S. Kirk, J. E. Raven, and M. Schofield, *The Presocratic Philosophers*, 2nd ed. (Cambridge, 1983), p. 283, n. 1.

8. Compare also *Symp.* 174C6: καθ' Ὅμηρον.

9. Diels, "Gorgias und Empedokles," 345–55.

10. *Sens.* 7 = Emped. A 86 D–K: φέρεσθαι δὲ τὰ χρώματα πρὸς τὴν ὄψιν διὰ τὴν ἀπορροήν.

11. Aët. 1.15.3 = Emped. A 92b D–K: Ἐμπ. χρώμα εἶναι ἀπεφαίνεται τὸ τοῖς πόροις τῆς ὀψιας ἐναρμόττον.

12. Plut. *Mor.* 916D = Emped. B 89 D–K. Cf. Philp. in *de An.* 334.34 = Emped. A 57 D–K, Aët. 4.14.1 = Emped. A 88 D–K, Aët. 4.13.4 = Emped. A 90 D–K.

doctrine that different effluences fit the pores of different senses is attested for Empedocles by Theophrastus.<sup>13</sup> Not only is this doctrine Empedoclean, but it seems to have been adopted by Empedocles' fellow Sicilian Gorgias as well.<sup>14</sup> In his treatise *De igne*, Theophrastus discusses the question of why reflected sunlight can cause combustion whereas the reflected light from a fire cannot. In the course of his discussion, Theophrastus says, "Fire can be ignited from glass, copper, and silver, when prepared in a certain way, but not, as Gorgias says and some others believe, because fire passes out through their pores."<sup>15</sup> This is the only "scientific" statement that has been preserved from the writings of Gorgias, and his use of the Empedoclean vocabulary of "pores" indicates that he was influenced by his fellow Sicilian. Finally, as Diels perceptively points out,<sup>16</sup> the use of the form αἰσθητός as a feminine is unparalleled in Plato, so that we appear to be dealing with the wording, not of Plato, but of someone else. Rhythm rules out Empedocles. That leaves Gorgias.<sup>17</sup>

If, then, this definition is Empedoclean and Gorgianic, what sense does it make to describe it as "tragic"? (This question, presumably, is what has made it difficult for most scholars to consider the possibility that the definition is indeed that of Gorgias himself.) The answer is that this definition of color belongs to a theory of perception that we find repeated in what we may call a "tragic" context. Specifically, we find it, not exactly in Euripides, but in "Euripides," the leading character of Aristophanes' *Thesmophoriazusae*. At the very opening of Aristophanes' play, "Euripides" arrives onstage leading his kinsman, who is having difficulty keeping up (both literally and figuratively) with his intellectually advanced relative. The kinsman asks (3–4) if it is possible to find out where he is being led and, for the next fourteen lines, "Euripides" treats his kinsman (and the audience) to a deliciously abstruse account of the origin of the senses of sight and hearing. There is nothing in this account that is incompatible with Empedocles' theory of perception.

"Euripides" begins by telling his kinsman that there is no need for him to hear everything, since he will soon see it in person. The kinsman, responding to the ambiguity in οὐκ ἀκούειν δεῖ σε, replies, "I mustn't hear (οὐ δεῖ μ' ἀκούειν;)" And "Euripides" answers, "Not, at any rate, things that you're going to see." "And I mustn't see, either?" "Not, at any rate, things that you need to hear." The kinsman, baffled, but impressed with his famous relative's profound grasp of difficult matters, says, "You're telling me that I shouldn't either hear or see?" To this "Euripides" replies, masking the illogicality of his answer with the grandeur of his expression, "Yes, for the nature of each of them is distinct (χωρὶς γὰρ αὐτοῖν ἐκατέρου ἔστιν ἡ φύσις)." Harold W. Miller<sup>18</sup> notes that "this is a philosophical meaning of χωρὶς" and well compares Plato, *Philebus* 44A10: χωρὶς τοῦ μὴ λυπεῖσθαι καὶ τοῦ χαίρειν ἡ φύσις

13. With *Meno* 76C10–D1: καὶ τῶν ἀπορροῶν τὰς μὲν ἀρμόττειν ἐνίοις τῶν πόρων, τὰς δὲ ἐλάττους ἢ μείζους εἶναι compare Theophr. *Sens.* 7 = Emped. A 86 D–K: Ἐμπ. δὲ περὶ ἀπασῶν ὁμοίως λέγει καὶ φησι τῷ ἐναρμόττειν εἰς τοὺς πόρους τοὺς ἐκάστης αἰσθάνεσθαι . . . ἐναρμόττειν γὰρ ἐκατέροις ἐκάτερα.

14. According to Satyros, Gorgias was in fact Empedocles' pupil: D.L. 8.58–59; Diels, "Gorgias und Empedokles," p. 344, n. 1.

15. *De igne* 73 = Gorgias B 5 D–K: διὰ τὸ ἀπιέναι τὸ πῦρ διὰ τῶν πόρων. The translation is that of Victor Coutant, ed., *Theophrastus. "De Igne"* (Assen, 1971), 46–48.

16. Diels, "Gorgias und Empedokles," 347–48.

17. *Ibid.*, 351: "Ich bin überzeugt, dass er [= Platon] hier nicht auf Grund der Empedokleischen Terminologie eigene Resultate in Gorgianischem Prunkstil unterschiebt, sondern dass er wirklich die Definition der Farbe von Gorgias irgendwo in dieser Form ausgesprochen fand." See also Olof Gigon, "Gorgias bei Platon," *Sicilorum Gymnasium* 38 (1985): 577.

18. "Some Tragic Influences in the *Thesmophoriazusae* of Aristophanes," *TAPA* 77 (1946): 172.

ἐκατέρου. And φύσις, naturally, is used in its philosophical sense. Indeed, as Charles H. Kahn puts it, φύσις is “the catchword for the new philosophy.”<sup>19</sup>

This philosophical language poses a challenge to the kinsman’s limited intelligence, and he asks for clarification: “(You mean the nature) of not hearing and not seeing?” To which “Euripides” replies, “You’ve got it.”<sup>20</sup> In answer to the kinsman’s further question, “How do you mean ‘distinct?’” the tragic poet responds as follows (13–18; text and translation are Sommerstein’s):

This is how they were separated originally. When in the beginning the Sky became a separate entity, and took part in begetting living, moving beings within itself, it first devised the eye “in imitation of the solar disc,” whereby they should see, and as a funnel for hearing made the perforations of the ears.

οὕτω ταῦτα διεκρίθη τότε.  
Αἰθήρ γάρ ὅτε τὰ πρῶτα διεχωρίζετο  
καὶ ζῶν ἔν αὐτῷ ξυνετέκνου κινούμενα, 15  
ὃ μὲν βλέπειν χρή πρῶτ’ ἐμμηχανήσατο  
ὀφθαλμὸν ἀντίμιμον ἡλίου τροχῶ,  
ἀκοῆς δὲ χοάνη<sup>21</sup> ὥτα διετετρήνατο.

“Euripides” begins his account with a “once upon a time.”<sup>22</sup> And what is described as having happened once upon a time bears some resemblance to what we find in the

19. *Anaximander and the Origins of Greek Cosmology* (New York, 1960), 201. Cf. also W. K. C. Guthrie, *A History of Greek Philosophy*, vol. 1 (Cambridge, 1971), 82–83. The secondary literature on φύσις is considerable. Among the more recent contributions are: Dietrich Mannsperger, *Physis bei Platon* (Berlin, 1969); C. E. Hajistephanou, *The Use of ΦΥΣΙΣ and its Cognates in Greek Tragedy with Special Reference to Character Drawing* (Nicosia, 1975); Harald Patzer, “Physis: Grundlegung zu einer Geschichte des Wortes,” *SB Frankfurt* 30.6 (1993).

20. *Thesm.* 12: KH. τοῦ μήτ’ ἀκούειν μήθ’ ὁρᾶν; EY. εὖ ἴσθ’ ὅτι. Alan H. Sommerstein (*Thesmophoriazusae*, vol. 8, *The Comedies of Aristophanes* [Warminster, 1994], ad loc.) follows Herwerden in deleting this line. He gives two reasons for doing so: (1) “The question ‘How do you mean, distinct?’ (13) ought to follow directly after the sentence by Euripides to which it refers,” and (2) “. . . while hearing and seeing are two things, ‘neither hearing nor seeing’ is only one. Inlaw might well, indeed, make such a mistake, but one would not expect this sophistic, pedantic Euripides to endorse it.” I have not found an exact parallel that would refute the first objection, although I am satisfied that *E. Or.* 1022–25 (even without the spurious 1024), *Men. Sam.* 521–22, and *Theocr.* 22.54–55 come close enough. In any case, if the kinsman wishes to ask two questions about one statement by “Euripides,” the second question will necessarily come at some distance from the original statement, provided that he waits for an answer to his first question. As to the second objection, as we have seen, this sophistic, pedantic “Euripides” has just (10–11) endorsed his kinsman’s observation that he is being asked to neither hear nor see. A few lines later (19–22), when the kinsman makes the nonsensical observation that it is because of the funnel that he should neither hear nor see, “Euripides” tells him that there are many other such things that he could learn from him. And anyway—to be, for the moment, pedantic and sophistic—the nature of not seeing and the nature of not hearing are two things. Hence the gloss τοῦ μή ἀκούειν καὶ τοῦ μή ὁρᾶν in F. H. M. Blaydes, ed., *Aristophanis “Thesmophoriazusae”* (Halle, 1880), ad loc., and the translation “Not seeing and not hearing?” in David Kovacs, *Euripidea*, Supplements to *Mnemosyne*, 132 (Leiden, 1994), 79.

21. This is Edouard Biset’s correction of the manuscript’s ἀκοῆν δεχοάνης. See Colin Austin, “Textual Problems in *Ar. Thesm.*,” *Dodone (Philologia)* 16 (1987): 70 (for the text) and 62–64 and 91–92 (for Biset).

22. For this use of οὕτως to begin a story, see *Hom. Il.* 9.524, *Aesch. Ag.* 718, *Ar. Vesp.* 1182, *Lys.* 784, *Pl. Phdr.* 237B2, *Theocr.* 11.7, *Longus* 1.27.2. Further, I am inclined to believe that, in place of τότε, we should read here ποτέ, as we have at *Vesp.* 1182. (The corruption, easy enough under any circumstances, will have been encouraged by the appearance of ὅτε in the following line.) The only possible justification for τότε here—Sommerstein’s translation, “originally,” gives an unparalleled meaning—is that it belongs with the passages given in LSJ following the note, “in Trag. and Att. also in indef. sense, formerly.” But in those passages (to which we may add *Soph. Aj.* 1240, 1377, *Ar. Thesm.* 642) there is a contrast or comparison drawn, either explicitly or implicitly, between past and present, whereas here we simply have a statement to the effect that, at some unspecified time in the past, the senses of sight and hearing were made separate.

fragments of Empedocles. Line 14 seems to indicate that, according to “Euripides,” Αἰθήρ was the first of the elements to be separated off, which is an Empedoclean doctrine.<sup>23</sup> A further Empedoclean feature is found in lines 16–18, where the origin of the organs of sensation is described. Empedocles is notable for his account (unfortunately now in a fragmentary state) not only of the workings of the eye but of its origin as well.<sup>24</sup> The similarity of the eye to the solar disc is also in conformity with Empedoclean doctrine.<sup>25</sup> For, in accordance with his conviction that like is perceived by like, Empedocles held that the eye, like the sun, gives off fiery rays. This is, indeed, the object of the famous analogy with the lantern burning on a wintry night (B 84 D–K): Just as the lantern has fire inside it and shoots its rays outward through the linen screens, so the eye has in it ὠγύγιον πῦρ.<sup>26</sup>

There is one further element, in the final line quoted above from *Thesmophoriazousae* (ἀκοῆς δὲ χοάνην ὅτα διετετρήνατο), that is likely to be Empedoclean. In a note on this line, published in 1874, Eduard Hiller<sup>27</sup> called attention in this connection to the following passage from Plato: οὐκοῦν ὅταν μὲν τις μουσικῇ παρέχῃ καταυλεῖν καὶ καταχεῖν τῆς ψυχῆς διὰ τῶν ὧτων ὥσπερ διὰ χώνης ἃς νυνδὴ ἡμεῖς ἐλέγομεν τὰς γλυκείας τε καὶ μαλακάς καὶ θρηνώδεις ἁρμονίας . . .<sup>28</sup> As Hiller points out, the comparison of the ear with a funnel is not especially obvious, and it is unlikely that Plato and Aristophanes came up with it independently. Either, therefore, the philosopher is indebted to the comic poet or both are reflecting a common source. But, as Hiller says, “it would be remarkable if the philosopher had deliberately repeated the amusing joke of a comic writer in his serious and profound discussion.”<sup>29</sup> And so he plausibly suggests that the comparison of the ear to a funnel was first made by some earlier philosopher. He points out, with reference to Teuffel’s note on *Clouds* 96, that such images drawn from everyday life are common among the Presocratic philosophers and, although he does not mention Empedocles by name, he indicates in a footnote that his colleague Franz Susemihl had reminded him of Theophrastus, *De sensu* 9. In this passage Theophrastus is describing Empedocles’ account of hearing, an account that included metaphorical use of the terms κώδων (“bell” or “trumpet”) and σάρκινος ὄζος (“fleshy shoot”?). The use of striking figurative language is indeed characteristic of Empedocles’ style; we have already noted the comparison of the eye with a lantern, and we readily recall Empedocles’ famous use of the clepsydra in his account of respiration (B 100 D–K). Indeed, Friedrich

23. Aëtius 2.6.3 = Emped. A 49 D–K: Ἐμπεδοκλῆς τὸν μὲν αἰθέρα πρῶτον διακριθῆναι (sc. ἔφη).

24. Simplicius (*De caelo* 529.21–24 = Emped. B 86 and 87 D–K) preserves two (non-consecutive) verses in which Empedocles describes the creation of the eyes: ἐξ ὧν ὅμμα’ ἐπῆξεν ἀτειρέα δι’ Ἀφροδίτην καὶ γόμοις ἀσκήσασα καταστόργος Ἀφροδίτη. It is true that Empedocles attributes the creation of the eye to Aphrodite, i.e., to the cosmic principle of Love, whereas in “Euripides” it is Αἰθήρ that is responsible. But Aither is “die typisch Euripideische Gottheit” (Peter Rau, *Paratragodia: Untersuchung einer komischen Form des Aristophanes*, Zetemata, vol. 45 [Munich, 1967], p. 43, n. 60), so that the attribution to Aither is compatible either with Aristophanic parody or with a Euripidean original.

25. W. J. Verdenius, “Empedocles’ Doctrine of Sight,” in *Studia varia Carolo Guilielmo Vollgraff a discipulis oblata* (Amsterdam, 1948), 163–64.

26. See John I. Beare, *Greek Theories of Elementary Cognition* (Oxford, 1906), 17–21; Verdenius, “Doctrine,” 155–64.

27. “Zu Aristophanes und Platon,” *NJPP* 109 (1874): 173–74.

28. *Resp.* 411A5–8. For the text, see S. R. Slings, “Critical Notes on Plato’s *Politeia*, III,” *Mnemosyne* 43 (1990): 356–57. This is the only place in Plato where the word χώνη (χοάνη) occurs.

29. “Deliberately” (*mit Absicht*), of course, begs an interesting question. It is, naturally, possible that Plato (like Aristophanes) is echoing the formulation of some earlier author, but that his recollection of that earlier author is colored, whether consciously or subconsciously, by his recollection of Aristophanes.

Solmsen has shown that analogies drawn from the crafts are particularly common in Empedocles' poem.<sup>30</sup>

As it happens, Empedocles is the only philosopher before Plato who can be shown to have used a word from the root χων- (χων-). In his account of the formation of bones Empedocles says, "And pleasant earth in her well-built channels (χοάνοισι) received two parts of gleaming Nestis out of the eight."<sup>31</sup> Empedocles is here indebted to two epic models, both concerned with metalworking: Homer, *Iliad* 18.470: φῦσαι δ' ἐν χοάνοισιν ἐείκοσι πᾶσαι ἐφύσων and Hesiod, *Theogony* 863: τέχνη ὑπ' αἰζηῶν ἐν ἐυτρήτοις χοάνοισι. As Michael H. Jameson points out,<sup>32</sup> the word in these two passages means "nozzle through which the blast is forced, tuyère." There is no reason not to give the same meaning to the word when used by Empedocles. There is further, but somewhat more ambiguous, evidence that Empedocles elsewhere used the feminine form χοάνη. In the simile comparing the eye to a lantern (B 84 D-K = Arist. *De sensu* 437b23-38a5), the manuscripts present lines 5-8 more or less as follows:

φῶς δ' ἔξω διαθρῶσκον, ὅσον ταναώτερον ἦεν, 5  
λάμπεσκεν κατὰ βηλὸν ἀτειρέσιν ἀκτίνεσσιν·  
ὥς δὲ τότε ἐν μῆνιγξιν ἐεργμένον ὠγύγιον πῦρ  
λεπτήσιν ὀθόνῃσι λογάζετο κύκλοπα κούρην.

But manuscript P (Vaticanus 1339) inserts the following between ἔξω and διαθρῶσκον in line 5: διάνταται τρεῖατο θεσπεσίησιν ὀθόνῃσιν. And further, where the other manuscripts read either ὀθόνῃσι or χθονίησι in line 8, P has χοάνῃσιν. Now, P is admittedly a rather wild manuscript, but this does not look like the kind of addition that occasionally characterizes P.<sup>33</sup> For this reason Friedrich Blass<sup>34</sup> assumes that the words preserved in P represent a garbled version of a portion of the original text that has been dislocated, and he suggests that we read the following after line 8: (αἰ) χοάνῃσι διάντα τετρήατο θεσπεσίησιν.<sup>35</sup> Blass' suggestion has been adopted by a few influential scholars, most notably Hermann Diels, who printed Blass' conjecture in his text of Empedocles both in his *Poetarum Philosophorum Fragmenta* and in *Die Fragmente der Vorsokratiker*.<sup>36</sup> In his article, "Gorgias und Empedokles," Diels refers with confidence to the "trichterförmige Poren" (345, 354) of the eye. But Wilamowitz (as reported in the apparatus to Diels' *Fragmente der Vorsokratiker*) objected to the repeated αἰ that, with Blass' reading, begins lines 9 and

30. "Nature as Craftsman in Greek Thought," *JHI* 24 (1963): 476-79.

31. Emped. B 96.1-2 D-K: ἡ δὲ χθὼν ἐπὶ πρὸς ἐν εὐτύκτοις χοάνοισι / τὰς δύο τῶν ὀκτὼ μοιρῶν λάχε Νήσιτιδος ἀγῆλης (the text and translation are from *The Poem of Empedocles*, a text and translation with an introduction by Brad Inwood, Supplements to *Phoenix* 29 [Toronto, 1992], 234-35).

32. In M. W. Edwards, *The "Iliad": A Commentary*, vol. 5: Books 17-20 (Cambridge, 1991), 209-10.

33. See Paul Siwek, *Les Manuscrits grecs des "Parva Naturalia" d'Aristote* (Rome, 1961), 133-35.

34. "Zu Empedokles," *NJPP* 127 (1883): 19-20. Blass' note appears only nine years later in the same journal as Hiller's note on Ar. *Thest.* 18 (see above, n. 27). Blass does not mention Hiller, but I wonder if he was not influenced by him.

35. Blass points out that P alone preserves the correct reading in l. 10 (διεσκεν, where the remaining manuscripts repeat διαθρῶσκον from l. 5). For χοάνῃσι τετρήατο Blass compares B 100.3 D-K: ποικινὰς τέτρηται ἄλοξιν. Compare also Ar. *Thest.* 18: χοάνην ὅτα διετρήατο.

36. Likewise, David Ross adopted Blass' conjecture in his text of *De sensu* (Aristotle: "Parva Naturalia," a revised text with introduction and commentary by Sir David Ross [Oxford, 1955]), and W. K. C. Guthrie (*A History of Greek Philosophy*, vol. 2 [Cambridge, 1965], 235) translates Blass' text: "which are pierced through with wondrous channels."

10, and the line as reconstructed by Blass does not appear in the texts of Empedocles printed by Wright, Bollack, or Inwood. These editors are clearly right in refusing to adopt what is merely a hypothetical reconstruction. But still, the appearance in P of the word *χοάνησιν* in the context of Empedocles' theory of vision does raise the possibility that he did in fact use the word, although we cannot know how, or where, the word fitted into his theory.

Let us conclude by summarizing briefly what we have discovered so far. In the *Meno* Socrates describes as "tragic" a theory of the perception of color that he explicitly attributes to Empedocles and Gorgias. We have seen that there is good reason to believe that Empedocles and Gorgias in fact subscribed to this theory. We have also seen that Aristophanes puts into the mouth of a tragic poet a theory of perception that has a number of striking resemblances to the theory of perception that can be reconstructed from the fragments of Empedocles. It seems unlikely that this is all the result of coincidence. Further, it seems unlikely that Aristophanes would allude in so prominent a fashion to the work of Empedocles (or Gorgias) unless the thoughts represented in that work had been taken over and popularized, particularly by some Athenian man of letters. For Aristophanes does not normally parody non-Athenian writers or thinkers. The literary parody that Aristophanes engages in is primarily parody of Attic tragedy, and the "sophist" that he singles out for pillorying in *Clouds* is Socrates, the sole Athenian philosopher of any prominence. The reason for this is not far to seek. As with politicians, so with literary figures and intellectuals: Aristophanes could readily expect his audience to be familiar with the home-grown variety. But the physiological speculations of Empedocles and Gorgias can have been known to only a handful of the members of Aristophanes' audience. A parody, therefore, of Empedocles' poem or of Gorgias' *Περὶ φύσεως* seems a remote possibility. Far more likely—and this likelihood is enhanced by Plato's description of the theory as "tragic"—is that the theory found expression in the work of some contemporary tragic poet, the obvious candidate being Euripides himself. It is widely recognized that Euripides' tragedies frequently reflect contemporary scientific speculation.<sup>37</sup> And if Euripides had put a version of this novel theory of perception into the mouth of one of his characters,<sup>38</sup> that would account both for the presence of Aristophanes' parody and for Socrates' description of the theory as "tragic."<sup>39</sup>

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37. See the copious bibliography cited in the footnotes to Wilhelm Schmid and Otto Stählin, *Geschichte der griechischen Literatur*, Erster Teil, vol. 3 (Munich, 1940), 315–17.

38. We know, for example, that Aristophanes parodied Euripides' *Palamedes* in his *Thesmophoriazuesae* (Rau, *Paratragodia*, 51–53), and the influence of Gorgias in the Trojan trilogy (produced in 415 B.C.), of which *Palamedes* was a part, seems to have been strong. The agon in *Trojan Women* is almost certainly indebted to Gorgias' *Helen*, just as the defense of Palamedes, in the play named after him, was surely modelled on Gorgias' *Palamedes* (see Ruth Scodel, *The Trojan Trilogy of Euripides*, Hypomnemata, vol. 60 [Göttingen, 1980], 90–100). Euripides portrayed Palamedes as a sort of archetypal philosopher, and we may speculate that he would have been an appropriate spokesman for this theory of perception.

39. I should like to thank the Editor and the anonymous referees for their valuable comments and suggestions.