



# Knowledge







# 1

## Episteme

*M. F. Burnyeat*

Once upon a time in the Anglo-Saxon world there was a great debate among students of Plato. Did he, or did he not, become clear about the distinction between knowledge *that*, knowledge *how*, and knowledge *by acquaintance*? The time—as Jonathan Barnes will remember, and others will know by testimony, reading or hearsay—was the '50s, '60s, and early '70s of the last century: the twentieth century of the Christian era.

There was a reason why the debate occurred then, not earlier, and scarcely since. The reason was Gilbert Ryle, whose influence on the study of ancient philosophy in Anglophone countries was deeper and more long-lasting than his influence on philosophy at large. By 'influence' I do not mean that Ryle had a school of followers. Any such suggestion would be injustice to a man who said, deploring the very idea of schools and followers in philosophy: 'There could, in my view, be nothing more unwholesome than unanimity among philosophers'.<sup>1</sup> Rather, the measure of Ryle's influence is the extent to which *the agenda for discussion* in Anglophone Platonic scholarship was for some considerable time set by his work.<sup>2</sup> It is certainly due to him that high on the agenda in the '50s, '60s, and early '70s of the twentieth century was the 'epistemic troika', as I shall call it, of knowledge that, knowledge how, and knowledge by acquaintance. At the same time, in the same years, the very same topic was central to mainstream epistemology.

The epistemic troika can be viewed as a codification of two contrasts that Ryle originally exploited in quite different contexts. The first of these is the contrast between knowledge by acquaintance and knowing that derived from Bertrand Russell and was important to Ryle in his reflections on Russell and on Wittgenstein's *Tractatus*. It features importantly in Ryle's seminal paper 'Plato's *Parmenides*', published in *Mind* (1939),<sup>3</sup> and in the famous unpublished paper on Socrates' dream in the *Theaetetus*,

<sup>1</sup> 'Taking Sides in Philosophy', *Philosophy* 12 (1937), 317–32. Cited from Gilbert Ryle, *Collected Papers*, Vol. 2: *Collected Essays 1929–1968* (New York: Barnes and Noble, 1971), pp. 153–69, at p. 156.

<sup>2</sup> For more detail on Ryle and classical studies, see my 'Ryle, Gilbert (1900–76)', in Robert B. Todd (ed.), *Dictionary of British Classicists* (Bristol: Thoemmes Continuum, 2004), Vol. 3, pp. 846–9.

<sup>3</sup> See especially pp. 36–41 in the reprint in Ryle, *Collected Papers*, Vol. 1: *Critical Essays*, pp. 136–41.





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read to an amazingly distinguished audience of classicists and philosophers at the Oxford Philological Society on 15 February 1952.<sup>4</sup>

The contrast between knowing how and knowing that, on the other hand, was important to Ryle in his reflections on Descartes and the myth of the ghost in the machine. First broached under the now familiar title ‘Knowing How and Knowing That’ in a Presidential Address to the Aristotelian Society (1945–46), it features strongly in *The Concept of Mind* (1949), and it entered into the study of ancient philosophy through John Gould’s highly original but now largely forgotten book *The Development of Plato’s Ethics* (1955), which attracted a sternly critical review from Gregory Vlastos.<sup>5</sup> Gould invoked Ryle in an attempt to make sense of the Socratic paradox ‘Virtue is knowledge’ by construing the knowledge in question as knowledge how rather than knowledge that. At the same time, he summoned Bruno Snell as witness to his claim that knowing how had been the basic meaning of Greek knowledge vocabulary since Homer. Scholars had misunderstood Socrates ‘in the misleading light of a later attachment to intellectual or contemplative theories of the mind, which stem in the main from the subsequent work of Plato and Aristotle.’<sup>6</sup>

Place Ryle’s two contrasts together and you have the epistemic troika with which it soon became obligatory for modern books on epistemology to begin: so A. J. Ayer, *The Problem of Knowledge* (1956), Israel Scheffler, *Conditions of Knowledge: an Introduction to Epistemology and Education* (1965), D. W. Hamlyn, *The Theory of Knowledge* (1970), David Pears, *What is Knowledge?* (1971), Keith Lehrer, *Knowledge* (1974), and many more. They all deal with knowledge that, knowledge how, and knowledge by acquaintance—usually in that order. Place the two contrasts together in the context of ancient philosophy and you produce the question, much discussed when Barnes and I were young: ‘How far did Plato arrive at a distinction between knowledge that, knowledge how, and knowledge by acquaintance?’<sup>7</sup>

So much by way of a preliminary ‘historicizing’ of the epistemic troika and its place in twentieth-century intellectual life. My aim, of course, as with much historicizing, is to raise the suspicion—at this stage it can be no more than a suspicion—that the troika lacks universal validity. It belongs to its time and place, and tells us more about our own local past than about the language and thought of distant cultures.

This suspicion is strengthened by recent challenges within contemporary philosophy to the very idea of a categorical distinction between knowing that and

<sup>4</sup> The Minute Book entry recording those present is reproduced in my introduction to the posthumous printing: G. Ryle, ‘Logical Atomism in Plato’s Theaetetus’, *Phronesis*, 35 (1990), 21–46. On p. 42 after line 22, readers should supply the missing words ‘Wittgenstein’s—I cannot even claim it was Plato’s’; to which Ryle later added ‘(I do now, 1959)’.

<sup>5</sup> ‘Socratic Knowledge and Platonic “Pessimism”’, *Philosophical Review*, 66 (1957), 226–38’ reprinted in Gregory Vlastos, *Platonic Studies* (Princeton: Princeton University Press, 1973), pp. 204–17.

<sup>6</sup> Gould, p. 7, citing Snell (1924) and (1953).

<sup>7</sup> The first book-length treatment of the issue so formulated was W. G. Runciman’s *Plato’s Later Epistemology* (1962), written while he was attending G. E. L. Owen’s graduate seminars at Harvard during the academic year 1958–59.





knowing how. Impressive arguments have been produced for the thesis that knowing how to do something is as propositional as knowing that such and such is the case or knowing when something happened. Needless to say, these arguments have not passed unchallenged.<sup>8</sup> In effect, a post mortem on the epistemic troika has begun.

But what strikes me most when looking back over these discussions, old and new, is their insufficient attention to languages other than English.<sup>9</sup> Brief, oversimplifying contrasts are drawn between *savoir* and *connaître*,<sup>10</sup> *wissen* and *kennen*, *sapere* and *conoscere*, but no attention is paid to differences between, or complications within, the several languages. Typically, the first item in each of these three foreign pairs is twinned with knowing that, why, when, and so on, and the second with knowledge by acquaintance of a person or thing—and there the matter is left. The challenge of ancient Greek is that it has *three* verbs for knowing, *none* of which can be exclusively assigned to one or other member of the epistemic troika.

The usual way to begin the epistemic troika is linguistic. We are invited to contrast three types of grammatical construction which the English verb ‘to know’ can admit:

<sup>8</sup> Leading prosecutors are Stanley and Williamson, ‘Knowing How’, *Journal of Philosophy*, 98 (2001), 411–44, followed—more persuasively, in my view (although he spends pages proving the correct but irrelevant point that being *able* to do something on some occasion is not a sufficient condition for *knowing* how to do it)—by Paul Snowden, ‘Knowing How and Knowing That’, *Proceedings of the Aristotelian Society*, 104 (2003–04), 1–29. For the defence, and gaining my vote: Ian Rumfitt, ‘Savoir faire’, *Journal of Philosophy*, 100 (2003), 158–66.

<sup>9</sup> Rumfitt is an impressive exception. His recommendation (p. 165) that ‘this is an area where a trawl through cross-linguistic data might be of real philosophical interest’ is backed by revealingly disparate data from French, ancient Greek, Latin, and Russian. I agree, and will add Italian and German. But first, a word about his Russian examples—in particular about their use of the verb *уметь*, which Rumfitt, like all my dictionaries, renders as ‘know how to’. One case discussed is ‘Он умеет плавать’ (‘He knows how to swim’), said of a man with a broken leg who therefore is currently *unable* to swim. The complication is that if we switch the verbal aspect from imperfective to perfective, as in ‘Он сумел убежать из тюрьмы’, it is only if the escaping subject has the talents of a Houdini that we can render ‘He knew how to escape from prison’. (In the Houdini Museum at Niagara Falls one can learn [come to know, to understand] quite a lot about how [by what skills and devices] it was *that* he made his escapes, but this is far from coming to know how *to do* the same or similar things oneself.) Of anyone else one would translate with something like ‘He contrived to escape from prison’, which carries no promise that they could do it again. I conclude that *уметь* overlaps with English ‘know how to’ without coinciding with it. I gather that the French ‘Il a su (faire quelque chose)’ is found in a similar use. This is consistent, I believe, with Edward Craig’s impressive defence, in *Knowledge and the State of Nature* (1990), sections xvi–xvii, of the claim that there needs to be, and is, some point to counting at least certain capacities and/or certain cases of acquaintance as *knowledge*, be it in English or other languages: namely, that such capacities and cases have in common with knowing—that the potential to serve as sources of information—for the transmission of knowledge—for others. Craig’s wonderful book is curiously absent from recent discussion of knowing how.

<sup>10</sup> Here I quote Pierre Pellegrin’s translation of *APo.* I 2, 71b 9–13. Under the section heading ‘Le *savoir scientifique*’, he writes: ‘Nous pensons *connaître scientifiquement* chaque chose . . . lorsque nous pensons *connaître* la cause du fait de laquelle la chose est, *savoir* que c’est bien la cause de la chose et que cette chose ne peut pas être autrement qu’elle n’est. Il est donc clair que le *savoir scientifique* est quelque chose de cette sorte.’ It seems clear that the two verbs differ more in the grammatical constructions they admit than they do in meaning. As Craig notes in *Knowledge and the State of Nature*, pp. 140–1, the French call epistemology *la théorie de la connaissance*, while the Germans call it *Erkenntnistheorie* without restricting its scope to the direct object constructions standard for *connaître* and *kennen*.





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- (1) I know that the sun is shining: K + that-clause.
- (2) I know how to ride a bicycle: K + how + verbal infinitive clause.
- (3) I know John Smith: K + direct object noun phrase.

But these linguistic criteria are not firm enough to deliver the philosophical goods. If I gesture at someone riding a bicycle and say:

- (1)# I know that *that* (pointing) is how to ride a bicycle

what I attribute to myself is somewhat ambiguous. Is it knowledge ‘how’ or knowledge ‘that’? And while

- (2)# he knows how to find her might on occasion ascribe skill in games of ‘hide and seek’

it would usually amount to

- (3)# He knows the answer to the question ‘Where is she?’

in which the construction ‘knows’ + noun phrase indicates something that a philosopher would wish to count as knowledge—for example, that ‘He knows that she is in her counting house.’

I am well aware that a more subtle grammatical analysis would show that the syntax of (3)# is different from that of (3). Whereas ‘John Smith’ is a plain proper name, a phrase like ‘the answer to the question’ is the nominalization of a complex propositional clause. But that is my point. The characterization “‘knows’ + direct object” does not suffice to pick out the kind of knowledge that *philosophers* wish to classify as acquaintance-knowledge. Only some noun phrases will do.<sup>11</sup>

Likewise, the characterization ‘K + how + verbal infinitive clause’ does not suffice to pick out the skills, capacities, and flairs in which Ryle was philosophically interested. Only some uses of ‘knows how’ will do. The passage from superficial linguistic features to substantive philosophical distinctions is neither quick nor easy.

All the more problematic is the attempt to base the epistemic troika on superficial linguistic features of a distant dead language such as ancient Greek. In the ’50s, ’60s, and early ’70s of the last century the attempt might begin from an assumption that *γινώσκειν/ γνώσις* could be glossed as knowledge by acquaintance, and *ἐπίστασθαι/ ἐπιστήμη* as knowledge that.<sup>12</sup> The idea was that if the author of Plato’s

<sup>11</sup> I italicize *philosophers* because we will later meet a linguist who would admit as knowledge by acquaintance *any* case of ‘knows’ plus direct object, even ‘knowing the fact that . . .’ The effect is to empty the notion of acquaintance of all epistemological import.

<sup>12</sup> So J. H. Leshner, ‘*ΓΝΩΣΙΣ* and *ΕΠΙΣΤΗΜΗ* in Socrates’ Dream in the *Theaetetus*’, *Journal of Hellenic Studies*, 89 (1969), 72–8. Encouragement for such thoughts could perhaps be sought in the *LSJ* (new ninth edn., 1940) entry for *γινώσκω*: ‘as dist. fr. *οἶδα* know by reflection, *γινώσκω* = know by observation’. But where Plato is concerned, this latter distinction is illusory: see John Lyons, *Structural Semantics: An Analysis of Part of the Vocabulary of Plato* (Oxford: Blackwell, 1963), hereafter abbreviated *APVP*, 179, n. 2, p. 206.





later dialogues could be found distinguishing between *γνώσις* and *ἐπιστήμη*, and *γινώσκω* and *ἐπίστασθαι*, he could be patted on the back for at last distinguishing between knowledge by acquaintance and knowledge that.

More commonly, it was taken for granted that any coupling of a knowledge-verb with a noun phrase in direct object construction signals knowledge by acquaintance. All that talk in the *Republic* about the philosopher knowing the Forms—this proved that when he wrote the *Republic*, Plato was hopelessly and confusedly attached to an acquaintance model for knowledge.<sup>13</sup> He was in the grip of the idea that knowledge, or the best kind of knowledge, is a sort of spiritual vision.<sup>14</sup> No-one stopped to ask whether a noun-phrase such as *ἀπὸ τὸ ἀγαθόν* might not be more like ‘the answer to the question’ in (3)# than it is like the proper name ‘John Smith’ in (3). Instead, they rushed to the *Theaetetus* and *Sophist* in order to find what Ryle had promised they would find: Plato liberating himself from the confusions of the *Republic* and becoming clear about the all-important difference between knowledge by acquaintance and propositional knowledge that such-and-such is the case.<sup>15</sup>

Some found what they were looking for, but most did not—in which case they said: ‘So much the worse for Plato’s progress in these matters: he did not get as clear as he should have done.’ They never said: ‘So much the worse for the twentieth-century English scheme through which we have been trying to understand him.’ Still less did they attend to Plato’s express indication at *Phaedo* 75cd that the phrase ‘*ἀπὸ τὸ* such and such’ is (to be understood as) a nominalization of the propositional form *ἀπὸ δ ἕστυ* such and such—and here I quote David Gallop’s exemplary translation:

<sup>13</sup> An especially refined version of this charge is John McDowell, ‘Identity Mistakes: Plato and the Logical Atomists’, *Proceedings of the Aristotelian Society*, N.S., 70 (1969–70), 181–96 at 190–1, citing *Th.* 147b 2–5, 196d 8–10 as evidence that Plato tends to treat (1) ‘know *x*’ (*connaître*) and (2) ‘know what *x* is’ (*savoir*) as interchangeable, and then diagnosing a slide from (2) to (1) via the Greek idiom, equivalent to (2), which (he says) ‘can be literally represented by (3) “know *x* what it is”’ (my italics). One might as well say that a literal translation of German into English would put the verb at the end of subordinate clauses or that a literal translation of Latin into English would eschew both definite and indefinite articles! For a properly principled analysis of the structures created when the subject of a Greek subordinate clause is attracted into a main clause containing a verb of knowing or saying, see Lyons *APVP*, pp. 107–10.

<sup>14</sup> And not only Plato. In 1967, Hintikka, ‘Time, Truth, and Knowledge’, 72–80, appealed to Snell (1924) and (1953), Bluck’s *Meno* (1961), Runciman (1962), and others, to support a far-reaching claim that it is characteristic of Greek epistemology in general, Aristotle included, ‘to think of knowledge in terms of some sort of direct acquaintance with the objects of knowledge, e.g. in terms of seeing or witnessing them’ (p. 72). He even follows Snell’s misreporting of *Iliad* II 484–7 as saying that the Muses know everything because they are *always* at hand to see what goes on (Hintikka, 74, reporting Snell (1953), p. 136). The word ‘always’ is not in the Greek, nor in its translation as presented by Snell and Hintikka. Worse still, ancient readers would remember from their Hesiod that the Muses can tell of much that happened before they were sired by Zeus (*Theog.* 25, 36, 53ff.).

<sup>15</sup> Runciman (1962) gives the flavour of the times. Yet Ryle’s promise was made in ‘Letters and Syllables in Plato’, from the *Philosophical Review* of 1960, which is not in the bibliography of Runciman’s book. Solution: Runciman’s Preface informs us that the book was presented as a Fellowship dissertation to Trinity College, Cambridge, in 1959, and was published without revision. No doubt Ryle’s promise was already keenly discussed in his friend Gwil Owen’s Harvard seminars of 1958–59. It is a fine example of what Owen spoke of as ‘Ryle’s . . . apparently inexhaustible cask of new thoughts on Plato’ (*Notes on Ryle’s Plato*, p. 341).





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Our present argument concerns the beautiful itself, and the good itself, and just and holy, no less than the equal; in fact, as I say, it concerns everything on which we set this seal, ‘*what it is*’, in the questions we ask and in the answers we give.<sup>16</sup>

From which it seems just to conclude as follows: the syntax of the sentences which describe philosophers as knowing the Forms does indeed resemble the syntax of (3)# more than the syntax of (3).<sup>17</sup>

And yet in the middle of the hustling and bustling of this debate, as far back as 1963, there had appeared a pioneering work in which every single occurrence in the Platonic corpus of a knowledge verb or knowledge noun was collected, classified, and subjected to a type of analysis more powerful than any that traditional classical scholarship could yield, and more systematic than any current in the philosophical journals of the time. I refer to Sir John Lyons’ Cambridge dissertation, *Structural Semantics: An Analysis of Part of the Vocabulary of Plato*.<sup>18</sup> The key word in this title is ‘structural’.

In the wider Anglo-Saxon world this was the period when Chomsky was beginning to take over from linguistic philosophy in the old, unsystematic Oxford style. Lyons’ application of Chomskian techniques to Plato’s vocabulary of knowledge should have been heralded within ancient philosophy as the moment when science vanquished superstition, and the untutored darkness of scholarly intuition was dispelled in the bright light of modern linguistics. The debate about Plato and the epistemic troika should have stopped dead in 1963, and the participants should have gone back to reread the *Phaedo* and *Republic* with fresh, de-Ryled eyes. Alas, Lyons had more effect on the

<sup>16</sup> Keeping, with Gallop (1975), *ad loc.* p. 230, the MSS *τούτο ὃ ἐστι*: ‘taking *ἐστι* as incomplete’. Rowe and the new OCT replace Burnet’s emendation *τὸ αὐτὸ ὃ ἐστι* (which generalizes the preceding *αὐτὸ τὸ X* formulae) by *τούτο, τὸ ὃ ἐστι*. Fowler in the Loeb (1914) edition printed no more than *τὸ ὃ ἐστι* with the even more minimal translation ‘the seal of absolute’. In a later version (1993), Gallop made his point even clearer with the wording ‘that which it is’. Rowe (1993) oscillates over the construal, but finally rejects Gallop in favour of ‘what is equal’, and so on.

<sup>17</sup> A small essay could be written on the inadequate, non-propositional translations of the phrase ‘*αὐτὸ τὸ such and such*’ by, for example, Tredennick (1954: ‘absolute’), Hackforth (1955: ‘the thing itself’), Grube (1977, 1997: ‘itself’). Bluck (1955: ‘that which *is*, all by itself’) is little better. A differently telling silence is the absence of *Phaedo* 75d 2 from the 10-page *index locorum* to that lively crusade against any propositional understanding of Platonic Forms: Lloyd Gerson’s *Knowing Persons* (2003). Let me simply quote, approvingly, Gallop’s note *ad loc.*: ‘The argument extends to all items “stamped” by the terminology for forms. That terminology originates from questions such as “what is beauty?” or “what is justice?”. Platonic forms are objects that provide answers to those questions. The present phrase might be glossed as “that which X is”, answering the question, “What is X?”. So Burnet (1911 *ad* 75d 2: ‘the just what it is’), Monique Dixsaut (1991: ‘ce que c’est’), and John Cooper’s revised version of Grube (2002: ‘the seal of “what it is”’), not to mention from long, long ago, Schleiermacher (1826 (second edn.): ‘was wir bezeichnen, als dies selbst, was es ist’). Compare further *Rep.* 490b 3: *πρὶν αὐτοῦ ὃ ἐστιν ἑκάστου τῆς φύσεως ἀμασθαι*—‘before getting in touch with the nature of each case of that which X itself is’.

<sup>18</sup> Blackwell: Oxford, 1963. Three years later came another pioneering work in which modern linguistics cast light on ancient philosophy: Charles Kahn’s ‘The Greek Verb “to be” and the Concept of Being’, *Foundations of Language*, 2 (1966), 700–24, to be followed by his massive study *The Verb ‘Be’ in Ancient Greek* (1973, 2003).







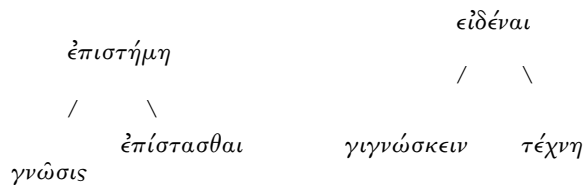
bibliographies of the debate than its content.<sup>19</sup> He was even cited by Leshner as scientific support for the contention that *γιννώσκειν/γνώσις* can be glossed as knowledge by acquaintance.<sup>20</sup> So my next task is to set out, as briefly and clearly as I can, in my own words rather than his, what I believe Lyons did and proved.

Platonic Greek has three prominent verbs for knowing, and three nouns for knowledge. In alphabetical order, the verbs are *γιννώσκειν*, *εἰδέναι*, *ἐπίστασθαι*, and the nouns are *γνώσις*, *ἐπιστήμη*, *τέχνη*. Lyons' central claim is that these six words form a *structured system*.

Everyone knows that the colour vocabulary of a language, or its kinship terminology, has to be learned as a system, whether the learning is by a native speaker or an outside investigator. So it is with the knowledge vocabulary we find in Plato's dialogues. Each of the three verbs enters into a variety of constructions (many more than three *each*), and it is only by studying the relationships, synonymities, and contrasts between them that we can understand their meaning. Similarly with the three nouns. The moral is that the act of translation cannot be achieved by a one-to-one pairing of a single Greek construction with a single English construction, let alone by a one-to-one pairing of Greek and English verbs and Greek and English nouns, irrespective of the context and construction to which they belong. The whole system is in play in each context, and only an holistic understanding will enable one to choose an appropriate English translation for some particular occurrence of one of the six words with which we are dealing.

The results of this broadly structuralist approach are many and fruitful. For me personally, when I first read the book in 1964, having been inspired as an undergraduate by hearing Lyons speak at the Cambridge B Club on 22 January 1962, they were a revelation. But for present purposes I want to concentrate on three major results, of which only the third could have been reached—and in my view jollywell should have been reached—by the intuitive methods of traditional classical scholarship.

The first result is encoded in a pair of diagrams which ought to be indelibly etched on the wax tablet of every student of Plato's dialogues:



<sup>19</sup> Contrast the success with which the untutored darkness of scholarly intuition was indeed dispelled when, building on modern propositional logic and the work of Jan Lukasiewicz, Benson Mates in 'Stoic Logic and the Text of Sextus Empiricus', *American Journal of Philology*, 70 (1949), 290–8, and in his book *Stoic Logic* (University of California Press, 1953, 1961, 1973), was able to make numerous compelling textual emendations (some extraordinarily simple) to ancient reports on Stoic logic. Jonathan Barnes' *magnum opus* of 2007, enigmatically entitled *Truth, etc.*, is a noble contribution to the tradition that they founded.

<sup>20</sup> Leshner (1969), 76–7. Lyons obliged by saying somewhat the same thing later (Lyons 1979, 116, with reference to the verb's 'most distinctive collocations'), but with a very broad notion of acquaintance that covers becoming aware that *p*, where *p* is any proposition. More on later Lyons is discussed below.





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The verb *ἐπίστασθαι* and the noun *ἐπιστήμη* are cognate with each other, but for all that *in Plato* they are semantically disparate.<sup>21</sup> The verb is more specialized than the noun. The noun is the most general word for knowledge in Platonic Greek. That is why the theme-question of the *Theaetetus* is *τί ἐστὶν ἐπιστήμη*, rather than *τί ἐστὶ τέχνη* or *τί ἐστὶ γνώσις*; but if you look through the *Theaetetus* you will find that the verb which occurs most frequently is *εἰδέναι*. *ἐπίστασθαι* and *γινώσκειν* each have less than half as many occurrences; and the most general verb is *εἰδέναι*, *not ἐπίστασθαι*.

This distancing of *ἐπιστήμη* from *ἐπίστασθαι* was a major surprise. It is no exaggeration to say that it wrecks practically every attempt so far to base the epistemic troika on Plato's Greek—every attempt, that is, bar one, which for the present I am holding in reserve.

Consider Socrates' question at *Theaetetus* 209e 8–210a 1: *τὸ γὰρ γινῶναι ἐπιστήμην που λαβεῖν ἐστὶν ἢ γάρ*—to which Theaetetus assents straightforwardly: 'Yes'. Both Runciman and Leshner cite this as a difficulty for the project of persuading Plato to distinguish between knowledge by acquaintance and knowledge that—Runciman taking it to be an insuperable difficulty, and Leshner a superable one.<sup>22</sup> It is a difficulty for them because they suppose that Plato would make the distinction by taking *γινώσκειν* to express knowledge by acquaintance, *ἐπίστασθαι* knowledge that.<sup>23</sup> If they had read Lyons, as Leshner thought he had, they would have known that an association in the passage quoted between the noun *ἐπιστήμη* and the verb *γινώσκειν* does not begin to cast doubt on the suggestion, thoroughly vindicated by Lyons, that there is a contrast between the two verbs *ἐπίστασθαι* and *γινώσκειν*. What it does help cast doubt on is the quite different suggestion that there is a contrast between the nouns *ἐπιστήμη* and *γνώσις*, which scholars writing before Lyons did not distinguish from the idea of a contrast between the corresponding verbs.<sup>24</sup>

The second result to mention is best presented through the two diagrams. There is indeed a contrast in very many contexts between *ἐπίστασθαι* and *γινώσκειν*.<sup>25</sup> A parallel contrast holds between the nouns *τέχνη* and *γνώσις*. With both verbs and nouns the contrast operates along the horizontal dimension of the diagrams: as

<sup>21</sup> Italics are mine. It will emerge that findings for Plato do not carry over in every respect to Aristotle or his Imperial commentators.

<sup>22</sup> Runciman (1962), p. 43, n. 2; Leshner (1969), pp. 72 with p. 78.

<sup>23</sup> In this supposition they are following up on a one-page intervention by Hamlyn: 'Forms and Knowledge in Plato's *Theaetetus*: A Reply to Mr. Bluck', *Mind* (1957), 547. Hamlyn's proposal was expressed in terms of 'γνώσις and its derivatives' versus 'ἐπιστήμη and its derivatives', where his references show that 'derivatives' include the cognate verbs (for example, *ἐπίστασθαι* at 208a 2).

<sup>24</sup> More recently, Waterfield (1987), pp. 236–7, did read Lyons, but having failed to take his warning that the verbs and the nouns are not on a par in Plato, he too cites *Th.* 209e 8–210a 1 to show that 'apart from minor differences in grammatical construction, the two terms [*sc.* *γνώσις* and *ἐπιστήμη* plus their cognate verbs] are synonymous.'

<sup>25</sup> A nice example that Lyons' results can alert one to is *Rep.* 488b 2–3, where to substitute *ἐπιστάμενον* for *γινώσκοντα* would wreck the point by implying that the burly shipmaster does have the systematic *τέχνη* which Socrates means to deny him. The man's knowing a thing or two about nautical matters is meant to be on a par with his being rather short-sighted and somewhat hard of hearing (b 1–2).





*ἐπίστασθαι* is to *γινώσκειν*, so *τέχνη* (not *ἐπιστήμη*) is to *γνώσις*. Along the vertical dimension there is, by and large, no contrast. In some contexts and constructions, *εἰδέναι* is convertible with and, according to Lyons, synonymous with *ἐπίστασθαι*, while in others it is convertible with and, according to Lyons, synonymous with *γινώσκειν*. Likewise *ἐπιστήμη* in relation to *τέχνη* and *γνώσις*. In such contexts, *εἰδέναι* and *ἐπιστήμη* have no specific meaning of their own. They substitute for whichever more specific word is appropriate.

This leads me to the third point—the one that traditional classical scholarship should have and could have noticed. Runciman and Leshner were right to suggest a contrast between *ἐπίστασθαι* and *γινώσκειν*, but quite wrong to associate the former with knowledge that,<sup>26</sup> and the latter with knowledge by acquaintance.<sup>27</sup> *ἐπίστασθαι* in Plato very seldom governs a ‘that’-clause or indirect question: Lyons counts just seven cases in the corpus where *ἐπίστασθαι* takes a clause in *oratio obliqua*, and I make it a few less.<sup>28</sup> By contrast, *γινώσκειν* with a ‘that’-clause or indirect question is frequent: 66 cases in the corpus. Even more frequent with *oratio obliqua* clauses is *εἰδέναι*: 277 cases in the corpus. The question is: should we say that the *oratio obliqua* type of construction is special in that *εἰδέναι* here has a specific meaning of its own, though one that overlaps with *γινώσκειν*, or should we repeat the message of the diagrams and say that even with clauses of *oratio obliqua* *εἰδέναι* merely substitutes for *γινώσκειν* with the same construction?

I tend towards the second option, and will later cite Alexander of Aphrodisias on my side.<sup>29</sup> Lyons’ findings make it obvious that *γινώσκειν* is not *more* closely connected with acquaintance-knowledge than with knowledge that.<sup>30</sup> Besides, a large number of contexts in which *γινώσκειν* governs a noun phrase in direct object construction are contexts that philosophers would class as knowledge that, rather than knowledge by acquaintance. For example, *μη̄ πᾶν γύναιον καὶ παιδίον, καὶ θηρίον δέ, ἱκανὸν εἶναι ἰᾶσθαι αὐτῷ τὸ ὑγιεῖν* (*Th.* 171e 5–7) means that not every woman, child, or beast knows what is healthy for itself, where the last three words express an indirect question to which the answer would be expressed in a that-clause: ‘Juliette does not know *that Guinness is good for her*’. It does not mean that

<sup>26</sup> Runciman, 34 (‘knowledge of facts or possession of skills’), alleging that the verb is simultaneously confused with knowledge by acquaintance; Leshner, 72 (‘intellectual knowledge or knowledge that something is the case’). Both authors treat verb and noun on a par, arguing from one to the other.

<sup>27</sup> Runciman (196), p. 35, with n. 2 and the same allegation; Leshner, *loc. cit.*

<sup>28</sup> Lyons (1963), 205–7, with ns. 1–3. His list (207, ns. 1–3), with an asterisk marking the cases I think might need a more complicated explanation, is *Euthyd.* 296e, *Hipp. Mi.* 365e\*, *Lach.* 188b, *Lys.* 205a\*, *Phd.* 97b, *Th.* 163e\*, *Tim.* 76e\*. *LSJ* shows other authors more generous about adding *oratio obliqua* to *ἐπίστασθαι*. Aristotle is the important case that will concern us later, but a glance at Sturz’s *Lexicon Xenophonticum* shows Xenophon profligate with all manner of *oratio obliqua* constructions for *ἐπίστασθαι*, while Herodotus even allows the verb to take a clause which turns out (or, on occasion is already declared!) to be false: see Powell’s *Lexicon to Herodotus* (Cambridge 1938, *sv.*) and Vlastos’ debate with Snell (*Platonic Studies*, pp. 208–9). An ironic use of *ἐπίστασθαι* plus *oratio obliqua* in Heraclitus, frag. 57, will be the final surprise of this essay.

<sup>29</sup> See p. 22 below.

<sup>30</sup> The table in SS p. 182 reveals 27 occurrences of *γινώσκειν* plus a personal noun as object—66 with a clause in *oratio obliqua*. This disparity will be crucial below.





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not every woman, child, and beast is acquainted with an abstract object called τὸ ὑγιεινόν.

It is true that if you want to know the Greek for ‘knowledge by acquaintance’, a good answer is *γιννώσκειν*. But it is also true that if you want to know the Greek for ‘knowledge that’, a good answer is *γιννώσκειν*. An equally good answer to *either* question is *εἰδέναι*. Neither verb, I contend, can be tied to either term of the Rylean contrast between knowledge that and knowledge by acquaintance. Both express both.

In fact, the only part of the epistemic troika that can be partially located in the diagrams is the contrast between knowledge how and knowledge that. *ἐπίστασθαι* plus infinitive, or plus a *τέχνη*-denoting noun phrase in direct object construction,<sup>31</sup> is often appropriately translated by English ‘know how’, and can be seen to contrast with *γιννώσκειν* (*εἰδέναι*) plus a clause of *oratio obliqua*.

This completes my account of the reasons why, in my opinion, the debate about Plato and the epistemic troika should have stopped dead in 1963 when Lyons’ book was published. Sadly, I must now reveal something about which very few ancient philosophy specialists are aware. Lyons himself made a late entry into the debate with a pair of articles published in 1979 and 1981—the latter carrying the title ‘*Structural Semantics in Retrospect*’. A better title for this apostasy would have been ‘*Structural Semantics Abandoned*’, for his new proposal was to associate the epistemic troika with Plato’s trio of verbs and the three corresponding nouns in such a way that *εἰδέναι*/*ἐπιστήμη* would *focally* or *prototypically* express knowledge that, *ἐπίστασθαι*/*τέχνη* knowledge how, and *γιννώσκειν*/*γνώσις* knowledge by acquaintance.<sup>32</sup>

The argument for this hypothesis rests on certain key results of *Structural Semantics*, to wit:

(a) *γιννώσκειν* is the only one of the three verbs that is employed normally and frequently with a person-referring nominal as its direct object; (b) *ἐπίστασθαι* is the only one that regularly takes an infinitive; and (c) *εἰδέναι* occurs far more frequently with the equivalent of an English *that*-clause as its object than it does in any other construction.<sup>33</sup>

The focal, or prototypical, meaning ‘is revealed in, though not of course to be identified with, its most frequent or most characteristic, collocations. It is also the meaning which the native speaker would think of first and would find easiest to exemplify.’<sup>34</sup>

I should underline that the proposal is described as ‘tentative’ and (ambiguously) as ‘definitely going beyond, if not actually contradicting, what was said in *Structural Semantics*.’ Note also that in cases (a) and (b) the frequency referred to is frequency

<sup>31</sup> See Lyons (1963), 183ff.

<sup>32</sup> Note that under the new proposal the noun *ἐπιστήμη* still remains more general than the verb *ἐπίστασθαι*.

<sup>33</sup> The extract is quoted from Lyons (1981), pp. 83–4, referring to the table of results given at SS, p. 182. I have changed his transliterations back into Greek and inserted (a), (b), and (c) for ease of subsequent reference.

<sup>34</sup> *Ibid.*, p. 81.





relative to that of the other two verbs, whereas in case (c) it is frequency within the occurrences of *εἰδέναι*. This difference will be crucial to my critique.

As sources or precedents for the idea of focal or prototypical meaning Lyons cites five linguists and the work of one philosopher: Hilary Putnam's well-known paper 'The Meaning of "Meaning"' (1975).<sup>35</sup> Since I am not a linguist but a philosopher writing for a philosopher who has also made use of Lyons' book, Putnam's is the work I shall start from, even though he does not speak of 'prototypical' or 'focal meaning', which in this context are linguists' terms of art.<sup>36</sup> His key term is 'stereotype'.

Putnam's example of a stereotype is that to understand the word 'tiger' you must have learned that tigers are feline, large, yellow with black stripes, that they live (typically) in the jungle, and are fierce.<sup>37</sup> These are not necessary and sufficient conditions for being a tiger, nor are they analytically part of the concept of a tiger. Tame tigers may well exist, even outside the pages of G. E. Moore. And if Aristotle can entertain the counterfactual possibility (as he wrongly believes it to be) of black swans, or the occasional actuality (as he also supposes) of ravens turned permanently white by a sharp frost (*APr.* II 3, 55a 4–10; *HA* III 12, 519a 3–6), so we may consider the (perhaps redundant) possibility of a black tiger with yellow stripes, not to mention the occasional actuality of albino ('leucistic') tigers whose genetic condition leaves them with black stripes on a white background. Putnam's claim is that white tigers would not count as possible *tigers* unless we had first learned the stereotype associated with the word 'tiger'.<sup>38</sup>—Similarly, one might add, with Aristotle's ability to envisage black swans such as those that thrive down the road from where I write. The new Lyons' putative parallel to this is the suggestion that *εἰδέναι* *prototypically* expresses knowledge that, *ἐπίστασθαι* knowledge how, and *γινώσκειν* knowledge by acquaintance.

You will not expect me to have much sympathy with this proposal, even though the new Lyons believes he has said nothing which is actually incompatible with the old Lyons, only different and additional. I ask a simple and, to my mind, a crushing question: If the epistemic troika does fix the prototypical meanings of our three Greek verbs—how on Earth does this help the theorist to explain, or the language learner to learn, the fact that in some Platonic contexts and constructions *εἰδέναι* is convertible and synonymous with *ἐπίστασθαι*, while in others with *γινώσκειν*? The old Lyons showed that this alternative convertibility is much the most important fact about the semantics of *εἰδέναι*. The new Lyons, it seems to me, has made that fact well nigh impossible to grasp.

I have other quarrels to pick with the new Lyons. It seems to me that to move, as he requires, from *γινώσκειν* plus a noun phrase in direct object construction taken as expressing knowledge by acquaintance to *γινώσκειν* plus clauses of *oratio obliqua*,

<sup>35</sup> Lyons (1981), p. 81, n. 18.

<sup>36</sup> Philosophers please note that the phrase 'focal meaning' here has nothing to do with G. E. L. Owen's work on Aristotle. Lyons (1981), n. 19, cites the distinguished linguist William Haas for whose *Festschrift* he wrote his 1979 article.

<sup>37</sup> Putnam (1975), pp. 251–2.

<sup>38</sup> *Ibid.*, p. 256.





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involves a good deal more than a contextual adjustment of the kind necessary to accommodate albino tigers or the whiteness of chemically pure gold.<sup>39</sup> I would also question some aspects of the use which Lyons makes of his previous counts. Worse, there is one highly significant count which he does not mention.

The table for *γινώσκειν* at *Structural Semantics*, p. 182, shows 27 occurrences for the verb's use with a person-referring nominal as its direct object: more, certainly, than the 7 such constructions listed for *εἰδέναι* and the solitary one for *ἐπίστασθαι*, but significantly fewer than the 66 cases counted where *γινώσκειν* governs an *oratio obliqua* construction. Granted, this last figure is a lot less than the 277 *oratio obliqua* constructions with *εἰδέναι*. The fact remains that it is easily the most numerous of the constructions admitted by the verb *γινώσκειν* in the works of Plato—more than twice as many cases as the new Lyons can cite for his choice of the verb's prototypical or focal meaning. Yet this fact is never so much as mentioned in the two articles under discussion!

I noted earlier that in cases (a) and (b) the frequency referred to is frequency relative to that of the other two verbs, whereas in case (c) it is frequency within the occurrences of *εἰδέναι*.<sup>40</sup> If (b)'s frequency were to be assessed in the same way as (c)'s, the finding would be that the focal or prototypical meaning of *γινώσκειν* is revealed by its use with an *oratio obliqua* construction, *not* its use with a person-referring nominal as direct object. Yes, the *oratio obliqua* use for *γινώσκειν* is significantly *less* frequent than the corresponding cases of *εἰδέναι*. But is not that quite in keeping with the great unexpected and wonderfully revealing discovery of *Structural Semantics*, that *εἰδέναι* has no core meaning of its own, but substitutes either for *ἐπίστασθαι* or for *γινώσκειν*?

My next move is to offer a more positive way ahead out of the new Lyons' den by introducing, at last, the evidence of a native speaker. Recall that according to the new Lyons, the prototypical meaning of a word is the meaning which a native speaker would think of first and would find it easiest to exemplify.

The earliest extant debate which I have encountered about ancient Greek verbs of knowing took place in the sixth century of the Christian era, when the neo-Platonist commentator Simplicius presumed to disagree with the greatest Aristotelian scholar of all time about the phrase *τὸ εἰδέναι καὶ τὸ ἐπίστασθαι* in the following sentence—the very first of Aristotle's *Physics*:

*Ἐπειδὴ τὸ εἰδέναι καὶ τὸ ἐπίστασθαι συμβαίνει περὶ πάσας τὰς μεθόδους, ὧν εἰσὶν ἀρχαὶ ἢ αἴτια ἢ στοιχεῖα, ἐκ τοῦ ταῦτα γνωρίζειν (τότε γὰρ οἰόμεθα γινώσκειν ἕκαστον, ὅταν τὰ αἴτια γνωρίσωμεν τὰ πρῶτα καὶ τὰς ἀρχὰς τὰς πρώτας καὶ μέχρι τῶν στοιχείων), δῆλον ὅτι καὶ τῆς περὶ φύσεως ἐπιστήμης πειρατέον διορίσασθαι πρῶτον τὰ περὶ τὰς ἀρχάς. (184a 10–16).*

<sup>39</sup> Putnam's examples: *op. cit.*, p. 250.

<sup>40</sup> I should also add that 'frequency' is not a count of each token of the word counted, since Plato often has occasion to develop arguments in which the same word in the same construction is continuously repeated again and again. Lyons (1963), 181–2, cites the case of *Th.* 192a–c 6, which contains no less than 15 occurrences of *εἰδέναι* in the same (highly repetitive) environment. In the crucial table on p. 182 that is quite properly recorded as just one.





When the objects of an inquiry, in any department, have principles, causes, or elements, it is through acquaintance [γνωρίζειν] with these that knowledge and understanding [τὸ εἰδέναι καὶ τὸ ἐπίστασθαι] is<sup>41</sup> attained. For we do not think that we know [γιγνώσκειν] a thing until we are acquainted [γνωρίσωμεν] with its primary causes or first principles, and have carried our analysis as far as its elements. Plainly, therefore, in the science [ἐπιστήμη] of nature too our first task will be to try to determine what relates to its principles.

(Oxford translation by R. P. Hardie and R. K. Gaye)

We shall soon find Simplicius, like the new Lyons, determined to regiment Aristotle's vocabulary into conformity with the accepted philosophical tenets of the period in which he was writing, which then of course were of neo-Platonic rather than of Rylean or Putnamic origin. His opponent Alexander, three centuries earlier, had no such philosophical axe to grind. He was just doing his usual superb best to understand Aristotle.

But first let me pause to explain why the English version I have appended to clarify Aristotle's Greek is from the Oxford translation of 1930. This is because of the translators' charmingly unphilosophical use of the term 'acquaintance'.<sup>42</sup> It is perfectly good English to render ὅταν τὰ αἴτια γνωρίσωμεν (184a 13) by 'when we are acquainted with its causes', but no contemporary philosopher would count this a case of knowledge by acquaintance. τὰ αἴτια is not the sort of accusative as in (3), but more like 'the answer to the question' in (3)#: causes are by definition causes explanatory of something. What this shows is that 'acquaintance' as it occurs in modern Anglophone discussions of ancient epistemic vocabulary is a term of art. We cannot tell which cases of K + noun phrase in direct object construction express knowledge by acquaintance until the term of art has been defined and explained independently of its surface linguistic expression.

Nobody but Russell has ever done this. Lyons remarks that knowledge by acquaintance 'is manifest most characteristically in our ability to recognise and

<sup>41</sup> Note the translators' singular verb, to be recalled in n. 27 below.

<sup>42</sup> Likewise the very similar Loeb translation by Wicksteed and Cornford (1929): 'In all sciences that are concerned with principles or causes or elements, it is acquaintance with these that constitutes knowledge or understanding.' Wicksteed—a Unitarian clergyman, a lover, translator, and annotator of Dante, a student of Aquinas, and a notable economist—lived from 1844 to 1927, when he died a few days after summoning Cornford—whom he had met just once, years before (though they had friends in common, very probably including Gilbert Murray)—to travel from Cambridge to his home in Childrey, Oxfordshire, there to take over the project to which Wicksteed had devoted his final years. An older friend, named Saunders, had already agreed to help if Wicksteed did not live to complete it himself (Herford 1931, p. 176), but Cornford's part of the Preface to Vol. 1 of the Loeb edition (pp. xi–xiv) makes clear that it was he who found himself suddenly landed with the huge task of finishing a work which the Loeb editors had accepted for publication in 1924. Now Wicksteed was preparing a paraphrase rather than a translation, and no serious work on the Greek text. Cornford issued the first volume in 1929—just two years later—but the second did not appear until 1934. Its Preface begins: 'In this volume, *as in the previous one* [my italics], I am solely responsible for the Greek text.' Nowhere in successive issues of the Loeb edition is the extent of Cornford's contribution clearly explained, but the impression that theirs was a joint project is patently false. It was Cornford's taking over that produced the excellent resource which the Loeb Classical Library has kept in print for so many years. That said, it would seem uncharitable not to assign the very first sentence to Wicksteed's pen! (For more on Wicksteed, see Herford's biography.)





reidentify persons and things that we have previously encountered'.<sup>43</sup> But in what sense, if any, is knowing causes knowing things? In what sense are causes things? 'Everything is a thing', you may say, truly enough. One may know the causes of the First World War, know French, know Pythagoras' theorem, know one's neighbour—all of them 'things'. But does Lyons seriously mean 'in the sense in which we speak of knowing persons and *everything* else'? Those who use the Russellian terminology tend to say that they do not wish 'acquaintance' to be taken in its exact technical Russellian meaning—presumably because in Russell this is tied to sense-datum theory. But then, instead of explaining what meaning 'acquaintance' *is* to have, they give an example like (3) and hope we will catch on. Hence the extraordinary lack of focus in discussions of the question of whether Plato conceives the philosopher's knowledge of the Forms as acquaintance. No-one, I believe, has a clear idea what they are debating. Nor is this irrelevant to Aristotle, because for Plato, knowledge of the Forms *is* knowledge of causes: the Forms are causes of the things that depend upon them. The causes and principles of which Aristotle speaks in the text before us are his alternative to the Platonic Forms.

So now to the debate between Simplicius and Alexander about Aristotle's exordium. That *τὸ εἰδέναι καὶ τὸ ἐπίστασθαι* is not a pleonasm, Alexander did well to insist upon, saying:

Pleonasms have a difference of words alone and sameness of thing. For this reason any one of the words involved is equivalent in meaning to every other. But *τὸ εἰδέναι καὶ τὸ ἐπίστασθαι* does not mean the same as *τὸ εἰδέναι* by itself. For we are said to *εἰδέναι* both the things we grasp through perception and judgement (*τὰ δι' αἰσθήσεως καὶ δόξης*)<sup>44</sup> and the immediate premises, none of which we know (*εἰδέναι*) through demonstration; that is to say, it is not by way of *ἐπιστήμη* that we know them. Thus far Alexander spoke well. But how both terms are to be taken *here*, he did not go on to say. It looks as though he orders *εἶδησις* ahead of *ἐπιστήμη*, as being its genus, as if he [Aristotle] was speaking of *γνώσκω ἐπιστημονικῶς*. This is like saying, 'He who says something and says it in such a way as to assert it (*ὁ λέγων τι καὶ οὕτως λέγων ὡς ἀποφαίνεσθαι*), either speaks truly or speaks falsely'. For speech (*λόγος*) is the genus of assertion, just as *εἶδησις*, i.e. *γνώσις*, is the genus of *ἐπιστήμη*. And that he [Aristotle] knows that *εἶδησις* is spoken of also in the case of perception was shown by the opening of the *Metaphysics*: 'All men by nature desire to *εἰδέναι*: witness their delight in the senses'. But may it not be that in the present passage Aristotle took *εἶδησις* in its proper (*κυρίως*) sense and equated it with *ἐπιστήμη*? For Plato says that the mathematicians do not *εἰδέναι* their own starting points, obviously meaning that they do not *εἰδέναι* them *ἐπιστημονικῶς*, which implies that *εἶδησις* in the proper sense is *ἐπιστημονικῆ εἶδησις*. 'For', he says, 'where the starting point is something one does not know (*οἶδε*), and the intermediate steps and the conclusion are composed of things one does not know (*οἶδε*), how is it possible to call this *εἰδέναι* or *ἐπιστήμη*?'<sup>45</sup> And he [Plato]

<sup>43</sup> Lyons (1981), p. 83.

<sup>44</sup> This phrase had better be a hendiadys, on pain of allowing the absurdity of knowledge gained through *δόξα*.

<sup>45</sup> A version of Plato, *Rep.* 533c 3–5, preferring Torstrik's emendation *τοῦτο ἢ* for *τούτω* in the unsatisfactory *CIAG* text of Simplicius 13. Thus emended, the passage fits the standard Platonic parallel, discovered by Lyons, between the verb *εἰδέναι* and the noun *ἐπιστήμη*.







clearly says that *δόξα* is different from *γνώσις* when he says, ‘What, then, if this person whom we say *δοξάζει* and does not *γνώσκει* should get angry with us?’, and likewise he distinguishes the *δοξαστόν* from the *γνωστόν* when he says, ‘We agreed before that if anything of this sort should turn up, it ought to be called *δοξαστόν*, not *γνωστόν*’.<sup>46</sup> It is clear that Aristotle too takes *εἰδησις*, which is the same as to say *γνώσις*, not in its common sense, but in its *ἐπιστημονικός* sense. That is clear from the considerations he adduces: ‘For’, he says, ‘we think we *γνώσκω* each thing when we *γνωρίζω* its first causes and first principles.’ He is evidently speaking of the kind of *γνώσις* which is *γνώσις* from the principles, and this is *γνώσις ἐπιστημονική*. And that *δοξάζειν* is one thing, *ἐπίστασθαι* another, Socrates showed in the *Theaetetus* from the fact that there is both true and false *δόξα*, whereas *ἐπιστήμη* is only true. This latter proof Alexander used as well.

(Simplicius, in *Ar. Phys.* 12.14–13.13)

The issue in dispute between Simplicius and Alexander starts out as a simple question of linguistic meaning. Are *εἰδέναι* and *ἐπίστασθαι* synonymous in the first sentence of Aristotle’s *Physics*? Simplicius agrees with Alexander that in Aristotle’s usage the two verbs are not in general synonymous. But here, he thinks, they are. Simplicius, in other words, takes the intervening *καί* as ‘namely’,<sup>47</sup> whereas Alexander understands it, quite in accord with the Lyons schema, as a way of passing from a more generic to a more specific verb: ‘*εἰδέναι* and, more particularly, *ἐπίστασθαι*’—‘und zwar’ in German.<sup>48</sup> The construal of that *καί* turns out to have momentous consequences. For if Simplicius is right about it, Aristotle’s epistemology is gratifyingly (for a Platonist) in complete agreement with Plato’s.

However, my interest is in the question of language. Why does Aristotle use two verbs instead of one? And what do the two verbs mean in Aristotle’s usage? This is a question of much importance for a modern translator of Aristotle—especially a translator of the *Posterior Analytics*.

In the first edition (1975) of the translation of this work which Barnes contributed to the Clarendon Aristotle series, he adopted the ‘tedious device’ (his phrase) of tagging each of the three verbs *ἐπίστασθαι*, *γινώσκειν*, and *εἰδέναι* with its own English substitute: respectively, ‘understand’, ‘be aware of’, and ‘know’.<sup>49</sup> This made for considerable artificiality in the translation. Tagging is not translating. All it was meant to convey to a Greekless reader was that Aristotle deployed three different Greek verbs within the territory of English talk about knowledge. There was no claim to render the

<sup>46</sup> This quote and its predecessor are accurate excerpts from *Rep.* 476d and 479d respectively.

<sup>47</sup> So too the Oxford translation of Aristotle’s *Physics*, as revealed by the singular verb at the end of the first sentence: ‘. . . knowledge and understanding *is* attained’ (my italics). Pellegrin *ad loc.* diagnoses hendiadys: ‘le premier terme désigne le savoir en général, le second le savoir scientifique’.

<sup>48</sup> The noun *ἐπιστήμη*, by contrast, which in Lyons’ scheme is the most general noun, Alexander’s last sentence treats as coordinate with *ἐπίστασθαι*. This is true to Aristotle and a change from Plato, with which we shall reckon shortly.

<sup>49</sup> See Barnes (1975), p. xviii with pp. 264–5 of the Glossary, and p. 90 *ad APo.* 71a 2, where he endorses Lyons’ scheme as appropriate to Aristotle’s knowledge vocabulary as well as Plato’s, and proposes separate English terms to match each of the Greek verbs and their corresponding nouns.





specific *meaning* of the Greek verbs—only that there were three of them in the ancient text. Barnes might as well have written  $x$ ,  $y$ , and  $z$  and equipped them with the appropriate suffixes: ‘xing’, ‘yed’, and ‘z’s’. Indeed, in 1980 he declared that ‘understand’ in his translation is ‘employed as a term of art, and means precisely the same as “know”’.<sup>50</sup>

As time passed, Barnes repented the infelicities of his original version. In 1985 he confessed that ‘my own translation of the *Posterior Analytics*, which aimed self-consciously at literal fidelity, produced English which is in many places barbarously unfaithful to Aristotle.’<sup>51</sup> Subsequently, the second edition of his *Posterior Analytics* (1994) allowed *γινώσκειν* as well as *εἰδέναι* to be Englished as ‘know’. This left readers with a single contrast between ‘knowing’ (*γινώσκειν*, *εἰδέναι*) and ‘understanding’ (*ἐπίστασθαι*), which Barnes now declared to be, in his opinion, the only contrast intended by Aristotle himself.<sup>52</sup> I believe that the debate between Alexander and Simplicius can help us to see that this was fundamentally right. So it is with regret that I have to report that, more recently, Barnes appears to have become a complete sceptic about there being any satisfactory way to make modern sense of Aristotle’s three verbs.

In his introduction to our late friend Mario Mignucci’s Italian translation and commentary on the *Posterior Analytics* (2007), Barnes discusses at some length<sup>53</sup> Aristotle’s opening account of *ἐπίστασθαι*, which his own first edition (1973) rendered as follows:

We think we understand a thing (*ἐπίστασθαι δὲ οἰόμεθ’ ἕκαστον*) . . . whenever we think we are aware (*οἰώμεθα γινώσκειν*) both that the explanation because of which the object is (*τὴν τ’ αἰτίαν . . . δι’ ἣν τὸ πράγμα ἐστίν*) is its explanation, and that it is not possible for this to be otherwise. (*APo. I 2, 71b 9–12*; Greek insertions mine) His second edition (1994) put it this way: We think we understand something . . . when we think we know of the explanation because of which the object holds that it is its explanation, and also that it is not possible for it to be otherwise.<sup>54</sup>

<sup>50</sup> ‘Socrates and the Jury’ (n. 52 below), n. 22.

<sup>51</sup> Quoted from the ‘Booknotes’ section which he wrote as Editor of *Phronesis*, 30 (1985), 326–7.

<sup>52</sup> See his second-edition note *ad* 71a 2: ‘I am no longer convinced that Aristotle intended or felt any semantic differences among these elements—with the exception of *epistēmē*. This stance was close to my own advocacy of ‘understanding’ for *ἐπιστήμη*, *ἐπίστασθαι* in Aristotle and ‘knowledge’ for his use of the remaining verbs and nouns (a) in ‘Aristotle on Understanding Knowledge’, contribution to *Aristotle on Science: The Posterior Analytics* (Proceedings of the Eighth Symposium Aristotelicum), ed. E. Berti (Padua: Antenore, 1981), pp. 97–139, and (b) in debate with Jonathan Barnes under the title ‘Socrates and the Jury: Paradoxes in Plato’s Distinction between Knowledge and True Belief’, in *Aristotelian Society Supplementary Volume*, 54 (1980), 173–206. Leshner (‘Understanding’) offers some useful qualifications and clarifications to my proposal—the most useful being his reference to Neil Cooper’s wonderfully inclusive essay ‘Understanding’ (1994).

<sup>53</sup> Pp. 22–8.

<sup>54</sup> Readers may find this sentence easier to parse if they supply a comma after ‘holds’, as in Mignucci’s version: ‘Riteniamo di conoscere scientificamente qualcosa . . . quando riteniamo di conoscere la ragione per la quale la cosa è, che essa è la ragione di quella cosa, e che ciò non può essere altrimenti’.





As on those two occasions, he now looks for a translation which will avoid the definitional circularity that threatens if both *ἐπίστασθαι* and *γινώσκειν* are rendered by the English verb ‘know’ or Italian ‘conoscere/sapere’. He claims there are only two serious candidates for *ἐπίστασθαι* as Aristotle defines it: ‘conoscere scientificamente’ (‘to know scientifically’), adopted by Mignucci,<sup>55</sup> and ‘comprendere’, the Italian equivalent of the verb ‘to understand’, which Barnes used for *ἐπίστασθαι* in both editions of his translation, although only the second edition claimed to mean what his English said. He now prefers Mignucci’s ‘conoscere scientificamente’ on the grounds that the normal use of ‘comprendere che’ is irrelevant to Aristotle’s concerns.<sup>56</sup>

The normal use of English ‘understand that’, as in ‘I understand that he is ill’, is equally irrelevant. But switch to ‘Do you understand the fact that winters get longer the further away from the equator you live?’. The phrase ‘the fact that’, presupposing as it does the truth of what follows, ensures that the question is not whether, but *why*, the length of winters varies with distance from the equator.<sup>57</sup> Which does connect with Aristotle’s concerns. What is more, of the three Greek verbs for knowing, *ἐπίστασθαι* is the one which is standardly used to claim or ascribe mastery of a *body* of knowledge—a *τέχνη* as opposed to individual items of knowledge.<sup>58</sup> Therefore, this seems to be the right verb for Aristotle to use when setting up the world’s first model for systematic science. The ‘we’ of ‘We think we understand a thing whenever we think we are aware . . .’ is not the ‘we’ of ordinary life but the ‘we’ of Aristotle’s school, who are being initiated into the world’s first ever logic and methodology of science.<sup>59</sup> It is true even today that what counts as ‘knowing’ or ‘understanding’ is more stringent in a scientific context than elsewhere.<sup>60</sup> Such is the context over which Alexander and Simplicius later wrangled.

Alexander’s story is that the verb *εἰδέναι*, as used by Aristotle, expresses the generic concept under which can be subsumed *ἐπίστασθαι* on the one side and, on the other, *εἰδέναι τὰ δι’ αἰσθήσεως καὶ δόξης καὶ τὰς ἀμέσους προτάσεις*:

<sup>55</sup> Except in the very first chapter, before the definition is formulated in chapter 2.

<sup>56</sup> There is an ambiguity in the Italian text: does ‘l’uso normale del secondo, intendo *comprendere che*’ give the explanans or the explanandum? The first would be a flagrant falsehood, so I choose the second: we are explaining the normal use of *comprendere che*, not the normal use of *comprendere*. (Here I am indebted to Francesco Ademollo in his capacity as one of the editors of the Mignucci volume.) Compare *OED sv*. ‘understand’ §3.

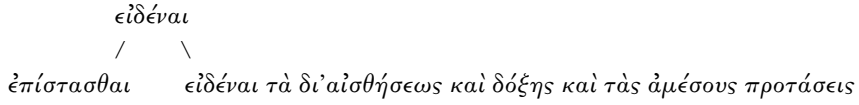
<sup>57</sup> Mignucci’s rendering of *τῆν τ’ αἰτίαν . . . δι’ ἣν τὸ πρᾶγμα ἐστίν* is ‘la ragione per la quale la cosa è’. Like Barnes’ phrase ‘the explanation because of which the object is’, this unduly focuses the modern reader on objects as contrasted with states of affairs and event-like phenomena such as eclipses, which the Greek *πράγμα* covers equally well and which in practice bulk much larger in Aristotle’s text.

<sup>58</sup> See columns A, B, and C in the table at Lyons (1963), 182, and n. 24 above, plus *LSJ sv*. *ἐπίστασθαι* II.

<sup>59</sup> Similarly, if tentatively, Barnes (1975), p. 97: ‘The “we think” argument will then refer not to linguistic consensus but rather to the views of Aristotle and his fellows on the proper limits of scientific endeavour.’

<sup>60</sup> For a helpful guide to the way in which greater stringency for the application of a term need not bring with it a change of meaning, see David Lewis, ‘Scorekeeping in a Language Game’ (1979), where p. 247 touches on the case of knowledge.





He is thinking of *Posterior Analytics* I 2, and of Aristotle's definition of ἐπίστασθαι as the knowledge (γινώσκειν) of causes achieved by demonstration. This restrictive definition of ἐπίστασθαι has the consequence that there can be no ἐπίστασθαι of the immediate first principles of demonstration, nor of contingent truths and states of affairs. Aristotle accepts the consequence. Of first principles we have νοῦς, not ἐπίστασθαι in the defined sense (*APo.* B 19). Of contingent states of affairs we have δόξα (*APo.* A 33) or αἰσθησις (A 18, A 31). But Aristotle makes it perfectly clear that just as he is not saying that we have no knowledge of first principles, so too he is not saying that we have no knowledge of contingent/sensible states of affairs. He is quite prepared to use γινώσκειν, γνωρίζειν of such cases.<sup>61</sup> What he denies, for either of the cases on the right-hand side of Alexander's scheme, is that they count as ἐπίστασθαι.

Now, I believe that to carry over to Aristotle Lyons' scheme for the Greek verbs of knowing, all we need to do is take note of the following:

- (i) ἐπίστασθαι in Aristotle, contrary to Plato's normal practice (but in accordance with at least some other Greek authors),<sup>62</sup> does often take a clause of *oratio obliqua*. When it does, it can be defined in terms of γινώσκειν plus a clause of *oratio obliqua*. Roughly, and using the translations I have argued for on other occasions,<sup>63</sup>  $x$  ἐπίσταται (understands) that  $p$ , iff for some  $q$  (better: for some  $q$  from a carefully defined class  $C$ ),  $x$  γινώσκει (knows) that  $p$  because  $q$ .
- (ii) The most important point to highlight in this definition is the contrast between ἐπίστασθαι and γινώσκειν along the horizontal dimension. This is what secures that the definition is non-circular. Thus far Barnes and I agree. We disagree when, as described above (p. 22), Barnes puts εἰδέναι alongside γινώσκειν in the horizontal contrast with ἐπίστασθαι. In Aristotle as in Plato, εἰδέναι stands in for *either* term in context: for example, at *APo.* A 2, 71b 17 it substitutes for ἐπίστασθαι, at B 11, 94a 20 for γινώσκειν, while at *Met.* A2, 982b 19–21 εἰδέναι elucidates ἐπίστασθαι, being itself elucidated at A3, 983a 25–6 by γνωρίζειν of a thing's primary cause.

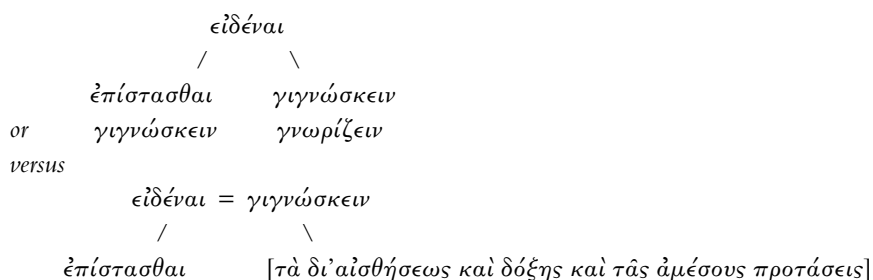
Now look back to the *parenthetical* section of the opening passage of the *Physics* (184a 12–14, at p. 22 above). There we find the standard definition differently expressed: instead of ἐπίστασθαι or εἰδέναι, γινώσκειν is used for the definiendum, and γνωρίζειν is brought in for the definiens. I conclude that the particular words chosen matter less than the *system* of contrasts; that is—

<sup>61</sup> If proof be needed, see γινώσκειν at *EE* VII 4, 1239a 35–b 2, γνωρίζειν at *Top.* II 7, 113a 31–2, *Mem.* 1, 449b 13–15.

<sup>62</sup> *LSJ* *sv.* II 2 and III.

<sup>63</sup> See references cited in n. 49.

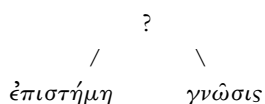




Alexander chooses the first, expressed either way, and Simplicius the second. Let me now adjudicate.

Simplicius, in 13.9–10, appreciates the point that *γινώσκειν* in the *Physics* parenthesis means demonstrative knowledge (the knowledge which Barnes and I have agreed, at times, to call understanding), but he takes this to mean that *ἐπίστασθαι* is a species of *γινώσκειν*, and hence that *εἰδέναι* = *γινώσκειν*. If this was right, the *Physics* definition of *γινώσκειν* would be comparable to someone saying, ‘My parent is the person who gave birth to me’, using the generic ‘parent’ when they really mean ‘mother’. The great awkwardness of this is to my mind good reason to adhere to Lyons’ *system* of contrasts, resisting Simplicius’ suggestion that *γινώσκειν* is as generic as *εἰδέναι*. I shall return to this issue after examining the nouns.

The main point to emphasize here is that *ἐπιστήμη* in Aristotle is not only cognate with, but genuinely coordinate with *ἐπίστασθαι* (*APo.* I 2, 71b 9–16: at least for *οὐ ἀπλῶς ἔστιν ἐπιστήμη*, ‘that of which there is understanding *simpliciter*’). It is the science known or the scientific knowledge of the person who *ἐπίσταται*. This enables it to contrast straightforwardly with *γνώσις* as *ἐπίστασθαι* contrasts with *γινώσκειν* (*APo.* B 19)—a contrast helped by the fact that *τέχνη* in Aristotle is officially restricted to productive skills; it does not normally extend, as it does at times in Plato, to theoretical sciences and mathematics.<sup>64</sup> Piece all this together, and the effect is that *ἐπιστήμη* moves down to replace *τέχνη*, leaving a vacancy in the top slot of Lyons’ original scheme:



<sup>64</sup> I say ‘officially’ because *Met.* A1, 981b 25–7, cites *EN* VI 4, 1140a 6ff., as the place where the difference between *τέχνη*, *ἐπιστήμη*, and other cognitive states is explained, and there *τέχνη* is indeed so confined. Yet Bonitz, *Index Aristotelicus sv.*, lists numerous places where Aristotle uses *τέχνη* of mathematics and other non-productive knowledge—most notably the immediately preceding sentence of *Met.* A1! Conversely, wherever *ἐπίστασθαι* denotes a practical skill, *ἐπιστήμη* is the coordinate noun, with the result that the *Politics* can speak of *δουλικαὶ ἐπιστήμαι* like housework (I 7, 1255b 22–30), and *Metaphysics* A4, 985a 10–17, can compare the early physicists to untrained fighters who on occasion can get in a fine blow but not *ἀπὸ ἐπιστήμης* (ridiculously rendered by Ross in the Oxford translation as ‘not . . . on scientific principles!’). More examples where to translate ‘science’ would be wholly inappropriate are in Bonitz, *Index* 279b 51–280a 4.



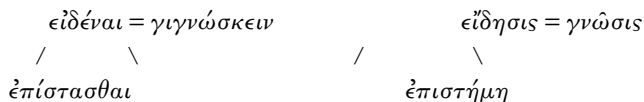


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It is fascinating to see the commentators (already Alexander *ap. Spl. in Phys. I 14.13*) filling the slot with the word *εἶδησις*, which in Aristotle occurs just once, in the opening phrase of his *De Anima*: τῶν καλῶν καὶ τιμίων τὴν εἶδησιν ὑπολαμβάνοντες.<sup>65</sup> The effect is that verbs and nouns can now be placed in perfect correspondence:



Or, if you follow Simplicius:



I can now add further support to my claim that we should not follow Simplicius.

It is Simplicius (12.22–3, 12.25, 13.6) who insists that *γνώσις* = *εἶδησις*, *γιννώσκειν* = *εἰδέναι*. The reason why *γνώσις* and *γιννώσκειν* matter to Simplicius here is because they are the key words in the quotations from Plato's *Republic* at 13.3 and 5. Alexander is cited at 13.10–13 as having distinguished *δόξα* from *ἐπίστασθαι* (not necessarily by reference to the *Theaetetus*). He is not cited for having distinguished *δόξα* from *γνώσις*. Nor is there any occurrence of *γνώσις*, *γιννώσκειν* in the actual quotation from Alexander. I incline to think that Alexander, whose *Physics* commentary is lost, said nothing about *γνώσις* or *γιννώσκειν*. The only thing that concerned him was the relation of *εἰδέναι* and *ἐπίστασθαι* in Aristotle's phrase τὸ εἰδέναι καὶ τὸ ἐπίστασθαι on page 1 of the *Physics*. Simplicius' equation of *εἶδησις* and *γνώσις* is to be seen, therefore, as a device for bringing to bear on that Aristotelian phrase, first Plato's *Republic*, and second the parenthetical definition of *γιννώσκειν* later in the *Physics* paragraph. Simplicius can then make out that Aristotle agrees with Plato that the strict or proper sense of *εἰδέναι* is *ἐπίστασθαι*—*γιννώσκειν* as elucidated in the *Republic*. If we reject this as the special pleading that it is, we are left with Alexander's conclusion that *εἰδέναι* is to *ἐπίστασθαι* as genus to species. And remember here that as a good Aristotelian, Alexander will believe that the genus has no independent content of its own: it is merely the potential which is variously differentiated in its several contrasting species. This fits the old Lyons very well—very well indeed.

Remember also that Simplicius concedes that Alexander is right about Aristotle's usage in general. It is only this passage for which he wants to plead a special Platonic understanding of Aristotelian knowledge. And even his special equation of *εἰδέναι* and *ἐπίστασθαι* for this passage is closer to the old Lyons than the new Lyons.

<sup>65</sup> This is the first attested occurrence of the word. *LSJ sv.* misleadingly starts with a quote from Nausiphanes, who was some 20 years junior to Aristotle.

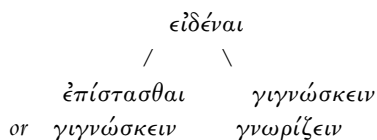




More important still, to my mind, is that this whole debate between Alexander and Simplicius is conducted without the slightest indication that the three verbs in dispute might be differentiated by their preferred constructions—the source from which the new Lyons, you will recall, wants to derive their prototypical meaning. All three verbs are expected to take the *same* constructions, be it *oratio obliqua* or the accusative noun phrases such as ‘causes’, ‘principles’, or ‘elements’ which Hardie and Gaye, and Wicksteed and Cornford, translate as objects of acquaintance, but which themselves require spelling out in propositional terms. What I have tried to show is that with suitable qualifications, adaptations, and adjustments, the old Lyons can help us understand what is going on in the Alexander–Simplicius debate. The new Lyons cannot.

I acknowledge, of course, that Alexander and Simplicius wrote many centuries after the texts which they are expounding. But they know these texts and their language pretty well by heart—witness the small slips that Simplicius makes when citing the *Republic*, *Theaetetus*, and *Metaphysics*. They are much closer to being insiders than we are.

I now return to the point where I concluded above that in Aristotle the particular words chosen matter less than the *system* of contrasts:



In each case Aristotle defines the left-hand verb (be it ἐπίστασθαι or γινώσκειν) by the right-hand verb (be it γινώσκειν or γνωρίζειν) as follows: ἐπίστασθαι/γινώσκειν X = γινώσκειν/γνωρίζειν the *cause* of X, where ‘cause’ may be taken as broadly as preferred, to include any or all of the standard Aristotelian causes, and X may be anything which such causes can explain; which Aristotle claims is everything—or rather, everything explicable.<sup>66</sup> The important point is that Aristotle’s four epistemic verbs combine in different ways to express just *two* epistemic *concepts*. On the one hand, explanatory knowledge that *p* because *q*; and on the other, the plain knowledge that *p* and the plain knowledge that *q*, which, when truly linked by ‘because’, express the former—namely, the highly commendable state which is called γινώσκειν ἐπιστημονικῶς by Simplicius, ‘conoscere scientificamente’ by Mignucci, and ‘understanding’ by Barnes and myself.

It is the same story with Aristotle’s treatment of the nouns. Once τέχνη is siphoned off elsewhere and ἐπιστήμη becomes coordinate with its cognate verb as diagrammed above, contrasting with γνώσις as ἐπίστασθαι contrasts with γινώσκειν, there remain just two concepts for the nouns which Aristotle uses to represent the three verbs:<sup>67</sup>

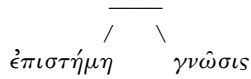
<sup>66</sup> On things inexplicable, see *Met.* Δ30 and Z9.

<sup>67</sup> I disregard here the solitary occurrence of εἶδησις noted above, p. 22.





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A good way to acquire a sense of the difference between Aristotle's cognitive vocabulary and Plato's is to read through the deservedly famous chapter on weakness of will, in *Nicomachean Ethics* VII 3. Weakness of will is acting against one's knowledge of what one ought to do. *EN* VII 3 is a long chapter, yet in the descriptions of the knowledge acted against there is not one instance of *γνώσις*, *γιννώσκειν* or their derivatives. The field is wholly occupied by the noun *ἐπιστήμη* and the verbs *ἐπίστασθαι* and *εἰδέναι*. *ἐπιστήμη* and *ἐπίστασθαι* are treated as on a par, in accordance with the diagrams that I have proposed for Aristotle's vocabulary. *εἰδέναι* remains the general verb, as it was in Plato, substituting for *ἐπίστασθαι* when convenient, but *εἶδησις* does not return as the corresponding noun. Therefore, there is all the more reason to wonder whether the choice of the noun *ἐπιστήμη* in preference to *γνώσις* is significant.

I propose that it is. Once you read the chapter in the light of the above diagram for the epistemic nouns in *Aristotle*, you (should) find yourself constantly reminded that the issue which Aristotle is addressing is not the issue of what is going on when someone acts contrary to a single correct moral belief (which might coexist with much wickedness), but rather the intelligibility of their doing something which goes against their whole moral outlook. In Aristotelian Greek, *παρὰ τὴν ἐπιστήμην* does not mean 'contrary to my normal, settled knowledge and belief on a certain issue'—for example, about what to do when offered a bribe. It means 'contrary to *everything* I know and believe is morally proper'.

But perhaps the best way to draw the sting of objections concerning the belatedness of my native speakers is to conclude by producing one final text, from a prose artist much older than Plato. A text which the old Lyons can help us understand, but the new Lyons cannot elucidate at all:

*Διδάσκαλος δὲ πλείστων Ἡσίοδος· τοῦτον ἐπίστανται πλείστα εἰδέναι, ὅστις ἡμέρην καὶ εὐφροσύνην οὐκ ἐγίνωσκεν· ἔστι γὰρ ἔν.* The teacher of most is Hesiod. It is him they know as knowing the most, the man who did not know day and night: for they are one.

It should be obvious that Heraclitus frag. 57 is playing his three knowledge verbs off against each other.<sup>68</sup> Well then:

<sup>68</sup> A point appreciated by Kahn, *Heraclitus* (1979), p. 109, but ignored on both sides of the dispute between Vlastos (1957), 208–9, and Gould (1955), p. 10, n. 6, concerning the value of *ἐπίστασθαι* here. Vlastos for once allows Gould's rendering (pp. 10–11, following Snell) in terms of 'subjective faith'—a surprise meaning of the verb indisputably attested for Heraclitus' fellow Ionian Herodotus (n. 27 above.) Barnes also, in his exhilarating 2-volume opus, *The Presocratic Philosophers*, Vol. 1, p. 72, translates 'they are convinced'. My objection is that the word-play is lost unless we translate all three verbs by our one verb 'know'. Even for Herodotus it is the exception rather than the rule that *ἐπίστασθαι* carries no implication of truth. I suspect that the readiness of scholars as distinguished as Kirk (1954), 155, and Marcovich (1967), 223, to translate in subjective terms, without supplying any argument, may stem from the simple fact that *LSJ sv. ἐπίσταμαι* quotes this very fragment to illustrate the meaning 'to be assured, feel sure that . . .' before continuing with a string of references to Herodotus and no one else.







- (1) The *γνώσκειν* he denies to Hesiod and the multitude who take him as their teacher is precisely *not* knowledge by acquaintance. For if there is such a thing as knowledge by acquaintance, concerning night and day everybody has it. *γνώσκειν* here, therefore, is not a matter of having had experience of night and day and being able to recognize which it is when you go out of the door of your house. This *γνώσκειν* is realizing that night and day are a unity, or (if you prefer) grasping the unity which is their real nature. A deep, not a superficial, everyday accomplishment.
- (2) *εἰδέναι* is surely not chosen to suggest, even in the first instance, knowledge that. Knowledge that would fit Hesiod as the author of the *Theogony* well enough, but Hesiod is equally important as the author of *Works and Days*, which teaches knowledge how as well as—indeed more than—knowledge that. In short, *εἰδέναι* is just the right verb for *πλείστα*: because (as appears so clearly from the old Lyons' schema) *εἰδέναι* is open and indeterminate: it can ascribe to Hesiod as much knowledge, of as many kinds (that, how, or whatever), as anyone could have.
- (3) Finally, *ἐπίστανται* is clearly not knowledge how. One of the old Lyons' firmest points, and the one with which his exposition begins (so as to accustomize us to the idea and methods of transformational analysis), is that *ἐπίστασθαι* stands in a relation of consequence to *μανθάνειν*. It is the knowledge you have from teaching (self-teaching—learning—included), regardless of the theoretical—practical distinction. This produces a nice Heraclitean twist to the whole saying, as follows:
- (4) Men have learned (*ἐπίστανται*) that Hesiod knows (*εἰδέναι*) most—more than anyone else. From whom have they learned it? From their teacher, Hesiod himself, who never realized (*οὐκ ἐγίνωσκειν*<sup>69</sup>) that day and night are (in some crucial way) not two opposites, but one unity.<sup>70</sup>

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<sup>69</sup> Note the imperfect tense of *ἐγίνωσκειν*: Hesiod's was a life-long failure.

<sup>70</sup> For helpful comments on intermittent drafts of this paper, I am grateful for discussion over the years in Budapest, Cornell, London, Oxford, and Paris. More recent thanks for insightful criticism are due to Pavel Gregoric and Ben Morison. Above all, I am grateful to John Lyons both for his wonderfully enlightening book and for his taking time to send me a challenging set of comments on an earlier draft of this essay, plus more recent correspondence.





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