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Jessica Moss, Whitney Schwab

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The Birth of Belief

JESSICA MOSS AND WHITNEY SCHWAB*

ABSTRACT It is widely accepted that *doxa*, which plays a major role in Plato's and Aristotle's epistemologies, is the Ancient counterpart of belief. We argue against this consensus: *doxa* is not generic taking-to-be-true, but instead something closer to mere opinion. We then show that Plato shows little sign of interest in the generic notion of belief; it is Aristotle who systematically develops that notion, under the rubric of *hupolēpsis* (usually translated as 'supposition'), a much-overlooked notion that is, we argue, central to his epistemology. We close by considering the significance of this development, outlining the shifts in epistemological concerns enabled by the birth of belief as a philosophical notion.

KEYWORDS Belief, opinion, *doxa*, *hupolēpsis*, epistemology, Plato, Aristotle

I . INTRODUCTION

DID PLATO AND ARISTOTLE HAVE anything to say about belief? The answer to this question might seem blindingly obvious: of course they did. Plato distinguishes belief from knowledge in the *Meno*, *Republic*, and *Theaetetus*, and Aristotle does so in the *Posterior Analytics*. Plato distinguishes belief from perception in the *Theaetetus*, and Aristotle does so in the *De anima*. They talk about the distinction between true and false beliefs, and the ways in which belief can mislead and the ways in which it can steer us aright. Indeed, they make belief a central component of their epistemologies.

The view underlying these claims—one so widespread these days as to remain largely unquestioned—is that when Plato and Aristotle talk about *doxa*, they are talking about what we now call belief. Or, at least, they are talking about something so closely related to what we now call belief that no philosophical importance can be placed on any differences. *Doxa* is the ancient counterpart of belief; hence the modern use of 'doxastic' as the adjective corresponding to 'belief.'

One of our aims in this paper is to challenge this view. We argue that Plato and Aristotle raise questions and advance views about *doxa* that would be very strange if they concerned belief. This suggests either that Plato and Aristotle had very strange ideas about belief, or that *doxa* is not best understood as belief.

***Jessica Moss** is Professor of Philosophy at New York University and **Whitney Schwab** is Assistant Professor of Philosophy at University of Maryland, Baltimore County.

We argue for the latter option by pursuing our second aim, which is to show that Aristotle, expanding on ideas suggested in Plato, explicitly develops a notion that corresponds much more closely to our modern notion of belief: *hupolēpsis*. *Hupolēpsis* is a much-ignored and often misunderstood component of Aristotle's epistemology, usually set aside under the un-illuminating name of 'supposition.' We will argue, however, that it exhibits the central feature of belief as nowadays understood: it is the generic attitude of taking-to-be-true. Furthermore, we will show that because Aristotle conceives of *hupolēpsis* in this way, he employs it in many of the same roles that belief has played in modern-day epistemology; prominent among these, and in sharp contrast to *doxa*, it is the genus of which knowledge is a privileged species.¹

Since serious difficulties face the project of taking *doxa* to amount to belief, and *hupolēpsis* is a natural fit, we conclude that *doxa* in Plato and Aristotle is not, after all, belief. Although determining the exact nature of *doxa* is a project for another occasion, we offer some suggestions as to what else it might be.

We are not the first to notice problems with assimilating *doxa* to belief, nor are we the first to notice similarities between belief and Aristotle's *hupolēpsis*.² Nonetheless, these points are not widely recognized, and so we aim to reinforce them; we also want to draw out their consequences more forcefully than has been done before. *Doxa* does not mean belief and should not be translated as such; *hupolēpsis* does mean belief and should be translated as such. Recognizing these facts opens up new questions, to which we turn in the last section: why was belief largely absent in Plato's epistemology, how does Aristotle's introduction of the notion constitute an advance, and what consequences does this have for our understanding of the development of ancient epistemology?

2 . BELIEF

In asking whether Plato and Aristotle develop a theory of belief, we have in mind the notion of belief in play in mainstream, modern-day epistemology and philosophy of mind. Although it is a simplification to speak of *the* modern notion of belief, there is nowadays a widely accepted notion of belief as the generic attitude of

¹Two caveats are in order here. First, we use 'knowledge' in keeping with convention to translate Plato's and Aristotle's *epistēmē*. Although we think that 'understanding' better captures the force of *epistēmē* (following, among many others, Julius Moravcsik, "Understanding and Knowledge," Myles Burnyeat, "Socrates and the Jury," and "Aristotle on Understanding Knowledge"), our purposes here let us remain neutral on the issue (see n. 21 below). Second, as we will discuss in the next section, there is some disagreement nowadays about whether knowledge is best understood as a species of belief. Our claim, however, is that *hupolēpsis* plays the same roles that belief plays in much of modern epistemology, and is the closest Ancient precursor to belief in modern epistemology overall (see discussion in sect. 2).

²On Plato's *doxa* as very different from modern-day belief, see esp. Katja Vogt, *Belief and Truth*; on Aristotle's *hupolēpsis* as similar to modern-day belief, see esp. Michael Wedin, *Mind and Imagination*; see further citations in sects. 3 and 4 below. (Confusingly, however, Vogt continues to translate *doxa* as 'belief,' and Wedin to translate *hupolēpsis* as 'supposition.')

taking something to be the case³ or taking something to be true.⁴ ‘Taking’ here refers not to a provisional attitude, but to one of endorsement or commitment.⁵

It is in virtue of this feature that belief has played many of its prominent roles in modern epistemology, including two that will be of particular importance to us in what follows. First, it is in virtue of this feature that belief is widely taken to be entailed by knowledge: if one knows *P*, one must take *P* to be true.⁶ Second, it is in virtue of this feature that belief is often taken to be the genus of knowledge, as in the program exemplified by the Justified True Belief analysis of knowledge and its revisions: knowledge is a privileged kind of taking-to-be-true. (Certainly Gettier had something like this in mind when he used ‘belief’ to capture a variety of attitudes that philosophers used to analyze knowledge, such as Roderick Chisholm’s ‘acceptance’ and A. J. Ayer’s ‘being sure.’⁷) Although this program has fallen somewhat out of fashion, this is largely due to pessimism about the prospects of giving a reductive analysis of knowledge, rather than to a revision of the notion of belief.⁸ If we can identify a notion in ancient epistemology of something that serves as the genus of knowledge, and does so because it is the attitude of taking-to-be-true as such, even modern epistemologists who reject the analysis project should recognize that as the precursor to the modern notion of belief.

The central question of this paper is whether there is any such notion in Plato or Aristotle—whether anything in their epistemologies plays the role of belief. One important caveat: most philosophers today construe belief as a propositional attitude, and our use of ‘taking-to-be-true’ to characterize belief may imply this view, but we do not mean to be taking any stand on the question of whether Plato or Aristotle conceive of *doxa*, *hupolēpsis*, or other cognitive states as propositional attitudes. We think that there is real indeterminacy here; furthermore, none of our arguments in what follows hang on this issue.⁹ Our question is whether any notion

³“Contemporary analytic philosophers of mind generally use the term ‘belief’ to refer to the attitude we have, roughly, whenever we take something to be the case or regard it as true” (Eric Schwitzgebel, “Belief,” introductory section).

⁴See, e.g. Linda Zagzebski: belief is “the relation of taking a proposition to be true” (“What is Knowledge?,” 93); cf. David Velleman: “we believe a proposition when we regard it as true for the sake of thereby getting the truth right with respect to that proposition: to believe something is to accept it with the aim of doing so if and only if it really is true” (“Practical Reason,” 709).

⁵Many scholars think that belief can come in degrees, but this in no way implies that belief is provisional or hypothetical, mere conjecture or assumption. We return to this point in sect. 4.3.

⁶A few philosophers object to this claim (see Blake Myers-Schulz and Schwitzgebel, “Knowing that *P*,” building on Colin Radford, “Knowledge—By Examples”). However, this does not mean that they reject the account of belief as taking-to-be-true; instead, they are arguing for extending the concept of knowledge such that one can know something without taking it to be true, or at least without consciously or consistently doing so.

⁷See Edmund Gettier, “Is Justified True Belief Knowledge?,” 121; Roderick Chisholm, *Perceiving: A Philosophical Study*, 16; and A. J. Ayer, *The Problem of Knowledge*, 34.

⁸Even Timothy Williamson, who is one of the main advocates of abandoning this program, nevertheless thinks that belief is a condition on knowledge, i.e. that knowledge entails belief (*Knowledge and Its Limits*, 41–48). He is even willing to speak loosely of knowledge as a kind of belief: “As a crude generalization, the further one is from knowing *P*, the less appropriate it is to believe *P*. Knowing is in that sense the best kind of believing” (*Knowledge and Its Limits*, 47).

⁹Some attempts to explain Plato’s views about *doxa* crucially depend on the view that it is a propositional attitude. E.g. Gail Fine, “*Republic V*” and “*Republic V–VII*,” argues that in saying that the objects of *doxa* and knowledge are different (see passages cited below), Plato means that they range

in Plato's or Aristotle's epistemology plays the role that belief plays in ours, and thus is at least a reasonably close precursor to the modern notion of belief. We will try to show that *doxa* does not fit this description, and that Aristotle's *hupolēpsis* does.

3. DOXA

If *doxa* is belief, then it should be entailed by knowledge: on most views of knowledge, one believes everything that one knows. At a minimum, if *doxa* is belief, then it should be compatible with knowledge: on all reasonable views of knowledge, one can and often does believe the things one knows.¹⁰ But—with the important but inconclusive exceptions of passages in Plato's *Meno* and *Theaetetus*, to which we will turn below—Plato and Aristotle show no signs of either of these views. Instead, they consistently contrast *doxa* with knowledge as an inferior and incompatible state. Moreover, although we will not provide detailed evidence here, they are joined in this by their philosophical, sophistic, and literary predecessors and contemporaries: *doxa* is widely used to name a state inferior to knowledge.¹¹

Older scholars of Plato and Aristotle recognized this and expressed it in their translations of *doxa* as 'opinion'; some still follow suit. Recent work on Plato has argued for this view explicitly: Plato's *doxa* is a "deficient cognitive attitude,"¹² not a component or genus of knowledge but something left behind when knowledge is acquired.¹³ But there remains a strong tendency to think that *doxa* does play the role of generic belief in Plato and Aristotle, and so it is worth repeating the evidence and advancing new arguments to show that this is not so. That is our aim in this section.

First, there is abundant evidence that *doxa* is inferior to knowledge. *Doxa* is unstable and unclear, knowledge stable and clear (*Meno* 98a; *Republic* 484b, 511a; *Philebus* 57b, 59b; *Protagoras* 356d–e; and *An. Post.* 89a5–6).¹⁴ Moreover, both Plato and Aristotle argue that the two are mutually exclusive: Plato says that having *doxa* is like dreaming, having knowledge like being awake (*Republic* 476c1–d5); Aristotle says that having *doxa* is like being ill and having knowledge like being healthy (*Met.* 1008b27–31) and, in a discussion to which we will return, explicitly claims that

over different although overlapping sets of propositions; I. M. Crombie, *Examination*, 2:41–50, suggests that Plato's view is that *doxa* is of propositions while knowledge is directly of objects. We think these attempts are misguided: it is not clear whether or how consistently Plato or Aristotle thought of cognitive states as propositional attitudes; moreover, the apparent mysteries these interpretations try to solve are products of misinterpretations of *doxa*, as we argue below.

¹⁰Even those who question the entailment claim, like Myers-Schulz and Schwitzgebel, "Knowing that P," agree with that.

¹¹For a few representative examples, see, perhaps most famously, Parmenides, fragment B1, 28–30; also see Herodotus, *Histories*, 8.132; Simonides, fragment 76; Gorgias, *Helen*, 10 and 13; and Isocrates, *Antidosis*, 184. It is possible that *doxa* is sometimes used to refer to generic belief outside Plato and Aristotle, but even a cursory review of the entries in LSJ under *doxa* and its root verb, *dokein*, suffices to show that if one were a philosopher looking to name knowledge's inferior counterpart, *doxa* would be a natural choice.

¹²Vogt, *Belief and Truth*, 9.

¹³Others recognize the inferiority of *doxa* too, often while translating it as 'belief.' See, e.g. Lloyd Gerson, *Ancient Epistemology*, on both Plato and Aristotle; and Ian McCready-Flora, "Aristotle's Cognitive Science" on Aristotle; and many who write on the *Posterior Analytics* passage we discuss below.

¹⁴References to Plato use Stephanus page numbers; references to Aristotle use Bekker page numbers.

“it is not possible to *doxazein* [have or form a *doxa* about] and to know the same thing at the same time” (*An. Post.* 89a38–39). Those with *doxa* about something lack knowledge of it; to gain knowledge is to leave *doxa* behind. (Arguably, Plato revises these views in the *Meno* and *Theaetetus*; we discuss these below.)

Even more problematic for the assumption that *doxa* is belief, on a number of occasions both Plato and Aristotle ask whether *doxa* can be of or about the same things as knowledge and conclude that it cannot.¹⁵ While there is dispute about how to understand these claims, we embrace the widespread view that they entail that knowledge and *doxa* have different subject-matters or domains. Consider, first, a much-discussed passage from Plato’s *Republic*:

Socrates: And will the same thing be both an object of knowledge [*gnôston*] and an object of *doxa* [*doxaston*]? Or is that impossible?

Glaucon: It is impossible from what we have agreed, if indeed different powers by nature deal with [*epi*] different things, and both *doxa* and knowledge [*epistêmê*] are powers but different ones, as we say. From these points it follows that it is not possible for the object of knowledge [*gnôston*] and the object of *doxa* [*doxaston*] to be the same. (*Republic* 78a11–b2)¹⁶

Now consider the much less discussed opening lines of Aristotle’s *Posterior Analytics* I.33:

The object of knowledge [*epistêton*] and knowledge [*epistêmê*] differ from the object of *doxa* [*doxaston*] and *doxa*, because knowledge is universal and comes through necessities . . . while *doxa* is concerned with what is true or false but can also be otherwise. (*An. Post.* 88b30–89a3)

Both passages consider whether the *doxaston*—what is or can be an object of *doxa*—and the *gnôston* or *epistêton*—what is or can be an object of knowledge—are the same or different. And both passages maintain that they are different.¹⁷ Nor are these isolated remarks. Aristotle presents a similar view in the *Nicomachean Ethics*. He claims that there are two distinct rational parts of soul, “one by which we contemplate those things of which the first principles do not admit of being otherwise, and one by which we contemplate those that do admit of being otherwise.” He calls the first the part capable of knowledge (*epistêmonikon*); the second is the part capable of calculation or deliberation (*to logistikon*), but also the part capable of *doxa* (*to doxastikon*), since *doxa* is “about what can be otherwise” (*EN* 1139a6–8, 1140b25–28). As to Plato, he reiterates the distinctness of the objects of *doxa* and knowledge throughout his works. In the ensuing passages of the *Republic*, he continues to correlate *doxa* with perceptible objects and knowledge

¹⁵For arguments that this shows the inferiority of *doxa* to knowledge, see esp. Vogt, *Belief and Truth*; and Gerson, *Ancient Epistemology*.

¹⁶Where not otherwise noted, translations are our own. Since our focus is on *doxa*, we will treat *gnôsis* and *epistêmê* (along with *nous* below) as equivalent.

¹⁷Aristotle goes on to say that although the same thing cannot be an object of *doxa* and knowledge “in every way” (*panôtis*), it can be “in a certain way” (*tropon tina*), analogously to the way in which the same thing can be the object of true and false *doxa* (*An. Post.* 89a23–25). For various interpretations see Gerson, *Ancient Epistemology*, ch. 4; Fine, “Aristotle’s Two Worlds”; Benjamin Morison, “Aristotle on the Distinction”; and Michail Peramatzis, “Aristotle on Knowledge and Belief.” For our purposes, however, the main point stands: if *doxa* is generic cognitive commitment then the object of *doxa* should not be different from the object of knowledge even “in a certain way.”

with intelligible objects (*Republic* 509d1–11e4; 507b1–9) and says that *doxa* is about (*peri*) what comes to be while knowledge is about what is (*Republic* 533e3–34a8). He draws similar correlations in the *Philebus* (58e4–59d5) and *Timaeus* (27d5–28a5, 37a2–c5); in the latter, he even maintains that the only way to uphold the distinction between true *doxa* and knowledge (*nous*) is to posit distinct objects for them (*Timaeus* 51b6–52b5). Both philosophers seem, in these texts at least, to embrace what has come to be called a ‘two-worlds’ epistemology, on which the objects of *doxa* and those of knowledge form two disjoint groups.

That this might be Aristotle’s view is seldom noticed.¹⁸ That it is Plato’s view was interpretative orthodoxy for over two millennia, but an entire industry is now devoted to arguing that he does not in fact advance a two-worlds epistemology.¹⁹ Scholars are clearly scandalized by the possibility that Plato claims that *doxa* and knowledge cannot take the same objects, and so they find ways to argue that he made no such claim. Instead, they argue, he at most claims that each state is associated with a particular class of objects typically, or by nature, or directly, or without aid from other powers, or at its best.²⁰

It is not our goal here to engage in a thorough discussion of the two-worlds issue, nor to defend the two-worlds reading of Plato against the now standard objections—although by arguing below that *doxa* is not belief, we will undercut one of the chief motivations for doubting the two-worlds reading. Rather, we simply note that there are clear signs that both Plato and Aristotle saw some important distinction to draw between the objects of *doxa* and those of knowledge, and also that they saw some interesting correlation, worth inquiring into and making claims about, between *doxa* and a special class of objects: what “becomes” or the perceptible world, according to Plato; what can be otherwise, according to Aristotle. And the point we wish to emphasize is that this is a bizarre strategy to pursue if *doxa* is belief.

Philosophers nowadays do not think of belief as having a special restricted domain, nor even a typical domain, or natural domain, or best available domain. They think of belief as utterly promiscuous: one can have beliefs about anything at all (or, at least, about anything at all of which one is aware); there is no special intrinsic quality something needs in order to be an object of belief as opposed to an object of knowledge. Moreover, it is nowadays almost universally held that every object of knowledge is a fortiori an object of belief: one who knows something about some object *x* thereby also has beliefs about *x*.

¹⁸For recent discussion, see the papers of Fine, Morison, and Peramatzis cited in n. 17.

¹⁹For opponents of the two-worlds reading see, among many others, Fine, “*Republic* V” and “*Republic* V–VII”; Nicholas Smith, “Knowledge as a Power”; C. C. W. Taylor, “Plato’s Epistemology”; and Verity Harte, “Knowing and Believing.”

²⁰On Fine’s famous analysis of the *Republic*, Plato does not correlate *doxa* and knowledge with different kinds of objects, but rather with different sets of propositions (with knowledge ranging over the set of true propositions and *doxa* ranging over the set of true and false propositions). Fine’s reading, however, is very controversial; for a detailed rebuttal, see Francisco Gonzalez, “Propositions or Objects?” Moreover, even if Fine were right about the argument of *Republic* V, there are the many other passages cited above in which Plato associates *doxa* and knowledge with distinct (non-semantic) objects; there is also Aristotle’s association of *doxa* with contingent matters. Thus, we think it is clear that Plato and Aristotle at least entertain the possibility that *doxa* has its own special range of (non-semantic) objects, distinct from the objects of knowledge, which is the important point for us here. Moving forward, then, we set Fine’s interpretation of the *Republic* aside.

The reason behind this widespread agreement is not hard to find: belief is taking-to-be-true, and it would be a complete non-starter to wonder whether one can or cannot, in principle, take things to be true about the objects of one's knowledge. It would thus be a complete non-starter to doubt whether there is overlap between the objects of knowledge and the objects of belief.²¹ And it is hard to see why Plato and Aristotle would disagree. A Platonic philosopher with knowledge of the Form of Beauty surely takes certain things to be true about that Form: for example, that it is always beautiful. An Aristotelian scientist with knowledge of triangles surely takes certain things to be true about triangles: for example, that they have three angles.

Thus, we submit that, in the passages we have considered, *doxa* is not well conceived of as belief. It is at best a specific kind of belief: "mere belief," that is, belief that falls short of knowledge, perhaps most closely corresponding to the notion of opinion understood as a belief held in the absence of adequate grounds. (It is possible that Plato's *doxa* falls short even of this, for some argue that, up until the later dialogues, Plato does not think of *doxa* as essentially involving taking-to-be-true: the lower parts of the soul cannot conceive of truth as distinct from appearance, and cannot therefore aim at truth, but nonetheless have *doxa*.²²)

If *doxa* is mere opinion, we can explain very easily why it is incompatible with knowledge: insofar as knowledge requires adequate grounds, one cannot have opinion and knowledge of the same thing at the same time. The interpretation still leaves open serious questions about how to make sense of the idea that *doxa* has its own proprietary objects. Although this is not the place to explore this issue in detail, we will briefly consider two possibilities to show that the project is a promising one rather than a non-starter.

One possibility is that Plato and Aristotle view Forms and essences as things one cannot hold any views about—cannot even have as objects of thought—without having made considerable cognitive achievements that qualify one as a knower in the relevant domain. Laypeople might think that they have opinions about the essence of circles, for example, but because they fail to grasp the definition of circle and the role that this definition plays in geometrical proofs, they are not really thinking about circles at all. On this view, when people succeed in thinking about geometric circles, they have necessarily made an achievement above the level of *doxa* (although such people of course count as having *beliefs* about circles, since they take things to be true about them).²³ A second possibility: perhaps *doxa* is by its very

²¹Note that this problem remains even if *epistēmē* in Plato and Aristotle is best conceived—as we in fact think it is—as understanding (see n. 1 above): on most contemporary views of understanding, and certainly on any view plausibly anticipated by Plato and Aristotle, believing *P* is a necessary condition of understanding *P* (see Jonathan Kvanvig, *Value of Knowledge*, 199–200; and Alison Hills, "Moral Testimony," 100–103).

²²See Todd Ganson, "Rational/Non-Rational"; and Jessica Moss, "Appearance-Assent." If this is right, then Plato's *doxa* must be a broader category that includes not only some states that philosophers nowadays treat as beliefs (belonging to the rational part of the soul) but also states many think are sub-*doxastic*, despite their having representational content and motivational roles similar to belief, such as 'aliefs' (see Tamar Gendler, "Alief and Belief"). This would add fodder to the suggestion below that the *Theaetetus* is Plato's first attempt to articulate something like the modern concept of belief.

²³For an interpretation of Aristotle along these lines, see Morison, "Aristotle on the Distinction"; for related interpretations of Plato, see Gerson, *Ancient Epistemology*, ch. 3; Raphael Woolf, "Norms of Thought"; and Sarah Broadie, "The Knowledge Unacknowledged."

nature limited to perceptible or contingent affairs, because it is the kind of thought one has when one focuses on particulars and fails to abstract underlying universal truths; as soon as one moves beyond thinking about particular people and events and starts to think instead about necessary truths or Forms or essences, one has ipso facto left *doxa* behind.²⁴ On neither of these interpretations is the claim that *doxa* and knowledge do not share objects philosophically unproblematic—a standard to which interpretations should not aspire!—but neither is it a philosophical non-starter, as it is on the interpretation of *doxa* as belief.

Our argument thus far has shown that, at least in some contexts, both Plato and Aristotle use *doxa* to pick out a state that falls short of and is incompatible with knowledge. This leaves undisturbed the possibility that they also use it in other contexts to pick out generic belief, and some will maintain that this is what they do. Perhaps Plato and Aristotle are confused: J. C. B. Gosling charges that Plato demonstrates “uncertainty” about *doxa* and “a failure to distinguish its senses,” and that “Aristotle also reflects some of the same feelings” in our passage of the *Posterior Analytics*.²⁵ On Gail Fine’s interpretation of *Republic V*, Plato is simply using *doxa* in two distinct senses:

In arguing that knowledge but not belief implies truth, Plato is distinguishing knowledge as such from belief as such, where this leaves open the possibility that knowledge is a species of belief. However, at some points in the argument he uses ‘belief’ (*doxa*) for mere belief: for belief that necessarily falls short of knowledge. (“Aristotle’s Two Worlds,” 325)

On this picture, *doxa*, in its broadest sense, is the genus of which knowledge is a privileged species, while in a narrower sense, prominent in the passages examined above, it is an inferior species of that same genus. Arguably, ‘belief’ in English does double-duty for generic belief and an inferior species thereof, or means only the former but through scalar implicature picks out the latter: even a philosopher committed to the analysis of belief as generic taking-to-be-true can understand claims like, ‘No, I don’t believe it, I know it.’ Perhaps, then, *doxa* in Greek works the same way.

But is this interpretation warranted? Do Plato and Aristotle ever in fact use *doxa* to pick out the generic notion of belief?

In most of his work, Plato shows little interest in any generic notion of belief, under the name of *doxa* or anything else. When he contrasts knowledge with *doxa*, he does not bother to identify features common to them, let alone to identify taking-to-be-true as a crucial shared feature. He does use some verbs to pick out our cognitive attitude both towards perceptibles and toward intelligibles;²⁶ he also

²⁴For variations on this kind of view of Plato’s *doxa*, see, among others, Jurgen Sprüte, *Der Begriff der DOXA*; and Eric A. Havelock, *Preface to Plato*.

²⁵J. C. B. Gosling, “Δόξα and Δύναμις,” 127.

²⁶In the *Republic*, e.g. Socrates characterizes the lover of sights and sounds as someone who “acknowledges [*nomizein*] beautiful things but does not acknowledge the Beautiful itself” (*Republic* 476c1–2): evidently one can *nomizein* both the objects of *doxa* and the objects of knowledge. Similarly, the verb *hêgeesthai* is used to describe the philosopher’s thinking both that the Beautiful itself exists and that the many beautiful things are not the Beautiful itself (*Republic* 476c7–d1). In the same passage, the philosopher is described as someone who is “able to see [*kathoran*] both the Beautiful itself and the things that participate in it.”

uses some verbs neutrally in a way that is natural to translate as ‘believe’ or ‘think,’ with no strong implication as to whether he has in mind opining or knowing. Prominent among these is a verb to which we will return below: *hupolambanein*.²⁷ All this may reveal awareness that there is something important in common between *doxa* and knowledge, but it reveals no more than that. Neither do his occasional uses of very broad generic terms to characterize both *doxa* and knowledge, like *dunamis* or *pathêma*.²⁸ If we focus on dialogues that contrast *doxa* and knowledge by their objects—including the *Republic*, where Plato gives his most elaborate positive epistemology—we find that nowhere does he clearly invoke the concept of belief.

What about the attempts to define knowledge in terms of *doxa* in the *Meno* and *Theaetetus*, however? Surely Plato here recognizes the generic notion of belief, under the name of *doxa*? Indeed, it is often thought that these dialogues contain the first attempt to define knowledge as justified true belief.²⁹

The case of the *Meno* is, in fact, far from clear. When Socrates says that true *doxai* become (*gignontai*) knowledge through a working out of the explanation (*aitias logismô[i]*) (97e2–98a8), this at least leaves open, and arguably strongly implies, that tied-down cognitive states no longer count as *doxai*. The strong contrast between true *doxa* and knowledge in the immediately ensuing lines and the rest of the dialogue supports reading the passage this way.³⁰ The *Theaetetus* more plausibly reveals the beginnings of a theory of belief, but here too there is much room for dispute. It does clearly make an attempt to define knowledge as a kind of *doxa*: toward the end of the dialogue, Socrates considers the possibility that knowledge is true *doxa* (187a1–201c7), and then the possibility that it is true *doxa* “with an account [*meta logou*]” (201c8–10b2). The dialogue ends aporetically, possibly suggesting that the whole project of analyzing knowledge in terms of *doxa* is doomed to failure; if so, Plato’s reason may be that *doxa* is inherently inferior to

²⁷For uses of *hupolambanein* in this way see, among others, *Apology* 28e4, 40b8; *Phaedo* 86b6, 87c7; *Cratylus* 410b6, 412d2; and *Republic* 424c3, 598d1.

²⁸In *Republic* V, he calls *doxa* and knowledge powers (*dunameis*) (cf. 477b4–9, 477d8–e2, and 478a14–b1), but this class is far wider than belief (it includes sight, hearing, and everything else that “enables us—or anything else that has an ability—to do whatever we are able to do” (*Republic* 477c1–2); in the Divided Line passage, the four sub-species of *doxa* and of knowledge are all classified as *pathêmata* (511d7), but this notion is also far too wide to constitute belief: manufactured items have *pathêmata* (381a6–9) and so does the body (610b4–6). Admittedly, the fact that Plato places these four *pathêmata* on a *single* line suggests that he takes them to have something more in common than just being *pathêmata*; however, we get no indication of what that common feature might be, let alone that it might be taking-to-be-true. He also casually characterizes both *doxa* and knowledge as kinds of *dianoia* (476d), but when he uses that term later in the *Republic* it is as a narrow species contrasted with *doxa* (511d6–e2; cf. 533e3–34a8).

²⁹In his famous article “Is Justified True Belief Knowledge?,” Gettier writes, “Plato seems to be considering some such definition at *Theaetetus* 201, and perhaps accepting one at *Meno* 98” (121n1). D. M. Armstrong claims that the *Meno* contains history of philosophy’s “first recorded occurrence [of such an analysis]” (*Belief, Truth, and Knowledge*, 137). Fine, “Knowledge and True Belief,” has recently defended a JTB interpretation of Plato’s analysis of knowledge in the *Meno*. We here focus on the question whether Plato defines knowledge as any kind of *doxa*, leaving aside the question whether justification is at issue at all (for contrasting views on this latter question, see Fine, “Knowledge and True Belief,” sect. 6; and Whitney Schwab, “Explanation,” sect. 5.1.1).

³⁰For accounts of the *Meno* along these lines, see Gerson, *Ancient Epistemology*, 28–30; and Vogt, *Belief and Truth*, 13–14.

knowledge, and so can never serve as a component or genus of it.³¹ Nonetheless, Plato may be here considering a notion of *doxa* broad enough to serve as the genus both of knowledge and of *mere*, inferior *doxa* (as belief is the genus of both knowledge and mere belief on the Justified True Belief analysis of knowledge), a notion on which *doxa* is entailed by knowledge rather than incompatible with it.

Indeed, some interpreters argue that Plato is here developing a notion of *doxa* quite different from what we find in the *Republic* and elsewhere, and much closer to the generic notion of belief.³² In favor of this latter interpretation is the fact that the *Theaetetus*—along with two probably contemporary dialogues, the *Sophist* and *Philebus*—emphasizes an aspect of *doxa* unmentioned in earlier dialogues, and plausibly closely related to the notion of taking-to-be-true, namely, the idea that *doxa* is assertoric.³³ Forming a *doxa* (*doxazein*) is affirming or denying something, silently saying “yes” or “no” to a question one has asked oneself (*Theaetetus* 189e–90a; cf. *Sophist* 263e–64b, and *Philebus* 38b–39a).³⁴ Plausibly, Plato is here getting at the idea that *doxa* involves taking something to be true. However, even if this is the case, there is some reason to doubt that he has in mind the generic attitude of taking-to-be-true as such. The claim that *doxa* results from a process of the soul asking and answering questions suggests that it is instead a specific kind of taking-to-be-true, perhaps something more like reflective or deliberated belief.³⁵

We conclude then that throughout most of his career Plato was simply doing epistemology without invoking the notion of belief, while in his later dialogues he arguably moves closer to the modern notion of belief—but does so using the name he elsewhere uses to denote one species of belief, *doxa*. This obviously leaves ample room for confusion: these two senses of *doxa*—one on which it is excluded by knowledge and one on which it is entailed by knowledge—are sufficiently different that it would make sense for a philosopher to distinguish the two explicitly.

³¹Many interpretations of the failure of Theaetetus’s third definition of knowledge suggest or argue for such a claim, and some argue that Plato is thereby pointing us toward a two-worlds epistemology. See, among others, Alcinous, *Didaskalikous*; Francis M. Cornford, *Plato’s Theory of Knowledge*; David Sedley, *Midwife*; and Gerson, *Ancient Epistemology*.

³²Vogt argues that Plato explores two views of *doxa* in the *Theaetetus*, one on which it is generic belief and hence entailed by knowledge, another on which it is mere belief and hence excluded by knowledge (*Belief and Truth*, 84); Sprüte argues that in the *Republic* *doxa* is empirical cognition, but in the *Sophist* and others it is *Urteil*, something close to generic belief (*Der Begriff der DOXA*).

³³Arguably, it is in an achievement of Plato’s *Theaetetus* to first discuss [generic belief, which Vogt calls “truth-claim”]. Every truth-claim has the same structure: some content is accepted as true. This applies no matter whether the resulting attitude is a piece of knowledge, or whether it has the lesser status of ignorance or belief. Insofar as the *Theaetetus* takes seriously the option that *doxa* might simply be judgment, rather than a deficient kind of truth-claim, it discusses ideas that are close to today’s notion of belief” (Vogt, *Belief and Truth*, 18; cf. 84). Emphasizing the new focus on truth, see also Ganson, “Rational/Non-Rational”; and Toomas Lott, “Plato on the Rationality of Belief.”

³⁴“The soul when it thinks is doing nothing other than dialoguing [*dialegethai*], asking itself questions and answering them itself, and affirming things and denying [*phaskousa kai ou phaskousa*]. And whenever it has determined something, either gradually or by leaping quickly, and affirms the same thing and does not disagree, we put that down as its *doxa*. So I call forming a *doxa* ‘saying’ [*to doxazein legein kalō*], and I call *doxa* a *logos* spoken not to another nor with voice, but silently to oneself” (*Theaetetus* 189e6–90a6).

³⁵For a recent compelling account of *doxa* in the *Theaetetus* along these lines, see Broadie, “The Knowledge Unacknowledged,” sects. 2 and 3; for discussion of alternative interpretations, see Moss, “Appearance-Assent.”

In the remainder of the paper, we argue that Aristotle does just this: he nowhere attempts to analyze knowledge as a kind of *doxa*, but instead introduces the notion of *hupolêpsis* to serve in the generic role, reserving *doxa* for the more specific notion.

If Aristotle makes explicit and systematic a murky, implicit Platonic notion, and does so precisely by distinguishing between a genus and one of its species, we should not be surprised, as he makes a similar move in other areas. Consider the case of *epithumia*. Sometimes Plato uses this term to pick out desire as a genus (*Republic* 431b9–c1; cf. 429c8–d1, 430b2, 580d6–7). Elsewhere, however, he uses it to pick out only one species of desire, often translated as ‘appetite’ or ‘appetitive desire’: the worst kind of desire, generated by the unruly, pleasure-focused part of the soul (see, e.g. *Republic* 439d7, 440a1, and 440a7, and the use of *epithumêtikon* to name this lowest part of the soul [cf. 439d8, e4, 440e2]). Why does Plato use the same term to refer to both the genus and one of its species, without marking the difference? Arguably, because he has not developed a systematic theory of desire as a generic attitude of which there are various species. Aristotle clears up this potential confusion: he makes it explicit that there is a genus of which *epithumia* is a species, along with *boulêsis* and *thumos* (wish and spirited desire), and he introduces a new technical term as the name for this genus, *orexis* (*De anima* 414b2; cf. 432b5–7). This enables him to develop a general theory of desire and articulate its role in various phenomena, for example, locomotion, deliberation, and emotion.

If the *Theaetetus* does indeed begin to grope towards the notion of belief, but only messily, then according to the arguments we give below, Aristotle’s *hupolêpsis* does for Plato’s use of *doxa* what his *orexis* does for Plato’s use of *epithumia*. By introducing *hupolêpsis* as the generic attitude of taking-to-be-true that includes *doxa* as one variant and knowledge as another, Aristotle clears up conceptual confusions and enables a systematic theory of a notion that is crucial to modern philosophy but present in Plato only in nascent form.

4. HUPOLÊPSIS

Although Plato never clearly articulates the idea that *doxa* and knowledge are species of a common genus, and there is no evidence for any systematic treatment of such an idea in his predecessors or contemporaries, we find just such a notion in the pseudo-Platonic *Definitions*, thought to date roughly from the same time as Aristotle’s works. The word used to name the genus is one rarely attested before Aristotle: *hupolêpsis*.³⁶

³⁶Outside of the *Definitions* and later *Testimonia*, which are unreliable sources for terminology, there are only four (or possibly five, see below) extant occurrences of the word *hupolêpsis* prior to Aristotle, and for all of them ‘belief’ is a viable and often natural translation. The moral to Aesop’s fable about the one-eyed stag is that we often find, against our *hupolêpsis*, that the things that seem most difficult are a benefit, while the things thought safest are dangerous (*Fabula*, 77 1.10–12); Demosthenes claims that the reason Aeschines has attempted to change the mind of the jury is that they have the *hupolêpsis* that Demosthenes is there to speak on behalf of his homeland (*De Corona*, 228.4–29.1); Hyperides imputes to his opponent an unjust *hupolêpsis* about the jury (*Pro Euxennipus*, 32); and a fragment from Stobaeus attributes to Demosthenes the claim that slander makes the *hupolêpsis* of those who hear it firm (*Anth.*, 3.42.8).

Doxa: *hupolêpsis* that is changeable by reason [*metapeistos hupo logou*]. (*Definitions* 414c3)

Epistêmê: *hupolêpsis* of the soul unchangeable [*ametaptôtos*] by reason. (*Definitions* 414b10)³⁷

The word *hupolêpsis* is formed from the verb *hupolambanein*, frequently used by Plato and others in contexts that lead translators to opt for ‘interpret,’ ‘understand,’ ‘conceive,’ ‘suppose,’ ‘opine,’ ‘assume,’ and even ‘believe.’³⁸ If a fourth-century Greek were to want a word for the notion of generic taking-to-be-true it would be a natural choice, and perhaps the *Definitions* is trying to get at something like this, although we have too little to go on to be sure (the word does not receive its own entry); certainly this is compatible with its other occurrences in the work, in the definitions of *pistis*, *mania*, and *eusebia*.³⁹ These few entries in the *Definitions* are at best suggestive of a theory of belief; in what follows, we want to show that Aristotle develops such a theory in detail using this same term, *hupolêpsis*. (There is a parallel phenomenon with the term *orexis*, significant in light of our analogy above: it does not appear in Plato but the *Definitions* uses it to define *boulêsis* (at 413c8–9) and *philosophia* (at 414b7) in a manner suggestive of a general notion of desire.)

Hupolêpsis is a much ignored and little understood notion in Aristotle’s epistemology. Aristotle never gives a definition of *hupolêpsis*, nor even offers any sustained discussion of it. Instead, he brings in the notion piecemeal in various epistemological and psychological discussions. We shall argue, however, that by looking at his use of the term across many texts, one can find a unified account—an account on which *hupolêpsis* is very like our modern notion of belief.

We are by no means the first to notice some resemblance between *hupolêpsis* and belief. R. D. Hicks renders the word ‘belief’ in his translation of the *De anima*, and Jonathan Barnes does so in his translation of the *Posterior Analytics*; Joyce Engmann claims that it is “usually translatable by ‘judgment’ or ‘belief.’”⁴⁰ Some

³⁷Aristotle offers the similar “*hupolêpsis* unchangeable by reason” (*hupolêpsis ametapeistos hupo logou*) as an *idion* of knowledge at *Topics* 130b15–16.

³⁸To take a few representative examples, see Thucydides: “the Amphipolitans *hupolambanein* a proclamation just” (*The Peloponnesian War*, 4.106.1.5.); Antiphon: “I, in my great folly, *hupelabon* he would not reply” (*Tetralogia* 2, 3.2.2.); Xenophon: “But if anyone *hupolambanei* that it was madness for him to sail with twelve triremes against men who possessed many ships, let such a one consider Teleutias’s calculations” (*Hellenica*, 5.1.19.5), “So soon, then, as they *hupelabon* themselves to be the superiors of the politicians, they no longer came near Socrates” (*Memorabilia*, 1.2.47.1); and Isocrates: “We would be justified in *hupolaboimen* that such men not only sin against themselves, but are traitors to fortune as well” (*Ad Demonicum*, 49.4), “one might have reason to *hupolabein* it gratuitous to weary one’s hearers by speaking again in the same manner as his predecessors” (*Panegyricus*, 7.9).

³⁹*Pistis* (conviction or trust—Plato treats the word as closely related to *doxa*)—is “*hupolêpsis* that things are as they appear to one to be” (*Definitions* 413c4–5): it is easy to interpret this as belief in appearances. (We agree with Hutchinson that ‘correct’ (*orthê*) is inappropriately transposed from the definition of *alêtheia* at 413c6.) Piety (*eusebeia*) is “correct *hupolêpsis* about the value of the gods” (*Definitions* 413a1): if *hupolêpsis* is belief this looks like a standard Socratic intellectualist definition of a virtue. *Mania* is a “disposition corruptive [*phthartikê*] of true *hupolêpsis*” (*Definitions* 416a22)—a claim strikingly similar to Aristotle’s claim that intemperate pleasures and pains are corruptive of ethical *hupolêpsis*, where this seems to mean beliefs about the good (*EN* 1140b11–20). (This last point provides evidence beyond what we cite below for similarity between the *Definitions*’ notion of *hupolêpsis* and Aristotle’s.)

⁴⁰Joyce Engmann, “Imagination and Truth,” 259. She thinks, however, that *hupolêpsis* is “used interchangeably with *doxa*”; indeed, she goes on to use ‘judgment’ for *hupolêpsis* and ‘belief’ for *doxa*.

who favor different translations nonetheless recognize that *hupolēpsis* is (at least in certain contexts) something like taking-to-be-true. Many Ancient interpreters connect *hupolēpsis* with the Stoic notion of assenting to an impression, sometimes explicitly glossed as taking its content to be true.⁴¹ Bonitz identifies among other meanings *sumere ac statuere aliquid pro vero*.⁴² Wedin and Schofield both translate as ‘supposition’ but maintain that its crucial feature is “taking something to be the case.”⁴³ Wedin gives a brief but compelling argument for this interpretation, with which we mostly agree.⁴⁴ And, in support of her claim that Aristotle should be understood as offering a justified true belief account of knowledge in *Posterior Analytics* I.2, Fine notes that Aristotle “seems to use *hypolepsis* as a general term for any cognitive condition that involves taking something to be true.”⁴⁵

There has, however, been no sustained examination of the idea that *hupolēpsis* amounts to belief, nor of *hupolēpsis*’s differences from *doxa*, nor of the systematic role that it plays in Aristotle’s epistemology, nor, therefore, of the ways Aristotle’s use of the notion might constitute a serious development beyond Platonic epistemology. Moreover, most translations continue to use ‘supposition,’ while reserving ‘belief’ for *doxa*.⁴⁶ This has several unfortunate effects.

First, the translation of *doxa* as ‘belief’ not only encourages what we have argued are false assumptions about *doxa*, but also obscures the possibility that something else might play the role of belief in Aristotle’s epistemology, leading to neglect of the evidence that *hupolēpsis* plays that role very well. Second, the translation of *hupolēpsis* as ‘supposition’ is at best under-informative (the word has no obvious standard meaning in English), and at worst highly misleading. ‘Supposing’ often suggests believing without sufficient grounds, or believing falsely (“Moses supposes his toes are roses”).⁴⁷ ‘Supposing’ may also imply merely entertaining a thought for the sake of argument without committing to its truth (“Supposing that what you say is true, what follows?”), and there is a persistent tendency to interpret Aristotle’s *hupolēpsis* in this way.⁴⁸ More generally, there seems to be a widespread view that it is a possible or likely meaning, as indicated by Irwin’s comment that the term “need not” indicate tentative conjecture, which implies that the default assumption is that it does.⁴⁹ We will argue below that both of these interpretations are simply mistaken: *hupolēpsis* is not identical with supposition in either of

⁴¹The commentary on *De anima* attributed to Simplicius, for example, says that “all *hupolēpsis* lies in assent,” where assent is “according to the discernment (*diakrisin*) of the true and false” (*In de an.* 206.31–34). See also Themistius (*Commentaria* 89.5–6, 21–23); for a modern embrace of this interpretation see Hicks, *Aristotle: De anima*, 460. For further discussion, see sect. 4.2.

⁴²Hermann Bonitz, *Index Aristotelicus*, s.v. *hupolēpsis*.

⁴³Wedin, *Mind and Imagination*, 103; and Malcolm Schofield, “Aristotle on the Imagination,” 273.

⁴⁴Wedin, *Mind and Imagination*, 103–5.

⁴⁵Fine, “Aristotle on Knowledge,” 135.

⁴⁶See, e.g. Roger Crisp’s, Terence Irwin’s, and C. D. C. Reeve’s *Nicomachean Ethics*, Reeve’s *Metaphysics*, Ronald Polansky’s *Aristotle’s De Anima*, and D. W. Hamlyn’s *De Anima* (‘supposal’).

⁴⁷Bonitz thinks this is a major use of *hupolambanein*, but his passages are inconclusive.

⁴⁸See, e.g. the two most recent major commentaries on the *De anima*: Ronald Polansky, *Aristotle’s De Anima*; and Christopher Shields, *Aristotle: De Anima* (Shields argues for this meaning, although he translates as ‘conceiving.’).

⁴⁹See the entry on ‘supposition’ in the glossary to his translation of the *Nicomachean Ethics* (Irwin in *EN*, 350).

these senses, nor does it even include the latter (non-committal entertaining or conjecture) as a species.

Thus, Aristotle's *hupolêpsis* has been widely under-appreciated, and sometimes explicitly misunderstood. Our aim in what follows is to right this situation by showing that it is a major concept in Aristotle's epistemology, and furthermore one that corresponds very closely to modern belief. We will provide extensive evidence, drawn from a wide range of Aristotelian texts, that *hupolêpsis* is the genus of other cognitive attitudes (section 4.1), and that it plays this role because it is the attitude of taking-to-be-true as such (section 4.2).

4.1. *Hupolêpsis as Genus*

The case for thinking that Aristotle conceives of *hupolêpsis* as a genus of other cognitive states is straightforward.⁵⁰ He states as much in the *De anima*:

There are differentiae of *hupolêpsis* itself: knowledge [*epistêmê*], *doxa*, practical wisdom [*phronêsis*], and the opposites of these. (*De anima* 427b24–26)

In saying that knowledge, *doxa*, and practical wisdom are all differentiae of *hupolêpsis*, Aristotle is saying that they are species of the genus *hupolêpsis*.⁵¹ Presumably, the opposites of knowledge and practical wisdom are false views about things in their domain; it is less clear what the opposite of *doxa* might be and we return to this issue below. Nevertheless, the simple point that Aristotle here conceives of *hupolêpsis* as a genus of other cognitive states is clear.

Nor is this idea found only in the *De anima*. Throughout his corpus, Aristotle characterizes other cognitive states as kinds of *hupolêpsis*. In *Posterior Analytics* I.3, the chapter where he distinguishes *doxa* and knowledge on the basis of their subject-matters, Aristotle also characterizes them both as kinds of *hupolêpsis*: *doxa* is “*hupolêpsis* in a proposition that is immediate and not necessary” (*An. Post.* 89a3–4); non-demonstrative knowledge is “*hupolêpsis* in an immediate proposition” (*An. Post.* 88b36). This use of *hupolêpsis* also occurs in *Nicomachean Ethics* VI. Knowledge (*epistêmê*), which here means demonstrative knowledge, is “*hupolêpsis* about universals and things that are by necessity” (*EN* 1140b31–32), and practical wisdom is characterized as true *hupolêpsis* of the end (*EN* 1142b31–33). In *Metaphysics A*, we are told that there are distinctive kinds of *hupolêpsis* belonging to craft (*technê*) and experience (*empeiria*): universal *hupolêpsis* in the case of craft, *hupolêpsis* about individual cases in the case of experience (cf. *Met.* 980b26–81a12). Moreover, in *Metaphysics A*, Aristotle refers to the discussion “in the *Ethics* of the difference between craft, knowledge, and the other things of the same genus [*tôn homogenôn*]” (*Met.* 981b25–27). The texts we have just seen show that the common genus in question is none other than *hupolêpsis*.⁵² At *Physics* 227b14, Aristotle tells

⁵⁰It is also widely recognized. E.g. Jonathan Barnes maintains that *hupolambanein*'s “official use is to mark the genus of cognitive attitudes of which understanding and opinion are two species” (Barnes in *An. Post.*, 201); cf. Terence Irwin's glossary entry on *hupolêpsis* in his translation of the *Nicomachean Ethics* (Irwin in *EN*, 350)

⁵¹For Aristotle's account of genus, species, and differentia see, e.g. *Metaphysics*, 1018a12–15.

⁵²Contra Gerson, who maintains that Aristotle's grouping of cognitive states in *NE* VI.3 “does not constitute a generic unity” (*Ancient Epistemology*, 63n2). The passage Gerson refers to reads: “Let those states in which the soul grasps truth in its affirmations and denials be five in number: craft, knowledge,

us that knowledge is a species (*eidos*) of *hupolêpsis*. In *Nicomachean Ethics* VII.3, he characterizes *akrasia* as acting against a correct *hupolêpsis* (*hupolambanein orthôs* [EN 1145b21–22]), where the subsequent discussion makes clear that this could in principle be either knowledge or *doxa* (see especially 1146b24–31, quoted below). Also notable is a discussion in the *Prior Analytics* of the impossibility of knowing some fact but not at all having a *hupolêpsis* of it (*hupolambanein*) (*An. Post.* 66b26–33), which strongly suggests that knowledge entails *hupolêpsis*.

Above we saw that while mainstream contemporary epistemologists often treat belief as the genus of knowledge, or at least hold that knowledge entails belief, Aristotle never employs *doxa* in this role, and indeed explicitly says that *doxa* excludes knowledge (at *An. Post.* 89a38–39). Now we have seen that he does employ something else in this generic role: *hupolêpsis*.

4.2. *Hupolêpsis* as Generic Taking-To-Be-True

What sort of thing, then, is *hupolêpsis* such that it is the genus of *doxa*, knowledge, practical wisdom, and other cognitive states? Given how Aristotle characterizes these states, it is natural to think that he has in mind something like belief. Thoughts about contingent states of affairs (*doxa*), grasps of the starting-points of demonstrations (comprehension), grasps of the conclusions of demonstrations (knowledge), correctness about the practical good (practical wisdom), experience-based views about particular medical cases (experience), and technical grasps of the universal causes at issue in medical treatment (craft), all look to be varieties of what we would call belief.⁵³ But perhaps we should not assume that these are the only species of *hupolêpsis*; perhaps Aristotle also has in mind others, including non-committal attitudes like conjecture, hypothesis, or even doubt—in which case the genus cannot be belief, but must instead be something very broad indeed.

In the next subsection, we will argue that there is no evidence of such further species; in this section, we will show that Aristotle's use of the noun and corresponding verb throughout the corpus offers strong positive evidence that *hupolêpsis* is indeed belief.

To begin with, he frequently uses the words to describe the attitude people have when they take something to be true. To take a few examples among many, he uses *hupolêpsis* to characterize his predecessors' philosophical views (Thales's view that water is the first principle, Antisthenes's view that contradiction is impossible, Heraclitus's view that everything is in motion, and Melissus's view that

practical wisdom, wisdom, and comprehension; for *hupolêpsis kai doxa* can be false" (EN 1139b15–18). This may suggest that *hupolêpsis* is conceived of as being on the same level as the other states rather than their genus. However, the fact that Aristotle immediately goes on to characterize cognitive states as kinds of *hupolêpsis* surely favors taking his point to be that the previous five states are also kinds of *hupolêpsis* but that the kind of *hupolêpsis* that is *doxa* can be false and so does not need to be discussed.

⁵³Aristotle sometimes characterizes comprehension (*nous*) as a non-predicative grasp of essences, which may be hard to construe as a variety of belief. Without getting involved in the extensive debates about the interpretation of comprehension, we can make two brief comments to alleviate the worry. First, a reminder that we are not committed to a propositional analysis of belief, despite our use of the phrase 'taking-to-be-true' (see sect. 2). Second, an observation that many commentators take 'non-demonstrative knowledge' at *Posterior Analytics* 88b36 to be a gloss on *nous*, which is mentioned just before; if this is right, then comprehension is defined as *hupolêpsis* in an immediate proposition (*protasis*), and the worry does not arise.

what is is one),⁵⁴ and to characterize people's ethical and practical views (everyone *hupolambanousi* that doing well and faring well are the same as happiness [EN 1095a20], many people seem to *hupolambanein* that the good is pleasure [EN 1095b16; cf. 1098b32], and the general question beginning Aristotle's discussion of *akrasia* is in what sense the akratic *hupolambanei* correctly [EN 1145b21–22; cf. 1145b20]). In all these cases, Aristotle is surely talking about what people *believe*, rather than what they hypothesize, or suppose for the sake of argument, or merely entertain.

It would help, however, to have more explicit and direct evidence that taking-to-be-true is the feature of *hupolêpsis* in virtue of which it plays all these roles; in the remainder of this section, we present such evidence.

Aristotle's most extended discussion of *hupolêpsis* comes in *De anima* III.3. This is a notoriously tricky chapter; moreover, the immediate context is not a direct discussion of *hupolêpsis* but instead an attempt to distinguish imagination (*phantasia*)—quasi-perceptual cognition common to humans and animals—from perception, on the one hand, and from the distinctively human kinds of cognition, on the other. In the service of this latter task, Aristotle introduces the notion of *hupolêpsis*, mentions in passing—as we saw above—that knowledge, *doxa*, and practical wisdom are all species of it, and draws several contrasts between it and imagination. Each of these contrasts is phrased obscurely, and each has been subject to various competing interpretations. Nevertheless, we aim to show that there is a plausible interpretation of the discussion on which Aristotle has a consistent and unified conception of *hupolêpsis* as generic taking-to-be-true.⁵⁵

In order to make our case, we will need to present rather long stretches of the text. Aristotle begins the discussion by distinguishing perception (*aisthêsis*) from various forms of thought (*to phronein*, *to noein*) (*De anima* 427b8–14), and then abruptly introduces both imagination and *hupolêpsis* into the discussion with a cryptic remark:

For imagination is different from both perception and thinking, and it does not come to be without perception, and without it there is no *hupolêpsis*. (*De anima* 427b14–16)

This remark gives us very little to go on in interpreting *hupolêpsis*; we will come back to it when we have more information.

We learn more about *hupolêpsis* in the next sentences, when Aristotle goes on to elaborate the differences between imagination and *hupolêpsis*, concluding with the description of *hupolêpsis* as genus that we saw above:

⁵⁴For Thales, see *Metaphysics* A.3, 983b20–22; for the latter three, see *Topics* 104b19–23. For similar uses of *hupolêpsis*, see *Met.* 1010a10, 1062b22 and *Meteorology* 339b20, 345b10–11. Wedin, *Mind and Imagination*, 103–104, makes the same point for Aristotle's use of *hupolambanein*. As Wedin points out, many interpreters are led to think that *hupolêpsis* and *doxa* are interchangeable because Aristotle also often describes his predecessors' and opponents' views as *doxa*. However, this provides no evidence for their interchangeability, since Aristotle usually thinks such views are incorrect, and so cannot count as knowledge.

⁵⁵The fact that *hupolêpsis* features prominently in this discussion suggests an explanation for why Aristotle thought it important to introduce the notion (in addition to the goal of clearing up possible confusions in Plato's epistemology): postulating a generic unity to *doxa*, practical wisdom, and knowledge allows him to isolate what is distinctively human in cognition from what humans share with other animals. We return to this issue in sect. 5.

[A] That [imagination] is not the same kind of thinking as *hupolēpsis* is clear.⁵⁶ [B] For this affection [imagination] is up to us whenever we wish (for we can put something before our eyes, just like those who place and form an image in mnemonics), but *doxazein* [the verbal form of *doxa*] is not up to us, because it is necessary either to be true or to be false. [C] Further, whenever we *doxazein* something terrible or fearful, we are immediately affected, and similarly with something encouraging; but with respect to imagination we are in the same condition as if we were observing terrible or encouraging things in a painting. [D] And there are differentiae of *hupolēpsis* itself: knowledge, *doxa*, practical wisdom and the opposites of these; of these differentiae I must speak elsewhere. (*De anima* 427b16–27)

In this passage, Aristotle claims that imagination is different from *hupolēpsis* (A), offers two reasons in support of this claim (B) and (C), and closes by noting that *hupolēpsis* in fact has several differentiae (D). Before we examine the reasons Aristotle offers in (B) and (C), it is important to note that those reasons must serve to distinguish imagination from *hupolēpsis* as a whole, as that is the claim made in (A). Both reasons, however, exploit features of *doxazein*, the verbal correlate of *doxa*, which is only one of the differentiae Aristotle mentions in (D). For Aristotle's argument to work, then, the features of *doxa* exploited in (B) and (C) must also belong to *hupolēpsis* as a whole. (Some interpreters have argued that Aristotle does *not* mean his conclusions about *doxa* to transfer to all *hupolēpseis* [see, e.g. Shields, *Aristotle. De Anima*], but this would render the argument flagrantly invalid. Others have thought that Aristotle is using *doxa* and *hupolēpsis* interchangeably. This would be surprising, given the explicit genus-species claim of (D); moreover, there is a ready explanation for why Aristotle focuses only on *doxa* in the arguments distinguishing *hupolēpsis* from imagination: knowledge is truth-entailing, while imagination is not, so there is no need for an elaborate argument distinguishing the two.)⁵⁷

In (B), Aristotle claims that imagination is distinct from *hupolēpsis* because imagination is up to us (*epi' hēmin*) while *doxazein* is not. The reason he gives for why *doxazein* is not up to us is that it is “necessary either to be true or to be false” (*alētheuein ē pseudesthai*). This is sometimes taken to refer to the fact that all *doxa* necessarily has a truth-value, but this should give us pause: as both proponents and opponents of this reading note, it renders the argument unsuccessful, since Aristotle regards imagination too as having truth-value.⁵⁸ A more charitable reading, supported by the widespread use of *alētheuein* and *pseudesthai* to mean ‘speak truly/falsely,’ takes the point to be that *doxa* but not imagination asserts its content as true: to have a *doxa*, in other words, entails taking something to be true, and it is not up to us whether we take something to be true (or false).⁵⁹ On

⁵⁶Retaining *noēsis* with the majority of manuscripts. For the use of *hautē* to mean ‘same kind of,’ see, e.g. *Phaedo* 60e3. Thanks to David Kaufman for discussion here.

⁵⁷See *De anima* 428a16–19. See also Hicks's suggestion, *Aristotle. De Anima*, 459: there is special need to point out that *doxa* and *phantasia* are distinct since Aristotle and others tend to use the corresponding verbs (*dokein* and *phainesthai*) synonymously. See Wedin, *Mind and Imagination*, for compelling arguments against other putative cases of *doxa* used synonymously with *hupolēpsis*.

⁵⁸Aristotle imputes truth-value to *phantasia* at various points, including *De anima* 428a11–17 and 428b25–30b. Barnes, who embraces this reading, notes that it undermines the argument (“Belief,” 195–97); so too do several who oppose it; see the next note.

⁵⁹See pseudo-Simplicius, who argues that *doxa* and indeed all *hupolēpsis*, because they involve *pistis* (conviction), involve assent to the thing cognized as true (*hōs alēthei toī gnōstheiti sunkatathesis* [*In de*

this reading, Aristotle is putting forth with regard to *doxa* the same kind of claim Bernard Williams makes with regard to belief: we cannot believe at will because belief “aims at truth.”⁶⁰

Thus, on a natural reading of (B), it is precisely because *doxazein* is a matter of taking something to be true and imagination is not that the former is not up to us while the latter is. Aristotle’s claim in (C) coheres nicely with this reading: while to *doxazein* something terrible or reassuring causes an immediate affective response, to imagine some such thing need not. Again, it is natural to infer that commitment is the feature of *doxa* that Aristotle is exploiting to distinguish it from imagination: imagining something terrible need not induce fear, because in imagination, as in viewing a picture, we can merely represent something without taking it to be the case.⁶¹

In the next lines, Aristotle gives us another cryptic remark about *hupolêpsis*:

Thought is different from perception, and one aspect of it seems to be imagination and the other *hupolêpsis*; we must therefore first define imagination and then the other. (*De anima* 427b27–29)

If *hupolêpsis* is distinguished from imagination by bringing with it commitment, we can make sense of this remark: the claim is that in thinking we both represent content, through *phantasia*, and take it to be true, through *hupolêpsis*. Indeed, there is a tradition of assimilating the theory Aristotle here suggests to the Stoic theory on which many mental states are the result of assent (*sunkatathesis*) to an impression (*phantasia*—the same word translated ‘imagination’ above). Hicks, expanding on Themistius (see n. 41 above), maintains, “If ὑπόληψις, the common element of knowledge, opinion and wisdom (φρόνησις), is the assumption that the presentation [*phantasia*] is true, it is very like the mind’s assent or belief.”⁶²

The subsequent discussion of imagination sheds additional light on *hupolêpsis* and supports our interpretation of it. After maintaining that imagination cannot

an. 210.14], or judging that the thing is true (*hoti alêthes epikrinousês* [*In de an.* 90.17–18]); for discussion see Coope, “Rational Assent”. Contemporary commentators have embraced this kind of reading too: Aristotle “means to underline the logical point that the truth or falsity of something is crucial to whether we believe it in just the sense that if *a* believes *p*, then *a* believes *p* is true . . . [while imagination] asserts nothing about the way things are” (Wedin, *Mind and Imagination*, 75); “We only tend to hold a belief when we suppose that it is true” (Polansky, *Aristotle’s De Anima*, 411); “The real point is that beliefs are determined at least by *our view of the facts*; this is not true of imagining something” (Hamlyn, *Aristotle De Anima*, 131). McCready-Flora, “Normativity of Belief,” sect. 4, rejects this reading on the grounds that Aristotle declares that *noêsis*, which presumably also involves taking-to-be-true, is up to us, at *De anima* 417b19–25. This, however, seems to be a very different point, namely, that by contrast with perception, the exercise of *noêsis* is not dependent on the presence of external objects, and thus it is up to us when and whether to exercise *noêsis* (see also Coope, “Rational Assent,” 281n97). Aristotle can hold this while also thinking that it is not up to us to have *noêsis* that goes against what we hold true—the point we have argued that he is making about *doxa* in sect. 3.3.

⁶⁰Bernard Williams, “Deciding to Believe,” 148.

⁶¹McCready-Flora gives an analysis of (C), which is quite congenial to our interpretation in that he thinks what distinguishes *doxa* from imagination in (C) is what he calls “restraint,” which “intervenes to determine what the subject considers *true*, the body of information on which feeling and action are based” (“Aristotle’s Cognitive Science,” 419).

⁶²Hicks, *Aristotle: De Anima*, 460. Notably, this would also make sense of the introductory remark we noted above (*De anima* 427b14–16): there is no *hupolêpsis* without *phantasia* because *hupolêpsis* just is assent to *phantasia* (or more substantively, the content of impressions or imaginations is what we take to be true).

be perception, knowledge, or comprehension (*nous*) (428a5–19), Aristotle argues at length that imagination is distinct from *doxa* as well; once again, the feature he identifies as distinguishing imagination from *doxa* also turns out to distinguish it from the whole genus of *hupolêpsis*. He begins as follows:

Conviction [*pistis*] follows *doxa*, for it is not possible for one who *doxazein* not to be convinced by the things that seem to him [to be true]. But of the beasts, conviction belongs to none, but imagination to many. Further, conviction is entailed by every *doxa*, and having been persuaded [*to pepeisthai*] [is entailed] by conviction, and reason [*logos*] [is entailed] by persuasion [*peithô*]. But of the beasts, imagination belongs to some, but reason to none. (*De anima* 428a19–24)

Doxa is different from imagination because we only have a *doxa* when we are persuaded and convinced. Why would Aristotle think this? Presumably, the idea is that to have a *doxa*, rather than a mere imagination, requires that one be convinced that something is the case or is true.

The culmination of the argument distinguishing imagination from *doxa* extends the conviction requirement to *hupolêpsis* in general:

False things appear about which one at the same time has true *hupolêpsis*: for example the sun appears a foot wide, but one is convinced [*pisteuetai*] that it is bigger than the inhabited part of the earth. . . . Therefore imagination is neither one of these two [*doxa* or perception], nor a combination of them. (*De anima* 428b2–10)

The evidence that one has the *hupolêpsis* that the sun is larger than the inhabited part of the earth is that one is convinced that this is so: what differentiates *doxa* from imagination here differentiates all *hupolêpsis* from imagination. (If this were not Aristotle's intention, his use of *hupolêpsis* here in place of *doxa* would be badly misleading.) Thus, the common element in *doxa*, knowledge, and practical wisdom that makes them all count as *hupolêpsis* is conviction or taking-to-be-true. One can have an image without being committed to the truth of what is represented by it, but one comes to have a *hupolêpsis* when one takes the relevant content to be true.⁶³

Thus, Aristotle's most extended discussion of *hupolêpsis*, enthymematic though it is, can be interpreted consistently and compellingly on the assumption that *hupolêpsis* is generic taking-to-be-true.

We find further confirmation in *Metaphysics* G 3–4. Here Aristotle lays out his Principle of Non-Contradiction (henceforth, PNC): it is impossible for the same thing to belong and not belong to the same thing at the same time and in the same respect (*Met.* 1005b19–20). As evidence that the PNC is the firmest of all principles, he offers the following instance of it:

⁶³Does this mean that *pistis*, rather than *hupolêpsis*, is belief? Aristotle's notion of *pistis* is a major topic in its own right, but we can here point to two features that support taking belief to correspond to *hupolêpsis* rather than *pistis*. First, *pistis* is said to accompany or attend states like *doxa* and knowledge (*De anima* 428a20–24), while *hupolêpsis* is their genus; second, *pistis* comes in degrees (see, e.g. *Rhetoric* 1355a3–6 and *Metaphysics* 1086a16–21), while Aristotle never suggests the same for *hupolêpsis*. We can have *weak hupolêpsis* (see *EN* 1145b36–46a2, quoted and discussed below), but we do not have *less hupolêpsis*. Perhaps then *pistis* is related to *hupolêpsis* as the conscious psychological manifestation or accompaniment of the epistemic state: conviction, or confidence. In the next section, we consider a passage from the *Topics* that discusses the relation between *pistis* and *hupolêpsis*, but we argue that it uses *pistis* in a different way from the *De anima*.

For it is impossible for anyone to *hupolambanein* the same thing to be and not to be. . . . And if it is not possible for opposites to belong to the same thing . . . and the *doxai* in a contradiction [*antiphaseôs*] are opposites, it is clear that it is impossible for the same person to *hupolambanein* the same thing to be and not to be. For he would have opposite *doxai* at the same time. (*Met.* 1005b23–32)

As in the *De anima* passages, here too a claim about *doxa* is used to make a claim about *hupolêpsis*.⁶⁴ The claim now is that there is no having opposite *hupolêpsis* at the same time. Why not? The passage is widely, and we think rightly, interpreted as saying that it is impossible to *believe* opposite things at the same time. While you might be able to entertain or imagine both sides of a contradiction, or to suppose both sides for the sake of a reductio argument, you cannot take both to be true.

Some might protest that in fact you cannot even entertain or imagine or mentally represent both sides of a contradiction; if Aristotle agrees, then the passage gives no evidence for our reading of *hupolêpsis*. In fact, however, Aristotle *does* think we can have contradictory mental representations of the same thing at the same time: the sun example we just saw in *De anima* is a clear case.⁶⁵ The point of that example was to show that while one can have simultaneous contradictory representations—an image of something and a *doxa* that contradicts it—one cannot have simultaneous contradictory *doxai*, the reason being that *doxa* entails conviction. We should take Aristotle's point here to be similar: it is impossible to be convinced both of something and of its opposite. In other words, one cannot have contradictory *hupolêpsis* because *hupolêpsis* entails taking something to be true.

The notion of *hupolêpsis* is not prominent in the rest of the discussion of the PNC, but when it does recur, it seems to play the same role. In arguing that no one really rejects the PNC, Aristotle considers the putative case of someone who *hupolambanei* both that something is so and is not so (*Met.* 1008b2–3) and shows that absurdity follows. Then he considers a putative alternative available to the PNC-denier:

And if he *hupolambanei* nothing but thinks [*oietai*] and thinks-not equally, how will he be any different from a plant? (*Met.* 1008b10–12)

We have very little to go on to understand this contrast between *hupolambanein* and *oiesthai*, but a plausible interpretation is that Aristotle is thinking of someone who entertains or considers both sides of a contradiction but takes neither side to be true. It is conceivable to entertain both sides of a contradiction, but not to *hupolambanein* them; therefore, *hupolêpsis* is not mere entertaining, but something stronger—taking something to be true.⁶⁶

⁶⁴Again, we can see why Aristotle chooses *doxa* rather than any form of knowledge, without having to assume that he simply uses *doxa* here interchangeably with *hupolêpsis*: he thinks that there is no need to make the argument with regard to knowledge, because knowledge is always true and so the impossibility of contradictory knowledge is too obvious to merit argument (cf. Wedin, *Mind and Imagination*, 105).

⁶⁵He uses the same example to similar effect in *de Insomniis*, making explicit that the appearance that the sun is large is contradicted by another state, presumably what the *De anima* passage called a *hupolêpsis* (*de Insomn.* 460b16–20). We will see further evidence below: in G 4, Aristotle considers the possibility that someone might *oiesthai* (think) of contradictories.

⁶⁶In contemporary discussions, supposition is often taken to be an attitude one can bear towards contradictions (by contrast with imagination). See, e.g. Shannon Spaulding, "Imagination Through Knowledge," 212, for discussion and references. If this is the case, 'suppose' is certainly a bad translation of *hupolambanein*, at least in this context.

Looking at the *De anima* and *Metaphysics* discussions side-by-side, we can conclude that Aristotle names *hupolêpsis* as the genus of *doxa*, knowledge, and practical wisdom precisely because what unifies these states and sets them apart both from imagination and from mere mental entertaining is the element of taking to be true central to our modern notion of belief.

4.3. *Hupolêpsis without Taking Something to be True?*

Despite the arguments we have given here, some may still insist that *hupolêpsis* is—or at least includes as a species—an attitude that differs sharply from belief: supposition in the non-committal sense, mere conjecture. We will consider the putative evidence for this reading and argue that it does not stand up.

There is in fact one passage from the *Magna Moralia* that outright defines *hupolêpsis* as a non-committal attitude, although not one of supposition: *hupolêpsis* is “that by which we *epamphoterizomen* [are in doubt or ambivalent] about all things, concerning whether they are this way or not” (*MM* 1197a30–32). Even if the *Magna Moralia* is a genuine Aristotelian work, however—and many think it is not—this shows only that Aristotle must have changed his mind about the meaning of *hupolêpsis*.⁶⁷ For we have seen ample evidence that in many works *hupolêpsis* is the genus of *doxa*, of knowledge, and of practical wisdom, among others, and all of these entail conviction.⁶⁸

Thus, *hupolêpsis* clearly cannot be *identical* to any non-committal attitude. Might it, however, include such attitudes among its species? If so, it cannot be generic taking-to-be-true. Many commentators take *hupolêpsis* this way, but so far as we are aware only two passages have been cited to support this interpretation; neither in fact does.

First is Aristotle’s list in *De anima* of the varieties of *hupolêpsis*, which as we have seen includes knowledge, practical wisdom, *doxa*, “and the opposites of these” (*De anima* 427b24–26). Some think that in speaking of the opposite of *doxa* Aristotle must have in mind something non-committal: if *hupolêpsis* “is to range over the contrary of belief [i.e. *doxa*] as well as belief, then it cannot be thought to require a pro-attitude or positive doxastic commitment of any sort”;⁶⁹ “not all supposition [*hupolêpsis*] must be something affirmed and believed . . . supposition may perhaps also include doubt and hypothetical positions, that is, views with rather limited conviction.”⁷⁰

But this would render Aristotle’s list rather confused. If the opposite of *doxa* is lack of “a pro-attitude or positive doxastic commitment” then *doxa* must be pro-attitude or positive doxastic commitment as such—in other words, generic

⁶⁷There is at any rate nothing surprising in discrepancy between the *Magna Moralia* and other Aristotelian texts: consider, e.g. the contradiction between the *Nicomachean Ethics*’ treatment of certain actions as “mixed” and the *Magna Moralia*’s treatment of them as involuntary (*MM* 1188b18–24; *EN* 1110a4–19).

⁶⁸We have just seen the *De anima*’s claim that *doxa* entails conviction (*pistis*); the case for knowledge is even stronger. Someone with knowledge of something is certainly not doubting it: she is thoroughly persuaded of it. This is clear from Aristotle’s characterization of knowledge in *Posterior Analytics* I.3 and II.10; see also *Rhetoric* 1355a3–6: “we are most of all convinced of something when we *hupolambanein* that we have demonstrated it,” i.e. that we have demonstrative knowledge of it.

⁶⁹Shields, *Aristotle: De Anima*, 280.

⁷⁰Polansky, *Aristotle’s De Anima*, 412

belief. However, on that reading, the other two *diaphorai* of *hupolêpsis* that Aristotle lists—knowledge and practical wisdom—would also be *diaphorai* of *doxa*, which is not at all what Aristotle implies by calling all three *diaphorai* of a common genus; moreover, we have already seen that knowledge excludes *doxa*. A better reading is suggested by a comment a few lines above: there, Aristotle speaks of “thought [*to noein*], in which there is the correct and the incorrect [*to orthôs kai to mê orthôs*], the correct being practical wisdom, knowledge, and true *doxa*, the incorrect the opposites of these” (*De anima* 427b8–11). Very plausibly, at 427b24 the ‘true’ (*alêthês*) has simply slipped out; the opposite in question is still false *doxa*.⁷¹

The other passage sometimes cited in favor of the existence of non-committal *hupolêpsis* is a discussion at *Topics* 125b28–126a2.⁷² The context is a discussion of the tendency to conflate a thing’s attending feature with its genus; as one example, Aristotle uses the relation between *hupolêpsis* and *pistis*. The passage begins as follows:

[a] It is possible to have the same *hupolêpsis* even without having *pistis* [*mê pisteuonta*], whereas this is impossible if *pistis* is a species of *hupolêpsis*. . . . [b] But if, on the other hand, anyone says that a man who has a *hupolêpsis* must of necessity also have *pistis*, then *hupolêpsis* and *pistis* will be used with an equal denotation, so that not even so could the former be the genus of the latter—for the denotation of the genus should be wider. (*Topics* 125b34–26a2, Pickard-Cambridge translation modified by keeping crucial terms in Greek)

In (a), Aristotle seems to deny outright the thesis we found in *De anima* III.3, that *hupolêpsis* entails *pistis*, and thus to embrace the view that *hupolêpsis* can be non-committal. The continuation of the argument in (b) shows that Aristotle is not endorsing this view outright but only considering it as one side of a debate. Even so, the passage seems to threaten our argument, for if *hupolêpsis* is belief then the fact that it entails conviction should be beyond dispute.

The continuation of the passage, however, shows the threat to be only apparent.⁷³ For Aristotle goes on to characterize *pistis* as “strong *hupolêpsis*” (*sphodra hupolêpsis*) (*Topics* 126b18). In the *De anima*, all *doxa* entails *pistis*. If *pistis* here means what it does in the *Topics*, then all *doxa* must entail “strong *hupolêpsis*.” This would be odd in itself, given the context of the *De anima* argument: it would suggest that animals can have weak *hupolêpsis* but not strong ones, which is surely not Aristotle’s point. Moreover, in the *Nicomachean Ethics*’ discussion of what kind of *hupolêpsis* the akratic has, we find explicit claims that some *doxa* is “weak *hupolêpsis*,” or, equivalently,

⁷¹Thus Hicks, *Aristotle: De Anima*, 460.

⁷²Shields, *Aristotle: De Anima*, 280, takes *hupolêpsis* in this *Topics* passage to mean “entertaining” a thought; McCready-Flora uses the passage as evidence that “there are non-committal instances” of *hupolêpsis* and thus that *hupolêpsis* is not taking to be true (“Normativity of Belief,” 86n50). McCready-Flora also has another argument: taking-to-be-true should be an ingredient of belief, but *hupolêpsis* is the genus of *doxa*, which is belief. We deny both that *doxa* is belief (it is instead a species of it), and that taking-to-be-true is an ingredient of belief (it is belief).

⁷³If it were real, we might be justified in setting aside the evidence of the *Topics*, for this is generally recognized as employing Academic or other received views which often conflict with Aristotle’s own views as elaborated in other works. Indeed, in the immediately preceding lines Aristotle has spoken of the courageous person as immune to passions (*apathês* [125b23]), in stark contradiction to the *Nicomachean Ethics*’ detailed characterization of the courageous person as hitting the mean in fear and confidence.

is attended by weak *pistis*. Aristotle first refers to *doxa* as “not strong *hupolēpsis* but weak [*êremaia*], as in those who doubt [or are of two minds: *distazousi*]” (*EN* 1145b36–46a2); he later qualifies this description, showing that some *doxai* are at least as strong as some instances of knowledge:

For some with *doxa* do not doubt [*ou distazousin*], but think that they know precisely. If then those with *doxa* act against their *hupolēpsis* more than those with knowledge on account of being weakly convinced [*êrema pisteuein*], knowledge will be no different from *doxa*: for some are convinced no less of what they have *doxa* of than others are of what they know (*EN* 1146b26–30)

Thus, we have a conflict between three texts. The simplest way to resolve it is to assume that Aristotle is using *pistis* in the *Topics* differently from how he uses it in the other two texts (which would be unsurprising given the nature of the *Topics*): *pistis* in the *Topics* is essentially strong, while in the other texts it can be weak. Thus, *hupolēpsis* does not entail *strong* conviction (the *Topics*’ claim), but it does always entail *some* conviction (the *De anima*’s claim), in some cases weak (the *Nicomachean Ethics*’ claim).

Thus, the *Topics* passage gives no evidence for the existence of non-committal *hupolēpsis*. An attitude of weak conviction is not a non-committal attitude, like conjecture or doubt or mere supposition: non-commitment implies *no* conviction, or at least does not positively imply any. Instead, weak conviction is what some nowadays call a low degree of belief. On a plausible and widespread theory of belief, one can believe something without being certain of it, that is, without being fully convinced of it. This is still belief, still taking something to be true.

One final factor may have contributed to the view that *hupolēpsis* is mere supposition: there may be some tendency to assimilate *hupolēpsis* and *hupolambanein* to the linguistically related *lēpsis* and *lambanein*, which Aristotle uses in the logical works without any implication that someone takes something to be true. In the first chapter of the *Prior Analytics*, for example, he tells us that a “demonstrative proposition is the *lēpsis* of one of two contradictory statements” (*An. Pr.* 24a23–24), and that a proposition “will be dialectical . . . if it is the *lēpsis* of what is apparent and reputable” (*An. Pr.* 24b10–12). In neither context is there any implication that a *lēpsis* is a belief; indeed, in the case of dialectic one will often adopt as a premise a proposition one does *not* believe.⁷⁴ The verb is employed similarly throughout the work: Aristotle tells us, for example, that “both the demonstrator and the dialectician argue deductively after *labôn* that something does or does not belong to something” (*An. Pr.* 24a26–28), and that a “perfect syllogism” is one which “needs nothing else in addition to *ta eilēmenna* for its necessity to be made apparent” (*An. Pr.* 24b22–24). In demonstrative syllogisms, one will believe (and indeed know) the assumed premises, but in other syllogisms one need not.

This might be taken to show, first, that *lēpsis* is mere conjecture—assumption for the sake of argument—and, second, that *hupolēpsis* is the same. Neither inference is in fact warranted. First, Aristotle seems to use *lēpsis* not to pick out the psychological attitude of mere conjecturing, nor indeed any psychological attitude at all, but instead to make claims about the logical roles propositions play

⁷⁴The other two uses of *lēpsis* in the *Prior Analytics* (at 46a1 and 61a26) are in line with these passages.

in arguments. To say that there is a *lêpsis* of a proposition, or that the demonstrator or dialectician *lambanei* it, is simply to say that the proposition functions as a premise in the argument. Second, there is no evidence at all that *hupolêpsis* and *hupolambanein* are used like *lêpsis* and *lambanein* in Aristotle's logic. The words appear only rarely in the *Prior Analytics*, and where they do their use is consistent with everything we have seen above. In II.15, Aristotle examines how errors can arise in our *hupolêpseis*, where these are errors in what we believe, not in how we go about assuming things for the sake of argument. Elsewhere in the work, he uses the verb to single out views that he thinks we must have *about* logic.⁷⁵ The majority of the *Prior Analytic's* occurrences of *hupolambanein* are found in a long discussion in II.21; here, as in II.15, Aristotle focuses on how mistakes arise in our *hupolêpseis*, where this is naturally translated as 'beliefs.' Thus, we should conclude that despite the linguistic connection with *lêpsis/lambanein*, Aristotle does not even here use *hupolêpsis/hupolambanein* to mean anything other than taking something to be true.⁷⁶

4.4. Hupolêpsis Beyond Aristotle

After Aristotle, the use of *hupolêpsis* and *hupolambanein* to denote the generic attitude of taking to be true is widespread. Although the words become so common that a survey of their use is beyond the scope of this paper, we do wish briefly to consider some of their occurrences. Perhaps unsurprisingly, *hupolêpsis* is frequently employed by Aristotle's pupils, most notably Aristoxenus and Theophrastus, and on all such uses it plays the role of belief.⁷⁷

More interestingly, evidence suggests that *hupolêpsis* plays much the same role in Stoic epistemology that we have argued it plays in Aristotle's.⁷⁸ Unfortunately, no surviving Stoic texts define *hupolêpsis*.⁷⁹ However, a passage from Plutarch implies

⁷⁵E.g. he instructs us that "we must *hupolabein* the statement that B's being follows from A's being not as meaning that if some single thing A is, B will be" (*An. Pr.* 34a16–19) and he notes that it "makes some difference whether we *hupolambanein* the expressions 'not to be this' and 'to be not-this' are identical or different" (*An. Pr.* 51b5–6).

⁷⁶An interesting question arises as to why *hupo-* would make this difference when prefixed to *lambanein*. So far as we can see, there is no clear echo of the relation we have found between this pair in other pairs of nouns or verbs with and without the *hupo-* prefix. Perhaps one might take the relation between *hupokrinein*, answer, and *krinein*, discriminate or judge, to show that the *hupo-* can act as an intensifier. Possibly, then, *hupolambanein* came to have the meaning we have attributed to it because taking-to-be-true is a specific and intensified way of receiving a proposition. (The *hupo-* prefix literally means 'under,' so that *hupolambanein* is literally to take up from beneath, but this offers little illumination.)

⁷⁷For *hupolêpsis* in Aristoxenus, see *Elementa Harmonica*, 40.8, 50.18, 51.6, 52.5, and 54.2; for Theophrastus, see *De Sensu*, 4.8, *Characters*, 18.1, *De Pietate*, Fragment 8, ln. 9, and several fragments. Although this may not seem like many occurrences, recall that only four occurrences of *hupolêpsis* are extant prior to Aristotle (see n. 36).

⁷⁸Although scholars have occasionally noted suggestions that *hupolêpsis* plays a generic role in Stoic epistemology, encompassing all kinds of taking-to-be-true (see, e.g. Vogt, *Belief and Truth*, 165–66), its potential importance is typically downplayed, and this is almost certainly due in part to the fact that its importance in Aristotle has not been appreciated.

⁷⁹According to Diogenes Laertius, Chrysippus wrote a work called *Peri Hupolêpseôs* in the same series as the works "Demonstrations that the wise do not *doxazein*," and "*Peri katalêpseôs*, knowledge, and ignorance" (DL VII.201). This perhaps suggests (though this is just speculation) that *hupolêpsis* is the genus of which the other states are species.

clearly that *hupolêpsis* is the result of assent (*sunkatathesis*), and thus is equivalent to or involves taking-to-be-true: he says that if a false mental image (*phantasma*) is responsible for assent, “it would be responsible also for the false *hupolêpsis* and the deception” (*Stoic Self-Contradictions*, 1056a). This understanding of *hupolêpsis* is further supported by a passage in Stobaeus, which characterizes all the ways that a wise person will and will not *hupolambanein*:

[The Stoics] say that, due to his not *doxazein* and his being ignorant of nothing, the wise man never *hupolambanein* anything false, and that he does not assent at all to anything noncognitive. For ignorance is changeable and weak assent. But the wise man *hupolambanein* nothing weakly but, rather, securely and firmly; and so he does not *doxazein* either. For *doxai* are of two kinds, assent to the noncognitive, and weak *hupolêpsis*, and these are alien to the wise man’s disposition. (Stobaeus, *Anth.*, 2.111, 18)

The wise man *hupolambanei* nothing false and nothing weakly; rather, he *hupolambanei* everything securely and firmly (and, we can add, truly). The similarities to the Platonic *Definitions* are striking: *doxa* is slippery *hupolêpsis*, knowledge secure *hupolêpsis*. Thus, it is natural once again to take *hupolêpsis* as the genus, belief, of which *doxa* and knowledge are species.

5. THE BIRTH OF BELIEF

We have argued that with *hupolêpsis*, Aristotle introduced the notion of belief into Greek philosophy. If we are right, this is an important discovery. It will help re-orient not only our understanding of Plato and Aristotle, but also our understanding of subsequent developments in epistemology: we will be able to understand better why things change in the ways they do when they do. In closing, we wish to consider some of these broader ramifications of our argument. This discussion will be largely programmatic, highlighting issues that would benefit from further investigation.

If one’s epistemology already includes notions like knowledge and opinion, what does one gain—beyond the important advance in explicit categorization—by recognizing that these belong to a common kind, and identifying that kind as taking-to-be-true? Let us begin by looking at the concerns of epistemology before belief came into focus.

We argued above that, at least up until his late dialogue the *Theaetetus*, Plato shows no signs of using the concept of belief. Is this because he failed to recognize that there is such a thing? Perhaps, but, more to the point, Plato might have had little interest in identifying the common factor between opinion and knowledge because his more pressing concern is to distinguish the two. It is no stretch to say that this is one of the central tasks of his epistemology. As Socrates says in the *Meno*,

That correct *doxa* is something different from knowledge [*epistêmê*] is something I do not at all seem to be conjecturing [*eikazein*], but something I would in fact claim that I knew [*eidennai*]; there are few things I would claim that about, but this one, at any rate, I will include among those that I know. (*Meno* 98b2–5)

Indeed, throughout the dialogues, Plato emphasizes the dangers of conflating *doxa* and knowledge: poets and politicians in the *Apology*, Euthyphro in the *Euthyphro*, Meno in the *Meno*, lovers of sights and sounds in *Republic* V, cave-dwellers in *Republic*

VII, and many others all think that they have knowledge when they do not. This makes them complacent and unphilosophical: they fail to seek the wisdom that they do not realize they lack, and therefore fail to achieve the good in their own lives and are dangerous in their influence on others. Thus, the main purpose of Plato's epistemological investigations is to determine the differences between knowledge and *doxa*, in order to show people with *doxa* that they lack knowledge, and how to seek it. Even if Plato thought that there were some common genus of opinion and knowledge, therefore, it is not surprising that he did not bother to make it explicit. That is not what his epistemology is about.

The introduction of belief opens important new possibilities and tasks for epistemology. We will here discuss two, in broad outline.

The first major development is this: the idea that opinion and knowledge belong to a common genus enables a shift of focus toward the features they have in common, and that differentiate them from lower states like perception. We saw that Aristotle gives *hupolēpsis* its most extensive treatment, in *De anima* III.3, in the course of distinguishing the varieties of *hupolēpsis* from both perception and imagination (*phantasia*)—that is, from states that humans share with animals, and that do not require reason (*logos*).⁸⁰ This means that *doxa*, although an inferior species of *hupolēpsis*, shares with knowledge the distinction of being rational. Plato notably failed to carve things up this way in most of his work: he casually attributes *doxa* not only to the rational part of the human soul but also to the non-rational parts (*Republic* 603a; cf. 574d and 442d), and perhaps even to non-human animals (implied at *Republic* 430b and *Timaeus* 77a–c). It may be no coincidence that he begins to develop distinctions more like Aristotle's in the dialogue where he comes closest to articulating a concept of belief, the *Theaetetus*. The characterization of *doxa* as something like generic belief comes on the heels of an argument distinguishing both *doxa* and knowledge from perception (*aisthēsis*) (184–87); moreover, in the course of the discussion Plato claims that both *doxa* and knowledge involve *logos* of some kind (189e–190a, 201c) while perception does not (202b).

The idea that *doxa* is a member of the same genus as knowledge thus brings with it the idea that *doxa* is rational, an idea with enormous influence on later epistemology.⁸¹ Just after Aristotle we get the Stoic notion of assent (*sunkatathesis*) as a distinctively human, *logos*-requiring capacity that yields varieties of what we could call belief, either opinion or knowledge (both *katalēpsis* and *epistēmē*). The Stoics take this rational aspect of belief to be very significant: it means that belief is somehow “up to us,” with important consequences for our status as agents and for our moral responsibility. Two millennia on, the idea of belief as rational retains its force: witness the contemporary debate about whether certain representational states such as implicit attitudes count as beliefs or—because they are immune to the ordinary workings of reason—something cognitively inferior, imaginations or perhaps “aliefs.”⁸² Here too there are ethical consequences: philosophers debate whether we are responsible for our implicit attitudes if they are not beliefs.

⁸⁰EE 1226b23 says that animals can *doxazein* although not deliberate; this seems flatly contradicted by the *De anima*.

⁸¹See McCready-Flora, “Aristotle's Cognitive Science,” for an excellent discussion of Aristotle's conception of the non-rational/rational divide marked by *doxa*.

⁸²See, e.g. Gendler, “Alief and Belief,” vs. Schwitzgebel, “Acting Contrary.”

Moreover, the identification of belief as taking something to be true opens the way for a new theory of what makes a mental state rational. Even if (as we argued in section 2) one can have a notion of belief that makes no reference to propositions, it is very natural to conceive of belief in terms of taking a proposition to be true. Thus, if you come to focus on belief as the distinctively reason-involving kind of cognition that separates humans from animals, you may be inclined to frame your ideas about reason in terms of propositional attitudes: humans can formulate and evaluate propositions, while animals cannot; rational cognition is propositional, while non-rational cognition is not. These ideas are explicit in the Stoics, and prevalent in much subsequent philosophy. They arguably show up a bit in Plato and Aristotle—consider Aristotle’s definitions of *doxa* and knowledge in terms of *protaseis* (propositions) in *Posterior Analytics* I.33, and Plato’s treatment in the later dialogues of *doxa* as silent *logos*—but they are never a major focus and are strikingly absent from Plato’s earlier work.⁸³

The introduction of the idea that, for all its inferiority to knowledge, *doxa* shares something important with knowledge that sets it apart from perception and imagination—that is, the introduction of the idea of belief—thus marks an important shift. By distinguishing out the notion of belief as the generic attitude of taking something to be true, philosophers can turn their focus to considering what is distinctive about that attitude—epistemically, logically, psychologically, and ethically.

The second major development we wish to highlight is this: the new focus on what opinion and knowledge have in common opens new ways of understanding their differences, and thereby ushers in a new set of concerns largely absent in Platonic and Aristotelian epistemology, but central to the epistemology that immediately succeeds theirs and indeed to ours today.

On a widespread view, the focus of epistemology changes in the Hellenistic era, becoming distinctly more modern: the Stoics focus on issues of justification, and of susceptibility or immunity to error, that are not at the forefront of Plato’s or Aristotle’s epistemology.⁸⁴ Aristotle’s notion of *hupolēpsis* may have precipitated or at least enabled the shift, as follows.

⁸³The *Republic* seems even to treat perception as a state with propositional content: our senses state (*legei*) that the same object is hard and soft (524a). Does Plato here hold that perception is rational? More plausibly, he is simply not focusing on propositional content as what distinguishes the rational from the non-rational, or belief from perception.

⁸⁴See, e.g. Gisela Striker’s influential claim that, from Plato and Aristotle, on the one hand, to the Hellenistics, on the other, we find a “shift of interest from the question ‘What is knowledge?’—given that there is such a thing—to ‘Is there any knowledge?’” with the latter question understood as foregrounding “the task of justifying their claims to knowledge” (“The Problem of the Criterion,” 143–44). Cf. Burnyeat’s claim that “It is largely for historical reasons that so much epistemology has been dominated by the concept of justification, beginning with the challenge of scepticism in Hellenistic philosophers after Aristotle” (“Socrates and the Jury,” 188); see also Julia Annas (“Stoic Epistemology,” 184–85); and Taylor (“Aristotle’s Epistemology,” 116). Although more recent scholars have highlighted continuities through the epistemological tradition, this has led them primarily to say that this general picture needs to be modified somewhat but by no means abandoned (see, e.g. Jacques Brunschwig, “Beginnings of Hellenistic Epistemology”; Tad Brennan, *The Stoic Life*, ch. 6; and Håvard Løkke, *Knowledge and Virtue*, ch. 1). The idea that a focus on justification and avoidance of error is new with the Hellenistic schools has, of course, been challenged (see, e.g. Fine, “Knowledge and True Belief,” 61–67 and Dominic Scott, *Plato’s Meno*, 184–85, for arguments that Plato was already centrally interested in

As we saw above, Plato and Aristotle draw various contrasts between *doxa* and knowledge. Some of these can be broadly assimilated to the kind of contrasts epistemologists draw today: most obviously, knowledge is more stable than *doxa*. If we focus on these contrasts it may seem that *doxa*, like belief, is an inferior version of knowledge. We also saw, however, that both Plato and Aristotle take seriously a very different kind of contrast: *doxa* and knowledge are distinguished by their objects. *Doxa* is of perceptibles or contingents, knowledge of intelligibles or essences or necessary things. This suggests a larger picture about the difference between opinion and knowledge that is very different from our modern one: they are two separate phenomena, much like sight and hearing; they are exercises of different psychological capacities suited to different domains.⁸⁵ On this picture, although *doxa* is worse than knowledge, it is not a worse version of knowledge. *Doxa* is inferior because its objects are inferior and so, being in the business of grasping those objects, it is in an inferior business. It does not do a worse job of what knowledge does better, it just does something worse.

The introduction of the idea that knowledge and opinion are better and worse variants of a single attitude makes natural a shift in focus. If knowledge and opinion are the same sort of thing, we can define and evaluate them not by their objects, but by their own internal standards—the standards set by the genus of which they are species. Moreover, the idea that this single attitude is belief, and the development of this idea in terms of taking-to-be-true that we see in the Stoics, makes it natural for those standards to take a particular form. Consider the kind of distinctions epistemologists draw nowadays: knowledge is epistemically superior to opinion because it is based on better evidence, or better justified, or is formed in a more reliable way. All these presuppose that belief that falls short of knowledge is in the same business as knowledge and can thus be judged by the same standards.⁸⁶ Moreover, they presuppose that the relevant standards concern not the objects of one's beliefs, but instead the intrinsic or historical qualities of those beliefs understood as takings-to-be-true. One can take things to be true for good reasons or bad reasons, with good justification or none, as the result of a reliable process or a random one.

There are some signs of these concerns in Plato and Aristotle, but they are not at the forefront. They only become prominent once the notion of belief is firmly established and becomes a focus in its own right. We suggested above that the Stoics occasionally use the term *hupolēpsis* as a genus-term to embrace varieties of knowledge (*epistēmē* and *katalēpsis*) and also opinion (*doxa*). They also recognize these as variants of a single genus under a different name: they are species of, or perhaps species of the product of, assent (*sunkatathesis*)—that is, as we noted

justification; against these, however, see Schwab, "Explanation," 20–25; see Fine, "Aristotle on Knowledge," 136–40, for a similar argument concerning Aristotle; against which see Burnyeat, "Aristotle on Understanding Knowledge."

⁸⁵The analogy with sight and hearing comes from the famous argument that *doxa* and knowledge are distinct powers (*dunameis*) set over distinct objects in *Republic* V, 477c; for Aristotle's similar claims about the *epistēmōnikon* and *doxastikon* see *EN* 1139a6–12 with 1140b26–28, both quoted in sect. 3.

⁸⁶For an extreme version of this view, see Williamson: "mere believing is a kind of botched knowing" (*Knowledge and Its Limits*, 47).

above, also naturally understood along the lines of taking-to-be-true. Moreover, the Stoics use these commonalities to evaluate and rank knowledge and opinion, construing them as stronger and weaker varieties of *hupolêpsis*, assent, or grasp.⁸⁷ Like Aristotle, they conceive of *hupolêpsis* as a genus, but more than Aristotle they focus on it itself, and as a result, one of the central concerns of their epistemology is to determine when takings-to-be-true in general are done well and done poorly.

Here then is our story about the birth of belief. Plato largely treats knowledge and opinion as wholly distinct, unconcerned about whether they share a common feature. In his later work, he may begin to consider the possibility that they are variants of a common attitude. Aristotle develops this idea, explicitly invoking the notion of belief. Once the generic notion of belief is on the table, philosophers can focus on it in its own right. This opens important new areas of epistemological investigation. First, it enables a focus on the presuppositions and consequences of belief, developing a theory of what sets belief apart from lower, non-rational cognition. Second, it makes natural a shift from focusing on the different kinds of things about which we can have beliefs to the notion of belief itself, and thereby to a focus on the preoccupations of modern epistemology.⁸⁸

BIBLIOGRAPHY AND ABBREVIATIONS

- Annas, Julia. "Stoic Epistemology." In Everson, *Epistemology*, 184–203.
- Antiphon. *Antiphon Discours*. Edited by L. Gernet. Paris: Les Belles Letres, 1923.
- Aristotle. *Analytica Priora et Posteriora*. Edited by W. D. Ross. Oxford: Oxford University Press, 1964. [An. Post.]
- . *De Anima*. Edited by W. D. Ross. Oxford: Oxford University Press, 1956. [De anima]
- . *De Anima*, Books II and III (with passages from Book I). Edited and translated by D. W. Hamlyn. Oxford: Clarendon Press, 1968.
- . *Aristotle: De Anima*. Edited and translated by Christopher Shields. Oxford: Oxford University Press, 2016.
- . *Aristotle: De Anima*. Edited and translated by R. D. Hicks. Cambridge: Cambridge University Press, 1907.
- . *Aristotle's De Anima*. Edited and translated by Ronald Polansky. Cambridge: Cambridge University Press, 2007.
- . *Aristotle's Metaphysics*. In *Readings in Ancient Greek Philosophy: From Thales to Aristotle*, edited by S. Marc Cohen, Patricia Curd, and C. D. C. Reeve, 536–76. Indianapolis: Hackett Publishing Co., 2006.
- . *Ethica Eudemia*. Edited by J. M. Mingay and R. R. Walzer. Oxford: Oxford University Press, 1991. [EE]
- . *Ethica Nicomachea*. Edited by I. Bywater. Oxford: Oxford University Press, 1894. [EN]
- . *De Insomniis*. In *Parva Naturalia*, edited by W. D. Ross. Oxford: Clarendon Press, 1955.
- . *Magna Moralia*. Edited by F. Susemihl, Cambridge, Mass.: Harvard University Press, 1935.
- . *Metaphysica*. Edited by Werner Jaeger. Oxford: Oxford University Press, 1957. [Met.]
- . *Meteorology*. Edited by F. H. Forbes, Cambridge, Mass.: Harvard University Press, 1919.

⁸⁷In a famous illustration reported by Cicero (*Academica*, II.145), Zeno closed his fingers a little and called that assent (*adsensus*), and then closed them fully and pressed them into a fist, calling that comprehension (*katalêpsis*). Although opinion is not explicitly mentioned in the passage, the Stoic definition elsewhere of *doxa* or *opinio* as weak assent (see the Stobaeus passage cited above) encourages us to take the slightly closed hand as an illustration of the kind of assent that is or yields opinion.

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- . *Nicomachean Ethics*. Edited and translated by C. D. C. Reeve. Indianapolis: Hackett Publishing Co., 2014.
- . *Nicomachean Ethics*. Edited and translated by Roger Crisp. Cambridge: Cambridge University Press, 2000.
- . *Nicomachean Ethics*. Edited and translated by Terence Irwin. 2nd ed. Indianapolis: Hackett Publishing Co., 1999.
- . *The Posterior Analytics*. Edited and translated by Jonathan Barnes. 2nd ed. Oxford: Clarendon Press, 1992 [*An. Post.*]
- . *Rhetoric*. Edited by W. D. Ross, Oxford: Clarendon Press, 1959.
- . *Topics*. In *The Complete Works of Aristotle: The Revised Oxford Translation*, 2 vols., edited by Jonathan Barnes and translated by W. A. Pickard-Cambridge, 167–277. Princeton: Princeton University, 1984.
- . *Topica et Sophistici Elenchi*. Edited by W. D. Ross. Oxford: Oxford University Press, 1958.
- Aristoxenus. *Aristoxeni elementa harmonica*. Edited by R. da Rios. Rome: Polygraphica, 1954.
- Armstrong, D. M. *Belief, Truth, and Knowledge*. Cambridge: Cambridge University Press, 1973.
- Ayer, A. J. *The Problem of Knowledge*. London: Macmillan, 1956.
- Barnes, Jonathan. “Belief is up to us.” *Proceedings of the Aristotelian Society* 106 (2006): 189–206. [“Belief”]
- Bonitz, Hermann. *Index Aristotelicus*. Berlin: G. Reimer, 1870.
- Brennan, Tad. *The Stoic Life: Emotions, Duties, and Fate*. Oxford: Oxford University Press, 2005. [*The Stoic Life*]
- Broadie, Sarah. “The Knowledge Unacknowledged in the *Theaetetus*.” *Oxford Studies in Ancient Philosophy* 51 (2016): 87–117. [“The Knowledge Unacknowledged”]
- Brunschwig, Jacques. “Introduction: The Beginnings of Hellenistic Epistemology.” In *The Cambridge History of Hellenistic Philosophy*, edited by Keimpe Algra, Jonathan Barnes, Jaap Mansfeld, and Malcolm Schofield, 229–59. Cambridge: Cambridge University Press, 1999. [“Beginnings of Hellenistic Epistemology”]
- Burnyeat, Myles. “Aristotle on Understanding Knowledge.” In *Aristotle on Science: The Posterior Analytics*, edited by Enrico Berti, 98–139. Padova: Editrice Antenore, 1981.
- . “Socrates and the Jury: Paradoxes in Plato’s Distinction between Knowledge and True Belief, Part I.” *Proceedings of the Aristotelian Society Supplement* 54 (1980): 173–91. [“Socrates and the Jury”]
- Chisholm, Roderick. *Perceiving: A Philosophical Study*. Ithaca: Cornell University Press, 1957.
- Cicero. *Academica*. Edited by James S. Smith. Hildesheim: G. Olms, 1984.
- Coope, Ursula. “Rational Assent and Self-Reversion: A Neoplatonist Response to the Stoics.” *Oxford Studies in Ancient Philosophy* 50 (2016): 237–88. [“Rational Assent”]
- Cornford, Francis Macdonald. *Plato’s Theory of Knowledge: the Theaetetus and the Sophist*. London: Routledge & Kegan Paul, 1935. [*Plato’s Theory of Knowledge*]
- Crombie, I. M. *An Examination of Plato’s Doctrines*, 2 vols. New York: Humanities Press, 1963. [*Examination*]
- Demosthenes. *Demosthenes orations*. Edited by S. H. Butcher. Oxford: Clarendon Press, 1966.
- Diogenes Laertius. *Live of Eminent Philosophers*. Edited by H. S. Long. Oxford: Clarendon Press, 1964.
- Engmann, Joyce. “Imagination and Truth in Aristotle.” *Journal of the History of Philosophy* 14 (1976): 259–65. [“Imagination and Truth”]
- Everson, Stephen, ed. *Companions to Ancient Thought 1: Epistemology*. Cambridge: Cambridge University Press, 1990. [*Epistemology*]
- Fine, Gail. “Aristotle on Knowledge.” *Elenchos* 54 (2010): 121–56.
- . “Aristotle’s Two Worlds: Knowledge and Belief in *Posterior Analytics* 1.33.” *Proceedings of the Aristotelian Society* 110 (2010): 323–46. [“Aristotle’s Two Worlds”]
- . “Knowledge and Belief in *Republic V*.” *Archiv für Geschichte der Philosophie* 60 (1978): 121–39. [“*Republic V*”]
- . “Knowledge and Belief in *Republic V–VII*.” In Everson, *Epistemology*, 85–115. [“*Republic V–VII*”]
- . “Knowledge and True Belief in the *Meno*.” *Oxford Studies in Ancient Philosophy* 27 (2004): 41–81. [“Knowledge and True Belief”]
- Ganson, Todd. “The Rational/Non-Rational Distinction in Plato’s *Republic*.” *Oxford Studies in Ancient Philosophy* 36 (2009): 179–97. [“Rational/Non-Rational”]
- Gendler, Tamar. “Alief and Belief.” *Journal of Philosophy* 105 (2008): 634–63.
- Gerson, Lloyd. *Ancient Epistemology*. Cambridge: Cambridge University Press, 2009.
- Gettier, Edmund. “Is Justified True Belief Knowledge?” *Analysis* 23 (1963): 121–23.
- Gonzalez, Francisco. “Propositions or Objects? A Critique of Gail Fine on Knowledge and Belief in *Republic V*.” *Phronesis* 51 (1996): 245–75. [“Propositions or Objects?”]
- Gosling, J. C. B. “Δόξα and Δύναμις in Plato’s *Republic*.” *Phronesis* 13 (1968), 119–30. [“Δόξα and Δύναμις”]

- Harte, Verity. "Knowing and Believing in *Republic* 5." In *Rereading Ancient Philosophy: Old Chestnuts and Sacred Cows*, edited by Verity Harte and Raphael Woolf. Cambridge: Cambridge University Press, 141–62. ["Knowing and Believing"]
- Havelock, Eric. A. *Preface to Plato*. Cambridge: Belknap Press, 1963.
- Herodotus. *Histories*. Edited by N. G. Wilson. Oxford: Oxford University Press, 2015.
- Hills, Alison. "Moral Testimony and Moral Epistemology." *Ethics* 120 (2009): 94–127. ["Moral Testimony"]
- Hyperides. *Hyperidis orations sex*. Edited by C. Jensen. Leipzig: Teubner, 1917.
- Isocrates. *Isocrate Discours*. Edited by G. Mathieu. Paris: Les Belles Lettres, 1942.
- Kvanvig, Jonathan. *The Value of Knowledge and the Pursuit of Understanding*. Cambridge: Cambridge University Press, 2003. [*Value of Knowledge*]
- Løkke, Håvard. *Knowledge and Virtue in Early Stoicism*. Dordrecht: Springer, 2007. [*Knowledge and Virtue*]
- Lott, Toomas. "Plato on the Rationality of Belief: *Theaetetus* 184–7." *Trames* 15 (2011): 339–64. ["Plato on the Rationality of Belief"]
- McCready-Flora, Ian. "Aristotle on the Normativity of Belief." *Oxford Studies in Ancient Philosophy* 44 (2013): 67–98. ["Normativity of Belief"]
- . "Aristotle's Cognitive Science: Belief, Affect, and Rationality." *Philosophy and Phenomenological Research* 89 (2014): 394–435. ["Aristotle's Cognitive Science"]
- Moravcsik, Julius M. E. "Understanding and Knowledge in Plato's Philosophy." *Neue Hefte für Philosophie* 15/16 (1979): 53–69. ["Understanding and Knowledge"]
- Morison, Benjamin. "Aristotle on the Distinction Between what is Understood and what is Believed." In Salmieri, *Aristotle's Epistemology*. ["Aristotle on the Distinction"]
- Moss, Jessica. "Plato's Appearance-Assent Account of Belief." *Proceedings of the Aristotelian Society* 114 (2014): 213–38. ["Appearance-Assent"]
- Myers-Schulz, Blake and Eric Schwitzgebel. "Knowing that P Without Believing that P." *Noûs* 47 (2013): 371–84. ["Knowing that P"]
- Peramatzis, Michail. "Aristotle on Knowledge and Belief: *Posterior Analytics* 1.33." In Salmieri, *Aristotle's Epistemology*. ["Aristotle on Knowledge and Belief"]
- Plato. *Platonis opera*, 5 vols. Edited by J. Burnet. Oxford: Clarendon Press, 1967.
- Plutarch. *Plutarchi moralia*. 2nd ed. Edited by R. Westman. Leipzig: Teubner, 1959.
- Radford, Colin. "Knowledge—By Examples." *Analysis* 27 (1966): 1–11.
- Salmieri, Gregory, ed. *Knowing and Coming to Know: Essays on Aristotle's Epistemology*. Pittsburgh: Pittsburgh University Press, forthcoming. [*Aristotle's Epistemology*]
- Schofield, Malcolm. "Aristotle on the Imagination." In *Essays on Aristotle's De Anima*, edited by Martha Nussbaum and Amélie Rorty, 249–78. Oxford: Clarendon Press, 1992.
- Schwab, Whitney. "Explanation in the Epistemology of the *Meno*." *Oxford Studies in Ancient Philosophy* 48 (2015): 1–36. ["Explanation"]
- Schwitzgebel, Eric. "Acting Contrary to Our Professed Beliefs." *Pacific Philosophical Quarterly* 91 (2010): 531–53. ["Acting Contrary"]
- . "Belief." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, URL= <https://plato.stanford.edu/archives/sum2015/entries/belief/>, 2015.
- Scott, Dominic. *Plato's Meno*. Cambridge: Cambridge University Press, 2006.
- Sedley, David. *The Midwife of Platonism: Text and Subtext in Plato's Theaetetus*. Oxford: Oxford University Press, 2004. [*Midwife*]
- Simplicius. *In libros Aristotelis de anima commentaria. Commentaria Aristotelem Graeca* 11, edited by M. Hayduck. Berlin: De Gruyter, 1882. [*In de an.*]
- Smith, Nicholas. "Plato on Knowledge as a Power." *Journal of the History of Philosophy* 38 (2000): 145–68. ["Knowledge as a Power"]
- Spaulding, Shannon. "Imagination through Knowledge." In *Knowledge through Imagination*, edited by Amy Kind and Peter Kung, 207–24. Oxford: Oxford University Press, 2016.
- Sprüte, Jurgen. *Der Begriff der DOXA in der platonischen Philosophie*. Göttingen: Vandenhoeck and Ruprecht, 1962. [*Der Begriff der DOXA*]
- Stobaeus. *Ioannis Stobaei anthologium*. Edited by O. Hense and C. Wachsmuth. Berlin: Weidmann, 1958. [*Anth.*]
- Striker, Gisela. "The Problem of the Criterion." In Everson, *Epistemology*, 143–60.
- Taylor, C. C. W. "Aristotle's Epistemology." In Everson, *Epistemology*, 116–42.
- . "Plato's Epistemology." In *The Oxford Handbook of Plato*, edited by Gail Fine, 165–90. Oxford: Oxford University Press, 2008.
- Themistius. *In Aristotelis libros de anima paraphrasis. Commentaria Aristotelem Graeca* 5.3, edited by R. Heinze. Berlin: De Gruyter, 1899. [*Commentaria*]

- Thucydides. *Thucydides historiae*. Edited by H. S. Jones and J. E. Powell. Oxford: Clarendon Press, 1942.
- Velleman, David. "The Possibility of Practical Reason." *Ethics* 106 (1996): 694–726. ["Practical Reason"]
- Vogt, Katja. *Belief and Truth: A Skeptic Reading of Plato*. Oxford: Oxford University Press, 2012. [*Belief and Truth*]
- Wedin, Michael. *Mind and Imagination in Aristotle*. New Haven: Yale University Press, 1988. [*Mind and Imagination*]
- Williams, Bernard. "Deciding to Believe." In *Problems of the Self*, 136–51. Cambridge: Cambridge University Press, 1970.
- Williamson, Timothy. *Knowledge and Its Limits*. Oxford: Oxford University Press, 2000.
- Woolf, Raphael. "Plato and the Norms of Thought." *Mind* 122 (2013): 171–216. ["Norms of Thought"]
- Xenophon. *Xenophontis opera omnia*. Edited by E. C. Marchant. Oxford: Clarendon Press, 1968.
- Zagzebski, Linda. "What is Knowledge?" In *The Blackwell Guide to Epistemology*, edited by John Greco and Ernest Sosa, 92–116. Malden: Blackwell, 1999.