'Sophia' and 'Epistēmē' in the Archaic and Classical Periods

1. Introduction

My aim here is to discuss philosophical use of the terms 'sophia' and 'epistēmē' in relation to one another from their earliest occurrences through Aristotle. I begin with pre-philosophical use for this will help to explain the philosophers' employment and adaptation of the terms.

2. Pre-philosophical Uses of 'Sophiē'

In philosophical contexts, the originally Ionic noun 'sophiē', later Attic 'sophia' are standardly translated as 'wisdom', the adjective 'sophos' as 'wise'. But this will not do for the earliest, pre-philosophical use (cp. Snell 1924: 1-20, Gauthier and Jolif 1959: 479-89, Gladigow 1965, Meier 1970). In eighth and seventh century poetry 'sophiē' means 'skill', 'sophos' 'skilled' or 'skillful'. As we will see, wisdom is skill; but in the early poets the skills denoted by these terms are not forms of wisdom.

Formal semanticists have noted that 'skill', 'skillful', and 'skilled' are semantically incomplete terms in the sense that a person who has skill or is skillful isn't skillful simpliciter, but in a particular domain. Compare 'citizen', which is semantically incomplete in a distinct, but related way: one is not a citizen simpliciter, but of a particular political body.

There are various theories of such semantic incompleteness. In the case of 'skillful' one view is that in its so-called logical, as opposed to surface grammatical, form the predicate contains a domain variable whose value is supplied by context (be it linguistic or extra-linguistic). So the logical form of 'x is skillful' may be represented as:

\[ \text{SKILLFUL}(s)(x) \]

where the variable \( s \) stands for a domain of skill.

For example a father may say of his artistic son and musical daughter: 'He is skillful and she is too'. Here the first instance of 'skillful' takes art for the domain of \( s \), the second music.

In its earliest uses 'sophiē' and 'sophos' range over such domains of skill as carpentry, navigation, and charioteering. Consider the following examples from Homer, Archilochos, and Alcman:

Just as a carpenter's line makes ship's timber straight when the hand of a craftsman applies it, one who, inspired by Athena, knows well all facets of the skill (sophiē)—just so tensely poised the fighting in that battle stood. (Homer, \textit{Iliad} 15.410-13)

\[ \ldots \text{ good with a trident and a skillful pilot} (\textit{kubernētēs sophos}) \]. (Archilochos, fr. 211 West)

Castor and illustrious Polydeuces, skillful charioteers (\textit{hippotai sophoi}), tamers of swift colts. (Alcman, fr. 2A.3-4 Snell)
From about the sixth century we find instances of 'sophiē' that denote poetic skill, for instance in the following verses of Solon (640-558):

One man earns his living by his hands in the works of Athena and the master of many crafts Hephaestus; another, through his learning in the gifts of the Olympian Muses, knows the measure of the lovely skill (himertēs sophiēs). (fr. 13.49-52)

A number of editors have suggested that the noun is so used in the following fragment of Sappho (c. 630-570):

I do not imagine that any girl who has looked on the sun's light will have such skill (sophia) at any future time'. (fr. 60 Snell)

Certainly by the fifth century 'sophiē' is frequently used to denote poetic skill (cp. Barmeyer 1968: 155-62), for example in Pindar:

May you may plant your feet on high so long as you live, and may I may consort with victors for all my days and be foremost in skill (sophiē) among the Hellenes in every land. (Olympic Ode 1.115-17)

Also in the sixth century we first find 'sophiē' used to denote personal or social skills. Particularly fascinating examples occur in the Theognidea. For instance the following two passages liken quality of character to coins and accordingly the skills required to discern and control character and quality:

Deception of gold or silver, Cyrnus, is easily endured; and it is easy for a skillful (sophos) man to disclose.
But if it has escaped notice that the mind of a friend is false and that his heart holds deceit, god has made this most deceptive for mortals. (1.120)

Cunning men know gold and silver in the fire. And wine has exposed the mind of a man, when he has drunk too much, when he has taken drink beyond measure, so that it puts to shame one who before was sophos. (1.502)

To my ear 'skillful' sounds slightly awkward as a rendition of 'sophos' in the second passage. 'Self-controlled' or 'discerning' is more natural. Nonetheless the author is evidently conceptualizing self-control or discernment as a skill, an ability to govern one's social conduct.

It may be questioned whether the sixth century use of 'sophiē' to denote personal or social skill is in fact a semantic development. An alternative view is that 'sophiē' always included these domains, but that the extant record merely happens to lack evidence of such employment.

The following considerations encourage the thesis that the use of 'sophiē' to denote personal and social skill is a genuine semantic development. One is a sort of
argument from silence. In the earliest Archaic poetry, which is replete with references to personal and social skills, 'sophiē' and 'sophos' are never so used. For instance Homer never describes Nestor, Odysseus, or Aeneas as 'sophos'.

A second consideration relates to the passages of the Theognidea just cited: there 'sophiē' appears to be deliberately transposed from a non-social to a social domain. Compare the following use of 'sophos' from a late sixth or early fifth century Boeotian grave stele:

The children created this memorial for their deceased father Gathon, a man sophos in guest-friendship (xsenian) and horsemanship (hiposunan). (SEG XV.316)

Here the conjunction of a non-social skill horsemanship and guest-friendship a social skill appears deliberately and poetically zeugmatic. Loosely related are the following sixth century verses in which Anacreon employs equestrian skill as a metaphor for sexual skill:

Thracian filly, why so sharply shy away?  
Do you think I know nothing sophon?  
Be assured, I'd put your bit on smartly,  
hold the reins and run you round the limits of the course.  
But for now you graze the meadows, frisk and play,  
for want of any experienced riding man. (fr. 88 Snell)3

Assume then that the semantic development did occur. Possibly one factor contributing to the development was the increasingly common use of 'sophiē' to denote poetic skill. Some aspects of ancient poetry are relatively technical; others, particularly those pertaining to the content of poetry, involve personal and social thought. Given the prevalent use of 'sophiē' to denote poetic skill, the ubiquitous coincidence of these two aspects may have contributed to the semantic shift precisely through their association.

Phrases such as 'wise carpenter' and 'wise charioteer' are odd or nonsensical. Not so 'wise poet'. The reason is that poetry can express personal or social thought that satisfies the following two conditions:

G The thought is ethical or moral or at least constitutes or promotes human goodness;

H The thought consists in a deep understanding of humanity.

I am suggesting then that wisdom is precisely this: personal or social skill that satisfies conditions G and H.

A word on the disjunction in G. Consider the peculiarity of: 'He is wise, but unethical' or 'She is wise, but immoral'. So wisdom is ethical or moral. On the other hand what we call 'ethics' as it relates to ancient Greek philosophy is eudaimonistic. Eudaimonia is a life that goes well for the agent. It is an open question whether or to what extent such a life is good for others. For instance consider Thrasyvachus' question in
Republic I: Is justness an excellence (aretē)? Again it is an open question whether, in case such a life is in some way good for others, it more precisely involves respect for the autonomy of others and recognition of their equal worth. But if for character or action to be ethical or moral it must be concerned with the welfare of, respect the autonomy of, or recognize the equal worth of others, and if 'wisdom' is an ethical or moral term, then it is doubtful that Greek eudaimonism is ethical or moral and so whether 'sophiē' can ever strictly be rendered as 'wisdom'.

Granted this I will conveniently and stipulatively employ the terms 'wisdom' and 'wise' in what I will call a 'relativistic' sense. By 'relativistic' I mean to acknowledge the variety of conceptions of human goodness and good human lives among philosophers and across cultures and to admit a sense of 'wisdom' as the skill that, in addition to satisfying condition H, constitutes human goodness or promotes good human life, however such goodness is conceived. According to this relativistic sense a self-regarding and self-benefitting skill may be constitutive of wisdom. For example if, as some have argued, Epicureanism is psychologically egoistic, then the skill required to pursue and maintain Epicurus' hedonistic eudaimonia is a case in point.

Regarding condition H, the following inference does not appear to be valid: 'She is ethical or moral or is a good person or aims to promotes good human life, therefore she is wise'. The reason the inference fails, I am suggesting, is that one may be ethical or moral or at least aim to promote good human life, yet lack a deep understanding of humanity. Such depth of understanding is then required for wisdom. Moreover I underscore that condition H involves no commitment to the universality or fixity of human nature or the human condition. Rather, consistently with the relativeness of conceptions of human goodness and the human condition, H permits such understanding to be culturally and historically local.

Given the extension of the domain of 'sophiē' to personal and social skill, from about the sixth century it becomes possible to use the noun and adjective in ways that are, according to this relativistic sense, aptly rendered as 'wisdom' and 'wise'. Possibly the following verses of Solon contain an early example:

In the ninth age [= 63-69 years old] a man is still capable, but his tongue and his sophiē are weaker as far as great acts of excellence are concerned. (fr. 27.16)

More certain is an instance of the adjective in the Scopas Ode of Simonides (556-468) where the poet describes Pittacus of Mytilene as a 'sophos man'. Although Simonides is also critical of Pittacus, the topic is human goodness and Pittacus' judgment of its nature:

For a man it is certainly hard to be truly good: perfect in hands, feet, and mind, built without a flaw. Only a god could have that prize; but a mere man, he cannot help being bad when some overwhelming disaster knocks him down. Any man is good when life treats him well, and bad when it treats him badly; and the best of us are those the gods love most. But for me the saying of Pittacus doesn't ring true either— even if he was a sophos man. He says 'being good is hard'. (fr. 37.1)
3. Pre-philosophical Uses of *Epistêmê*

The verb *epistamai* and cognates such as the adverb *epistamenôs* occur in the earliest Greek literature. The verb can be used with a direct object in which case it means 'to know or understand something', as well as with an infinitive meaning 'to know how to do something'. The noun *epistêmê* is constructed by adding to the verbal root the common nominalizing suffix '-ma' (or here '-mê'). This suffix often serves to denote a result or product, in this case the knowledge or understanding gained from a process of coming to know or understand. More precisely the knowledge or understanding that *epistêmê* consists in is a field or domain rather than an isolated fact. Compare the knowledge of medicine with the knowledge that Coriscus has pneumonia. At any rate I assume that knowledge of facts and knowledge of a field are interdependent. I return to this point below.

The noun *epistêmê* is first attested only in the first half of the fifth century (cp. Snell 1924: 81-96, Schaeerer 1930: 1-21), in Bacchylides' tenth epinician ode:

> Each man seeks a different path on which to walk to attain conspicuous glory; and among men the forms of knowledge (*epistamai* [the noun here is plural]) are countless. One man is skilled (*sophos*) if he has a share of honor from the Graces and blooms with golden hope, or if he is knowledgeable in the prophetic art; another aims his artful bow at boys; others swell their spirits with fields and herds of cattle. (10.37-45)

Unfortunately we lack a date for this poem. A *terminus ante quem* is Bacchylides' death; unfortunately this is also unclear, although c. 450 is generally accepted.

An instance of *epistêmê* occurs in the Hippocratic treatise *Places in Man*:

> The man who knows (*epistatai*) medicine least depends on luck. But whether with or without luck, his actions would succeed. For all medicine has advanced, and its finest established techniques seem to have very little need of luck. For luck is autocratic and ungovernable; and it is not wont to come in response to one's desire. But knowledge (*epistêmê*) is governable and brings success when one who knows (*epistamenos*) desires to use it. (46.1)

In her recent edition of the treatise Elizabeth Craik argues for an early fifth century date (Craik 1998: 25-29). She also argues for a Western Greek origin for the treatise (ibid. 29). Bacchylides himself was from Keos in the Cyclades. If Craik's claims are correct, then assuming that Bacchylides and the Hippocratic author did not independently coin *epistêmê*, the term would have been available across a large portion of Greece in the fifth century in both poetic and prosaic contexts.

Even so through the second half of the fifth century *epistêmê* remains a rare term in prose and poetry. The word does not occur in Herodotus (484-25), Antiphon (480-411), or Andocides (440-390). Nor does it occur in Aeschylus (525-456) or Aristophanes (446-386). It occurs three times in Sophocles (496-406): once each in *Antigone* (c. 441), *Oedipus Rex* (c. 430), and *Philoctetes* (409). Especially remarkable, the word occurs only once in Euripides (480-406), in a fragment of his lost *Meleager* (fr. 422), which is dated
to 418 or later. (Contrast eleven occurrences of 'sophia' and hundreds of occurrences of 'sophos' in Euripides.) The one author in whom 'epistêmē' occurs with some frequency, precisely fourteen times, is Thucydides (460-395). These occurrences are then datable to the period in which Thucydides wrote his history: 431-11.

With the exception of philosophical usage, discussed below, there are no other instances of 'epistêmē' in the fifth century. In sum 'epistêmē', formed from a common verb using a common nominalizing suffix, was first employed in the first half of the fifth century and throughout the century remained a rare noun.

A note now on the pre-philosophical relation between 'sophiē' and 'epistêmē'. Semantically 'epistêmē' and 'sophiē' (as it was used by the sixth century) appear to be interchangeable. Compare the uses of 'epistêmē' and 'sophos' in the Bacchylides passage cited above: 'among men the forms of knowledge (epistamai) are countless. One man is skilled (sophos) if he …' In the following passage of the Theognidea 'sophiē' is the object of the participle 'epistamenos':

It is well to be a guest at a feast and sit beside a good man who knows (epistamenon) all sophiē. You should mark him whenever he says anything sophon so that you may learn and go home with much gained. (1.563-5)

Recall also the verse from Solon cited above: '[he] knows (epistamenos) the measure of the lovely skill (sophiē).

Finally observe that the interchangeability of 'epistêmē' and 'sophiē' encourages the view that knowledge is skill.

4. Philosophical Uses of 'Sophiē/a' in the Fifth Century

The first extant philosophical uses of 'sophiē' occur in a fragment of Xenophanes (c. 570-475), which contrasts the rewards bestowed on successful athletes with those owed to the author himself on account of his political skill:

Even if [an athlete] won [in chariot racing], he would get all [these public rewards] but would not merit [them] as I do: for better than the strength of men and horses is our skill (sophiē). But most vain is the present custom: it is wrong to prefer strength to noble skill (agatha sophiē). For neither if there is a good boxer among the people, nor a pentathlete, nor a wrestler, nor even one swift of foot, the first most honored in feats of strength in contests, would the city be one whit better governed. Small is the delight that would come to a city if someone won a contest by the banks of the Pisa, for this does not fatten the coffers of a city. (B2.11-22)⁵

Xenophanes' late sixth or early fifth century usage is consistent with non-philosophical use of the Archaic period, although this appears to be the first time politics is explicitly specified as the domain of sophiē. The deployment of 'sophiē' in connection with politics is significant insofar as political skill and leadership are viewed as consummate human achievements—a view Xenophanes is evidently endorsing.
The most important early philosophical instances of 'sophiē' and 'sophos' occur in Heraclitus (535-475) who employs them several times in relation to the divinity responsible for the organization of the cosmos, for instance:

\[ \text{to sophon is one thing: knowing (epistasthai) the thought that pilots all things through all. (B41 [I underscore that to sophon is here explicitly identified as a kind of knowing]; cp. B50)} \]

Heraclitus' peculiar use of the definite description 'to sophon' (literally 'the skillful [thing]') rather than the general term 'sophiē' apparently serves to underscore his idea that only one thing deserves the title of 'sophon'. In other words strictly speaking there is only one skill.

Other fragments confirm that the divinity that pilots the cosmos is itself sophos, for instance:

One thing alone said to be the skillful (to sophon) would and would not be called by the name 'Zeus'. (B32)

So Heraclitus maintains that there is a crucial relation between the excellent state of soul (psychē) a human being may achieve and that of the divinity responsible for piloting the cosmos. Consider also Heraclitus' claim that sound thinking (sōphronein), which he asserts to be 'the greatest excellence (aretē) and sophiē', consists in acting 'on the basis of an understanding of the nature of things'. (B112) Compare this with Empedocles' characterization of the pinnacle of sophiē as consisting in an understanding of each thing:

Do not let it compel you to accept the blossoms of illustrious honor from mortals by boldly saying more than is pious, and then to sit on the heights of sophiē. But come, behold each thing by every means it is clear, not holding any view more reliable than hearing, nor resounding hearing beyond the clarifications of tongue; nor from any of the other organs, by which there is a passageway to understanding, withhold trust, but understand each thing in the way it is clear. (B3.6-13)

And consider Empedocles' praise of Pythagoras whom he regards as an exemplar of such sophiē:

There was a man among them of extraordinary knowledge, who had earned the greatest wealth of mind, the master of every sort of especially skillful works (sophōn ergōn). For whenever he reached out with all his mind, easily he beheld each of all existing things, for ten or even twenty generations of men. (B129)

In sum Heraclitus and then Empedocles express ideas here that in various guises play a central role in much subsequent Greek philosophy. The crux of these ideas is that there is a kind of sophiē that supersedes all others. This master skill consists in some form of cosmological understanding; and a human being fully realizes his potential, best serves himself and presumably also others by acquiring and then acting on the basis of it.
When used to denote such a skill 'sophiē' is reasonably translated as 'wisdom' in the relativistic sense. Note however that 'sophiē' is not a common, let alone preferred epistemological term among the major fifth century philosophers. For instance neither the noun nor the adjective occurs in the fragments of Parmenides, Zeno, Melissus, Philolaus, or Diogenes of Apollonia. There might be an instance of 'sophia' in Anaxagoras (B21b), but it is debatable whether the term is part of a quotation or rather Plutarch's first century CE paraphrase.

The complete absence of 'sophiē' and 'sophos' among these philosophers most likely owes to the paucity of their fragments. On the other hand, especially toward the late fifth century and beginning of the fourth century we find 'sophiē' or 'sophos' in several philosophers or philosophical texts including: Gorgias, Antiphon, Democritus, Critias (assuming he is the author of the Sisyphus fragment), the Dissoi Logoi, and Anonymus Iamblichi. In some of these instances the term is not specifically used to convey 'wisdom', but to denote skill in some other domain, for instance:

He beheld the heavenly vault wherein dwell the lightnings and awesome claps of thunder, and the starry face of heaven, beautiful adornment of that skillful (sophos) carpenter Time. (Cri. B25.34; cp. Antiphon B49.12.)

But in many cases, especially those in Democritus, the Dissoi Logoi, and Anonymus Iamblichi, 'wisdom', be it purely personal or political, is the conveyed sense. For instance in the Dissoi Logoi (6.3, 7.3-4), which is dated to c. 404-395, 'sophia' is used in contrast to 'technē' (craft, art, skill), where the latter is explicitly used to denote various manual and what might be called 'technical' skills such as smithery, cobbling, carpentry, music, archery, and horsemanship. (Observe the resemblance between this range of skills and those to which 'sophiē' seems limited in its earliest Archaic usage.) Compare Democritus who contrasts sophiē with medical technē:

Medicine (iatrikē [technē]) heals the illnesses of the body, sophiē removes passions from the soul. (B31, cp. B59)

In short by the end of the fifth century, at least within certain philosophical contexts, the terms 'sophiē/a' and 'sophos' could be used without modification in the sense of 'wisdom'. Linguistically speaking, such instances arguably indicate the emergence in the late fifth century of a hyponym that is also a polyseme. A hyponym is a word whose semantic field is included within that of another word, namely its hypernym. For example 'robin', 'sparrow', and 'falcon' are hyponyms of 'bird', which is in turn the hypernym of the former three words. Polysemy is verbal ambiguity in which two or more senses of a single word form are closely related, for example 'healthy' in 'healthy body' and 'healthy diet'; the former instance denotes a condition constitutive of, the latter causative of health. A hyponym that is also a polyseme then is a hyponym using the same word form as the hypernym. A common example is 'drink' for 'alcoholic drink', as when one comes home after a long day at the office and says: 'I need a drink'. Examples more germane to a philosophical context are 'ethical' and 'moral'. For example in the phrase 'an ethical or
moral judgment', 'ethical' and 'moral' may be used in opposition to 'non-ethical' and 'non-moral' as well as to 'unethical' and 'immoral'. In the latter cases, 'ethical' and 'moral' are hyponyms of 'ethical' and 'moral' in the former cases. In the case of 'sophiē/a' I am suggesting that by the end of the fifth century an independent sense of 'sophiē/a' had developed, namely 'wisdom', as hyponym of 'sophiē/a' in the broad sense of 'skill'. Among other reasons, the suggestion is encouraged by the fact that in passages such as those of Democritus and the Dissoi Logoi 'sophiē/a' is used in contrast to familiar skills, which are there called 'technai' (plural of 'technē').

5. Philosophical Uses of 'Epistēmē' to Aristotle

I turn now to philosophical uses of 'epistēmē' from the fifth century to Aristotle. Among fifth century philosophers the verb 'epistamai' or a derived participle occurs five times (Heraclitus B19, B41; Gorgias B11a.3; Democritus B169, 173). The noun occurs in a fragment (B181) of Democritus (c. 460-370) and so toward the end of the fifth, if not in the early fourth century.

The rarity of the noun among fifth century philosophers is therefore consistent with that in non-philosophical fifth century texts. Consequently it is a striking fact that 'epistēmē' is by far Plato's preferred knowledge term, occurring almost 600 times in his corpus. Compare this with the fact that 'sophia' occurs about 225 times and 'phronēsis' about 170. It is then extraordinary that a rare noun—indeed in philosophical Greek with perhaps not a single instance in the fifth century outside of the Socratic circle—is so abundant in Plato.

In considering this fact note that Antisthenes (445-365), Plato's older Socratic contemporary by about twenty years, wrote a work in four books entitled On Opinion and Knowledge (Peri doxēs kai epistēmēs). While there is little reason to believe that Antisthenes entitled the work himself, there is no reason to doubt that he centrally used 'epistēmē' within it. In addition it is noteworthy that 'epistēmē' occurs four times in the meager fragments of the Socratic Aeschines (8.49, 56; 9.10; 17.1 Dittmar), as well as thirty four times in Xenophon.

Given the prevalence of 'epistēmē' among the Socratics, it seems likely that Socrates himself employed the term in his philosophical discussions. The following consideration may further support this conjecture. Socrates strikingly abandoned the cosmological or natural-philosophical inquiry of his contemporaries. Insofar as figures such as Heraclitus and Empedocles used 'sophiē' to denote a master skill requiring cosmological and natural-philosophical understanding for the full realization of human potential, Socrates, in advancing an expressly non-cosmological, non-natural-philosophical ethical-political enterprise, may have deliberately preferred the novel and non-Ionian term 'epistēmē'.

Unfortunately the dearth of textual evidence severely impedes our grasp of how Antisthenes or Aeschines, let alone Socrates himself, understood epistēmē. A glimpse may be afforded by the way Plato's Socrates, in a famous intellectual autobiographical passage in Phaedo, characterizes his predecessors' interests in cognition:

Do we think with our blood or air or fire or none of these? And does the brain provide our senses of hearing and sight and smell, from which come memory and
opinion (doxa), and from memory and opinion that has attained a state of rest comes epistêmê? (96b)

So a condition of epistêmê, in contrast to opinion, is stability. The question then is what constitutes the stability of epistêmê. Evidence from the following two claims attributed to Antisthenes suggests that at least he held that the stability of epistêmê depends on reasons confirming the thing known:

Wisdom (phronêsis) is the most secure wall; it neither crumbles nor betrays us. (134 SSR)

We must construct walls through our own indestructible reasonings (analutois logismois). (134 SSR)

In light of Antisthenes' position (cp. Brancacci 2005), it is also plausible that Socrates himself viewed epistêmê as opinion that is elenchus-proof.

Plato's conception of epistêmê is, to this extent, consistent with Antisthenes'.13 According to one of at least two distinct, albeit interrelated conceptions of epistêmê that Plato advances in his corpus (cp. Wolfsdorf 2013), epistêmê is a kind of judgment. In Meno (98a) Plato precisely analyzes such judgment as true opinion (doxa) with a reasoning (logismo) of the cause or explanation (aitia). The idea here is that one who achieves an epistemic judgment grasps the reasons that both justify the truth and explain the content of the judgment. Given the aetiological condition epistêmê so conceived is arguably best rendered as 'understanding' or at least as 'explanatory knowledge'.

Plato also uses 'epistêmê' to denote a field of knowledge, for example medicine or geometry. Recall the distinction and example cited earlier of knowledge of medicine versus knowledge that Coriscus has pneumonia. As I suggested, knowledge of facts and knowledge of a field are interdependent. This is because in order to acquire the aetiological reasoning that makes judgment not merely true, but epistemic, one needs to acquire the body of knowledge constituting the pertinent field. In terms of cognitive development then knowledge of individual facts and knowledge of the pertinent field arise in tandem.

The aetiological condition on epistêmê seems to answer to two closely related epistemic conditions or perhaps ideals, both of which might be characterized as conditions of power. One has to do with the stability of the cognitive state. Because the possessor of epistêmê has compelling reasons for what he knows, his cognitive state cannot be destabilized. The other has to do with the depth of insight that the cognitive state affords. Insofar as the possessor of epistêmê has explanatory reasons for what he knows, he grasps why that which he knows is as it is.

Given that epistêmê is skill, acts of epistemic judgment are exercises of skill. But the aetiological condition intellectualizes epistêmê, and so the skill in question. This intellectualization in turn has the potential to cognitively demote conventionally recognized skills. We see the inception of this demotion in some of Plato's late dialogues.

In Statesman the Eleatic Stranger distinguishes between epistêmê that is practical (praktikê) and epistêmê that is purely cognitive (gnôstikê):
David Conan Wolfsdorf (8.23.16)
Bloomsbury History of Epistemology, vol. 1, N. D. Smith, ed., forthcoming (8000 word limit)

We must divide the various sorts of knowledge (epistēmai [plural of ’epistēmē]) … Isn't it the case that arithmetic and some other sorts of skills (technai) that are akin to it don't involve any actions (praxeis), but simply provide cognition (gnōnai)? … Whereas for their part the sort of epistēmē involved in carpentry and manufacture … use it to complete those material objects they cause to come into being from not having been before? … Then divide all forms of epistēmē in this way; call the one sort 'practical' (praktikē) epistēmē and the other solely 'cognitive' (gnōstikē). (258b-e)

A related distinction occurs in Plato's Philebus where Socrates divides so-called workman's (dēmiourgikē) epistēmē and mathematical (mathēmatikē) epistēmē (55c-d), and further distinguishes popular (tōn pollōn) and philosophical (tōn philosophountōn) forms of each (e.g. 56d, 57d). The popular forms are applied and therefore practical; the philosophical forms are unapplied and therefore wholly cognitive.

The aim of the analysis is not merely to categorize kinds of epistēmē by species and subspecies, but to determine the 'purest' (katharōtaton) form of epistēmē. Socrates argues that the greater the extent that an epistēmē depends on mathematics, the purer that epistēmē is. And among mathematical epistēmai themselves, the philosophical forms, because wholly cognitive, are purer than the popular forms (58c).

In advancing this position Socrates speaks of three conditions of epistemic purity: exactness (akribeia), clarity (saphēneia), and truth (alētheia). Accordingly, and at least among the forms of epistēmē canvassed, the most exact, clear, and truthful unapplied mathematical epistēmē is epistēmē in its purest form. The exactness of an epistēmē is a function of its aetiological or explanatory priority. For example the principles of geometry depend on the principles of arithmetic, so arithmetic is more exact than geometry. Epistemic clarity relates to the nature of the objects of epistēmē. Sensible objects are mutable. They both come into being and cease to be and admit contrary non-substantial attributes; for example, in the course of a day a stone may be warmed and then cooled. In short the character of sensible objects is complex, variable, and circumstantially dependent. In contrast intelligible objects are much less so or not at all. Consequently epistēmē pertaining to the former is less precise and its application more stochastic than that pertaining to the latter. Finally insofar as the natures of sensible particulars depend on intelligible objects, a central thesis of Platonism, the latter are more metaphysically fundamental and so epistēmē pertaining to such objects is 'truer' in the sense of 'relating to more fundamental aspects of reality'. (On this use of 'alēthes' and 'true' cp. Wolfsdorf 2014.)

In Posterior Analytics and his ethical treatises Aristotle advances Plato's intellectualization of epistēmē and in doing so further demotes practical knowledge and segregates it from purely cognitive knowledge. Aristotle maintains that epistēmē is 'contemplative' (theorētikē). This entails that the objects of epistēmē are purely intelligible and so immutable and that the function of epistēmē is purely theoretical (cp. Posterior Analytics 88b30-89a11). Consequently — and assuming that the practical/theoretical distinction can in fact be sustained — for Aristotle, at least in certain texts, no epistēmē is practical. Practical cognition precisely concerns mutable sensible objects.
Furthermore Aristotle distinguishes two forms of practical cognition (Eudemian Ethics 1140a1-b30). One, whose perfect realization he calls 'technē', is exercised in the production of things external to the action itself. Aristotle's paradigm case is the builder constructing a house. The other, whose perfect realization he calls 'phronēsis', is exercised in activity that is an end in itself. Here ethical action is paradigmatic (but cp. also the example of musical performance at Magna Moralia 1197a9-10).

Consequently and remarkably, for Aristotle the sort of practical skill that in conjunction with excellences of character (aretai ethikai) enables one to thrive as a citizen or political leader is not a form of epistēmē at all. Contrast the view of Socrates who would not have distinguished 'phronēsis' from 'epistēmē'— indeed Plato doesn't. Moreover Socrates seems to have thought that the sort of epistēmē or phronēsis that a citizen or civic leader requires is a technē. But again for Aristotle, in certain texts, a technē is not a form of epistēmē.

6. Philosophical Uses of 'Sophia' in the Fourth Century

While 'epistēmē' is Plato's preferred knowledge term, he uses 'sophia' and 'epistēmē' (among several other terms such as 'phronēsis') interchangeably. A signal example occurs in the following passage from Theaetetus:

(So:) Now isn't it true that to learn is to become more sophos about what one is learning? (Th:) How could it be otherwise? (So:) And men who are sophoi [plural of 'sophos'] are sophoi due to sophia? (Th:) Yes. (So:) And does this differ in any way from epistēmē? (Th:) Does what differ? (So:) Sophia. Isn't it the very things that men are knowledgeable (epistēmōnes) about that they are also sophoi about? (Th:) Well, yes. (So:) Then are epistēmē and sophia the same thing? (Th:) Yes. (145d-e)

Many other examples might be cited. For instance consider the following two from Apology and Hippias Major:

And I say this not to cast dishonor upon such epistēmē, if anyone is sophos in such matters. (Ap. 19c)

(So:) And knowing (epistamenoi) these things that they know (epistantai), are they ignorant or sophoi? (Hi:) Sophoi of course in these very things. (Hp. Mi. 365e-366a)

In contrast Aristotle explicitly distinguishes sophia as a kind of epistēmē (cp. Eudemian Ethics 1411a16; Metaphysics 982a4-983a23) Precisely Aristotle maintains that sophia is epistēmē of 'primary principles and causes' (prōtai archai kai aitiai) (cp. Metaphysics 982b9-10). To appreciate this description, let's briefly return to the theory of epistēmē itself.

The theory of epistēmē that Aristotle develops in Posterior Analytics follows Plato in maintaining that epistēmē requires an aetiological account:
We think we know (*epistasthai*) each thing in an unqualified way when we think we cognize, of the *aitia* of the thing [known], that it is the *aitia* of that thing.

(71b9-12)\(^{15}\)

But one of the points of departure for Aristotle's discussion is a problem arising from this very requirement. What is the cognitive status of the aetiological account? If it is epistemic, then by definition it too requires an aetiological account and a regress ensues. If it is not epistemic, then in virtue of what is it stable? If it is unstable, then given the stability condition the possibility of *epistēmē* is undermined (72b5-23).

Aristotle attempts to resolve this problem by appealing to the function of a cognitive faculty he calls *'nous*, often translated as 'intuition' or 'understanding' (99b15-100b4). *Nous* operates through induction (*epagōgē*) on the basis of experience and thereby generates universal principles (*archai*)\(^{16}\) that, among other things, have true content, are cognitively immediate, and with respect to the domain of *epistēmē* in question are primary (71b21-23). Given these attributes noetic principles are both cognitively secure and suited to playing an aetiological role in the constitution of *epistēmē*. Precisely Aristotle conceives of the relation between the noetic principles and facts known as demonstrative: a fact known is one that is validly deduced from noetic principles.

Returning now to Aristotle's claim that *sophia* is *epistēmē* of primary principles and causes— the epistemological concept of primary principles and causes depends on the metaphysical idea that reality is structured in such a way that some entities are fundamental, while others are dependent on the former. Some of the latter entities may in turn be relatively fundamental in relation to other entities that are dependent on them, and so on. This sort of structured view of reality has a long pedigree in Greek philosophy, arguably extending to its inception. It is also typically wedded to the view that the structure is hierarchical in the evaluative sense that the more fundamental an entity is the more value it has. Plato's distinction between Forms and the sensible individuals that depend on and so 'participate' in them is one familiar example.

Aristotle's interest in an *epistēmē* of primary principles and causes arises in an epistemological context. He recognizes that each domain of *epistēmē*, for example geometry or biology, has its own principles and therefore explanatory grounds. But he wonders whether there exists a primary *epistēmē* whose principles explain the principles of all other *epistēmai*. Since such an *epistēmē* would explain the most fundamental and valuable features of reality, it would be the most exalted form of *epistēmē*.

The various inquiries comprising Aristotle's *Metaphysics* are attempts to determine the *epistēmē* that answers to this description. For example in *Metaphysics* Gamma Aristotle examines the idea that the *epistēmē* in question is of being qua being, and in Lambda that it is theology. Elsewhere in *Metaphysics* Aristotle examines conceptions of the knowledge of primary principles proposed by his predecessors as well as some of his Academic contemporaries.\(^{17}\) For Plato the first principle is the superordinate Form, the Form of the Good, apprehension of which is required for full realization of ethical life and political leadership. In sharp contrast Aristotle denies that there is a Form of the Good and that, even if there were one, apprehension of it would be of any practical value (*Nicomachean Ethics* 1096a11-1097a14). Recall that for Aristotle
what we need for ethical and political success is *phronēsis* and excellences of character, neither of which is or consists of *epistēmē*, let alone *sophia*.

On the other hand Aristotle maintains that the pursuit and exercise of *sophia* and *epistēmē* more broadly constitutes a form of eudaimonia that is superior to a flourishing ethical and political life (*Nicomachean Ethics* 1177a12-1179a32). In partitioning the epistemological bases of ethical-political life and theoretical life Aristotle strikingly breaks with Plato who maintains the dependence of ethical and political knowledge on the knowledge of mathematics, Forms and above all the Form of the Good. Plato's position in turn diverges from that of Socrates, who, recall, holds that ethical-political flourishing does not depend on cosmological or natural-philosophical, let alone mathematical or metaphysical knowledge.

Several of Plato's fourth century associates share his view that ethical and political knowledge depends on cosmological, mathematical, or metaphysical knowledge. For example the Pythagorean philosopher Archytas (c. 428-347) claims that logistic (*logistikē*), which he conceives as the foundational mathematical skill, is 'far superior to the other *technai* in regard to *sophia*'. (fr. 4.1) Carl Huffman offers the following helpful comment on this claim:

> Logistic was viewed as the science of number which underlies the practical application of mathematical calculation (*logismos*) to human life. The second part of Fragment 3 argues that such calculation is the basis of all human society. Therefore, I suggest that, in Fragment 4, it is this sort of wisdom in which logistic far surpasses the other [*technai*]. It is the wisdom that allows us to live a good life ... [and] that will also turn out to be crucial to the functioning of the state. (2010: 235)

Plato's student Philip of Opus advances a distinct, but related position. Philip is generally regarded as the author of the short dialogue *Epinomis* that serves as an appendix to a passage in the twelfth book of Plato's *Laws*. The *Laws* passage concerns the education that the Nocturnal Council, the supreme political body of the envisioned city-state, is to receive. The *Epinomis'* principal speaker Cleinias ultimately proposes that the Council members must learn astronomy. He understands this study of the celestial bodies to include the mathematical *epistēmē* of arithmetic, geometry, and stereometry, and explicitly claims that it is the supreme *sophia* (990a, cp. 992d).

Plato's, Archytas', and Philip of Opus' conceptions of the *sophia* requisite for ethical and political success are, in various ways, akin to those of Heraclitus and Empedocles insofar as all of these philosophers maintain that personal or political success requires an understanding of broader or more fundamental aspects of nature, the cosmos, and reality. In the Hellenistic period both the Epicureans and Stoics, albeit in radically different ways, likewise maintain that cosmological understanding is requisite for success in practical life.

In contrast Socrates and Aristotle, in their own divergent ways, maintain the epistemological independence of ethics. The Socratic position is in turn developed in one direction by various non-Platonic Socrats such as the Cyrenaics as well as by the Cynics—namely according to the view that human flourishing and the *sophia* on which it depends has no need of cosmological, natural-philosophical, mathematical, or
metaphysical knowledge— while the Aristotelian position is, until Plotinus, unique in taking the supreme form of human life, which involves the exercise of sophia, to be non-ethical and non-political.

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1 I assume the semantic distinction between 'skilled' and 'skillful' is that the former

2 Translation adapted from Lombardo (1997). Unless otherwise noted, as here, translations are my own.

3 Translation adapted from West (1993).

4 Translation adapted from West (1993).

5 Translation adapted from Graham (2010).

6 B32, 82, 83, 108; cp. B50, 112, 118, 129. Recall that 'kosmos' is first so used by Heraclitus to denote the universe.

7 That Heraclitus views sophiê precisely as a state of the psyche is confirmed by the following fragment: 'A dry psyche is most sophos and best'. (B65)
For instance Heraclitus endorses aristocratic, not democratic or egalitarian, values. Consequently he does not view sophiē as a form of ethical, in the sense of 'moral', knowledge.


There is however is at least one passage in the Platonic corpus where sophia itself is distinguished from other kinds of epistēmē. At Republic 428b Socrates observes that there are various kinds of epistēmē in the polis and he asks: 'Are we then to call our state wise (sophē) and good in counsel because of the epistēmē of carpenters?' So here it is clear that epistēmē is not equivalent to sophia, but that the latter is a type of the former.

Aristotle recognizes that in some fields, particularly in the natural sciences, noetic principles may be general rather than universal, in other words may 'hold only for the most part'. Cp. An. post 96a8-10.

In this context it is interesting to note that in a treatise On Phronēsis Xenocrates the third scholarch of the Academy drew the following complex distinction between sophia and phronēsis. Similarly to Aristotle Xenocrates characterizes sophia as 'epistēmē of first causes and intelligible being (noētēs ousias)'. In contrast to Aristotle Xenocrates distinguishes two kinds of phronēsis: theoretical and practical. Moreover he describes theoretical phronēsis as 'human (anthrōpina) sophia'. (fr. 177Isnardi-Parente-Dorandi) In that case Xenocrates must distinguish between two kinds of sophia: divine and human—although precisely how the two differ is unclear. Cp. Isnarde-Parente and Dorandi 2012:192, 331-2; Dillon 2003: 150-51.

Another conception of sophia involving the dependence of ethical on cosmological and metaphysical knowledge occurs in Pseudo-Archytas' On Sophia, on which cp. Horky 2016.