

3537
LESHER, J.H.
1994

OXFORD STUDIES IN ANC PH 1994

THE EMERGENCE OF PHILOSOPHICAL INTEREST IN COGNITION

J. H. LESHER

1. Introduction

IN the famous 'autobiographical' passage of Plato's *Phaedo* Socrates mentions in passing some of the questions his predecessors used to ask concerning the physical substances and processes involved in thought: 'Is it blood that we think with, or air or fire? Or is thought due to something else, namely the brain's providing our senses of hearing, sight, and smell, which give rise to memory and opinion, and ultimately, when memory and opinion have acquired stability, to knowledge?' (96A-B). A few Presocratic fragments¹ and the summaries of early views of the soul given by Aristotle and Theophrastus² confirm the accuracy of Socrates' (or Plato's) listing. And in so far as Presocratic interests appear to have been focused on the physical elements and processes

© J. H. Leshner 1994

An earlier version of this paper was read at the 1992 Ancient Philosophy Colloquium at Princeton University. I am indebted to the commentator on that occasion, Dominic Scott, for his very helpful comments. Murat Aydede, Rachel Barney, Patricia Curd, Brad Inwood, Charles Kahn, André Laks, Mitsi Lee, Gary Meltzer, Joergen Meyer, Michael Rohr, and Eva Stehle have also made helpful suggestions and criticisms.

¹ Cf. Empedocles fr. 105, 106 (on blood and knowledge); Anaximenes fr. 2 and Diogenes of Apollonia fr. 5 (on intelligence and air); and Heraclitus fr. 118 ('the dry soul is a flash of light, wisest and best'). Alcmaeon is often identified as the author of the view that the brain plays a role in knowledge (cf. A 11 DK), but fr. 16 of Parmenides also links the thoughts of men with conditions in each of their 'limbs' or organs, and Censorinus (A 108 DK) attributes to Anaxagoras the specific thesis 'cerebrum unde omnes sunt sensus'. The idea of a progression from sensation to memory to opinion to knowledge might also have been Alcmaeon's, but if mortals do actually gain knowledge it is not clear what we are to make of the contrast drawn in his fr. 1 between divine certainty and mortal conjecture.

² Arist. *Metaph.* Γ 5; *De anima* 1. 2, 3. 3; Theophrastus, *De sens.* 3, 4, 10, 25, 39, 44, 58.

attendant to thought, the philosophical importance of their accounts has often been discounted.³

But in this century several scholars have claimed to find evidence in the Presocratics' teachings of an emerging 'intellectual' sense of the main terms of the Greek vocabulary of knowledge—*γινώσκω*, *γνώμη*, *γνώσις*, *νόος*, *νοέω*, *οἶδα*, and *συνίημι*. Since, in their view, at least some of the Presocratic thinkers had articulated a distinction between perceptual knowledge and a kind of knowledge acquired through thought or reflection, it would be a mistake to suppose that philosophical interest in the concepts of thought, perception, and knowledge emerged only as a consequence of the sceptical challenges raised by the sophists of mid-fifth-century Athens.⁴

³ Cf. D. W. Hamlyn, *Sensation and Perception* (London, 1961), 8: 'the interests of these [Presocratic] philosophers were purely physiological or physical in character. They made no attempt to philosophize about the nature of the concept of sense-perception, nor in general did they raise epistemological issues.' The classic account of the Presocratics as material psychologists is J. I. Beare's *Greek Theories of Elementary Cognition* (Oxford, 1906). Beare conceded that one can find the occasional non-materialist-orientated comment in early Greek philosophy, but vowed 'to have as little as possible to do' with them since they were 'really aimed at little more than the clearing up of common ideas or words. Thus Plato's *Theaetetus* is largely occupied with an endeavour to determine the meaning of *ἐπιστήμη* or knowledge' (p. 6).

⁴ The main proponents: Bruno Snell, *Die Ausdrücke für den Begriff des Wissens in der vorplatonischen Philosophie* (Philologische Untersuchungen, 29; Berlin, 1924); see also his *Discovery of the Mind: The Greek Origins of European Thought* (New York and Evanston, 1960), an English trans. by T. G. Rosenmeyer of the 2nd edition of *Die Entdeckung des Geistes* (Hamburg, 1948), with a chapter added on 'Human Knowledge and Divine Knowledge'; and 'Wie die Griechen lernten, was geistige Tätigkeit ist', in *Journal of Hellenic Studies*, 93 (1973), 172–84, repr. in *Der Weg zum Denken und zur Wahrheit* (Hypomnemata, 57; Göttingen, 1978), 21–43 (subsequent citations refer to pages of the reprint); Kurt von Fritz, 'Noûs, νοῦς, and their Derivatives in Pre-Socratic Philosophy (Excluding Anaxagoras)', *Classical Philology*, 40 (1945), 223–42, *ibid.* 41 (1946), 12–34, repr. in A. P. D. Mourelatos (ed.), *The Pre-Socratics: A Collection of Critical Essays* (Garden City, NY, 1974), 23–85 (subsequent citations refer to pages of the reprint); and Herman Fränkel, *Dichtung und Philosophie des frühen Griechentums* (Munich, 1962), English trans. by M. Hadas and J. Willis, *Early Greek Poetry and Philosophy [EGPP]* (New York and London, 1973), and 'Xenophanesstudien', *Hermes*, 60 (1925), 174–92, repr. in his *Wege und Formen frühgriechischen Denkens* (Munich, 1960) (a portion of this study was translated into English by Cosgrove and Mourelatos and included in the latter's *The Pre-Socratics* as 'Xenophanes' Empiricism and his Critique of Knowledge', pp. 118–31). Many of the views advanced in these studies were subsequently incorporated in accounts given by Guthrie, Kahn, Mourelatos, and Robinson, to mention only a few.

But in what follows I argue that both of these views are untenable: there was a greater degree of philosophical interest in cognition among the Presocratics than has often been supposed, but the view that there was an identifiable process of evolution in the meaning of the key terms of the Greek cognitive vocabulary—as a set of (Homeric) perception-orientated expressions gradually acquired a more intellectual cast—seems to me at odds with a sizeable body of evidence. In Section 2 I explain what I regard as the main difficulties facing the 'developmental' view. In Sections 3 and 4 I offer a different line of argument in support of the thesis that both Heraclitus and Parmenides countenanced a form of knowledge gained not simply (if at all) through sense-perception, but also (or perhaps instead) through one or more processes of reflection. But, in my view, their accounts were characterized more by a continuity in terminology and paradigms for knowledge than by any semantic novelties.

2. The developmental view

We can, as a consequence of overlapping argumentation,⁵ identify three main theses within the view that early Greek expressions for knowledge show a pattern of development away from an original conception of knowledge as virtually identical with sense-perception towards one in which knowing had little or nothing to do with perceiving.

1. Etymologically, and in the earliest period of Greek literature known to us, many of the terms of the Greek cognitive vocabulary were linked directly with the operation of the faculties of sense, especially the sense of sight; as a consequence, during this early period there was little if any awareness of the possibility

⁵ In 'Noûs, νοῦς' (pp. 36, 61) von Fritz indicates that he adopted the accounts of *μαρτυρεῖν* and *γινώσκω* given by Snell in *Die Ausdrücke*. In his *Discovery* (p. 315 n.) and 'Wie die Griechen lernten' (p. 41) Snell cites with approval the account of *νοῦς* and *νοέω* given by von Fritz; in 'Wie die Griechen lernten' (p. 22 n.) Snell also cites in concurrence the results of the earlier studies by Fränkel. In his 'Xenophanesstudien' Fränkel states that Snell incorporated his interpretation of Xenophanes' fr. 34 in *Die Ausdrücke* (Mourelatos, *The Pre-Socratics*, 123) and alludes to Snell's account of *οἶδα* and *ἰστέον* (p. 124 n.); and in *EGPP* Fränkel cites both Snell's and von Fritz's studies. As we shall see, there were also some important differences, even the occasional inconsistency, among their accounts.

that knowledge might be acquired not immediately in sense-perception, but with an expenditure of effort and through some process of reflection (in short, during this early period 'knowing' was essentially just a matter of 'having perceived').

2. According to von Fritz and Fränkel, in the teachings of Heraclitus and Parmenides these (still perception-orientated) terms for knowledge acquired the association with reflection and logical inference that would remain characteristic of their meaning in later periods. The 'immediate' or 'sudden-intuitive' quality so characteristic of *νόος* and *νοεῖν* in Homer, for example, was still evident in the *νόος* and *νοεῖν* of the earliest philosophers—the element of deductive reasoning or inference being even less characteristic of Xenophanes' and Heraclitus' use of these terms than it was of Homer's.⁶ With Xenophanes the idea emerged that *νόος* was an exceptional quality possessed by only a few and, in a related development, it became the business of *νόος* to grasp the larger law governing the cosmos.⁷ While this represented a new subject-matter, the function of *νόος* in Heraclitus was still closely related to the basic Homeric meaning ('realizing the meaning of a situation'); and gaining insight into the cosmos was still a matter of realizing through perception. What was new in Heraclitus was the idea that through our contact with the natural world we could gain an insight of vastly larger scope and significance.⁸ Similarly, for Parmenides *νόος* still enjoyed an intuitive relationship with reality (although error might occur when mortals mistakenly analysed the nature of *τὸ εἶναι*). As a result of these developments, both an insight into the unity of the cosmos and a capacity for logical inference became characteristic of both *νόος* and *νοεῖν*. Yet the earlier meaning of *νόος*—as 'that in us by which we enjoy a direct view of reality'—did not completely disappear.

3. In the last of his several studies on this topic Snell maintained that a 'higher' or 'intellectual' way of knowing emerged at a certain point in ancient Greek thought as a consequence of a newly developed appreciation of the value of seeking and enquiring.⁹ In Homer, he argued, the main verbs for knowing and

⁶ Von Fritz, 'Noûs, νοεῖν', 26, 33, 40-1

⁷ Ibid. 34-7.

⁸ Ibid. 38-40.

⁹ In 'Wie die Griechen lernten' Snell states his objective as 'zeigen, wie die nachhomerische Zeit den Gedanken entwickelt hat, daß man suchen und forschen

understanding—*γινώσκω*, *νοέω*, *οἶδα*, *συνίημι*—had shown little or no connection with reflection, and no awareness of a need for intellectual effort. These elements appear for the first time when Archilochus urges his *θυμός* to 'know what rhythm holds man in its sway' (fragment 67a Diehl) and Solon describes as 'the most difficult knowledge conceiving of the unseen measure that alone holds the limits of all things' (fragment 16 Diehl). The process of evolution comes to term in a philosophical setting when Heraclitus articulates the idea of a *λόγος* grasped through search and reflection, and contrasts (in his fragment 40) this insight with the knowledge of accumulated experience. Appreciation of the value of enquiry was a distinguishing feature of Ionian thought generally,¹⁰ but in Heraclitus (according to Snell, but not von Fritz) *νόος* began to operate as an organ of thought. However (as von Fritz had also maintained), logical reasoning became one of the characteristic functions of *νόος* as a consequence of Parmenides' use of the techniques of logical deduction.¹¹

The developmental view, it should be said, contained a few solid kernels of truth. The Greek knowledge-verb *οἶδα* is in fact a second perfect formed from the root perceptual verb **εἶδω* 'I see' (thus *οἶδα*, translated as 'I know', means literally 'I have seen'); the present of the Greek *γινώσκω* was probably derived from an older and simpler aorist form *ἔγνω*, with its root element, *γνω-*, in all likelihood meaning 'note' or 'notice'; and the Greek *συνίημι* began its life meaning merely 'coming or bringing together' in a physical way, only later coming to designate intellectual comprehension and 'concurrence'. It would also clearly be a mistake to read the earliest uses of *νοέω* and *νοεῖν* as though informed by the

muß, um zu höherem Wissen zu kommen' (pp. 20-1). Cf. *Discovery*, 139 ff. In his earlier *Die Ausdrücke* (p. 28) he had explained the 'intellectual' or 'philosophical' sense of 'know' ('*γινώσκειν* . . . in seinem prägnanten, philosophischen Sinne') as merely an extension of the act of synthetic unification that constituted simple sense-perception. This argument does not appear in his later studies, which is perhaps just as well. The essential (and therefore constant) synthetic character of the perceptual act could in itself hardly account for the onset of a new way of thinking.

¹⁰ *Discovery*, 139 ff.

¹¹ In *Discovery*, 147 ff., Snell also ascribes to Parmenides the idea that men acquire knowledge of the truth through divine revelation, and cites various passages in Parmenides' fr. 1 to support that claim. I argue against this view in sect. 4 below.

deductivist conception of knowledge later championed by Parmenides. Moreover, in ancient Greek, as in other languages ancient and modern, what people commonly claimed they knew was one or more features of the immediate environment disclosed to them in sense-perception, most notably through their sense of sight. As Aristotle explained (*Metaph.* 980^a), we hold the sense of sight in high regard precisely because it 'reveals many distinctions and most enables us to know'.

But in many other respects the use of early Greek expressions for knowledge fails to conform to the terms of the developmental view.¹²

Thesis (1) above, shared by all the proponents, almost certainly exaggerated the closeness of the tie between perceiving and knowing in the Homeric epics. While 'Homeric knowing' was commonly a matter of becoming aware of the features of one's immediate environment, it is now recognized that Homer also allowed for knowledge on occasions when what was known either was not or could not be directly perceived.¹³ In various scenes of the *Odys-*

¹² I ignore in this assessment the question of the etymology of *νόος*. It is perhaps worth noting that the perceptually orientated etymologies which von Fritz characterized as the 'most probable' (from 'sniff' and 'smell') have not gained support in recent years. Among other possibilities: the proto-IE root **nes-*, as seen in the Greek verb *νέομαι* 'return' (in accounts by D. Frame and P. Frei); the IE root **snu-*, based on a parallel with the Gothic *snutrs* 'wise, clever' (Schwyzer and Frisk); and the IE root **nej-* (McKenzie) based on a Sanskrit verb meaning 'lead' (cf. Greek *ἡγέομαι* 'lead' and 'think'). In any case, etymology is not crucial; on any etymology we shall still have to determine what the term meant during the period when the Homeric epics were being created.

¹³ Edward Hussey, 'The Beginnings of Epistemology: From Homer to Philolaus', in S. Everson (ed.), *Companions to Ancient Thought*, i. *Epistemology* (Cambridge UP, 1990), 13–14, calls attention to various passages in Homer where people are said to have knowledge about events lying either in the future or in the distant past, about general truths, or other matters not open to direct observation. Cf. *Il.* 20. 203–4 'We know (*ἴδμεν*) each other's lineage and parents, for we have heard the tales told in olden days by mortal men, but not with sight of eyes have you seen my parents nor I yours (*ὄψεαι δ' οὐτ' ... ἴδες*)'; *Il.* 13. 665 'He embarked knowing full well (*εὖ εἰδώς*) his deadly fate, for often had the old one, good Polyidus, told it to him'; *Il.* 6. 447–9 'For of a surety I know (*εὖ ... οἶδα*) ... the day will come when sacred Ilios will be laid low.' For a parallel critique of the Snell-von Fritz view of Homeric knowledge see E. Heitsch, 'Das Wissen des Xenophanes', *Rheinisches Museum*, 109 (1966), 193–235. Often cited in support of the 'knowing' = 'having seen' thesis is the famous invocation of the Muses at *Il.* 2. 484 ff., where the goddesses are said to know all things since they are present (*παρόντες*), whereas mortals hear only rumour and know nothing (*κλέος ... οὐδέ τι ἴδμεν*). But since Homer routinely credits individuals with knowledge (as in the

sey, moreover, it was not only possible, but of considerable importance to Homer's story, that not every person perceived was thereby known for who he or she really was, and not every situation encountered was immediately well understood.¹⁴

The idea expressed by Heraclitus (perhaps also by Xenophanes), that *νόος* was a special capacity possessed by a select few, would not, moreover, have been entirely without precedent. When Penelope asks Odysseus how he will learn if she excels all women *νόον καὶ ἐπίφρονα μῆτιν* (*Od.* 19. 325–6), she must mean by *νόος* not the 'mind' all persons would have, but that 'wisdom' or 'high intelligence (and shrewd cunning)' she and a few others possess in great measure. In both epics Homer sets apart paragons of *νόος* who 'know how to *νοῆσαι* before and after'—and who can as a consequence give wise counsel—from all those who suffer from limited natural endowments or heaven-sent confusion.¹⁵ It would, moreover, be difficult to understand how Heraclitus (in fragment 40) could possibly have communicated a challenge to the conventional view of *νόος* unless *νόος* in the sense of 'wisdom' or 'understanding' already had some currency in common parlance. In short, in Homer *νόος*, *νοεῖν*, *γινώσκω*, and *εἰδέναι* often designate a knowledge that is neither identical with nor an immediate result of sense-perception.

Thesis (2) similarly overstates the extent of the perceptual orientation of these terms as they were employed by the earliest philosophers. Fränkel, for example, argued that the presence of the visual term *ἴδεν* ('saw') in Xenophanes B 34 requires that we give to *εἰδώς* and *οἶδε* the particularly pointed meaning of 'a knowing rooted in vision'. But if so, then Xenophanes' thesis:

passages just quoted), we cannot suppose that he wished to deny knowledge to all mortals, and claiming that knowledge about this matter (the names of all the Greek captains at Troy) was available only to direct observers hardly qualifies as a blanket repudiation of all knowledge (cf. Plato, *Theaet.* 201 B ff.). The limited epistemological implications of the invocation have been pointed out by Hussey (loc. cit.).

¹⁴ I have defended this thesis at some length in 'Perceiving and Knowing in the *Iliad* and *Odyssey*', *Phronesis*, 26 (1981), 2–24. The paradigm case is, of course, Odysseus, who remains unrecognized long after he has been perceived. I discuss the character of the knowledge which Penelope and the other members of his household gain of Odysseus, as well as the methods they employ in doing so, in sect. 4 below.

¹⁵ Cf. *Il.* 1. 572; 3. 109; 18. 250; *Od.* 24. 452; also Hesiod, *WD* 793–4: 'On the great twentieth, in full day, a wise man (*ἴστωρα φάτα*) should be born. Such a one is very sound-witted (*μάλα γὰρ τε νόον πεπυκασμένος ἐστίν*)' (trans. Evelyn-White).

καὶ τὸ μὲν οὖν σαφὲς οὐκ ἄνθρωπος ἰδεῖν οὐδὲ τις ἔσται
εἰδὼς ἀμφὶ θεῶν τε καὶ ἄσσα λέγω περὶ πάντων·
εἰ γὰρ καὶ τὰ μάλιστα τύχοι τετελεσμένον εἰπῶν,
αὐτὸς ὁμῶς οὐκ οἶδε· δόκος δ' ἐπὶ πᾶσι τέτυκται.

... and the certain truth no man has seen, nor will there be anyone who knows both about the gods and such as I say about all things; for even if one were to succeed in speaking of what is brought to pass, nevertheless he himself would not know. But opinion is allotted to all.

must be downgraded to the much less interesting claim that 'no one has or ever will enjoy a *perceptually grounded* knowledge' about such (obviously non-evident) matters as the gods and the truth of various views of how 'all things' are. The mere absence of *perceptual* knowledge, moreover, could not possibly have prepared the way for Xenophanes' conclusion that only opinion is allotted or available to all. Thus, if fragment 34 is to make any sense as an argument, its 'know' cannot mean just 'know through sense-perception'.¹⁶

Similarly, when Heraclitus maintains (fragment 56) that ἐξηπάτηνται . . . οἱ ἄνθρωποι πρὸς τὴν γνώσιν τῶν φανερῶν ('people are deceived in their knowledge of evident things') we are to infer, according to von Fritz, that the missing knowledge is perceptual in character—the "hidden harmony" [is] quite directly visible for him who is able to see it'. But this is neither an obligatory nor an especially plausible reading to give to Heraclitus' remark; on the contrary, what people have failed to grasp about the most evident things could be the way or ways in which these things are non-evidently connected with one another.¹⁷

Moreover, when Parmenides asserts in different ways that νόος

¹⁶ Fränkel's 'empiricist' reading of the terminology of fr. 34 is discussed (and rejected) by Heitsch, 'Das Wissen des Xenophanes', and Jonathan Barnes, *The Presocratic Philosophers* (London, Henley, and Boston, 1979), i. 138–9. Except where noted to the contrary, I follow the texts of the Presocratics given in H. Diels and W. Kranz, *Die Fragmente der Vorsokratiker*, 6th edn. (Dublin and Zurich, 1966).

¹⁷ The 'intelligence that steers all through all' (fr. 41), the 'deep measure of the soul' (fr. 45), 'how all things are one' (fr. 50), 'the back-stretched connection' (fr. 51), and 'the unity of day and night' (fr. 57), etc. cannot plausibly be regarded as *perceptible* properties of the cosmos. Heraclitus' central thesis about knowledge has been aptly summarized by Malcolm Schofield: 'we need to redescribe or find the meaning in what we know already' ('Heraclitus' Theory of Soul and its Antecedents', in S. Everson (ed.), *Companions to Ancient Thought*, ii. *Psychology* [Cambridge UP, 1991], 18).

is essentially linked with τὸ εἶναι, it does not follow that νόος must enjoy some intuitive insight into the true nature of reality (or that νοέω means simply 'know by direct acquaintance'). Alternatively, and more plausibly, these remarks can be read as asserting that whenever we speak and think, our words and thoughts must have τὸ εἶναι as their subject-matter (even though mortals do not realize this and believe in many incorrect ways that what-is-not is a feature of the real world), since (according to B 6. 1–2 and 8. 35–7) τὸ εἶναι is the only thing 'available' for thought and speech to be about. It is particularly difficult to see how νόος could be characterized as a faculty of intuitive insight into reality without making the νόος attributed to know-nothing mortals (cf. B 6. 6–9) not so much deplorable as impossible. It must, moreover, be regarded as at least peculiar that, as Thesis (2) would have it, Parmenides chose to include deductive inference—an operation he expressly contrasts (at B 7. 3–8. 1) with the faculties of sense—among the functions of a faculty he is supposed to have linked with them. If νόος and νοεῖν had enjoyed the close tie with sense-perception which Thesis (2) asserts, we should expect Parmenides to have spoken out in some fashion *against* them, for example, by having the goddess urge not that we keep our νόημα away from some specific way of thinking (B 7. 2), but rather that we should keep away from all (supposedly perception-based) νόημα. Here, as elsewhere, when we read early Greek poetry and philosophical argument armed with the assumption that the terms of the cognitive vocabulary implied some degree of engagement in sense-perception, we encounter many anomalies.¹⁸

¹⁸ It appears to have been assumed by each of the proponents of the developmental view that advances in philosophical thought and common-sense opinion necessarily go hand in hand with semantic changes; that is, that the novel beliefs and ideas of a people are necessarily reflected in new meanings for the terms in their language. Witness the statement made by W. von Humboldt (quoted with approval by Snell at the outset of *Die Ausdrücke*): 'Die Geistes Eigentümlichkeit und die Sprachgestaltung eines Volkes stehen in solcher Innigkeit der Verschmelzung ineinander daß, wenn die eine gegeben wäre, die andere müßte vollständig aus ihr abgeleitet werden können. Denn die Intellektualität und die Sprache gestatten und befördern nur einander gegenseitig zusagende Formen. Die Sprache ist gleichsam die äußerliche Erscheinung des Geistes der Völker; ihre Sprache ist ihr Geist und ihr Geist ihre Sprache; man kann sich beide nie identisch genug denken.' Von Humboldt's identification of the forms of thought with forms of speech might have enjoyed some degree of validity in the context of German idealist philosophy (where a cunning world spirit might be assumed to be at work co-ordinating all

Thesis (3) more plausibly holds that for Heraclitus and Parmenides neither νοέω nor γινώσκω designated a knowing gained exclusively in sense-perception. But when Snell proposes that an appreciation for a distinctly intellectual form of knowledge emerged in the archaic period when poets became aware of the difficulty of acquiring knowledge and of a need for effort and enquiry, it is difficult, I think, to feel we have the whole story. That it might be hard to know, or that one might need to undertake an enquiry in order to learn, appear to have been ideas fully as intelligible to Homer as they were to Archilochus and Solon.¹⁹ And what the Ionian historians demonstrated was not the value of *reflection*, but rather how wide travel and first-hand observation might enlarge one's knowledge about the world, its people, and their customs.²⁰ What we miss in Hecataeus (to the extent we can know his views at all), as later in Herodotus, is any inkling that we might *not* be able to discover one or more important truths about the world by reading them directly off its face, or that we might need to engage in one or more processes of reflective thought that would take up where perception left off. But, for all the reasons just given, it is unlikely that we shall be able to explain the emergence of such an idea within the framework of the developmental view.

aspects of reality), but it is in general implausible to assume that everything commonly regarded as true about *x* (or philosophically theorized about *x*) must also represent an essential element in the meaning of the term '*x*'.

¹⁹ Cf. *Od.* 13. 312–13: 'Hard it is for a mortal to know you, goddess (ἀργαλέον σε θεά, γνῶναι βροτῶ), when he meets you, no matter how clever he might be.' At *Il.* 10. 211 ff. Nestor explains that his companions might learn a good deal about Trojan plans if they were to go among them; and at *Od.* 1. 94 ff. (and often elsewhere) Athena directs Telemachus to go to Sparta and Pylos 'in order to learn' (πενθόμενον) what he can about the return of his father. In 'Wie die Griechen lernten', 37, Snell considers Odysseus' various attempts to find out what is going on around him, who these people are, and what sort of νόος they have, etc., but claims that none of that amounts to the 'systematic investigation' of Hecataeus. Perhaps not, but it is nevertheless 'knowledge gained as the result of human endeavor' (*Discovery*, 142).

²⁰ Among many similar remarks: 'Wishing to get clear knowledge of this matter (σαφές τι εἰδέναι) from a point where that was possible, I took ship to Tyre in Phoenicia where I heard there was a very holy temple of Heracles. There I saw it . . . At Tyre I saw yet another temple of Heracles . . . Therefore, the things I have discovered by enquiry clearly show (τὰ ἱστορημένα δηλοῖ σαφέως) that Heracles is an ancient god' (Hdt. 2. 44).

3. Perceiving and knowing in Heraclitus and Xenophanes

Any attempt to show that a Presocratic philosopher embraced some sort of distinction between intellectual and perceptual knowledge will have to confront the extraordinary testimony of Aristotle and Theophrastus that the Presocratics, without exception, actually equated thought (and knowledge) with sensation:

καὶ οἳ γε ἀρχαῖοι τὸ φρονεῖν καὶ τὸ αἰσθάνεσθαι ταὐτὸν εἶναι φασιν (And the ancients say that thinking and sensing are the same thing). (*De anima* 427^a21–2)

τὸ ὑπολαμβάνειν φρόνησιν μὲν τὴν αἴσθησιν (These thinkers suppose thought [or knowledge] to be sensation). (*Metaph.* 1009^b12–13)²¹

Clearly, if the Presocratics failed even to distinguish thought from sensation, it would be difficult to imagine how they could also have supposed that any instance of knowledge constituted anything more (or other) than a form of sense-perception.

But Aristotle's remarks must be read with care. On both occasions his characterization of the ancients' view is linked with the claim that they all regarded both thought or knowledge (φρόνησις) and sensation (αἴσθησις) as a physical alteration (ἀλλοίωσις) taking place within the human body:

They all look upon thinking as a bodily process like perceiving, and hold that like is known as well as perceived by like. (*De anima* 427^a26–8)

And in general it is because these thinkers suppose knowledge to be sensation, and this to be a physical alteration, that they say that what appears to our senses must be true. (*Metaph.* 1009^b12–15)

The view expressed in the passages quoted from Empedocles, Parmenides, and Homer is that human thought is physically determined, either by 'what is present' to the individual (παρεὸν . . . μῆτις in Empedocles, fragment 106; ἐπ' ἡμαρ ἄγῃσι . . . νόος from Homer, *Od.* 18. 136–8; and ἐξέστη . . . ἀλλοφρονέοντα, apparently a loose quotation of *Il.* 23. 698) or else by our

²¹ One would normally translate φρονεῖν as 'to think', but since Aristotle speaks here of φρόνησις as necessarily true, it appears he has knowledge in mind. Theophrastus never states the thesis in similarly comprehensive terms, but he does claim that Parmenides 'says that perception and thought are the same thing' (*De sens.* 4), and suggests that Empedocles might have done the same (23).

physical 'nature' (μετέφυν . . . τὸ φρονεῖν in Empedocles, fragment 108; and κρᾶσιν μελέων . . . νόος, μελέων φύσις . . . φρονέει, and τὸ πλεόν . . . νόημα in Parmenides, fragment 16). Not only do these remarks not amount to a complete identification of thought and knowledge with sensation, but such a thesis would actually be incompatible with the clear implication of Homer's description of Hector as still having thoughts while lying insensibly on the ground. Nor would the complete identification of thought with sensation sit easily with the view expressed by Parmenides that our thoughts are a function of the physical condition or disposition of our 'limbs' or 'organs'. Elsewhere (GC 325^a13), Aristotle confirms that he took the ancients' 'identification' of sensation with thought and knowledge as much less than complete, since he there speaks of the followers of Parmenides as 'passing over and disregarding sense-perception on the ground that one should follow reason'. In short, the only way in which Aristotle could have consistently believed that the Presocratics 'had identified thought with sensation' was that since they had spoken of both processes as instances of physical alteration, they must have considered thought and sensation to be *essentially the same natural phenomenon*—a familiar, if very misleading, Aristotelian way of speaking of two things as 'identical' or 'the same'.²² Aristotle can consistently regard thought (or knowledge) and sensation as 'the same' (in so far as both are physical alterations) and as quite different from one another in other respects.

In general, I would assume, we could grant that a distinction had been drawn between two forms of knowledge, one perceptual and the other (at least to some extent) intellectual, if either (1) in speaking about the faculties of sense-perception generally a philosopher were to characterize them as incapable (in at least some cases) of providing us with genuine knowledge, or (2) while speaking about a particular instance of knowledge, a philosopher were to maintain that some distinct contribution by the intellect would be needed before such knowledge could be acquired (for example, holding that information acquired through sense-perception would need to be interpreted in order for it to have any meaning, or

²² Cf. *Metaph.* 1018^a6–7 ταῦτὰ λέγεται καὶ ὡς ἡ οὐσία μία, which is also the primary sense in which two things can be spoken of as 'one' (1016^b8–9 τὰ δὲ πρῶτως λεγόμενα ἐν ὧν ἡ οὐσία μία).

that some observed phenomena would need to be classified according to larger organizing categories in order to be understood, or that an inference would need to be drawn from the observed phenomenon in order for its hidden nature or causes to be discovered).

In fact, as many have thought, both (1) and (2) arguably apply to Heraclitus. In fragment 107 he characterizes the faculties of sight and hearing in general terms as 'bad witnesses' for those with uncomprehending souls, and repeatedly asserts that even when people have acquired perceptual experience they still have not gained knowledge (fragments 1, 17, 34, 56, 72). He also held that nature, or the nature of things, was hidden (fragments 55, 123) and that its truth could be conveyed to us only if we were able to puzzle it out (fragment 93).²³ His claim in fragment 101 that he 'enquired of' or 'searched for' himself, may also have been his way of referring to a process of reflection in which he both posed and answered the most important questions.²⁴ Through the repeated juxtaposition of opposing pairs of qualities (experienced yet inexperienced, having learnt but not knowing, having heard the word but not got the message, having been caught and yet left behind, having been overlooked and yet taken along, being present but absent, in contact yet isolated, asleep while awake, familiar yet strange, obvious but hidden, both expected and unexpected, and common although private), Heraclitus appears to have sought to provoke his audience into reflecting on their present understanding of the world, to consider the possibility that it might have a nature drastically different from the one they think it has,²⁵ and that they might need to uncover

²³ I follow Marcovich (and others) in reading fr. 93 as a statement not about (or not only about) Heraclitus' oracular style, but about the nature of the world (although I would not necessarily state this in Marcovich's terms of the 'Logos emitting σήματα'). See M. Marcovich, *Heraclitus: Greek Text with a Short Commentary* (Mérida, Venezuela, 1967), 51–2.

²⁴ A detailed, and I think persuasive, case for reading διζήμεαι on the model of 'enquiring' of the oracle is made by Guthrie, *History of Greek Philosophy*, i (Cambridge UP, 1962), 416–19.

²⁵ Similarly Charles H. Kahn, *The Art and Thought of Heraclitus* (Cambridge UP, 1979), 124: 'The only hope of "getting through" to the audience is to puzzle and provoke them into reflection.' For the implications on the objective side see A. P. D. Mourelatos, 'Heraclitus, Parmenides, and the Naive Metaphysics of Things', in E. N. Lee, A. P. D. Mourelatos, and R. M. Rorty (eds.), *Exegesis and Argument* (Phronesis, suppl. 1; Assen, 1973), 16–48; and more recently, P. Curd, 'Knowledge and Unity in Heraclitus', *Monist*, 74 (1991), 531–49.

that nature in a quite novel way.²⁶ And to the extent to which we can assume that his own method of instruction would exemplify what he regarded as the most appropriate approach to learning, we can conclude that he took the most important knowledge to be acquired not simply in perception, i.e. not simply in hearing the individual words which made up his λόγος (or in gaining an awareness of individual perceptible qualities of various kinds), but rather through a process of reflection on the overall structure and meaning of what he said (or of what is perceived generally).²⁷ Thus, alongside Heraclitus' distinctly materialistic way of speaking of wisdom and intelligence alluded to in Socrates' remarks in the *Phaedo*²⁸ was the view that knowledge came in two forms: one obvious, easy, and common, and the other subtle, difficult, and rare.

But it is not yet clear what *relative* importance Heraclitus

²⁶ Cf. Plato, *Rep.* 524E: 'But if some contradiction is always seen with it, so that it no more appears to be one than its opposite, there would forthwith be need of something to judge between them, and it would compel the soul to be at a loss and enquire, by arousing thought in itself (ἀν ἐν αὐτῷ ψυχὴ ἀπορεῖν καὶ ζητεῖν, κινουσα ἐν ἑαυτῇ τὴν ἐνοσίαν)', which may be as good an explanation of the aporetic character of Plato's early dialogues as it is of Heraclitus' style. The view that paradox played a key role in Heraclitus' approach to instruction forms a main theme in M. M. Mackenzie's 'Heraclitus and the Art of Paradox', *OSAP* 6 (1988), 1–37.

²⁷ The extent of the innovation represented by this conception of language comprehension is explained in Martha Nussbaum's 'Ψυχὴ in Heraclitus (I and II)', *Phronesis*, 17 (1972), 1–16, 153–70.

²⁸ The main texts are fr. 118 (on the wisdom and superiority of the dry soul), and 117 (on the lack of awareness characteristic of those having a wet soul). According to Sextus (Heraclitus A 16), Heraclitus linked the achievement of a rational understanding of the cosmos with coming into contact through sense-perception with the rational λόγος which rules the world. On some occasions in the history of philosophy the identification of material substances and physical processes related to cognition has formed part of a larger effort to reduce all cognitive phenomena to physical ones. But since Heraclitus identifies various matters as involved in acquiring knowledge (e.g. paying attention, reflecting on certain matters, interpreting, etc.) that are not themselves linked with physical elements or states, a reductionist programme seems unlikely. Heraclitus does adopt a form of cognitive materialism (in so far as he proposes that certain material elements are causally linked with thought and knowledge), but there is no good reason to think that he sought to *reduce* thought and knowledge to physical states or to account for them solely in terms of material conditions. For the same reasons (as well as for others relating to the limited credibility he assigned to the δόξα account) Parmenides' explanation of νόος in terms of the physical condition of our bodily organs (fr. 16) can hardly be regarded as his entire account of the nature of thought and knowledge.

attached to sense-perception and thought. Did he suppose, for example, that we ought to attempt to amass experience through perception before seeking to reflect on that experience? Or did he assign a fairly minimal significance to perceptual experience, holding that the only significant advance towards knowledge took place when we began to reflect on the various non-perceptible aspects of nature?

The consensus in recent accounts is that Heraclitus regarded the acquisition of extensive experience through sense-perception as the indispensable first stage in the learning process: we shall have to carry out extensive enquiries into nature to find out what it looks and sounds like; and then we must reflect on what it all means, what its hidden principles of unity might be, etc.²⁹ Fragments 35 ('lovers of wisdom must be enquirers into very many things') and 22 (with its allusion to 'seekers of gold') have been read as assigning a positive value to enquiry and the experience gained through it; while fragment 40 (the famous put-down of the polymaths) has been regarded as an assertion that sense-experience cannot *suffice* for knowledge—genuine wisdom must be more than disconnected bits of information one picks up along

²⁹ Cf. Edward Hussey, *The Presocratics* (New York, 1972), 37: 'He reaffirms the importance of first-hand inquiry . . . But the results of such inquiry are not an end in themselves: it is necessary to have understanding (*noos*), in order to be able to interpret the evidence of the eyes and ears' (similarly Kahn, *Heraclitus*, 108: 'polymathie . . . is not enough . . . the mere accumulation of information will not yield understanding, unless it is accompanied by some fundamental insight'); cf. also G. S. Kirk, *The Cosmic Fragments* (Cambridge UP, 1954), 61; Robinson, *Heraclitus: Fragments* (Toronto, 1987), 182; Marcovich, *Heraclitus*, 28; Barnes, *Presocratic Philosophers*, i. 147–9; G. S. Kirk, J. E. Raven, and M. Schofield, *The Presocratic Philosophers*, 2nd edn. [KRS] (Cambridge UP, 1983), 187. The main dissenter was F. M. Cornford, who (in *From Religion to Philosophy* [New York, 1957] and *Principium Sapientiae* [Cambridge, 1952]) portrayed Heraclitus as an embodiment of 'the mystic temperament', successor to the shaman, and a fierce opponent of Ionian enquiry and rationalism. But the implausibility of Cornford's view of Heraclitus as mystic was made clear in Vlastos's review in *Gnomon*, 27 (1955), 65–76, repr. in D. J. Furley and R. E. Allen (eds.), *Studies in Presocratic Philosophy*, i (London and New York, 1970), 42–55. Uvo Hölscher also claimed that 'the paradox of the unity of opposites was something not to be proven [as in Parmenides], but to be grasped through intuition alone. B 18 cautions us that insight into the paradox is not the acquired result of investigation; there is no "method of inquiry"' ('Paradox, Simile, and Gnomonic Utterance in Heraclitus', in Mourelatos (ed.), *The Pre-Socratics*, 233). Guthrie appears to have sought to straddle the fence on this issue, claiming that Heraclitus saw no purpose in *ιστορίη* (*History of Greek Philosophy*, i. 417), and that he held that 'accurate perception of phenomena is the necessary preliminary to the discovery of the Logos' (ibid. 429–30).

the way. While this view of Heraclitus has some initial plausibility, it is not as well founded as has been supposed, and accepting it does bring some odd consequences in its train.

We can begin with the disparagement of *πολυμαθία* in fragment 40:

*πολυμαθίη νόον*³⁰ οὐ διδάσκει· Ἡσίοδον γὰρ ἂν ἐδίδαξε καὶ Πυθαγόρην, αὐτίς τε Ξενοφάνεά τε καὶ Ἑκκαταῖον.

Much learning does not teach wisdom; for it would have taught Hesiod and Pythagoras, and again both Xenophanes and Hecataeus.

The argument consists of a sweeping negative thesis followed by several counterfactual cases cited to prove its point. Judging from some similar 'inferences from failure in the best case' arguments,³¹ Heraclitus appears to be trying to drive a wedge between two matters normally regarded as identical or synonymous. The argument allows the first item to be realized to an optimal degree, and then claims that even in this best case it still does not constitute a bona fide case of the second. Since (so it is implied) even the greatest paragons of learning cannot be credited with 'wisdom', then, contrary to conventional opinion, the two states or qualities of mind must be distinguished from one another.

When in fragment 114 Heraclitus links 'speaking with *νόος*' with 'basing themselves firmly on that which is common to all things', and in fragment 41 identifies wisdom (or 'the wise'—*τὸ σοφόν*) with 'knowing the intelligence that steers all things', he thereby links the desired *νόος* with the grasp of the *λόγος* he elsewhere describes as 'common' and as that 'in accordance with which all

³⁰ I follow Marcovich in omitting the *ἔχειν* in Athenaeus and Clement, which would (implausibly) turn *νόος* into a natural endowment (= 'having sense', 'having good sense'), arguably not teachable by anything. In this respect Heraclitean *νόος* differed from the *ξύνεσις* which Theophrastus (*De sens.* 25 ff.) claims Alcmaeon distinguished from perception, since it served to separate human beings from the lower animals. Alcmaeon's *ξύνεσις* was, therefore, not 'Heraclitean understanding' in the sense of a grasp of some complex matter acquired through reflection, but rather 'understanding', as in the title of Locke's *Essay*: 'the faculty by which one thinks and knows'.

³¹ Ironically, a form of argument first on display in Xenophanes. Cf. B 34. 3-4: 'even if, in the best case (*τὰ μάλιστα*), one were to succeed in speaking of what is brought to pass, still one would not oneself know; but opinion is allotted to all'. Cf. also B 2. 17 ff. in support of his claim that athletic excellence is not worth the degree of honour accorded to it: 'nor if there were someone swift of foot—which is most honoured of all men's deeds of strength—would a city be better governed'.

things happen' (fragment 1) and are 'one' (fragment 50). We should read fragment 40, then, as the statement that in spite of all their vast learning³² none of these four paragons of wisdom managed to grasp the common and unifying *λόγος* at work in the cosmos.

It has sometimes been thought that since the *-μαθ-* element of *πολυμαθία* also appears in the *ὄψις ἀκοή μάθησις* trio of fragment 55, the state of awareness disparaged here in fragment 40 consisted in the body of information gained from sense-perception.³³ But this is unlikely, for several reasons. While (as we shall see) a robust regard for the value of information gained through sense-perception can be plausibly attributed to Xenophanes—perhaps even to Pythagoras, whom Heraclitus credits with both *πολυμαθία* and *ιστορίη* in fragment 129—the same cannot be said for the Hesiod who in standard poetic fashion identified the divinities as his sources (cf. *Th.* 22 *Ἡσίοδον καλὴν ἐδίδαξαν ἀοιδὴν*, and *WD* 1 ff.).

Second, fragment 55 does not actually express a preference for *what is learnt in sense-perception* (i.e. 'whatever comes from sight, hearing, learning'), but rather a preference for *ὅσων*—'whatever (or as many) from which' or 'whatever (or as many) of which' there is 'seeing, hearing, learning'. We are not told the identity of these 'many', nor what they are preferred to, but one natural choice would be the many persons, things, and events there are that populate the cosmos.³⁴ Since Heraclitus elsewhere criticizes those

³² Rob Bolton has argued that the argument contained (or at least assumed) two additional premisses: (1) the teachings of the polymaths were thoroughly incompatible with one another, and (2) if (1), then none of them could have qualified as a paragon of *νόος* ('Nature and the Human Good in Heraclitus', in K. J. Boudouris, *Ionian Philosophy* [Athens, 1989], 49-57). While it is intriguing to think that Heraclitus might have developed an early form of the sceptical argument from the existence of disagreement among experts, there is a serious obstacle in the path of this reading; if their teachings had been (collectively) riddled with contradiction, they could not even have qualified for *πολυμαθία*, as of course they must if they are to show that it *οὐ διδάσκει νόον*.

³³ Cf. Snell, *Discovery*, 144: 'This delight in a wealth of experience which was so prominent in archaic Greece ... met its first adversary in the person of Heraclitus [fr. 40].' Cf. also K. Pritzl, 'On the Way to Wisdom in Heraclitus', *Phoenix*, 39 (1985), 303-16; Kahn, *Heraclitus*, 106; P. K. Curd, 'Knowledge and Unity in Heraclitus', *Monist*, 74 (1991), 531-49, at 540 ff.

³⁴ Hippolytus, to whom we are indebted for fr. 55, read it as embodying a contrast between 'things seen' and 'things unseen', and as expressing a preference for the former over the latter (similarly Snell, *Discovery*, 145). Yet a preference for the seen over the unseen sits poorly with the idea expressed in fr. 54 that the *ἀρμονία ἀφανὴς φανερῆς κρείττων*. It appears that Hippolytus wished to swallow this

who hold bards and poets in high esteem (fragments 104, 57, 56, and 28a—perhaps also a reference to Hesiod), it would be natural to regard fragment 55 as a statement to the effect that he for one (ἐγώ) regards the many persons, objects, and events he can perceive and learn about as more estimable authorities than singers and poets (cf. the similar contrast of person and authoritative reality contained in his fragment 50: 'listening not to me but to the λόγος').

Neither μάθησις nor the cognate verb μανθάνω, moreover, is restricted in meaning to what one learns through sense-perception, but both range across what a person might learn from perception, or by practice, or through instruction from another.³⁵ Indeed, to be compatible with the variety of approaches represented by the four paragons, μάθησις would need to be 'learning' in a fairly broad sense. There is, then, no good reason to interpret the failure of all the polymaths to gain wisdom as in itself an indictment of a perception-based approach to knowledge.

Furthermore, if we assume that Heraclitus was favourably

inconsistency (between fr. 55: 'honouring the visible more than the invisible' and fr. 54: 'he praises and extols the unknown part of it and the unseen part of its power more highly than the known part'). Catherine Osborne explains that in Hippolytus' view Heraclitus' teaching was that there was no significance in the opposites of conventional morality—thus prefiguring the Noetic view that god possesses all attributes (*Rethinking Early Greek Philosophy: Hippolytus of Rome and the Presocratics* [Ithaca, NY, 1987], 133–82). Osborne's thesis may provide us with a coherent explanation of what led Hippolytus to select the particular fragments he did, but if we are to accept that Hippolytus understood Heraclitus correctly, we shall have to conclude that Heraclitus did not really mean all those nasty things he said about the Ephesians, Pythagoras, Hesiod, and Homer (since he meant to abolish all contrasts between negative and positive), and we shall have to attribute to Heraclitus an interest in precisely the issue that divides Hippolytus from Noetus some seven centuries later.

³⁵ Cf. Xenophanes B 10: 'since from the beginning all have learnt (μεμαθήκασι) according to Homer'. It is difficult to see how μανθάνω can be a matter of 'learning by personal experience' in Herodotus when the Cyreans learn of what the Mytilenaeans are about to do with the person shipped off to them for safekeeping (1. 160 ὡς ἔμαθον ταῦτα πρησόμενα), or in Parmenides when the goddess promises the youth that he will 'learn (μαθήσεται) the opinions of mortals in which there is no true trust'. Snell argued (correctly, it seems to me) that μανθάνω originally involved accustoming oneself to behave in a certain manner (cf. *Il.* 6. 444: 'learning always to be valiant'). A μάθησις that takes place through trial and practice is also evident from Alcman (fr. 109 Diehl) and Pindar (*Isth.* 1. 56) through to Aristotle (cf. *NE* 1103³³ ταῦτα ποιοῦντες μανθάνομεν), but learning by doing is itself not synonymous with learning through sense-perception.

disposed towards ἱστορίη, we shall have to infer that when in fragment 129 he describes Pythagoras as having practised ἱστορίη 'most of all men', he is actually commending Pythagoras for this positive achievement, even though (1) Heraclitus goes on to say that the wisdom Pythagoras constructed for himself out of these writings was a 'much learning' that was also 'bad art', and (2) he elsewhere calls Pythagoras 'prince of swindlers' (fragment 81a). And while a positive reading may be theoretically possible, that is not the most natural sense to assign to these two references to seekers and travellers:

Those seeking (οἱ διζήμενοι) for gold dig up much (πολλήν) earth and find little. (fr. 22)³⁶

One could never discover the limits of soul, though one were to traverse every road—so deep a measure does it possess. (fr. 45)

Two other fragments speak of 'enquiry' in more ambiguous terms:

Men who are lovers of wisdom must be enquirers into [or perhaps knowers of³⁷] very many things (εὖ μάλα πολλῶν ἱστορας). (fr. 35)

I enquired of myself (ἐδιζησάμην ἐμεωυτόν). (fr. 101)

But in each there is enough of a twist to suggest that neither is enquiry of the familiar Ionian sort.³⁸ It must also be counted of

³⁶ Marcovich proposes to read this comment in a positive vein: 'little but precious and worth searching for, because it is gold' (*Heraclitus*, 38), but the correspondence of 'those who dig up many things' with those who have 'learnt many things' makes so positive a gloss difficult to accept.

³⁷ It is not even certain that ἱστορ here must mean 'one who practices ἱστορίη' (cf. the use of ἱστορ in the passage quoted from Hesiod's *Works and Days* in n. 15 above). The term was used generally to refer to wise men, judges, or observers.

³⁸ Cornford took fr. 35 as 'an ironical sneer' at Pythagoras and the other 'much learners' (*From Religion to Philosophy*, 186 n.), and cited the characterization of Hesiod in fr. 57 as πλείστα εἰδέναι as equally contemptuous. A similar reading (of fr. 35 as 'heavily ironical') was adopted by Guthrie (*History of Greek Philosophy*, i. 417). Most commentators have taken it as a positive characterization—do ἱστορίη, by all means, but then go on to do something more. So far as I can see there was neither sneer nor irony in characterizing Hesiod as the one person of whom most 'feel sure' (ἐπισταῖν) that he knows the most things. But if it is hard to be certain about when Heraclitus' comments are laden with irony, we can be sure that he speaks of those who think they are merely in one state (presence, experiencing, knowing, encountering, etc.) when in reality they are still in the opposite condition. In this sense he could have spoken of those who are currently learning about nature as needing to learn far more than they have to date.

some relevance that no fragment or *testimonium* depicts Heraclitus as actually engaged in the *ιστορίη* he is supposed to have valued as the essential initial stage in the acquisition of knowledge. He does of course allude to the orderly arrangement of the cosmos (and the measures, limits, and exchanges among various natural phenomena), but this is not in itself support for *ιστορίη* as a form of research, i.e. for the gathering of factual information about the natural world through wide travel and direct observation.

The inclusion of Xenophanes in the list of fragment 40 may provide some leverage in the question of Heraclitus' attitude towards *ιστορίη*. Partly as a consequence of two loosely phrased comments by Plato (*Soph.* 242 C–D) and Aristotle (*Metaph.* A 5), Xenophanes became known to posterity as the founder of Eleatic philosophy. But many of the surviving fragments of his poetry, as well as a great many of the *testimonia*, link him with the debates of Ionian philosophy.³⁹ Both the merits and the seriousness of purpose of Xenophanes' most novel view, his 'unified cloud theory', have been questioned,⁴⁰ but many of his teachings display what might fairly be regarded as the defining characteristic of Ionian scientific thought—seeking to account for the marvels of nature by reference to an entirely natural set of substances and forces. The testimony that Heraclitus was actually a pupil of Xenophanes (Heraclitus A 1 (5); 1a) is late and probably inconse-

³⁹ In fr. 28 Xenophanes joins in the Ionian debate about the earth's shape and extent, asserting that while we see its upper limit here at our feet, its lower portion stretches down 'without limit' (*ἐς ἀπειρον*—as I read it, 'indefinitely' not 'infinitely' far). In contrast with earlier claims that the earth floated on water or was surrounded by air, Xenophanes' thesis at least had the virtue of being universally confirmed by experience—what would have been observed at every location would only have been earth resting on more earth below. In fr. 29 and 33 he identifies earth and water as, in effect, Milesian *ἀρχαί*, since all things were said to come from them. In what is more consistently read as a piece of geophysics, fr. 27 identifies (the) earth as that from which all things come and that in which they all end up, which fits nicely with the view expressed in fr. 30, that the sea is the source of all winds, clouds, and all other waters (which arise from and descend to return to it through the compression and vaporization described in A 46, from Aetius). Various *testimonia* credit him with accounts of the (cloud-based) nature of the sun, moon, eclipses, lightning, meteors, comets, and St Elmo's fire (known popularly as the Dioscuri).

⁴⁰ Cf. e.g. the comments made by Guthrie (*History of Greek Philosophy*, i. 383): 'He was not only, or even primarily, a natural philosopher . . . he was a poet who took the didactic function of poetry seriously'; see also *ibid.* 390, 393, 395.

quential, but, fragment 40 notwithstanding, the two thinkers were kindred Ionian spirits in many ways.⁴¹

But if so, then what are we to make of the unfavourable mention of Xenophanes in fragment 40? There is one (and so far as I can see, only one) plausible candidate for an offending view: Xenophanes' theory, as reported by Hippolytus, of the wide-scale destruction of human civilization in alternating eras of drought and flood:

Xenophanes thinks that a mixture of the land with the sea comes about, but that in time [the land] becomes freed from the moisture . . . and he says that all men will perish when the land sinks into the sea and becomes mud, at which time generation begins again, and this change comes about in all worlds [or world arrangements]. (Xenophanes A 33 (5–6))

Xenophanes' account draws on several ideas expressed first by Anaximander: an alternating cycle of opposites (here of drought and flood, or the wet and the dry), the notion of a plurality of 'world arrangements' (*πᾶσι τοῖς κόσμοις*), and of a process that unfolds in time (*χρόνῳ*). Heraclitus' own view that the cosmos goes through a cycle of change as opposites pass over into one another stands in the same tradition (although he takes pains to distinguish it from Anaximander's view by holding in fragment 80 that strife *is* justice).

But absent from Xenophanes' theory (as stated in A 33) are two elements Heraclitus insisted upon as vital to a correct understanding of the cosmos: (1) Xenophanes apparently never realized that

⁴¹ In his frs. 11 and 12 Xenophanes described Homer and Hesiod as authorities not to be trusted (cf. Heraclitus B 57, 104, 106); he presented (in his frs. 23–6) an account of a supreme being that in various respects both did and did not resemble Zeus (cf. Heraclitus B 32); he noted (in fr. 34) the limited range of human knowledge, and may have connected this view with a restriction of genuine knowledge to the divine (cf. Heraclitus B 78, 83); he criticized his fellow citizens for their pursuit of wealth and an extravagant lifestyle (fr. 3; cf. Heraclitus B 125a); he viewed Pythagoras (in his fr. 7) with much the same contempt that we hear from Heraclitus (frs. 81, 129); he ridiculed the superstitious beliefs embedded in conventional religious ritual (fr. 17; cf. Heraclitus B 5, 14, 15); and he criticized mankind for its generally deficient understanding of the gods (frs. 1, 14–16, 30–2; cf. Heraclitus B 5). Xenophanes was also credited with a number of scientific ideas which have parallels in Heraclitus—e.g. of a sun created anew every day (A 33, 41; cf. Heraclitus B 6) and of an eternal and imperishable cosmos (A 37; cf. Heraclitus B 30).

the processes of cosmic change must have a *periodic* character; i.e. that the successive eras of drought and flood occur within fixed limits or measures manifesting overall equality and (hence) justice;⁴² and (2) neither here in A 33 nor anywhere else did Xenophanes speak of earth and water, and the wet and the dry, as interdependent (or, as Kahn puts it, co-variant) elements within a larger continuum (cf. Heraclitus B 36, 76a, 76c, 126). Since failing to see how the various opposites in nature are essentially 'one' was in Heraclitus' view *the* cardinal philosophical sin (cf. fragments 8, 10, 50, 51), Xenophanes' failure to grasp the larger significance (as Heraclitus would have understood it) of the cycle of destruction and regeneration would warrant his presence in the list in fragment 40 just as fully as Hesiod's failure to grasp the reciprocal relationship between day and night testified to his ignorance about nature (fragment 106).

Hippolytus also reports that Xenophanes arrived at his theory of human destruction in alternating ages of drought and flood through discoveries of the fossilized remains of sea creatures at various inland locations throughout the Mediterranean region:

And he asserts that there are proofs for these ideas: that shells are found inland and in mountains; and he says that in Syracuse imprints of fish and seals were found, and in Paros the imprint of coral in the deep of the marble, and on Malta slabs of rock containing all sorts of sea creatures. (Xenophanes A 33 (5))

Other fragments and *testimonia* display Xenophanes' curiosity about phenomena in distant locations (e.g. the presence of water in underground caverns, month-long 'eclipses' (at northern latitudes?), mountains and volcanic eruptions in Sicily, St Elmo's fire on ships at sea, etc.), as well as divergent conceptions of the gods from Thrace to Ethiopia, and differing customs from Lydia to Egypt. In fragment 32 (on Iris, the rainbow) he explicitly

⁴² The view that (at least temporal) periodicity loomed large in Xenophanes' science and theology was presented by H. A. T. Reiche in 'Empirical Aspects of Xenophanes' Theology', in J. P. Anton and G. L. Kustas (eds.), *Essays in Ancient Greek Philosophy*, I (Albany, NY, 1971), 88–110. Xenophanes mentions a number of astronomical bodies (the sun, moon, and stars) whose movements are clearly periodic, but what he discusses is why they appear and disappear (and in one case why the sun only appears to move in a circle). There is no mention (and no implication either) of a natural principle of justice or equal measures of natural change in any Xenophanes fragment or *testimonium*.

contrasts the conventional, highly mythic view of the rainbow with the natural cloud phenomenon which is actually 'there to be looked at'. In his most extended comment on knowledge (fragment 34) Xenophanes denies that anyone has achieved, or will do so, τὸ σαφές 'about the gods and such things as he says about all things'; to speak of knowledge in terms of τὸ σαφές is implicitly to testify to the importance of observation for knowledge.⁴³ Although Xenophanes did not in any surviving fragment use the word ἱστορίη, his commitment to it is evident. (He does at least say in fragment 18 that 'by searching mortals find out better'—ζητοῦντες ἐφευρίσκουσιν ἄμεινον.⁴⁴) Thus, if Heraclitus had been favourably disposed towards ἱστορίη, he could only have applauded the line of research that led Xenophanes to his theory of worldwide destruction—the one theory, of all of his teachings we know anything about, that can possibly account for his presence in the list of benighted polymaths in fragment 40.

On balance, then, we make better sense of Heraclitus' teachings if we take his view to be that we 'learn νόος' by reflecting on the cryptic and often highly misleading picture of the cosmos conveyed to us through sense-perception and ordinary speech. What we can thereby learn is how the many apparently separate, even fiercely opposed, elements in nature in reality enjoy a deep symbiotic unity. It is at least a fair guess that he acquired his appreciation for the value of the reflective path not—as the developmental view supposed—when he climbed aboard the ἱστορίη bandwagon, but rather when the failure of the Ionian scientists to uncover the hidden unities in nature convinced him that travel and observation would never lead to the discovery of the most important truths 'even if one were to traverse every road'.

⁴³ There are three reasons to think this: (1) In Homer, knowing in a way that is σάφα often involves direct exposure or experience (e.g. *Il.* 7. 226). (2) A contrast between direct and indirect approaches to knowledge is implied by Alcmaeon's contrast of divine σαφήνεια with mortal τεκμαίρεσθαι in his fr. 1. (3) Herodotus also expresses the idea that knowing in a way that is σαφές involves first-hand observation (see the passage quoted in n. 20 above).

⁴⁴ As I read it, fr. 18 was not the earliest 'hymn to progress' but rather an assertion that enquiry is a 'better way of discovering'—i.e. better than the approach rejected in B 18. 1 (gods intimating all things to mortals). For a defence, see 'Xenophanes on Inquiry and Discovery: An Alternative to the "Hymn to Progress" Reading of Fr. 18', *Ancient Philosophy*, 11 (1991), 229–48.

4. Parmenides' way of knowing

In Parmenides B 7. 3–6 an unnamed goddess commands a youth to take what sounds very much like a reflective path to knowledge:⁴⁵

μηδέ σ' ἔθος πολύπειρον ὁδὸν κατὰ τήνδε βιάσθω,
νωμᾶν ἄσκοπον ὄμμα καὶ ἠχῆσσαν ἀκουήν
καὶ γλῶσσαν, κρίναι δὲ λόγῳ πολύδηριν ἔλεγχον
ἐξ ἑμέθεν ῥηθέντα.

Nor let custom born of much experience force you to ply along
this road

An aimless eye and echoing ear

And tongue, but judge by discourse⁴⁶ a much-contested testing⁴⁷

Spoken by me.

As I understand the meaning of this difficult passage, the goddess here calls on the youth to resist the pull of custom or 'force of habit' to think about 'what is' or 'the existent' (τὸ ἔόν) in the terms made available to him (as to all mortals)⁴⁸ through language and perceptual experience. Our sense of sight is 'aimless' (lit. 'untargeted') and our sense of hearing and faculty of speech (the 'tongue' of mortals) are 'echoing' in so far as they give false

⁴⁵ After quoting these lines Sextus comments: 'The thinker . . . proclaimed the cognitive reason to be the standard of truth in things that are, and gave up paying attention to the senses' (*M.* 7. 114, trans. Gallop).

⁴⁶ Following the translation given by A. H. Coxon, *The Fragments of Parmenides* (Assen and Maastricht, 1986), 58. The non-empirical character of this judgement has led many to assign to λόγος the meaning of 'reason' (i.e. 'judge by means of your faculty of rational thought'), but this would move forward the earliest use of λόγος in this sense by about a century. See the summary in Guthrie, *History of Greek Philosophy*, i. 419–24.

⁴⁷ Cf. Pindar, *Nem.* 8. 20 νεαρά δ' ἐξευρόντα δόμεν βασάνω ἐς ἔλεγχον, ἅπας κίνδυνος; for a parallel 'testing' use of the related verb ἐλέγχω cf. Bacchylides fr. 25 Edmonds. For additional details see 'Parmenides' Critique of Thinking', *OSAP* 2 (1984), 1–30; and Coxon, *Fragments of Parmenides*, 192.

⁴⁸ Coxon identifies the way rejected here with the one repudiated at B 6. 7, and regards the 'know-nothing mortals' mentioned at B 6. 4 as those (Ionian) philosophers who attempted to acquire knowledge based on perceptual experience. I do not see, however, that the mere reference to a 'way' (of enquiry) unambiguously targets philosophical enquiry, and in any case speech and sensory experience are at least equally misleading to the non-philosopher. It is, then, possible that the opposing view here is that held by anyone who operates according to the common-sense belief that what there is exists here but not there, now but not then, and in some respects but not in others.

readings—they erroneously suggest that what there is admits of divisions, comes into being and is destroyed, moves about, and develops over time. The alternative she proposes is judging or deciding (by means of or on the basis of her account) the multiple-event⁴⁹ testing process she has presented.

It is clear from B 8. 15 that each of the decisions facing the youth represents the same binary 'is or is not' choice stated at the outset: either 'it is and is not available for not being' or 'it is not and is properly involved in not being'. The goddess proclaims both early (B 8. 1–2) and late (B 8. 50–1) that there is only one true account or way of thinking: that 'it is'. During the course of her critical examination, each of the various respects in which one might imagine that what is might not be (a time—either past or future—in which what is either was not or will not be, a place where what is is not, or an instance of what is moving to where it is not, or in some respect becoming what it is not) is considered. But in each case, in order to think that *what is* is involved in not being, in some respect, we must also think that in that same manner *what is not* is—which violates the principle stated at the outset of fragment 7 (following Gallop): 'never shall this prevail: that things that are not are'.⁵⁰

⁴⁹ So I (now) understand the meaning of πολύδηρις, in the light of the parallel between its πολυ- element and the πολλά σήματα at B 8. 2–3: the testing process comprises five issues (whether τὸ ἔόν can admit of generation, destruction, division, movement, and temporal development), and each of these is decided in the same way, in favour of 'it is'. Parmenides organizes, as it were, a five-event elenchus, a veritable philosophical pentathlon (while δῆρις is more commonly a matter of strife or conflict in battle, at *Nem.* 11. 26 Pindar describes Aristagoras as a better wrestler 'than his competitors'—δηριώντων).

⁵⁰ I omit in this reconstruction of Parmenides' argument two premisses frequently attributed to him: (1) that in each of these incorrect forms of mortal opinion one is thinking 'it is not', and (2) it is impossible 'to think, speak of, or come to know of something that does not exist'. (1) is certainly correct, and it is true that Parmenides also says things along the lines of (2) (B 2. 6–7, 3. 1, 6. 1–2, 8. 8–9). But it is not completely clear that these comments were ever intended as premisses rather than conclusions. As they are usually construed, they would: (1) render incorrect mortal opinion not so much deplorable as impossible, and (2) require that Parmenides' entire argument rest on an extremely controversial, indeed extremely counter-intuitive, 'law of thought'. Since Parmenides manifestly seeks a highly persuasive truth, and has an impressive argument against the 'is not' way of thinking along the lines I have suggested, I prefer to regard it as his actual argument, and to think of the various announcements about what can be thought and known as proleptic announcements of *what the goddess will prove*—i.e. by the end of the argument it will be shown that one cannot think of, speak of, or know 'what is not', since by then it will have become clear that what is there to be

The goddess draws her conclusions together at B 8. 26–34: Necessity keeps what is within strong bonds—changeless, motionless, uncreated and indestructible, and fully developed in every way. In these arguments the goddess both invites and empowers the youth, as well as those in Parmenides' audience, to reflect at an unprecedented level of generality on the question of what there is. Both the subject-matter and the logical format of subsequent philosophical debate reveal that her invitation did not go unheeded.⁵¹

But if we have reason to think that Parmenides advocated a reflective path to knowledge of what there is, we do not yet have a satisfactory understanding of what this knowledge would have been like. The goddess does promise in the proem that the youth will learn everything (both an 'unshaking heart of well-persuasive truth as well as beliefs of mortals in which there is no true trust'), but she never says explicitly at any subsequent point that he has actually come to know these things, nor would it be easy to see why this would be the case even if she had said it. We can reasonably assume that the youth comes to know there is one and only one way of thinking along which enquiry can profitably take place, the one that holds that what is exists fully in every possible way, but in virtue of what specific conditions or hallmarks of knowledge would it be true to say that the youth *knew* such things?

Excluding for the moment the predictions made by the goddess in the proem, here is what we have by way of Parmenidean comments about knowing (or learning): (1) in fragment 2 the 'is not' way of enquiry is said to be 'beyond learning'⁵² and we are

thought of, spoken of, and known is only 'what is'. In short, the real work of refuting the 'is not' way of thinking may have been carried out simply through the multiple proofs of fr. 8. This way of understanding the logic of the argument is not, however, a consequence of the elenctic or peirastic character of Parmenidean knowledge. Fr. 8 will surely be regarded as part of Parmenides' argument even if one does not consider it, as I do, to be the heart of it.

⁵¹ For similar elenctic arguments in Philolaus and Gorgias see 'Parmenides' Critique of Thinking', 16 n.; for the elenchus procedure in Socrates, Plato, and Aristotle, *ibid.* 30 n.

⁵² Rather than Coxon's 'about this "track" she has nothing to impart' (*Fragments of Parmenides*, 177). Coxon compares B 1. 28 and the *ἀνευθέα* at *Od.* 3. 88, but his is much too weak a version of the goddess's programme (cf. B 6. 1–2, 7. 1–2, 8. 8–11, where she imparts a good deal about the incorrect way). In *Od.* 3. 79–89, moreover, Telemachus says that while we can learn (*πυθόμεθα*) where the Achaeans died while fighting at Troy, the site of Odysseus' death is unlearnable (*ἀπυθέα*) since no one can say for sure where he died.

told that we can neither 'come to know nor tell of what is not'; (2) in fragment 4 we are told to 'look at things that while far off are securely present to [or perhaps by] νόος', perhaps a reference to knowledge gained through reflection; (3) in fragment 6 she alludes to 'know-nothing mortals . . . whose νόος is guided by helplessness'; (4) towards the end of fragment 8 she announces that we 'shall learn from this point on about the beliefs of mortals, listening to the deceptive ordering of my words' and that we are being told this so that 'no mortal insight or judgement (*γνώμη*) will overtake and pass him by', and (5) in fragment 10 (which could belong to the proem rather than to the *δόξα* section of the poem)⁵³ the youth is told that he 'will know the nature of the aether and all the signs in it . . . and learn the wandering works of the round-eyed moon . . . and know the surrounding sky'. But these remarks seem to tell us more about *what the youth will learn* than about *why any of this would constitute knowledge*. During the course of the goddess's presentation we hear a good deal about 'thinking' (*νοέω*), opinion (*δόξα*), trust (*πίστις*), persuasion (*Πειθώ*), signs (*σήματα*), truth (*Ἀληθείη*), saying (*λέγω*), judging (*κρίνω*), and the *ἐλεγχος*, but none of these individually is either synonymous with or implicative of *knowledge*.⁵⁴ It is, in short, hard to tell the players in Parmenidean knowledge without a programme.

Fortunately, many of these same characters played significant

⁵³ See P. J. Bicknell, 'Parmenides' Fr. 10', *Hermes*, 96 (1968), 629–31.

⁵⁴ Von Fritz's studies of νόος and νοέω have often been cited in defence of the thesis that in this period νοέω just meant 'know' (in so far as it meant 'realize the meaning of a situation'): 'The proper translation of the verb in Parmenides is a term like "cognition" or "knowledge": it is paraphrased by γινώσκειν, "to recognize, be acquainted with"' (Charles Kahn, 'The Thesis of Parmenides', *Review of Metaphysics*, 22 [1969–70], 700–24 at 703 n., with similar views expressed by Guthrie, Robinson, Mourelatos, Coxon (*Fragments of Parmenides*, 174), and many others). But von Fritz characterized the 'realize . . .' use as only one of several senses (among the others: 'intend', 'plan', 'imagine'), albeit the basic one. νοέω, I believe, can on occasion (typically in its aorist forms) be thought to *imply* knowledge in so far as it amounts to 'noting', 'noticing', or 'realizing' a particular feature in one's environment (e.g. *Il.* 3. 21: 'But when Menelaus dear to Ares spotted him (*ἐνόησε*), his heart was shattered'). But unless one can find reason to read the forms of νοέω in Parmenides' poem in these special 'note' or 'notice' ways (which in the light of the high level of abstraction seems extremely unlikely), they must be understood not as *knowing*, but rather as *thinking* (or conceiving, understanding, etc.). What I take to be the correct view is defended by Barnes, *Presocratic Philosophers*, i. 158–9.

roles in the famous story of a journey and discovery on which Parmenides modelled portions of his account, Homer's *Odyssey*.⁵⁵ We can get some sense of the character of Parmenidean knowledge by reminding ourselves of some of the best-known incidents in Homer's tale of Odysseus' return from Troy.

We first encounter our earlier hero not as a youth but well into middle age, and not on his way to the house of a goddess but sprawled half-dead, washed up on Scheria, the far-off island home of the Phaeacians (*Od.* 6. 1). Sound asleep and buried under a pile of leaves, Odysseus awakes to the shouts of Nausicaa and her handmaidens. An initial moment of alarm gives way to a completely characteristic response:

ἀλλ' ἄγ' ἐγὼν αὐτὸς πειρήσομαι ἢ δὲ ἰδωμαι. (6. 126)

But, come, I myself will make trial and see.

From the moment of this first encounter with Nausicaa through to the end of his journey Odysseus will repeatedly 'go to see for himself', 'to make trial', or 'check out' what manner of folk there might be—and many are those whose *νόος* he will come to know (cf. *Od.* 1. 3). As early and superficial forms of contact give way to increased intimacy, shared experiences, and probing enquiries, Odysseus comes to know the true intentions and identities of those he encounters—initially face to face, but in time heart to heart, and *νόος* to *νόος*.⁵⁶

When Odysseus sets foot on Ithaca his interpersonal discoveries become more complicated. Initially, he just tells Telemachus straight out who he is (16. 188). A little later, the old hound

⁵⁵ The many points of correspondence are set out in E. Havelock, 'Parmenides and Odysseus', *Harvard Studies in Classical Philology*, 63 (1958), 133–43; A. P. D. Mourelatos, *The Route of Parmenides* (New Haven and London, 1970), and Coxon, *Fragments of Parmenides*.

⁵⁶ After passing over the symbolic outer limit of the threshold, Odysseus answers Arete's 'Who art thou among men, and from what family?' question by disclosing the truth (7. 297 ἀληθείην κατέλεξα) and gaining Alcinoüs' confidence, commitment (312 ff.), and (subsequently, at 545) affection. In order to know the Phaeacian men he 'makes trial of them face to face' (213). Eventually (9. 19) he discloses his name, lineage, usual description, and home town. Odysseus' gradual entry and acceptance by those in Alcinoüs' household foreshadow in many ways his reunion with the members of his own family. See further T. Van Nortwick, 'Penelope and Nausicaa', *Transactions of the American Philological Association*, 109 (1979), 269–76; and Marilyn A. Katz, *Penelope's Renown* (Princeton UP, 1991), 136 ff. For the symbolic importance of the threshold see C. Segal, 'Transition and Ritual in Odysseus' Return', *La parola del passato*, 22 (1967), 321–42.

Argus recognizes his master the instant he sees him (17. 301 ὡς ἐνόησεν). Similarly, Eurycleia recognizes Odysseus the moment she touches his scar (19. 468 γνῶ ῥ' ἐπιμασσαμένη). But having resorted to his usual probing examination to ascertain the character of the *νόος* of the two swineherds (21. 195–205), Odysseus promises he will tell them the truth (212 ἀληθείην καταλέξω) as well as show them a clear sign (217 σῆμα ἀριφραδές . . . δείξω) so that they 'may well know him and be persuaded in their heart' (218 εὖ γνῶτον πιστωθῆτόν τ' ἐνὶ θυμῷ). When they see the identifying σῆμα (his scar from a youthful injury), they fling their arms around him and weep openly (222–5).

The conversation between Penelope and Odysseus displays the same features. Eurycleia and Telemachus are dismayed when they are unable to convince Penelope that the beggar in the hall really is Odysseus (23. 70 ff.). But rather than take this vital matter simply on their say-so, she insists she will be able to identify her husband through some special σήματα:

εἰ δ' ἐτεὸν δὴ
ἔστ' Ὀδυσσεὺς καὶ οἶκον ἰκάνεται ἡ μάλα νῶϊ
γνωσόμεθ' ἀλλήλων καὶ λῶϊον· ἔστι γὰρ ἡμῖν
σήμαθ', ἃ δὴ καὶ νῶϊ κεκρυμμένα ἴδμεν ἀπ' ἄλλων. (23. 107–10)

. . . but if in truth

It really is Odysseus and he has come home, I assure you
We will know each other fully, for we have
Signs we know about, hidden from others.

Odysseus invites a probing examination (πειράζειν ἐμέθεν) as a way of identifying him more clearly (114 φράσεται καὶ ἄρειον), and she responds (181 πειρωμένη) by asking Eurycleia to place the bed outside her bedchamber and to spread it with coverings. When Odysseus reacts angrily to the suggestion that this unique bed could be so easily moved about, Penelope gets the σῆμα she had been waiting for:

Ὡς φάτο, τῆς δ' αὐτοῦ λῦτο γούνατα καὶ φίλον ἦτορ,
σήματ' ἀναγνώσῃ τά οἱ ἔμπεδα πέφραδ' Ὀδυσσεύς. (23. 205–6)

So he spoke and her knees and own heart were loosened,
As she recognized the sure tokens Odysseus had told.

Having seen, tested, and come to know *νόος* the wide world over, Odysseus returns to the woman who proves, by successfully

putting the master tester to the test, that she does indeed excel all others νόον καὶ ἐπιφρονα μῆτιν.

Three characteristics of the knowledge achieved in these famous scenes⁵⁷ are worth our notice. (1) For some, the recognition of Odysseus has come directly in the perception of his general physical appearance or a distinguishing (visible or palpable) mark; but for others it has come through verbal assurances; and on occasion, when these were either unavailable or insufficient to produce conviction, it has come from tell-tale indicators acquired through a trial or testing process.⁵⁸ (2) In each case the discovery of the truth has been tied, on the objective side, to the disclosure of a completely persuasive indicator of his identity,⁵⁹ and (3) on the subjective side, to a profound 'change of heart', i.e. becoming convinced that the stranger at the door is in reality the lord Odysseus come home.

In the proem of fragment 1 Parmenides relates how a youth (presumably himself) was at some point in the past transported by a team of maiden-guided horses and taken to a remote, perhaps even supernatural, location. References to the powers of inspired thought which have brought him to this discovery, to the mind or spirit which has been transported by them, and to a special 'pathway of song' along which he has travelled, all portend that profound knowledge is about to be imparted:⁶⁰

⁵⁷ The same features will mark Odysseus' final recognition by his father: a promise to tell the whole story (24. 324); then a request by Laertes for a clear σῆμα in order to be sure (329 ὅφρα πεποιθῶ); then the disclosure of the scar (331) and other tell-tale remarks about the garden Odysseus had known as a child (336); and finally, Laertes' loosened knees and heart 'as he recognized the sure tokens' (344–5). Cf. also 19. 250 σήματ' ἀναγνώσθαι.

⁵⁸ Other cases of 'peirastic knowledge' occur at *Il.* 1. 302 εἰ δ' ἄγε μὴν πείρησαι, ἵνα γνῶναι καὶ οἶδε ('but come, make trial, so that these will also know'; cf. 8. 18); *Od.* 8. 213 ἀλλ' ἐθέλω ἰδμεν καὶ πειρηθῆμεναι ἄντην ('but I want to know and make trial of them face to face'); 13. 335–6 σοὶ δ' οὐ πῶ φίλον ἐστὶ δαήμεναι οὐδὲ πυθέσθαι | πρὶν γ' ἔτι σῆς ἀλόχου πειρήσασθαι ('it is not for you to acquire knowledge or learn until you have put your wife to trial'). Cf. also Theognis 125–6 οὐ γὰρ ἂν εἰδείης . . . πρὶν πειρηθείης.

⁵⁹ Since σῆμα is cognate with the Indic *dhyēma* 'thought', it is probably no accident that the σῆμα provides the means by which things can be identified and known; see further G. Nagy, 'Sēma and Nōsis: Some Illustrations', *Arethusa*, 16 (1983), 35–55.

⁶⁰ A view defended by Fränkel: 'What is depicted by the image of the ascent amounts to little more than this: wise, sunlike powers (the steeds and the maidens) carry and lead on a resounding path the man who knows and proclaims; the journey is dizzily swift and violent; and it is a great moment when the mighty gates of comprehension of the world fly open before the man selected by Fate'

ἵπποι ταί με φέρουσιν, ὅσον τ' ἐπὶ θυμὸς ἰκάνοι,
πέμπον, ἐπεὶ μ' ἐς ὁδὸν βῆσαν πολύφημον ἀγούσαι
δαίμονος, ἣ κατὰ πάντ' ἄστη⁶¹ φέρει εἰδὸτα φῶτα·
τῇ φερόμην· τῇ γάρ με πολύφραστοι φέρον ἵπποι . . . (B 1. 1–4)

The horses that bear me as far as mind⁶² might reach,
Were conveying me when they set me on a richly songed
road⁶³

Of a goddess, who bears the knowing man among all cities.

('Studies in Parmenides', *Wege und Formen frühgriechischen Denkens* [Beck, 1955], translated and reprinted in R. E. Allen and D. J. Furley (eds.), *Studies in Presocratic Philosophy*, ii [London, 1975], 5). Cf. KRS 244. Fränkel does not mention the peirastic character of Parmenidean knowledge, nor does he comment on any affinities with a Homeric forerunner; indeed, at one point he claims that Parmenides converted πίστις to a novel, epistemic use.

⁶¹ I adopt the familiar but still problematic reading κατὰ πάντ' ἄστη. Coxon (following Heyne) proposed δ(ν)τη(ν) for what looks like ἄστη in Sextus, translating 'through every stage straight on' (*Fragments of Parmenides*, 158). Coxon cites *Il.* 8. 399–400, but as R. Renehan has recently argued in his review of Coxon (*Ancient Philosophy*, 12 [1992], 395–409), neither there nor elsewhere does ἄστη appear to mean anything other than 'face to face', 'directly in front of' (which makes no sense in the context of B 1. 3). My preference for ἄστη, however, is based not on the references in Homer (cited by Renehan and others) to an Odysseus who sees the cities of many men (since Parmenides would not have wanted to endorse the idea of a knowledge acquired through wide experience of the world), but rather on the appositeness of the phrase as a reference to the poet who (typically) travels from city to city (cf. Xenophanes B 45, and for κατὰ as 'down among' cf. *Il.* 1. 229, 2. 47, and commonly elsewhere). See further J. H. Lesher, 'The Significance of κατὰ πάντ' ἄ(σ)τη in Parmenides Fr. 1. 3', *Ancient Philosophy* (forthcoming).

⁶² DK 'Lust', and commonly 'as far as my heart or desire might reach', but cf. *Od.* 21. 218, quoted above; also *Il.* 10. 491 τὰ φρονέων κατὰ θυμόν ('thinking these things in his θυμός'); *Il.* 2. 409 ἥδε γὰρ κατὰ θυμόν ('he knew in his θυμός'); compare Archilochus' injunction to his θυμός to know the unseen rhythm of things (fr. 67a Diehl). θυμός can also signify 'conscious thought' or 'consciousness' generally, as at *Il.* 13. 671–2: 'his θυμός left him and hateful darkness seized him', or *Od.* 24. 349, when his recognition of Odysseus causes Laertes to lose θυμός (for θυμός as 'mind, soul, seat of thought' see LSJ s.v. II. 6). The ἰκάνων at B 1. 25 suggests that his θυμός has reached as far as it needed to when it has arrived at the house of the goddess.

⁶³ Lit. 'richly endowed with song or voice'. Cf. Tarán, *Parmenides* (Princeton, NJ, 1965), 10; Coxon, *Fragments of Parmenides*, 44–5. The use of the adjective πολυ- to describe the pathway of song and the 'much-indicating' horses is echoed in the subsequent references to the 'multiple contests' during the elenchus (πολύ-δην ἐλεγχοῖ) and in the 'very many signs' (πολλὰ μάλα) lying along the correct way of thought. These subsequent 'decisions' and 'indicators' are, then, the informative revelations alluded to at the outset of the poem. For πολυφραστοί as not so much 'wise' or 'well-directed' (horses) but as 'rich in telling' or 'highly informative' ones, cf. φραστήρ 'teller, expounder', φραστικός 'indicative, expressive', and the common meaning of the root verb φράζω—'point out, indicate, show, communicate, etc.'—as well as its frequent use in connection with σήματα (as in the recognition scenes given above).

On that way I was conveyed; for in that direction the much-telling
horses bore me . . .

And at B 1. 28–9 she assures the youth he will learn of

ἡμὲν Ἀληθείης εὐπειθέος⁶⁴ ἀτρεμές ἦτορ
ἡδὲ βροτῶν δόξας, ταῖς οὐκ ἐν πίστις ἀληθής.

Both a steadfast⁶⁵ heart of well-persuasive truth
As well as mortal opinions, in which there is no true trust.

The phrase ἀτρεμές ἦτορ is often assigned an ontological rather than an epistemological significance: 'the inner being' or 'the heart of reality'. But that reading is constrained, unnecessary, and unwarranted.⁶⁶ As is clear from the third feature of Homeric knowledge just mentioned, it would have been entirely natural for the goddess to characterize the knowledge the youth will achieve in terms of his heart's unwavering acceptance of a fully persuasive truth.

Finally, in the proem's difficult concluding couplet, she explains:

ἀλλ' ἔμπης καὶ ταῦτα μαθήσῃ, ὥς τὰ δοκοῦντα
χρῆν δοκίμως εἶναι διὰ παντὸς πάντα περῶντα. (B 1. 31–2)

But nevertheless you shall even learn these: how the things
thought of
Would have had to certifiably be, all things pervading through
all.

As Owen explained, *δοκίμως εἶναι* is 'to exist in a way that is assured or reliable', i.e. a way that has been put to the test and

⁶⁴ As in Sextus, rather than the *εὐκυκλῆος* of Simplicius. The reading was first defended at some length by Mourelatos, *The Pre-Socratics*, 154 ff., and has been accepted by Coxon, Heitsch, and many other recent editors.

⁶⁵ ἀτρεμές—lit. 'unmoving', 'not shaking', but in a psychological context 'unwavering', 'steadfast', etc.; cf. *Il.* 13. 279 ff.: 'for the colour of the coward is always changing to another hue, nor does he keep steady the spirit in his breast (οὐδέ οἱ ἀτρέμας ἦσθαι ἐρητύει· ἐν φρεσὶ θυμός)'; cf. *Il.* 16. 163 θυμός | στήθεσιν ἀτρομός ἐστι.

⁶⁶ As Coxon concedes (*Fragments of Parmenides*, 168), ἦτορ never refers to anything other than a faculty of thought or emotion, and no article appears in Parmenides' text. Plutarch (*Parmenides A 34*) appears to have understood that Parmenides was contrasting two states of awareness, one in which we grasp unchangeable intelligible truths, and one in which the mind 'consorts with all manner of changes, accidents, and irregularities'.

found reliable.⁶⁷ The couplet thus both echoes the 'peirastic' approach to knowledge characteristic of Odysseus' earlier encounters and also presages the *ἐλεγχος* or critical testing process through which the 'it is' way of thinking will be checked out and found (completely) true. By the end of the proem each of the *Odyssey's* hallmarks of knowledge will have made an appearance: a trial or testing process which has to be endured, a very persuasive truth, and an unwavering or steadfast heart which has taken it in.

In fragments 2–8 the goddess proceeds to tell the story (*ἑρέω*, *μῦθος*, *λόγος*) of the way of thinking that is tied to truth (*Ἀληθείη*) and persuasion (*Πειθώ*). During the course of her critical examination⁶⁸ (as well as in her account of the cosmos in fragment 10) 'very many signs' (*σήματα*) appear, all indicating that what exists exists fully—uncreated and indestructible, whole, unmoving, and complete. She refers to the account she has given as trustworthy (*πιστὸν λόγον*), and alludes to the strength of trust (*πίστιος ἰσχύς*) and true trust (*πίστις ἀληθής*). In short, as the *ἐλεγχος* discloses *σήματα*, the *πίστις* she had promised is achieved. Put them all together and they spell (Homeric and Parmenidean) knowledge: a thoroughly tested, reliably true, hence fully persuasive way of thinking about what there is.

To the list of Parmenides' contributions to Greek philosophy we should, therefore, add what might best be described as an adaptation of a familiar 'peirastic' paradigm of knowledge for use

⁶⁷ G. E. L. Owen, 'Eleatic Questions', *Classical Quarterly*, NS 10 (1960), 84–102, repr. in Allen and Furlley, *Studies in Presocratic Philosophy*, ii. 48–81 at 51. But I (now) think that *διὰ παντὸς πάντα περῶντα* refers to the way in which 'all things pervade through all'; that is, to the extent that all things (named by mortals) could legitimately be said to be, they would all have to be *τὸ ἔόν*—which would entail a far more positive assessment of mortal *δόξα* than Owen would have allowed.

⁶⁸ Coxon, *Fragments of Parmenides*, 176, holds that the testing consists in asking the question whether the subject 'is or is not'. But the 'is or is not' disjunction is not so much the test as it is a statement of the only possible outcomes for every test. The 'critical moments' or decision-points in the *ἐλεγχος* come at B 8. 6–7 and 8. 19 when the goddess asks what birth one might seek for *τὸ ἔόν*, or in what way and from what *τὸ ἔόν* could grow, and at 8. 21–5, 8. 29–32, and 8. 33–5 when divisibility, movement, and temporal development are considered only to be repudiated. Since at each juncture *τὸ ἔόν* checks out positively (i.e. with 'it is' as still true), we acquire many *σήματα* that *τὸ ἔόν* exists in every possible respect.

in the context of philosophical enquiry and reflection. But, having recognized this, we might also want to view Socrates' denial of any involvement with Presocratic ideas about knowledge with some scepticism. At least when the Socrates of Plato's early dialogues sets out to discover the nature of the virtues by putting a series of rival definitions to the test—hoping to find a λόγος that will remain steadfast throughout the entire process of examination—his approach represents not a repudiation of earlier views of knowledge,⁶⁹ but rather a continuation and extension of them.⁷⁰

University of Maryland

⁶⁹ The claim that Socrates repudiated the 'fantastically strong standards' of Parmenidean knowledge was made by Gregory Vlastos in his 'Socrates' Disavowal of Knowledge', *Philosophical Quarterly*, 35 (1985), 1–31 (see esp. pp. 17 ff.).

⁷⁰ Cf. the conclusion of the *Gorgias*: 'when all the other proposals were refuted (ἐλεγχόμενων), this one alone remains steadfast (μόνος οὗτος ἡρεμεῖ): that we should be more on our guard against doing rather than suffering wrong, and that before all things a man should study not to seem but to be good . . . let us then follow the guidance of the argument (τῷ λόγῳ) now made manifest, which indicates to us (σημαίνει) that this is the best way to live' (526 D ff.). The contrapositive of 'knowledge entails stable possession of a belief' is the thesis that we cannot be said to have knowledge so long as our beliefs are unstable or moving about (cf. Plato, *Euthph.* 11 B–E; *Meno* 85 C–D, 97 D–98 B). The view that knowledge requires achieving an unshakeable hold on truth and reality appears at *Crat.* 437 A; *Sym.* 211 A; *Rep.* 534 B–D, 503 A. Aristotle also describes the process of acquiring knowledge in terms of a stabilizing or settling down of opinion (cf. *Post. An.* 72^a25 ff., 89^a5–10, 100^a1–13).