Belief and Rational Cognition in Aristotle

by

Ian C. McCready-Flora

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Philosophy)
in the University of Michigan
2011

Doctoral Committee:

    Professor Victor Caston, Chair
    Emeritus Professor Edwin Curley
    Professor Bruce Frier
    Professor Kendall Walton
    Assistant Professor Matthew Evans, New York University

For my mother, who got me going
For Rachel, who keeps me going

Acknowledgements

I would like, first and foremost, to thank my wife, Rachel McCready-Flora, for her love and support.

My academic advisor, Victor Caston, has been an ideal mentor from the very start: supportive, intellectually demanding, and extremely generous with his time. He has my thanks. My thanks also to the rest of my dissertation committee, whose feedback continues to shape this material as it ambles toward publication.

Were it not for the diligence of the Philosophy department staff, my life would have been infinitely more difficult. My thanks to Linda Shultes, Judith Beck, Kelly Coveleski and Maureen Lopez for always knowing where to go and what to sign. Thanks also to Molly Mahony, librarian at Tanner Philosophical Library. However confused my recollection of a title or author, she could always put the book in my hand.

I had the good fortune to reside at the Gamma Alpha graduate student co-op from August 2006 to May 2009. I met some of my best friends there, and that fun, supportive, socially-conscious and diverse community is something I will remember fondly. May it stand forever, and make life affordable on grad student wages.

My thanks to the UM Graduate Employees Organization (AFT Local 3550). It was an honor to serve as vice-president. "Oh you can't scare me, I'm sticking to the union!"

Much of the material in this book has benefited from public presentation and the attention and engagement of commentators. I would like to thank Travis Butler, Matthew Evans, Eduardo Garcia-Ramirez, Maria Jayasekera, Emily Katz, Jeremy Kirby, Greg Salmieri, and Christopher Shields for their comments and criticism.

My fellow graduate students at the University of Michigan are some of the sharpest people I ever hope to meet. I cannot record or recall every lunchtime conversation or

iii

casual encounter that led, serendipitously, to an improvement in the final product, so I hope they all accept my sincere thanks for these six edifying years. They have my undying admiration and respect.

Table of Contents

Abstract

Belief and Rational Cognition in Aristotle

by

Ian C. McCready-Flora

Chair: Victor Caston

Aristotle's view of rational thought is understudied and little understood. Scholarly energy focuses on his deductive theory of science, knowledge and grasp of first principles, all of which involve certainty and necessary truth. Aristotle also, however, pays systematic attention to bounded rationality and reasoning about contingent matters.

Belief, for Aristotle, is about the contingent. It ranks below scientific knowledge, but still above any cognition animals are capable of: only rational animals believe. Aristotle's theory of belief, then, provides data for his broader theory of reasoning and human rationality. I therefore organize the dissertation around three arguments which distinguish belief from other forms of mental representation that we share with animals.

(1) Belief requires credence, which depends upon the ability to represent matters as more or less likely, and therefore the ability to see facts as evidence for other facts. These two

abilities require reason and are partially constitutive of rational thought. Animals can be conditioned to act in certain ways given certain inputs, but this ability differs from the weighing of evidence.

(2) We cannot form beliefs as we please, while we can do so with other forms of mental representation, such as imagining. Belief is out of our hands in this way because it has a normative connection to truth. It is supposed to be true, and must therefore submit to normative evaluation with respect to truth. This accountability to norms is partially constitutive of rational thought.

(3) Belief causes affective response in ways that other mental states, such as imagining, do not. Imagining can cause emotional response, but does not necessitate it in the way belief does. The ability to entertain mental content without committing to it is peculiar to rational creatures, and therefore partially constitutive of rational thought. Rationality confers the ability to question, test and be open to doubt.

Introduction

In this dissertation I examine two topics in Aristotle's epistemology and philosophy of mind: belief (*doxa* in Greek) and rational cognition. The former is the means to investigate the latter. This is because, for Aristotle, believing is something only rational creatures can do. However non-rational animals get around in the world (and humans, for Aristotle, are the *only* rational animals), whatever mental states constitute their representation of that world, they do not have anything Aristotle is willing to call belief.

The sense of "rational" I have in mind is not the normative sense according to which we evaluate a certain course of action or belief as rational or irrational. Humans do not contrast with other animals because humans are rational and animals are irrational. This normative distinction presupposes a further metaphysical distinction between the rational and the *non-rational* (as opposed to irrational). Call the first phenomenon "normative rationality" and the second "constitutive rationality," because it is meant to capture a difference in the way that creatures exist, a difference in what kinds of cognitive subjects they are. This is the distinction Aristotle means to draw when he says that belief requires "reason" (*logos*), so animals cannot form beliefs.[1] It is not that animals are too stupid to form beliefs; they simply lack those kinds of cognitive states. Nor are they for that reason open to criticism; a subject cannot qualify as irrational in the normative sense without qualifying as rational in the constitutive sense. Rational cognition, therefore, is a special brand of cognition that only certain kinds of creatures are able to undertake. It will turn out, on Aristotle's view, that to be a constitutively rational subject is in part to be

---

1. For the details of this argument, see Chapters 1 and 2.

bound by strictures of normative rationality.[2] Being open to that sort of evaluation, however, requires being a creature of a certain type.

Calling a subject "constitutively rational" says little without an account of what this special brand of cognition is supposed to look like. The contours of this account will depend in turn on which type of states are paradigms of rational cognition and which seem open even to non-rational creatures. The most striking (and largely unremarked) aspect of Aristotle's view is that beliefs qualify as rational cognition along with higher cognitive achievements like demonstrative knowledge (*epistêmê*), craft knowledge (*technê*) and understanding (*nous*). I call these states "higher achievements" because Aristotle's remarks make it clear that they are not states that humans possess and deploy by default; acquiring them takes much cognitive effort. Having demonstrative knowledge, for instance, requires that the subject grasp a demonstration of the fact, a valid syllogism that gives the explanation for the fact and thereby renders it inevitable. Understanding, to take another example, grasps the first principles of demonstrative science, those starting-points from which scientific deduction proceeds.[3] To even get to this point, one must at least have sufficient mastery of the science to recognize where the starting-points would be. This implies substantial systematic grasp of the science. If these states are where rational cognition starts, then most human cognition does not qualify as rational.[4]

This seems like the wrong result. If constitutive rationality marks human cognition off from what other animals can do, but the majority of human cognition does not qualify as rational, then the majority of human cognition falls into a strange in-between, neither rational or non-rational. This is unwelcome because *tertium non datur* applies: any given type of cognition is either part of the special brand of cognition or it is not. One might say that all humans are *capable* of the higher cognitive achievements, and that this is what sets them apart, regardless of whatever cognition may in fact make up most of their mental

---

2. See Chapter 3 for discussion.

3. See especially *Posterior Analytics* 2.19, 100b7-17. He says therein that there is "understanding of the principles" (*nous...tôn archôn*) because "nothing is truer" than demonstrative knowledge except understanding. The comparative form of "true" expresses that the more true fact is the ground or explanation for the less true fact. See Chapter 1 at page 31. For Aristotle's scientific epistemology generally, see Taylor 1990.

4. Frede 1996 bites this bullet. On his view and others like it, see below at page 7.

lives. This only invites a further objection: if humans, but not other animals, are capable of the higher cognitive achievements, there must be something about the rest of their epistemic lives that allows them to progress to those higher achievements. This makes them part of the special brand of cognition that interests us, and any account of constitutive rationality that leaves them out fails to deliver the whole picture. A rational animal shares parts of its cognitive life with non-rational animals: perception is common to all, and memory is widespread, though not universal.[5] Even if those states function much as they do in non-rational animals, there remains those cognitive states which fall below the standards of deductive knowledge or understanding of first principles but which are still above any cognition of which the non-rational animals are capable.

Belief is a much humbler cognitive achievement than knowledge or understanding. It requires no systematic grasp of explanations and can express deep confusion and false views. Humble as it is, Aristotle still includes it in the states that require constitutive rationality. Aristotle's views about belief therefore help us understand his notion of rational cognition, in the following sense: characteristics which distinguish belief from lower-level cognitive states are also characteristics which distinguish non-rational cognition from rational cognition. We will return to this idea later.

Aristotle's view about where rational cognition starts (i.e. with belief) presents him with a problem: denying belief to animals is neither intuitively obvious nor theoretically innocent. It seems rather to rely on a further theoretical motivation and stands or falls on the merits of what motivates or entails it.[6] Before theory starts, it seems perfectly natural to ascribe beliefs and desires to animals, as we do to our fellow humans. Animal beliefs may not have the same logical complexity as human beliefs; verbal behavior is a rich source of data for belief attribution, and animals do not speak. The question is not,

---

5. *Posterior Analytics* 2.19, 99b35-38.
6. In contemporary philosophy of mind, the most prominent argument against animal belief is due to Davidson (1975). His view is, roughly, that there are no beliefs without language, since belief attribution requires interpretation of a subject's verbal behavior, not just observation of non-verbal behavior. For criticism of this argument, see Bishop 1980, though his main concern is practical reasoning and intentional action. For defense and expansion of Davidson's view, see Fellows 2000. For further criticism see Beisecker 2002, which includes useful references. See also Dreckmann 1999 for a defense of animal belief that does not depend on linguistic capacity.

however, one of complexity, but of function. If Aristotle is going to deny beliefs to animals, he at the very least owes an account of what is supposed to take the place of belief in determining animal behavior. He thinks it unproblematic to attribute desire (belief's frequent theoretical companion) to non-human animals. A living creature's being an animal (as opposed to a plant) even *entails* that it has desire, since perception makes the animal, and perception implies awareness of pleasure and pain.[7] Desire alone, however, cannot determine behavior: animals also need a type of state whose function is to represent the world.[8] If animals do not have beliefs, then we want to know what they do have and what distinguishes it from belief.

What they do have, according to Aristotle, is sense-perception and a state called representation (*phantasia*).[9] Representation comes about through perception and amounts (*very* roughly) to the storage and retrieval of sensory content. Different animals have more or less sophisticated representational capacities,[10] and at the upper levels representation grants memory and a kind of learning from experience that allows for very subtle differential response to the environment.[11] This makes representation seem, in many ways, like a sort of belief. At the least, it performs belief's role in representing the world and (along with desire) accounting for behavior, especially movement to and away from objects in the environment. Despite this similarity, it is not a form of belief. We know this because Aristotle devotes four separate arguments to establishing that belief and

---

7. *On the Soul* 2.3, 414b1-6.
   A complication: Aristotle's does think that only humans have *boulêsis*, or will, because will involves reasoning (it is *kata ton logismon*): see especially *On the Soul* 3.10, 433a23-25. Will is open only to humans because it implicates rational cognition, just like belief does. Will, however, is reckoned a species of desire, along with appetite (*epithumia*) and impulse (*thumos*): see *On the Soul* 2.3, 414b2; 3.9, 432b4-7 and 3.10, 433a23. Aristotle never says that belief belongs to the same family as representation (*phantasia*).
8. For this notion, known as "direction of fit," see primarily Anscombe 1957.
9. In chapters 1 and 2 I adopt Caston's (Forthcoming) translation of this term as "representation." This is because it makes clear the general function that *phantasia* plays in animal cognition. In chapters 3 and 4 I adopt the more conventional "imagination." In the arguments that we deal with in those chapters, *phantasia* denotes a faculty similar to the non-committal play of mental images that we would recognize as imagination.
10. It is not clear how continuous the scale is, but Aristotle does at least recognize a distinction whereby some animals have representation "indeterminately" (because they "move indeterminately"); see *On the Soul* 3.11, 434a4-5. This discussion precedes his distinction between perceptual and deliberative representation, another divide between rational and non-rational cognition.
11. For representation generally, see Nussbaum 1978, 221-69, Schofield 1992, and especially Caston 1998 for the role of *phantasia* in Aristotle's theory of representational content. For animals learning from experience, see Foster 1997, Labarrière 2005, and Gregoric and Grgic 2006.

representation are distinct as types. This is standard procedure: when Aristotle introduces a new type of mental state, he frequently distinguishes it from other nearby mental states which one might (with varying degrees of plausibility) confuse it.[12] In *On the Soul* 3.3, he distinguishes representation from perception, scientific knowledge (*epistêmê*), understanding (*nous*) and belief (*doxa*). He dispenses quickly with the second and third options: those states denote successful grasps of the truth, while representation can be either true or false. Perception receives only slightly more attention.[13] Belief receives the most argumentative effort by far; Aristotle cites three characteristics that distinguish belief from representation and argues against the idea that representation is any combination of belief and perception.[14]

Aristotle makes a special effort to distinguish belief and representation, I suggest, because representation plays a role in the mental life of non-rational animals similar to that which belief plays in the mental life of rational animals. They are similar enough that there is a non-trivial risk of confusing them. We might even say that representation is belief's nearest non-rational counterpart. There is textual support for this. In his discussion of *akrasia* in Nicomachean Ethics book 7, Aristotle remarks in passing that animals are not prone to *akrasia* because they do not have the necessary cognitive equipment:

> So it happens that people suffer *akrasia* under the influence of reason, in a way, and of belief which is opposite to right reason, not in and of itself, but incidentally—for the desire is opposite, but not the belief. So it is also due to this that beasts are not akratic, because they do not have universal entertaining [*huplolêpsis*] but rather representation of particulars and memory.[15]

---

12. For other examples of this procedure, see his discussion of choice at *Nicomachean Ethics* 3.2, excellence in deliberation at 6.9, and quick-wittedness (*eusunesia*) at 6.10. There are no doubt others as well.
13. Aristotle's argument for why representation is distinct from perception relies, in part, on details of Aristotle's doctrine of sense-perception, rehearsal of which would be a distraction.
14. This argument occupies *On the Soul* 3.3, 428a24-b9. See especially Lycos 1964 and Heil 2003. I do not address this last argument in the current work.
15. *Nicomachean Ethics* 7.3, 1147b1-5: ὥστε συμβαίνει ὑπὸ λόγου πως καὶ δόξης ἀκρατεύεσθαι, οὐκ ἐναντίας δὲ καθ᾽ αὐτήν, ἀλλὰ κατὰ συμβεβηκός – ἡ γὰρ ἐπιθυμία ἐναντία, ἀλλ᾽ οὐχ ἡ δόξα – τῷ ὀρθῷ λόγῳ· ὥστε καὶ διὰ τοῦτο τὰ θηρία οὐκ ἀκρατῆ, ὅτι οὐκ ἔχει καθόλου ὑπόληψιν ἀλλὰ τῶν καθ᾽ ἕκαστα φαντασίαν καὶ μνήμην.
   In this context, "judgment" would work just as well as a translation for *hupolêpsis*.

Animals cannot suffer from *akrasia* because that predicament requires acting against one's better judgment (emphasis on "judgment"), and animals have no better judgment to act against. None of their cognition represents what we would recognize as general rules or moral principles, and it is action contrary to the reasoning from those kinds of judgment (represented in the practical syllogism) that constitutes a case of *akrasia*. For our purposes, this text gives us evidence that, for Aristotle, representation (and memory, which requires representation) is the nearest thing that non-rational animals ("beasts," as he calls them) have to the beliefs that shape the action of rational creatures. The implicature in Aristotle's last claim is that representation and memory are what animals have *instead of* beliefs.[16] They are the states that animals use to navigate and represent the world and therefore play the same kind of role for non-rational animals that beliefs play for humans. So when Aristotle carries on his extended comparison of belief and representation in *On the Soul* 3.3, he is distinguishing representation from its nearest rational counterpart.

This is why I organize my discussion around the first three arguments about belief and representation in *On the Soul* 3.3. Aristotle distinguishes belief and representation in three ways, each of them a respect in which belief differs from representation *as* rational cognition. Put another way, the characteristics that belief has, but that representation does not, either partially constitute rational cognition or imply a characteristic that partially constitutes rational cognition. I say "partially constitute" because the three characteristics Aristotle cites to distinguish belief and representation do not amount to necessary and sufficient conditions for rationality. It is a possibility, which I will not consider in detail, that there is no set of necessary and sufficient conditions for what make the various forms of rational cognition rational. If this picture is correct, constitutive rationality is a cluster concept pieced together from examination of paradigmatic instances, including (for Aristotle) belief.

---

16. Strictly speaking, he only says that animals lack *universal* beliefs here, not that they lack beliefs outright. If he meant to preserve the possibility that animals have beliefs about particulars, however, he would not refer to two further capacities when he mentions the animals' cognitive powers.

The three arguments from *On the Soul* 3.3 organize the work, but for support in my interpretation I draw from texts across the entire corpus. I adopt this strategy because Aristotle's arguments in *On the Soul* 3.3 are terse and compressed. The immediate context does not give us enough to reconstruct his thought without undue speculation. I take this as evidence that Aristotle does not consider his claims to be controversial or in need of defense in that particular context. There are many explanations for why he might think this, the most charitable and productive of which is that those claims express or follow from views which he is willing to presuppose. If the claims represent or follow from his committed views, we should find him arguing for or relying on them in his other writings. And indeed we do. There is no way to know, *a priori,* which parts of the corpus will furnish relevant evidence. We can only read closely and find out.

Examining Aristotle's systematic views about belief introduces new data into discussions about Aristotle's substantive conception of rationality. I said earlier that our conception of constitutive rationality will depend in part on which states we take to be paradigms of rational cognition. If rational cognition starts with belief for Aristotle, it follows that his conception of constitutive rationality will include quite ordinary thinking about ordinary affairs, however non-deductive or deeply mistaken. If, on the other hand, one takes demonstrative knowledge and understanding as paradigm rational cognition, it follows that only deductive thinking from and about necessary truths express constitutive rationality. In the scholarly literature on Aristotle's epistemology and philosophy of mind, we diagnose a tendency to the latter conclusion and take the work in this book to resist it.

A representative sampling from the literature will illustrate this tendency. These samples do not all express the same view, but they represent an emphasis on high-level cognitive achievements at the expense of the sort of ordinary thinking that belief represents, both for Aristotle and for us. Eyjólfur Emilsson, for instance, begins a careful discussion of the distinction between discursive and non-discursive thought with a blanket claim that "thinking," for Aristotle and other Greek philosophers, is inherently a form of knowledge or understanding:

In the context of this paper I use "thinking" more restrictively. Following the

practice of the Greek philosophers in such contexts, "thinking" is close to knowing, understanding or grasping. Both discursive and non-discursive thought are acts of knowing or understanding.[17]

If we take Emilsson's last claim to mean that, for the Greeks (including Aristotle), anything that comes under the genus "thinking" is a high-level cognitive achievement like knowing, then the claim is straightforwardly false. Aristotle distinguishes representation from "thinking" (*noêsis*) and uses belief as an example.[18] He also characterizes discursive thinking (*dianoia*) as a kind of search which terminates in an assertoric mental state, which can be knowledge, but can also be belief.[19] Emilsson restricts his attention mostly to Plotinus and later thinkers, and I am sympathetic to the view that this notion of thinking as contact or grasping dominates later Greek epistemology. Aristotle, however, does not commit himself to such a view.

For our second example, we have Michael Frede, who argues that Aristotle introduces reason "to account for a highly specific and rather elevated function … our ability to grasp the appropriate *general* features and the *necessary* connections between them."[20] The lower-level cognition exhibited by animals and humans who are not scientifically-inclined "does not yet amount to thinking and to reasoning, properly speaking."[21] Reasoning is not, he emphasizes, "an ordinary ability to think and figure things out," but rather the ability to "grasp general features and to see relations between them."[22] Frede therefore spells out in more detail Emilsson's assumption that thinking amounts to knowledge and understanding. Constitutive rationality appears only at the highest reaches of cognition. This kind of interpretation is, at best, selective. Part of the problem is that, when Frede talks about "reason," he invariably means understanding (*nous*). My project relies on the interpretation of a different family of terms: *pistis, doxa,*

---

17. Emilsson 2003, 48.
18. *On the Soul* 3.3, 427b16-24. See especially chapter 3 for discussion of this claim.
19. In a brief discussion of Aristotle at the end of the article, Emilsson confines his attention to *nous*, or understanding (2003, 61-62). Taking this particular mental faculty to stand in for thinking as a whole is, I think, a mistake; see my remarks on Frede below.
20. Frede 1996, 162, emphasis mine.
21. Frede 1996, 163.
22. Frede 1996, 166. The "general features" he refers to are the universals of a worked-out science, and not simply attributes that sort objects into groups.

and *logos*. This does not make my objection an *ignoratio elenchi*; I mean in part to challenge the assumption that Aristotle's account of rationality falls cleanly from his account of *nous*. Frede's account proceeds from the assumption that Aristotle introduces constitutive rationality to explain high-level epistemic achievement, so it is no surprise that what is distinctive of human thinking turns out, on such a reading, to be such high-level achievements. There is little independent reason to think that our special brand of cognition begins only at such a high level.[23] Aristotle devotes much careful study to this high-level cognition (perhaps largely because Plato did), but this does not imply that high-level epistemic achievement is what sets apart human cognition or, what is more, that Aristotle has no interesting views about cognition at any lower level. More likely, the high-level cognition is a modal and methodological refinement of lower-level but still distinctively-human cognitive capacities.[24]

There are others who assume that Aristotle just does not care about the kind of lower-level cognition that is the focus of this book. In his admirable attempt to make sense of Aristotle's view of the so-called "active intellect," Myles Burnyeat makes the following claim about Aristotle:

> Aristotle has remarkably little to say about ordinary thinking, either in this or any of this other works, but *nous* gets three whole chapters of itself here and an important discussion at the end of the *Posterior Analytics*, not to mention regular asides in the *De anima* book I plus sustained attention in the theological context of *Metaphysics* Λ 7 and 9. I conclude that, while Aristotle takes ordinary thinking more or less for granted, *nous* is a distinct topic, and one on which he means to shine.[25]

I do not contest Burnyeat's claim that *nous* is a distinct topic from ordinary thinking—that is abundantly clear. My target is rather the claim that Aristotle "takes ordinary thinking more or less for granted." This is true, if one takes all and only instances of *dianoia* or

---

23. Frede offers Aristotle's criticism of his predecessors (Plato aside) for ignoring *nous* as evidence for his interpretation (1996, 165-66). There is no need to fully engage with his interpretation here; I can only remark that the citations are not probative because they signal a far broader critique of pre-Aristotelian psychology. Democritus, for instance, equated *phronêsis* with perception, and Aristotle need not have the views Frede attributes to him in order to have all kinds of problems with that.

24. Frede does grant the possibility that "this highly specific function of reason also colours, or even transforms, our everyday thought and reasoning," (1996, 163), a remark which I find extremely insightful. It still assumes, however, that what is distinctive of human cognition is simply the highly specific function.

25. Burnyeat 2008, 19.

logismos (reasoning) to denote instances where Aristotle treats ordinary thinking. He says frustratingly little about these mental processes, and if we expand the list to include *doxa*—which we should—we still encounter no long stretch of continuous text devoted to the question, such as we see with understanding and scientific knowledge. It does not follow from this, however, that Aristotle either takes ordinary thinking for granted or leaves it by the wayside. On the contrary: belief is a constant touchstone, compared and distinguished at length from other mental activities. He holds systematic views about it which we can and should recover from his explicit statements.[26] This alone constitutes an important contribution on Aristotle's part to a discussion of ordinary thinking. What is more, his account of persuasion is, in no small part, an account of thinking itself. Aristotle considers the *Rhetoric* a systematic extension of what people do every day:

> Everyone participates to some extent in [both rhetoric and dialectic]: for everyone endeavors, to some extent, to examine and provide reason and defend and attack in argument. While many do this at random or through an acquaintance born of habit, since both these ways of doing it are possible, it also should be possible to do the same things by a method.[27]

Giving reasons to each other and trying to find out the truth and falsehoods of claims is just a part of human mental life. Many people do it without any real sense of what they are doing or why certain moves are correct while others are not. Proceeding by a method is not, however, a completely different *type* of activity from the pre-theoretic activity on which it is based. Far from taking ordinary thinking for granted, he thinks it an important subject in its own right. Add in the *Topics*—with its extensive use of non-demonstrative rules and methods—and the less-than-scientific methodology defended in the ethical works (I have in mind *Nicomachean Ethics* 1.3 and 7.1), and we have a considerable part of the corpus devoted to analyzing and applying what we could fairly call "ordinary thinking."

---

26. The last systematic attempt to do this happened 75 years ago (see Régis 1935), and even there we see no attention to the implications of Aristotle's views of belief for his conception of rationality.
27. *Rhetoric* 1.1, 1354a3-8: πάντες τρόπον τινὰ μετέχουσιν ἀμφοῖν· πάντες γὰρ μέχρι τινὸς καὶ ἐξετάζειν καὶ ὑπέχειν λόγον καὶ ἀπολογεῖσθαι καὶ κατηγορεῖν ἐγχειροῦσιν. τῶν μὲν οὖν πολλῶν οἱ μὲν εἰκῇ ταῦτα δρῶσιν, οἱ δὲ διὰ συνήθειαν ἀπὸ ἕξεως· ἐπεὶ δ᾽ ἀμφοτέρως ἐνδέχεται, δῆλον ὅτι εἴη ἂν αὐτὰ καὶ ὁδῷ ποιεῖν

Susanne Foster affords us our last example. In her discussion of animal intelligence, she offers a capsule account of what is distinctive about humans that expresses a form of the consensus view:

> Reason receives the universal, the one apart from the many. It comprehends why the individual impressions collected by experience belong together. Hence a rational animal experiences its environment differently. Rather than having only predicational perception, a non-linguistic grouping-together of sense perception, the rational animal can achieve propositional understanding. As Aristotle says at the beginning of the *Metaphysics,* human beings, unlike animals, have the capacity to move beyond rudimentary experience.[28]

This account seems to confuse having a universal conception (for instance, the thought that all sweet things are pleasant) with possessing an explanation for its truth (knowing why sweet things are pleasant). The latter notion seems to be what Foster has in mind; she calls it "understanding." The hunt for explanations is a scientific impulse, characteristic of loftier cognitive achievement than anything Aristotle deploys in the passages from *On the Soul* that we will discuss.[29] Her reference to the beginning of the *Metaphysics* is telling. There, Aristotle talks about the progression from *empeiria*, a kind of pre-theoretic build-up of structured memories, to demonstrative and craft knowledge, two of the highest forms of cognition to which humans can aspire. Aristotle's account of human development seems to skip over precisely the step (i.e. from the cognition that all animals are capable of to the formation of beliefs) that we would most like to see for the sake of our own project. As a result, accounts of Aristotle's conception of rationality also typically ignore that stage, and suffer from a lack of comprehensiveness as a result. What we are after is an account of how exactly human cognition differs from animal cognition, and there is evidence that the level at which cognition becomes distinctively human is significantly lower than the achievements Aristotle talks about in *Metaphysics* 1.1 and *Posterior Analytics* 2.19, where he gives a more detailed account of the cognitive development he discusses in the *Metaphysics*, but again leaves out the crucial step.

---

28. Foster 1997, 31.
29. This is not to suggest that Foster is offering an account of those passages in her discussion. Rather, the passages I discuss provides data which accounts typified by her quote ignore or gloss over.

Necessity and knowledge matter to Aristotle, but taking seriously his inclusion of belief in the forms of rational cognition show us aspects of his conception of rationality that are not apparent if we concentrate on knowledge and understanding. Here, briefly, is what we find. Constitutive rationality implies an ability to form subtle epistemic evaluations based on evidence. Rational creatures have credence, which represents evaluative attitudes that vary between outright denial and complete psychological certainty. This means that rational agents are capable of a sort of internal accounting about what to believe and what not to believe. Animals, according to Aristotle, cannot do this. Related to this, constitutive rationality implies the ability to withhold commitment from the deliverances of one's cognitive and representational systems. This in turn implies an ability to question, test and doubt, and in particular to doubt one's own sensory representations. Non-rational animals, on the other hand, invariably commit to their mental representations. This ability to doubt and evaluate evidence is bound by a kind of epistemic normativity; we have a rational obligation to believe the truth. This entails that we cannot believe as we please, while we can use various forms of representation for any variety of purposes.

If my interpretation, or a good part of it, is correct, we have an exciting exegetical result: Aristotle's conception of human rationality is much different than we have assumed. It is another question, however, whether we should find his new view credible. The feeling remains that he underestimates the cognitive capacities of animals, and that the elaborate ways he accounts for seeming instances of animal reasoning amount to a violation of parsimony. The trouble stems, I think, from his *a priori* commitment that only humans can manifest constitutive rationality. It is *a priori* in the sense that he holds the view "come what may." That is to say, he feels pressure to interpret animal behavior in a way that does not attribute a rational soul to them. We need not follow him in this commitment; it is an empirical matter whether any given animal is capable of rational cognition. Aristotle may be unwilling to admit that they do, but that need not stop us from finding something of interest in what he took to be *our* special brand of cognition.

Chapter 1
Credence and Belief

1. Introduction

Our interest in Aristotle's several arguments in *On the Soul* 3.3 rests on their potential to furnish data about his conception of rational cognition. We should, therefore, begin with the passages where he compares rational to non-rational creatures. In the two arguments that occupy 428a18-24, Aristotle distinguishes belief from representation (my preferred translation of *phantasia* for these two arguments)[30] by denying that animals form beliefs, on two separate grounds. He first denies that animals are capable of credence (*pistis)*, a mental state on which belief depends in some way.[31] Aristotle then makes a further argument that animals lack the ability to reason (*logos*), and that a creature's having beliefs depends on this ability. This is the passage, then, where Aristotle reserves belief (*doxa*) for rational creatures, and in doing so evinces his view that belief is a form of rational cognition.

In the further argument, Aristotle denies beliefs to animals because they do not possess reason (*logos*), but he does so via a chain of intermediary dependence relationships. Belief depends on credence, as it does in the first argument, and credence in turn depends on an ability to be persuaded, which Aristotle calls *to pepeisthai*. Persuasion, at the last step, requires reason. The further argument fills in Aristotle's reasoning for his earlier premise that animals do not possess credence. Examining this more involved argument will have to wait. The present chapter answers the following questions:

---

30. I favor this translation of *phantasia,* in line with with Labarrière 1993 and Caston Forthcoming. Unlike in *On the Soul* 3.3, 427b16-24 (which we discuss in chapters 3 and 4), there is little reason here to think that Aristotle is referring to the human faculty that we would recognize as recreative imagination.

31. It is conventional to translate *pistis* as "conviction" "acceptance," or even "belief," but I think it means "credence," and adopt that translation in what follows. For "conviction," see Hicks 1907. For "acceptance," see Hamlyn 1968, 131-32. For "belief," see Lycos 1964.

1) How does credence (*pistis*) work?

2) How does having belief depend on having credence?

Both arguments claim a relationship between belief and credence, so this seems like a reasonable place to start. Understanding both arguments requires that we answer three further questions, which I postpone until Chapter 2:

3) How does having credence depend on being persuaded (*to pepeisthai*)?

4) How should we understand *logos*?

5) How does having the complex of capacities denoted by *pistis* and *to pepeisthai* depend on having *logos*, for a given understanding of *logos*?

This chapter, then, is stage-setting for the main question about Aristotle's conception of human rationality. Answering the first two questions, however, forces us to reconsider Aristotle's doxastic epistemology, which should be of independent interest.

I propose these answers: *pistis* denotes a mental state that we might reasonably call "credence." This much is presupposed in how I formulated the questions. Credence is an attitude toward a proposition that varies in degree, unlike belief, which is binary. As I understand the notion, credence has some affinity with what is variously called "confidence" or "partial belief" (as well as "credence") in contemporary epistemology.[32] The term connotes an epistemic evaluation, that is, evaluation of a proposition with respect to its truth. Aristotle speaks on one occasion of someone with slight credence as doubting or hesitating, which supports this interpretation.[33] Terms like "doubt" and "hesitation" can refer either to an evidential state or psychological certainty, a feeling of confidence which need not track the strength of one's evidence. Aristotle himself is never crystal clear about which it is, but our texts favor an evidential reading. This is because credence is consistently said to respond to *epistemic* considerations, i.e. evidence and argument that bear on how likely it is that a proposition is true. The state is "subjective" in the sense that it expresses the likelihood of a claim by the subject's own lights, and does not imply that the claim itself involves any objective "chanciness," as a roll of the dice does.

---

32. See Sturgeon 2008 and Joyce 2004 for "confidence." See Jeffrey 1970 and Price 1986 for "partial belief." It is not the case that all of these authors are referring to exactly to the same concept or developing the same line of thinking. I mention them to give a general flavor of the sort of state I take credence to be.

33. *Nicomachean Ethics* 7.3, 1146b24-30; see page 24.

Based on this, one would not go far wrong to interpret it as subjective probability. It differs in a significant way, however, from a contemporary notion of partial belief as a measure of subjective probability. Aristotle offers no analysis in terms of betting behavior or disposition to presuppose the proposition in one's reasoning.[34] Binary belief and knowledge remain the only ingredients of practical and theoretical reasoning. This means that a proposition must be the object of belief or knowledge to play a role in the subject's reasoning. The binary states of belief and knowledge result from one's credence meeting certain constraints, on which more later. We might say, then, that Aristotle's notion of credence is pre-committal. It is not meant to replace binary belief; binary belief instead emerges from the right level of credence. A subject will, in other words, commit to a proposition when it seems sufficiently likely. This commitment, in the case of belief, does not seem to require evidential certainty; Aristotle speaks of people becoming "even more convinced" of something that they already believe. Knowledge, on the other hand, does seem to require evidential certainty of a particularly strict sort.

In understanding *pistis* as credence, I oppose the bulk of interpretation and commentary which takes the term in question denote the binary act of taking something to be true, something like conviction or acceptance. Aristotle claims that having belief depends on having credence because credence represents a kind of mental bookkeeping that determines whether a subject commits to a claim. A subject's commitments, the claims which guide her actions and affect, are those claims which she believes, i.e. her *doxa*. Belief, therefore, is an epistemic investment over and above having a certain amount of credence in a claim. Believing something therefore depends on having credence in it. Aristotle's claim that animals do not have *pistis* amounts to the denial that animals are capable of this sort of mental bookkeeping. The reasons for this denial will occupy us in later chapters.

---

34. On the first interpretation of levels of confidence, see Blackburn (2011), who traces the view back to Ramsey. For the second interpretation in terms of disposition to presuppose, see Joyce 2004.

2. The Argument

Here are both of the arguments by which Aristotle denies belief to non-rational animals:

> It remains, then, to see whether [representation] is belief: for belief also turns out to be either true or false. But, belief depends on credence (for it is not possible for someone who forms a belief not to have credence in what seems to be), but credence belongs to none of the beasts, while many of them have representation.

> Moreover, every belief depends on credence, credence depends on having been persuaded, and persuasion depends on reason; but while representation belongs to some of the beasts, none of them have reason.[35][36]

Aristotle's aim here is to distinguish representation from belief, and he cannot do that by appealing to the respective truth-values which those states can take. Unlike exclusive perception[37] and understanding (*nous*), belief can be either true or false, just as representation can.[38] Exclusive perception and understanding, like scientific knowledge (*epistêmê*), are states whose content can only be true. In other words, S's knowing (or understanding, or exclusively-perceiving) that p entails that p is true.[39] To distinguish representation from such states, Aristotle need only observe that there are some instances of false representation. He even at one point says that representation is "mostly false," whatever that might mean.[40] Belief, however, has no guaranteed truth-value: that S

---

35. *On the Soul* 3.3, 428a18-24: λείπεται ἄρα ἰδεῖν εἰ δόξα· γίνεται γὰρ δόξα καὶ ἀληθὴς καὶ ψευδής. ἀλλὰ δόξῃ μὲν ἕπεται πίστις (οὐκ ἐνδέχεται γὰρ δοξάζοντα οἷς δοκεῖ μὴ πιστεύειν), τῶν δὲ θηρίων οὐθενὶ ὑπάρχει πίστις, φαντασία δὲ πολλοῖς.
ἔτι πάσῃ μὲν δόξῃ ἀκολουθεῖ πίστις, πίστει δὲ τὸ πεπεῖσθαι, πειθοῖ δὲ λόγος· τῶν δὲ θηρίων ἐνίοις φαντασία μὲν ὑπάρχει, λόγος δ' οὔ.

36. All translations are my own. I follow the text of Jannone's 1966 Budé edition, and reject the brackets that Ross 1961 puts around a22-24. Among commentators, only ps-Philoponus thinks the passage bracketed by Ross adds nothing (*Commentary on the Soul*, 15.501.5-6). Most modern editions and translations take the passage to add something new and therefore merit inclusion. See, in addition to the Budé, Rodier 1900, 2:422, Hicks 1907, 464 and Hamlyn 1968, 132.

37. That is, perception of *idia*, qualities received by only one of the five senses and hence "exclusive" to that sense. Sight, for instance, is the only sense that perceives color, and hearing, sound. Aristotle contrasts these (*On the Soul* 2.6.418a17-20) with "shared" (*koina*) objects of perception, such as mass, size, shape and number.

38. Exclusive perception: *On the Soul* 2.6, 418a11-17, 3.3, 427b12 and 428a11. Understanding: *Posterior Analytics* 2.19, 100b8-9, *On the Soul* 3.3, 428a17-18, and *Nicomachean Ethics* 6.6, 1141a3-5.

39. Aristotle never wavers in his view that understanding and scientific knowledge always relate the subject to the truth. His commitment to the claim that exclusive perception always relates the perceiver to the truth is, however, not quite as secure. See, for instance *On the Soul* 3.3, 428b18-22, where he says that exclusive perception makes mistakes "as little as is possible," which is a weaker than the claim that it can only be true.

40. *On the Soul* 3.3, 428a12-13. Hicks (1907, 463) follows ps-Simplicius, who takes this claim to depend on the lapse in time between the episode of perception (which "stirs up" the representation, as Simplicius says) and the re-presentation of the appearance. See also Engmann 1976, who sees two incompatible

believes that p neither entails p nor not-p. The distribution of truth values over token beliefs, then, is not sufficient to distinguish belief and representation as types. Aristotle must instead argue that representation and belief, as types, do not share some further characteristic. These two arguments argument are meant to establish that belief and representation have different distributions across the animal kingdom. Since many beasts[41] share in representation, but do not enjoy reason and credence (upon which believing depends), belief and representation must be distinct as types.

As I read the text, there are indeed two arguments in this passage. Some editors, however, bracket the second argument[42] (a22-24). They think the text doubtful because of an alleged double recension. That is, two different versions of the *On the Soul* 3.3 have been mixed up in the text as it has come down to us, with a bit of text supposedly occurring alongside its revision or prospective replacement. Paleography provides no basis for exclusion, in this case; doubling would need to have occurred further back than any manuscript evidence can adjudicate.[43] Nor is there any sound interpretive ground to think that a22-24 is mere doubling. On the contrary, removing either half of the passage turns the argument into a head-scratcher. Remove the first half (a20-22) and Aristotle gives no rationale for why belief might depend on credence, and the claim is not intuitive enough to stand on its own.[44] Without the second half (a22-24), Aristotle gives us no reason to think that non-human animals cannot have credence. Again, this claim has little intuitive appeal: my cats, at least, seem to display different levels of doubt and certainty, and it would take further theoretical considerations to disabuse me of that *prima facie*

---

notions of truth in Aristotle's discussion of representation.

41. *Thêrion* denotes a "beast of the field," most likely a mammal, i.e. one of the creatures we might intuitively think of as "animals," as opposed to fish and reptiles: see LSJ entry I.A. Aristotle seems to have this sense in mind when he lumps young children in with beasts and opposes them to rational adults: see especially *Nicomachean Ethics* 7.12, 1153a31-32.

42. The most recent editor to do so is Ross 1961, who takes his cue from Biehl 1896 and Torstrik 1862.

43. The earliest manuscripts that contain this section of *On the Soul* date to the 9th century: cf. Jannone 1966, xxiv-xxxviii. Hicks (1907) points out that every ancient commentator reads both parts of the passage. That is, their received text includes the second half of the passage, though ps-Philoponus excludes it on unsound interpretive grounds.

44. Hamlyn in particular (1968, 132) finds the claim implausible, though he does not share my view about how to understand the term *pistis*.

attribution. The argument, therefore, requires some background to be the least bit plausible, and we must retain the entire passage to provide that background.

3. Pistis as Credence: A Mental State that Varies by Degree

How, then, does belief depend on *pistis*, and what is *pistis,* anyway? The word has a broad range of meaning: LSJ lists ten possible translations, from "faith" to "proof" to "position of responsibility." The lexicon, however, will not settle philosophical questions; we must consult Aristotle's pattern of use. In this section, I assume that *pistis* denotes a mental state in our passage from *On the Soul*, specifically "credence," a mental state to which there are numerous other references in the corpus.[45] In this section, I examine positive textual evidence that Aristotle has a concept of credence and uses it in many different contexts. Understanding *pistis* as "credence" makes the contours of Aristotle's notion clear to us, though we should not expect isomorphism with a term in Bayesian epistemology.[46] The most striking aspect of credence is that it varies by degree: a subject can have more or less of it. This tells against a family of conventional interpretations that take *pistis* to be some binary attitude like acceptance or conviction—a taking-to-be-true.[47] This conception helps us explain how belief depends on credence, for Aristotle: there are plausible views on which binary belief (*doxa*) constitutively depends on having a sufficient amount of credence.[48] We could therefore explain Aristotle's view that belief depends on credence by saying that he holds some view of this kind. I take up this discussion until a later section.[49]

There are passages, widespread in the corpus, where Aristotle discusses an attitude toward propositional content that can be stronger or weaker. He discusses how this mental state is affected by our interactions with the world and with each other, and how changes

---

45. For argument that it denotes a mental state in our passage from *On the Soul*, and consideration against alternative readings, see "Appendix: Other Uses of Pistis," page 48.
46. In particular, we should not read into Aristotle's conception of credence a sort of Ramseyan analysis that they express willingness to buy and sell bets at a certain price. For a concise and readable account of this view, see especially Blackburn 2011.
47. For detailed argument against such interpretations, see page 35.
48. For a survey of views of contemporary this kind, as well as views that deny any such relationship between binary belief and credence, see Sturgeon 2008.
49. See "How Belief Depends On Credence," page 34.

in this mental state interact with belief and knowledge. His terminology is consistent throughout: he uses *pistis* and words derived therefrom. *Pistis* is probably not a technical term for Aristotle in the same way that "credence" is for us. We should expect this, for *pistis* is not embedded in a system of formal epistemology the way "credence" is for us.[50] There is ample evidence, however, that he makes both explicit and implicit use of a notion of credence, which gives us reason to think that he deploys such a notion in our passage from *On the Soul* 3.3.

We start with the first chapter of the *Rhetoric*. Aristotle argues that, when it comes to rhetoric as a methodical discipline (*entechnos methodos*), its foremost concern is the different forms of proof (*pisteis*, an instance of homonymy).[51] He claims that these proofs are a sort of demonstration (*apodeixis tis*). What matters for our purposes is why he says this: it is because people put the most credence in what they take to be demonstrated:

> Since it is plain that the method [of rhetoric] that relies on craft-knowledge concerns the ways of proving, and proof is a sort of demonstration (for whenever we suppose that something has been demonstrated, at that point do we put the most credence [in it])…[52]

Aristotle qualifies an instance of *pisteuein* (to give credence) with an adverb of degree (*malista*). His meaning is straightforward: different methods of proof convince people to different degrees, and people are convinced to the highest degree when they think that something has been established through demonstration. This implies that other methods of proof would convince them to a lesser degree, and the whole scheme presupposes that being convinced can occur in various degrees and that we can make comparisons between those degrees. The verb *pisteuein* is derived from the noun *pistis*: it literally means "to have *pistis* for something." We are entitled to conclude, therefore, that Aristotle's notion of *pistis*

---

50. Neither, though, should we overstate the term's informal or intuitive character. Aristotle devotes at least three arguments to *pistis* and related mental states in the *Topics*: 4.5, 125b35-39, 126b12-34, and 4.6, 128a35-37. At 4.5, 126b12-34, the term seems used more as a toy example, and his remarks do not represent his considered views on the subject. The term's appearance in a chapbook of academic debate nonetheless suggests that Aristotle wishes to make it a term in his philosophical vocabulary.
51. This occurrence of *pistis*, as with all occurrences in the plural, denotes the argument or proof meant to instill persuasion, not the state of mind itself. See "Appendix: Other Uses of Pistis," page 48.
52. *Rhetoric* 1.1, 1355a3-6: ἐπεὶ δὲ φανερόν ἐστιν ὅτι ἡ μὲν ἔντεχνος μέθοδος περὶ τὰς πίστεις ἐστίν, ἡ δὲ πίστις ἀπόδειξίς τις (τότε γὰρ πιστεύομεν μάλιστα ὅταν ἀποδεδεῖχθαι ὑπολάβωμεν)…

allows it come in degrees, such that a person can have more or less of it. This means that we should understand it as credence.

Our next piece of evidence also comes from the *Rhetoric,* one chapter later. Aristotle acknowledges that factors other than the argument itself contribute to persuasion. One of the most important, in his view, is how trustworthy a speaker can make himself seem to the audience.[53] Once again, his argument for this point relies on the degree to which someone gives credence:

> There is proof through one's character whenever the speech is spoken in such a way that the speaker makes himself worthy of credence (*axiopiston*). For we give credence more (*pisteuomen mallon*) and faster to people who are reasonable (*epieikesi*)—generally about everything, and even entirely in matters where there is nothing precise but rather a difference of opinion.[54]

We are more inclined to believe what someone says, and give our support faster, if we think that she is a reasonable person. Aristotle makes the apt observation that this is more likely to happen, and the speaker holds greater sway, when the subject is a matter of serious dispute, with different people arguing different ways. In those circumstances, all that a listener might have to go on is whether the speakers themselves are worth trusting. This is another straightforward instance of credence coming in degrees. The adverb Aristotle uses here is comparative instead of superlative, but that makes no difference. The construction still implies a *comparison* between different levels of credence, but does not make the further claim that one of the degrees is a local maximum.

A third piece of evidence comes from an entirely different context, book 13 of the *Metaphysics.* Aristotle ends a discussion of the ontology of numbers with some brief metaphilosophical remarks. After criticizing a representative sample of views about what sorts of things numbers are, he says that he has done all he can to convince someone of his own view, and that a longer discussion would not bring anyone on board who is not

---

53. He thinks that one's character constitutes "the most authoritative proof" (*kuriôtatên pistin*), though he also says that this sort of persuasion "should happen through the speech, not from people believing in advance what type of person the speaker is." See *Rhetoric* 1.2, 1356a9-10.

54. Rhetoric 1.2, 1356a5-8: διὰ μὲν οὖν τοῦ ἤθους, ὅταν οὕτω λεχθῇ ὁ λόγος ὥστε ἀξιόπιστον ποιῆσαι τὸν λέγοντα· τοῖς γὰρ ἐπιεικέσι πιστεύομεν μᾶλλον καὶ θᾶττον, περὶ πάντων μὲν ἁπλῶς, ἐν οἷς δὲ τὸ ἀκριβὲς μὴ ἔστιν ἀλλὰ τὸ ἀμφιδοξεῖν, καὶ παντελῶς.

already in agreement. Importantly for us, he also says that someone who is already persuaded would be persuaded *to an even higher degree* by more argument:

> It is difficult to say something well from elements that are not right, as Epicharmus says: for right after it has been said, it immediately seems not to be right. — But regarding numbers, what has been considered and laid down is sufficient (for someone who has already been persuaded would be persuaded more by more [considerations], but someone who has not been persuaded will be convinced to no greater degree).[55]

This passage plays an important role in explaining how belief depends on credence, and we will return to it in that section. For now, it is more evidence that there is a mental state in Aristotle's cognitive psychology that is capable of responding to considerations by degrees, rather than in binary terms. The verbs in this passage are instances of *peithesthai* (to be persuaded) rather than *pisteuein*, so we do not have the morphological connection to *pistis* that we do in the first two passages. There is, however, no cause for concern: we cannot say how someone could be persuaded *to a greater degree* if that does not mean that he becomes *more convinced* of the claim. The same applies in the case of someone who is not persuaded. Someone's being persuaded to *no greater degree (ouden mallon)* means, I assume, that they come no closer to believing the claim. This passage, then, joins the first two in establishing that Aristotle has this notion of a mental state that varies by degrees and that it behaves in such a way that we should take it to be credence.

These three passages show that Aristotle's conceptual scheme includes a mental state that varies by degree, but say nothing about the connection it bears to binary states like belief and knowledge. It turns out that Aristotle has sophisticated views about that connection. This becomes clear in three further passages about credence in which he uses the notion to do philosophical work about belief and knowledge. These passages involve more argument on Aristotle's part and so require more sustained attention than our first three passages. Together, they show that credence not only varies in degrees, but expresses an epistemic evaluation of a claim. They also show that credence establishes necessary

---

55. *Metaphysics* 13.9, 1086a16-21: χαλεπὸν δ᾽ ἐκ μὴ καλῶς ἐχόντων λέγειν καλῶς, κατ᾽ Ἐπίχαρμον· ἀρτίως τε γὰρ λέλεκται, καὶ εὐθέως φαίνεται οὐ καλῶς ἔχον. — ἀλλὰ περὶ μὲν τῶν ἀριθμῶν ἱκανὰ τὰ διηπορημένα καὶ διωρισμένα (μᾶλλον γὰρ ἐκ πλειόνων ἂν ἔτι πεισθείη τις πεπεισμένος, πρὸς δὲ τὸ πεισθῆναι μὴ πεπεισμένος οὐθὲν μᾶλλον).

preconditions for knowledge and binary belief, which will be important to our discussion of how belief depends on credence.

The first passage that deserves sustained attention comes from early in the *Posterior Analytics,* during a discussion of scientific knowledge (*epistêmê*) acquired through demonstration (*apodeixis*). It is impossible to understand Aristotle's train of thought in this passage without recognizing that credence is an epistemic evaluation that varies by degree. In his view, someone who knows something through demonstration puts very high credence in what she knows. We cannot say "the highest credence," because one must have higher credence in the premises than in the conclusion of a demonstration. We can, however, say this: no matter how confidently one maintains one's belief in something, she would put more credence in it if she knew it through demonstration.[56] Aristotle uses this as the premise of a *reductio* for the view that one can have knowledge through demonstration without first understanding the starting-points (*archai*) for the demonstration.[57] He goes on to say that anyone who has knowledge through demonstration cannot find more convincing any set of starting-points that entail a contrary conclusion:

> If someone is going to have knowledge by demonstration, he should not only be better acquainted with the starting-points (*archas*) and put more credence in them than in what is demonstrated, but there must also be nothing more convincing to him or more recognizable among those claims which oppose the starting points, claims from which there will be a deduction of the contrary error—if, that is, the man who simply knows is supposed to be unchangeable in persuasion.[58]

Aristotle frames the conclusion as a result of the requirement that someone who knows should be unchangeable in persuasion (*ametapeiston*). Aristotle does not explicitly affirm

---

56. This I take to be Aristotle's claim in the tortuous passage at *Posterior Analytics* 1.2.72a32-34, two sentences before the passage I intend to discuss. The phrase "what she is no better disposed toward [than she would be] if she happened to know" is difficult to parse, but the point seems to be that, however confident one is that a given claim is true, knowing the claim through demonstration (assuming it is the sort of thing that can be demonstrated) will make one more confident still.

57. See *Posterior Analytics* 1.2.

58. *Posterior Analytics* 1.2, 72a37-b4: τὸν δὲ μέλλοντα ἕξειν τὴν ἐπιστήμην τὴν δι᾽ ἀποδείξεως οὐ μόνον δεῖ τὰς ἀρχὰς μᾶλλον γνωρίζειν καὶ μᾶλλον αὐταῖς πιστεύειν ἢ τῷ δεικνυμένῳ, ἀλλὰ μηδ᾽ ἄλλο αὐτῷ πιστότερον εἶναι μηδὲ γνωριμώτερον τῶν ἀντικειμένων ταῖς ἀρχαῖς ἐξ ὧν ἔσται συλλογισμὸς ὁ τῆς ἐναντίας ἀπάτης, εἴπερ δεῖ τὸν ἐπιστάμενον ἁπλῶς ἀμετάπειστον εἶναι.

that this is something he wants out of a theory of knowledge. Rather, he states the claim conditionally: *if* someone who knows through the demonstration is supposed to be unchangeable in persuasion, *then* the stated conditions on credence hold. There is some evidence, however that Aristotle presupposes that a satisfactory theory of knowledge will include this condition.[59] Whether he holds the substantive view about knowledge is not, however, crucial to my interpretation; what matters is the view that he evinces about credence. If, then, someone is to count as having that sort of knowledge, two things must be true about her credence. First, she must have more credence in those facts from which the demonstration proceeds (the so-called "starting points") than she has in the conclusion. This is a strange claim to make, especially since the conclusions of ideal demonstrative science are often the facts that are more immediately familiar to us than the principles on which they rest.[60]

Aristotle's second condition concerns us more: someone who knows by demonstration must not have more credence[61] in any starting-point that would entail a proposition that contradicts what she is supposed to know. That is to say, someone cannot count as having knowledge through demonstration if she puts more credence in premises that entail a conclusion contrary to what is demonstrated. Aristotle does not say that such a person need be aware of this instability in her credence. It is consistent with Aristotle's case that such a person have a high credence in the demonstrated conclusion. What disqualifies her from having knowledge is that there are propositions which (1) she considers at least as likely as the propositions which entail the demonstrated conclusion,

---

59. See, for instance, *Topics* 5.2, 130b15-18 and 5.5, 134a34-38, though he seems less sure when he uses the example at 5.4, 133b28-31. Aristotle's statements in the *Topics* do not always represent his considered views, but his use in these examples suggests that he takes the point to be so obvious that he can use it without arousing controversy. On Aristotle's hesitancy about committing to such a view of knowledge, see especially Brunschwig 2007, 2:146-47. As I say in the main text, whether Aristotle is in the end committed to the substantive claim about knowledge matters less for my interpretation than how he analyzes the claim, which is clearly in terms of credence.

60. For Aristotle's distinction between what is familiar and prior "to us" vs. what is familiar and prior "in nature," see especially *Posterior Analytics* 1.2, 71b33-72a2, *Physics* 1.1, 184a16-21, *Topics* 6.4, 141b3-5 and 24-28, and *Nicomachean Ethics* 1.4, 1095b2-3. For what I take to be his explication of the distinction, see *Topics* 6.4, 141b8-14.

61. *Pistos* can also connote finding a proposition plausible or worthy of belief. If my interpretation of Aristotle's views on credence is correct, then credence tracks assignments of plausibility: the more credence someone has in a proposition, the more plausible they find it. We need not press this too hard, however, since I take it Aristotle means *autôi pistoteron* to do the same work as *mallon pisteuein* does in the previous clause.

and which (2) entail a conclusion contrary to the demonstrated conclusion. Since the demonstrated conclusion is true, and deducing the contrary conclusion would be an error (Aristotle assumes this), such a person fails to have knowledge. She fails to have knowledge because it should be impossible to change a knower's mind about what she knows, given that she has an explanation for why things cannot be otherwise.[62] If she could come to find a contrary deduction more credible, however, she fails this test: given her credence, all someone has to do to change her mind is show her the deduction of the contrary conclusion from what she considers more credible. Aristotle's discussion makes no sense unless *pistis* represents an epistemic assessment. Someone's *pistis* determines what she considers true and is willing to infer, and through that whether her grasp of a claim amounts to knowledge or not.

The other two passages that deserve more in-depth treatment both come from the *Nicomachean Ethics*. At *Nicomachean Ethics* 7.3, Aristotle tries to figure out what goes wrong in the thinking of a subject who lacks self-control (the *akratês*). He briefly entertains the view that someone can act against their better judgment because the judgment amounts to mere true belief (*doxa*), rather than knowledge (*epistêmê*). According to such a view, the conviction one has in the better judgment (e.g. all sweets should be avoided) is overwhelmed by one's conviction in another universal belief (e.g. all sweet things should be tasted). Aristotle rejects this analysis because it claims, implausibly, that someone who believes is, *qua* believer, less sure of herself than someone who knows. This cannot be right, because we all know people whose beliefs do not rise to knowledge, but nonetheless feel no doubt about their view. Here is how he puts it:

> Regarding [the claim that] it is in spite of true belief and not knowledge that people act without self-control (*akrateuontai*): that makes no difference for the argument. For some people who believe do not doubt, but think that they know precisely. So if those who believe are more likely to act against their judgment than those who know because they give [only] slight credence, then knowledge will differ nothing from belief; for some people are no less confident of what they believe than others are of what they know. Heraclitus shows this to be the case.[63] [64]

---

62. See especially Kosman 1990.

Call a situation where someone acts against their better judgment "akrasia," after the condition of the soul that gives rise to such occasions. The view offered in the above passage is that a judgment is liable to akrasia when it expresses a true belief that does not rise to the level of knowledge, whatever that difference amounts to (Aristotle's distinction between belief and knowledge here does not seem to presuppose the view of scientific knowledge he holds in the *Analytics*). The view presupposes that someone with only true belief is thereby in an unstable position, apt to change their mind lightly or on a whim. Aristotle concludes that this view is confused about the relationship between belief and credence. It is just not the case that having a belief means also having a weak attachment to the content of the belief. Because of this, the view does not explain what it sets out to.

Aristotle's argument against the view proceeds in two stages. First, he rejects a formulation to the effect that, if someone's judgment *in fact* expresses a true belief rather than knowledge, then that judgment is *eo ipso* vulnerable to *akrasia*. Such a view makes a strong assumption about how believers and knowers view their respective epistemic situations.[65] It presupposes that anyone whose belief does not rise to the level of knowledge is going to feel some doubts about what they believe. Judging from Aristotle's vocabulary, it claims that those who believe necessarily hesitate, or are "of two minds" (*distazousin* comes from *dis*, Greek for "two").[66] Aristotle's counterexample digs that presupposition out and refutes it. Some people just feel no doubt about about what they believe, even when their does not in fact rise to the level of knowledge.

In the second step, he considers a revised version of the view that takes this objection into account. The new view grants that a judgment expressed by mere opinion is

---

63. *Nicomachean Ethics* 7.3, 1146b24-30: Περὶ μὲν οὖν τοῦ δόξαν ἀληθῆ ἀλλὰ μὴ ἐπιστήμην εἶναι παρ᾽ ἣν ἀκρατεύονται, οὐδὲν διαφέρει πρὸς τὸν λόγον· ἔνιοι γὰρ τῶν δοξαζόντων οὐ διστάζουσιν, ἀλλ᾽ οἴονται ἀκριβῶς εἰδέναι. εἰ οὖν διὰ τὸ ἠρέμα πιστεύειν οἱ δοξάζοντες μᾶλλον τῶν ἐπισταμένων παρὰ τὴν ὑπόληψιν πράξουσιν οὐθὲν διοίσει ἐπιστήμη δόξης· ἔνιοι γὰρ πιστεύουσιν οὐδὲν ἧττον οἷς δοξάζουσιν ἢ ἕτεροι οἷς ἐπίστανται. δηλοῖ δ᾽ Ἡράκλειτος.

64. On this passage see also Charles (2009, 43-44) from whom I borrow translation of the final sentence. Aristotle does not mean that Heraclitus already offered a persuasive argument for the point he (Aristotle) just made, but that Heraclitus is a glaring instance of someone who, despite merely opining, was very sure of himself.

65. Cooper (2009, 34n55) treats *pisteuein* (to have credence) as psychological attachment to one's judgment, which lacks the flavor of epistemic evaluation at the core of what I take Aristotle's notion to be.

66. See Chantraine 1968, 287 under δίς.

vulnerable to akrasia because the believers "have slight credence." That is, it admits that the believer is on thin ice not just because her belief fails to constitute knowledge, but also because her commitment is shaky. Here, then, is where the idea that credence comes in degrees does philosophical work. All Aristotle needs to refute such a view is a situation where the credence a person invests in their judgment is independent of whether the judgment amounts to knowledge or true belief. That is to say, "some people are no less confident of what they believe than others are of what they know." When he says "knowledge will differ in no way from belief," he does not mean that the judgment of someone who knows is just as liable to akrasia as that of someone who believes.[67] Rather, claiming that the credence is slight *because* the judgment expresses a belief does no explanatory work. In cases where the credence is marginal, the view seems to have some purchase, but there also are cases where someone who believes is totally sure of herself. There, the view offers no insight, hence Aristotle's contention that "it will make no difference to the argument" to claim belief is subject to akrasia while knowledge is not.

At *Nicomachean Ethics* 7.3, 1146b24-30, Aristotle recognizes a mental state that accompanies both belief and knowledge, and constitutes a dimension along which it is possible to compare those two states. He uses the verb *pisteuein,* the verb derived from *pistis,* to talk about this mental state. Adverbs of quantity and strength (*mallon, êtton, êrema*) indicate that this ingredient can be present to greater or lesser degrees, and a distinction between people who "hesitate" and those who "think they know precisely" suggests that the variation measures one's credence in a particular judgment, i.e. how likely the judgment seems by one's own lights. This new moving part lets Aristotle demolish a widely-held but confused view about why certain judgments are vulnerable to akrasia. This is clear evidence that *pistis* is meant to be credence.

The last passage to consider also comes from book 7 of the *Nicomachean Ethics,* though much later on, during the discussion of pleasure and pain. In this passage, Aristotle stumps for a certain way of arguing, on the grounds that it impacts our credence

---

67. At least, this is true if it is a condition on genuine knowledge that the knower cannot be persuaded otherwise, a view he entertains at *Posterior Analytics* 1.2, 72a37-b4, one which see page 22.

in a desirable way. We should, he says, not only say what is true, but also explain why the opposing (false) view had the initial appeal that made it a competitor for consideration. Someone who has an explanation for why some view might be attractive (yet false) will, in Aristotle's view, put more credence in the true view because such explanations debunk the false view and strip away its appeal:[68]

> We should say, then, not only what is true but also the explanation for what is false, for this contributes to the credence (*pistis*): for whenever there comes to light a reasonable (*eulogon*) explanation for why something seems true without actually being so, this makes us invest more credence (*pisteuein…mallon*) in the truth. So we must say why bodily pleasures appear more worthy of choice.[69]

According to this line of argument, We should do philosophy not just with a view to establishing what is true, but also to understand the seduction of false but appealing views. Aristotle says we ought to do this because it adds to our credence in the true view. His conclusion that we ought also to give "the explanation of the falsehood," then, does not mean that we ought to explain why the false view is false. That is just part and parcel of arguing for a competing view: if two views compete, and one of them is true, it follows that the other is false, and considerations that speak for the true conclusion speak against the false conclusion.[70] The explanation of the falsehood is therefore something more sophisticated. It is what we might call a "debunking explanation:" it accounts for why the view seems to be true, but is actually false.[71] The text demands this reading independent of

---

68. This type of explanation, which explains the (epistemic) attractiveness of a view without vindicating the view, is related to the type of debunking explanation which constitutes "error theories" about certain areas of discourse (e.g. normative ethics or ontology). See Mackie 1977 and Joyce 2001 for error theories about morality, and Bergmann 2005 for an error theory about internal justification in epistemology. The characteristic burden of an error theory is to explain why we are disposed to think that our judgments in the domain are true, when they are in fact false. Aristotle's point here is distinct from the one he makes at *Topics* 8.10, 160b35-38. There, his advice concerns what sort of objection actually amounts to an objection to the argument, rather than simply a false premise of the argument.

69. *Nicomachean Ethics* 7.14, 1154a22-26: Ἐπεὶ δ' οὐ μόνον δεῖ τἀληθὲς εἰπεῖν ἀλλὰ καὶ τὸ αἴτιον τοῦ ψεύδους· τοῦτο γὰρ συμβάλλεται πρὸς τὴν πίστιν· ὅταν γὰρ εὔλογον φανῇ τὸ διὰ τί φαίνεται ἀληθὲς οὐκ ὂν ἀληθές, πιστεύειν ποιεῖ τῷ ἀληθεῖ μᾶλλον. ὥστε λεκτέον διὰ τί φαίνονται αἱ σωματικαὶ ἡδοναὶ αἱρετώτεραι.
My translation reads *to aition,* by anaphora, as the object of *phanêi* in the second sentence.

70. Aristotle's views about the semantics of truth and contrary statements at *On Expression* 14 commit him to this conclusion about competing claims. I understand "competing" here in the sense of "contrary," meaning that both views cannot be true, but both can be false.

71. This interpretation takes the scope of the explanatory demand to extend over the entire clause. Aristotle is not, on my view, claiming that we should find an explanation for why the view is false (even if it seems true), but rather an explanation for *why the view seems true* but is nonetheless false.

considerations about the dynamics of disagreement. The explanation demanded is an answer to the later why-question (*dia ti)*; the main verb phrase concerns the view's appearing true *(phainetai alêthes)*, while a circumstantial participle with adversative force (*ouk on alêthes*) conveys the view's not actually being true.[72] Moreover, the conclusion Aristotle draws is that he must explain why the bodily pleasures *appear more choice-worthy*, not why they are not in fact more choice-worthy. The argument's conclusion, then, demands an explanation for the apparent truth of the competing view (emphasis on "apparent").

Aristotle's use in the above passage shows that credence (*pistis*) comes in degrees and represents an evaluation of the claim with respect to truth. We ought to provide debunking explanations because it "adds to the credence." Giving an argument for the true view does a certain amount of probative work, to which the debunking explanation contributes. The supporting premise confirms that this is what Aristotle means: we "put more credence in the truth" when we have a debunking explanation in addition to positive argument. It also gives us an example of how credence operates, for Aristotle. The item that makes us "invest more credence in the truth" is an *aition*, an explanation. Credence, then, responds to evidence, i.e. considerations that favor the truth of one claim over another, though do not necessarily demonstrate either one.[73] This is reason to think, as we said before, that credence expresses an epistemic evaluation of a claim, not merely a psychological attachment to it.[74] The passage treats one specific example of this dynamic, where debunking some claim makes a competing claim more epistemically appealing. The word *doxa* does not show up in this passage, because Aristotle is not here offering an argument about the relation between mental states. The passage nonetheless reveals an aspect of Aristotle's view about the relation between credence and belief if we make the following reasonable assumption: in stating the truth, one aims to get others to form true beliefs. On this assumption, Aristotle's prescription that "we should say what is true" is

---

72. See Smyth 1920, 456-57 for how these participles generally behave. It is not, however, unheard of for a participle to carry the main idea of a clause: see Smyth 1920, 477.
73. For more on this broad notion of evidence, see Chapter 2, page 52.
74. See page 14.

grounded in a prescription to convince people of the truth. The implicit picture seems to be this: for someone to embrace a proffered view, they must be sufficiently convinced of it. It is possible for the positive argument in favor of what is, in fact, the true view to carry insufficient conviction, perhaps due to undefeated considerations in favor of the competing view.[75] A debunking explanation removes the appeal of the competing view and thereby raises credence in the true view, perhaps to the point of full endorsement. More on this further point later.

These more involved passages confirm that credence, for Aristotle, is a necessary precondition for belief and other propositional attitudes. Credence is common to both belief (*doxa*) and knowledge (*epistêmê*), in the sense that both those who believe and those who know seem to have this other mental relation to the content of their beliefs and knowledge. If belief and knowledge track what the subject takes to be true (albeit in very different ways), then *pistis* seems to track how likely she takes a given claim to be true. At *Nicomachean Ethics* 7.3, Aristotle counters the claim that judgments are vulnerable to akrasia if they express belief rather than knowledge with the observation that some who believe do not doubt (*distazousin*), but think they know precisely (*akbribôs*). He then describes the person who doubts as "having slight credence" (*êrema pisteuein*). The most natural way to take these claims is as statements about the subject's evaluation of the truth.

This language suggests that credence is an epistemic attitude: it represents an evaluation with respect to truth, not merely how the subject feels. Having little credence in a claim does not mean that they hate that it is true, or wish it were not true; it means that they have some doubt. Similarly, a high credence does not represent desire that a claim be true, or gladness that it is true, but rather an evaluation of whether it is true. Too little *pistis*, and there will be no belief. Aristotle's argument in *Nicomachean Ethics* 7.14 supports this picture. Debunking explanations give us more credence in the truth. They do this by giving us additional reason to rule out the competing claim. It follows that credence, at

---

75. Aristotle makes an analogous claim with respect to knowledge (*epistêmê*), which has stricter standards than *doxa*. See *Posterior Analytics* 1.2, 72b1-4: If someone is to have understanding simply as such, she must not find more plausible any of the "opposite starting-points" from which a "deduction of the opposite error" might be possible. This is a necessary condition for someone who has knowledge to be "unchangeable in their conviction" (*ametapeiston*). I discuss this passage more at page 22.

least ideally, tracks our assessment of likelihood, not our fervency or "faith" in a non-epistemic sense. For an example of the latter, consider a high-school student who attends a pep rally and, by participating in cheers and being moved by the rallying cries, becomes sure that his school's football team will win the homecoming game. The pep rally gives him no real evidence that his team is more likely to win, but it does make him fervently support his team. This is a very different kind of mental state from the one we encounter in our texts.[76] For an example of the state Aristotle has in mind, consider the coach who watches a rival team play, in preparation for their imminent contest. He sees their impregnable defensive line, their quarterback throwing pinpoint passes with an impeccable sense of when to run. He takes all this in and thinks, "they're going to crush us," though he would never admit this to his players. The thought is not merely an expression of despair, the way that the student's faith in the team is an expression of his support. Rather, it is a response to the balance of his evidence. He is not fervently attached to this claim: he would give it up in a moment, if he could, yet his credence is very high.

4. Interlude: Credence and Truth

Before we complete our account of Aristotle's argument with an explanation of how belief depends on credence, we should note that Aristotle never refers to *pistis* as true or false, nor does he ever qualify *pisteuein* with any adverb to denote its happening truly or falsely.[77] What is more, this is unlikely to be an accident of the data. Since he talks extensively about the truth and falsehood of most every other cognitive state (belief, knowledge, practical wisdom, representation, understanding, etc.), and since my interpretation commits him to the view that credence is an evaluation of the truth of a claim, it is worth seeing that my account can explain this pattern of use.

---

76. Aristotle does in fact use *pistis* to denote this kind of mental state: see *Politics* 5.5, 1305a22 and 5.11, 1313b2. In those instances, the best translation would be "confidence" in a non-epistemic sense, where it is a close cousin of "pride." These uses are rare, isolated to a particular context, and do not implicate the cognate verbs and adjectives, the way that clearly epistemic uses of *pistis* do.

77. Results obtained by numerous morphological searches of the TLG through the Diogenes interface. He does speak, as we have seen, of "investing more credence in the truth," where *to alêthes* or some similar phrase is the dative object of *pisteuein*, but this, I think, has a different sense than saying that someone has credence truly, in the same way that someone *believes* truly.

It is tempting to explain this pattern of use in the following (false) way: unlike belief (*doxa*) and knowledge (*epistêmê*), credence is not a kind of entertaining (*hupolêpsis*). It is therefore (so the story goes) not in the business of making assertions, the way belief is, and is therefore not truth-apt, i.e. the kind of state that is either true or false. This explanation falls flat because mental states can be truth-apt while failing to be assertoric. Consider representation (*phantasia*): Aristotle says on several occasions that it is truth-apt, but it does not make assertions.[78] Neither is being a form of entertaining necessary or sufficient for a mental state to be assertoric. Aristotle allows the possibility of entertaining something without giving it credence. This means that the content is not the object of commitment, and is therefore not asserted. So credence does not fail to be truth-apt by failing to be assertoric or by falling outside the genus of entertaining.

On my view of *pistis* as credence, this issue has nothing to do with whether *pistis* is a form of entertaining. Rather, credence is not truth-apt because it comes in degrees, but truth does not come in degrees. Aristotle seems committed to a correspondence theory of truth for assertions and assertoric mental states.[79] Saying of what is, that it is, is true, and saying of what is, that it is not, is false.[80] One can replace "saying" with "believing" and it comes to much the same thing.[81] Since truth does not come in degrees, there is no way in which our degrees of credence match up or fail to match up to reality, so as a result the credence (which is always some degree of credence) is neither true nor false.

This interpretation must answer the objection that Aristotle frequently uses comparative and superlative forms of *alêthês* (true).[82] I argue that, since Aristotle qualifies *pistis* and related words with comparative adverbs and adjectives, it is a state that comes in

---

78. For a detailed discussion of representation's being truth-apt, see Chapter 3, at page 82.
79. See Crivelli 2004, 130-32 for details on what kind of correspondence theory it is correct to attribute to Aristotle. The details of that debate will make little difference for the substance of my argument.
80. See *Metaphysics* 4.7, 1011b26-27, on which see Crivelli 2004, 132-34 for close reading and interpretation. The main text does not list all four possibilities, for the sake of brevity: there is also saying of what is not, that it is not (which is true) and saying of what is not, that it is (which is false). Again, none of these four cases adequately describes the relationship between a given level of credence and the claim that it evaluates.
81. See, for instance, *On Expression* 14, 23a33-35 and 24b2-4. In both these passages, Aristotle assumes that the semantics for belief will be isomorphic to the semantics for statement-making sentences.
82. Some examples: *Prior Analytics* 1.27, 43b9-11, *Posterior Analytics* 2.19, 100b11-12, *Generation of Animals* 2.4, 740b26-27, and *Metaphysics* 2.1, 993b26-30.

degrees. If Aristotle follows the same practice with his word for truth, then I must, on pain of contradiction, admit that truth, for Aristotle, comes in degrees, whatever that might amount to. This objection sinks because Aristotle tells us explicitly what he means when he says that something is "more true" or "truest," and it has nothing to do with truth coming in degrees the way we think of credence as coming in degrees. In book 2 of the *Metaphysics*, he lays out an argument for why the object of philosophy should be knowledge of those eternal truths which do not depend on anything else for their truth. His view is that philosophy should grasp what is "most true." Something is truer which causes the truth of other things, so those eternal things must be what is most true:

> Each thing due to which the quality which follows its name (*to sunonumon*) belongs to the others is that thing to the greatest degree (*malista*)—so for example fire is the hottest thing, for that thing is the cause of hotness among the others. And so that is truest (*alêthestaton*) which is the cause among posterior things of their being true. For this reason, it is necessary that the principles of what is always the case are the truest—for they are not true at a certain time, neither is there anything which is the cause of their being the case, but rather they are the reason that other things are true—so that as each matter is about being, so is it also about truth.[83, 84]

According to this argument, a state of affairs[85] is truer than another state of affairs if it is more fundamental in an *explanatory* sense. This is a very different idea of something coming in degrees. On my interpretation, credence come in degrees because someone can have a range of credal responses to some claim, from absolute disbelief through varying degrees of doubt to complete confidence. A similar scheme for truth would imply that a given state of affairs fall along a range of truth-values ranging from completely false to completely true. There is no hint of that sort of scheme in this passage from the *Metaphysics*. Rather, it sets out a metaphysics of explanation as a relation between two states of affairs. Some state of affairs explains another if the other depends on it. States

---

83. *Metaphysics* 2.1, 993b24-31: ἕκαστον δὲ μάλιστα αὐτὸ τῶν ἄλλων καθ᾽ ὃ καὶ τοῖς ἄλλοις ὑπάρχει τὸ συνώνυμον (οἷον τὸ πῦρ θερμότατον· καὶ γὰρ τοῖς ἄλλοις τὸ αἴτιον τοῦτο τῆς θερμότητος)· ὥστε καὶ ἀληθέστατον τὸ τοῖς ὑστέροις αἴτιον τοῦ ἀληθέσιν εἶναι. διὸ τὰς τῶν ἀεὶ ὄντων ἀρχὰς ἀναγκαῖον ἀεὶ εἶναι ἀληθεστάτας (οὐ γάρ ποτε ἀληθεῖς, οὐδ᾽ ἐκείναις αἴτιόν τί ἐστι τοῦ εἶναι, ἀλλ᾽ ἐκεῖναι τοῖς ἄλλοις), ὥσθ᾽ ἕκαστον ὡς ἔχει τοῦ εἶναι, οὕτω καὶ τῆς ἀληθείας.
84. Reading the last two genitives as genitives of connection: see Smyth 1920, §326.
85. Aristotle does not seem to be talking about assertions or beliefs in this passage, but rather about those things in the world that either obtain or do not obtain, e.g. states of affairs.

which depend on fewer other states for their truth have a certain primacy, which Aristotle designates with the locution "more true." Aristotle is not, therefore, giving us a picture of degrees of truth which could provide a semantics on which to base the truth of various degrees of credence, which vindicates my proposed explanation for why *pistis* is neither true nor false.

We could not explain comparative talk about credence in the same way that Aristotle explicates degrees of truth in the *Metaphysics* for two reasons. First, Aristotle tends to note degrees of credence with *pisteuein* plus a comparative adverb, not a comparative adjective. What he means is that a subject does something—namely give credence—to a greater, lesser, or highest degree. The claims are about a character of the subject's mental state, not the explanatory relationships that it has toward other states of affairs. Second, Aristotle makes credential comparisons between states of affairs that cannot bear any causal or explanatory relationships to each other. For instance, in our passage from the *Prior Analytics,*[86] Aristotle says that someone who knows through a demonstration must put more credence in the principle from which the demonstration proceeds than she puts in anything from which she could make a mistaken deduction contrary to what she is supposed to know through the demonstration. Call the true starting-point DEM (for demonstrator) and the misleading contrary starting-point ANTI. ANTI, since it is one of the claims in opposition to (*antikeimenôn*) a genuine (i.e. true) starting-point, is false. If we are to understand credential comparisons the same way that we understand alethic comparisons, Aristotle's claim is that DEM is the cause or explanation for why the subject puts credence in ANTI. This is, however, exactly the opposite of what Aristotle is saying. If anything, DEM is a reason the subject does *not* put any credence in ANTI.

It is nonetheless part of my view that credences have propositional content. They represent a subject's evaluation of whether something is true, and that "something" is going to be a proposition. The proposition itself will be either true or false (unless,

---

86. See above at page 22.

perhaps, it is a future contingent), and this gives us some reason to say that the credence itself will be true or false. Belief and representation, for example, are called true if their propositional content is true and false if it is false. There are other mental states that can have propositional content, but are not called true and false on the basis of whether that content is true or false. Propositional desire is the most obvious example. Suppose I want this dissertation to be finished; that is, I want the proposition expressed by the sentence "this dissertation is finished" (along with the appropriate demonstration) to be true. The proposition is currently false, but my desire is not for that reason false. This leaves some room to say that credences are not true or false, even though their content will be one or the other.

5. How Belief Depends On Credence

We can now provide an explanation for how belief depends on credence, thus completing our account of the argument. Belief depends on credence, for Aristotle, in the following way: someone forms a binary belief that some claim is true when they invest sufficient credence in the claim.[87] Credence is neither true or false because it lies on a continuum and so cannot bear the sort of semantic relation to states of affairs that would allow it to be true or false. Aristotle's syllogistic formalization of reasoning (both theoretical and practical) requires, however, that the claims represented in the syllogism be claims which the agent takes to be true, and therefore to which she is committed. It makes no sense to explain an agent's action in terms of the execution of a practical syllogism, then turn around and say that the agent did not take one or more of the premises of the syllogism to be true. A subject's *pistis,* does not unfailingly capture claims to which a person is committed. One might have a certain amount of credence in a claim, and think it fairly likely, but still not really believe it. States like belief and knowledge are what encode a subject's commitments.

---

87. For a modern statement of this view, see Sturgeon 2008, 141-42, especially for the apt turn of phrase that binary belief "grows out of" certain levels of credence (which he calls "confidence"). I do not mean to suggest that Aristotle had anything approaching a mathematical model of credence and belief change.

Aristotle rejects the idea that propositions to which the agent is uncommitted can have such an influence on their practical reasoning. We see this in book 4 of the *Metaphysics,* where he argues against a form of global Protagorean relativism. His argument is *ad hominem:* to his thinking, even an avowed relativist would shrink from saying that what is true differs depending on whether the experiencing subject is asleep or awake.[88] Even relativists do not take their dreams as seriously as they take their waking life. To prove this, Aristotle formulates an example that he takes to be uncontroversial:

> That they do not think this is obvious: for no one, at least, if he should entertain the notion (*hupolabêi*) some night that he is in Athens when he is actually in Libya, makes his way toward the Odeon.[89]

The structure of the case seems to be this: Someone supposes while sleeping[90] that he is in Athens, but he is actually in Libya. This apprehension does not cause him to go to the Odeon (we are to assume, I think, that he has some desire to go there), because he does not actually believe that he is in Athens. It is not clear how this is supposed to make any progress against the relativist, and we need not worry about that for our purposes.[91] What matters is that Aristotle presents a case of entertaining (*hupolêpsis*) which does not influence how the subject acts, and it lacks that influence because the subject does not commit to it. To play a role in the subject's reasoning, then, the proposition must receive commitment, whether that commitment be in the form of *doxa, epistêmê* or (in certain special cases *phantasia.*[92]

It is here that someone is likely to press a version of the conventional interpretation of *pistis*, whereby it denotes just this sort of commitment to a claim.[93] Such

---

88. See *Metaphysics* 4.5, 1008b3-9. The cited argument is part of a cluster of related claims: are relativists really, Aristotle asks, committed to saying that something is itself *heavier* for the weak than for the strong, and that objects are really themselves *smaller* for someone who is farther away from them?
89. *Metaphysics* 4.5, 1008b9-11: ὅτι μὲν γὰρ οὐκ οἴονταί γε, φανερόν· οὐθεὶς γοῦν, ἐὰν ὑπολάβῃ νύκτωρ Ἀθήνησιν εἶναι ὢν ἐν Λιβύῃ, πορεύεται εἰς τὸ ᾠδεῖον.
90. Most likely as the result of a dream, but the entertaining itself need not be a part of the dream. See especially *On Dreams* 1, 458b24-26 for propositional entertaining in sleep that are distinct from dreams.
91. The relativist can reply like so: There is no reason for him not to proceed to the Odeon *in her dream*, for it is true for him in the dream that she is in Athens. Her failing to proceed to the Odeon when he wakes up also says nothing against the view; the relativist can say that what is true for him when dreaming need not remain true upon waking.
92. For discussion of the last option, see Chapter 4. The "special cases" amount to the absence of a critical faculty that overrides the information that comes from perception and imagination.
93. See earlier at page 18.

an interpretation suggests translations like "confidence," or weaker still, "acceptance."[94] The believer not only entertains the content of the belief, but takes it to be true. Whether one takes *pistis* to be "confidence" or "acceptance" will further depend on whether the commitment in question is firm and fervent or of some lower intensity. Aristotle shows no interest in settling such details at *On the Soul* 3.3. What matters is that, on this interpretation, *pistis* is the taking-to-be-true, not an epistemic evaluation that comes in degrees, upon which the commitment supervenes in some way.[95] Most commentary and translation on this passage assumes an interpretation of this sort.

Any interpretation of this kind, though, is going to get things wrong because it presupposes that *pistis* is the entertaining (*hupolêpsis*) of a propositional content.[96] Aristotle, however, explicitly distinguishes entertaining a claim from the further mental operation of giving it credence. In the *Topics,* Aristotle argues for why credence and entertaining come apart in order to illustrate mistaken arguments that crop up about concepts that are "closely associated" (*parakolouthoun*) with each other.[97] He is quite clear that credence is not a form of entertaining:

> By the same token, neither is credence an entertaining: for it is possible to have the same entertaining while not giving it credence (*pisteuonta*), and this is not possible, if credence is a species (*eidos*) of entertaining. For it is not possible for something still to remain the same (*to auto*) if it should be transferred entirely out of its species, just as the same animal cannot sometimes be a man and sometimes not.[98]

94. For an instance of the weaker reading, see Hamlyn 1968, 132. Some construe *pistis* itself (rather than *doxa*) as "belief," and take *doxa* to be "opinion." See, for instance, Lycos 1964 and Grimaldi 1972, though Grimaldi does not treat this *On the Soul* passage. I must admit I do not have a keen sense of the difference, or what this move is supposed to accomplish.

95. This tendency is clear even in the ancient commentators, who often assimilate Aristotle's notion of credence to the Stoic notion of assent (*sunkatathesis*), which is foreign to Aristotle's own philosophical vocabulary. See especially Alexander, *On the Soul* 67.15-18 and ps-Simplicius, *Commentary on the Soul* 90.17-19.

96. For this picture of *hupolêpsis* as an essentially propositional form of entertainment, see especially Wedin 1984, 102-07.

97. See *Topics* 4.5, 125b28: "Sometimes [people in a debate] posit what is related [to a concept] in some way or other as the genus." From the context, it is clear that Aristotle thinks this is a mistake.

98. *Topics* 4.5, 125b35-39: κατὰ ταῦτὰ δ᾽ οὐδ᾽ ἡ πίστις ὑπόληψις· ἐνδέχεται γὰρ τὴν αὐτὴν ὑπόληψιν καὶ μὴ πιστεύοντα ἔχειν, οὐκ ἐνδέχεται δ᾽, εἴπερ εἶδος ἡ πίστις ὑπολήψεως· οὐ γὰρ ἐνδέχεται τὸ αὐτὸ ἔτι διαμένειν, ἅπερ ἐκ τοῦ εἴδους ὅλως μεταβάλῃ, καθάπερ οὐδὲ τὸ αὐτὸ ζῷον ὁτὲ μὲν ἄνθρωπον εἶναι ὁτὲ δὲ μή.

Aristotle's argument seems to go like this: consider a token entertaining, say of the notion that thunder is a quenching of fire in the clouds. Someone can entertain that content without giving it credence. This happens quite often, in cases we would call hypothesis or idle fancy.[99] One can, however, have the *same* apprehension and also give it credence. This would be true in the case of a scientist who puts forward some hypothesis in which he is not inclined to believe, and later confirms it to his satisfaction.[100] This is not possible, Aristotle says, if credence is a form of entertaining. It would be akin to a particular animal being a man sometimes and but not other times.[101] Credence attaches to instances of entertaining (it *parakolouthei* entertaining, to use Aristotle's term), but it is not a part of the entertaining family, which includes belief (*doxa*), practical wisdom and scientific knowledge (*On the Soul* 3.3, 427b24-26).

Aristotle's point is not just that one can entertain without committing. That would show that credence is not coextensive with entertaining as a genus, but it would not follow that it is not a *species* of entertaining. In the *Topics* passage, however, Aristotle makes the stronger claim that the *same particular entertaining* can exist with credence and without. This makes credence an accident of entertaining, not a species of it. So it is not the entertaining of some content, which seems to rule out "acceptance," "conviction" and "belief" as proper ways to understand the term. This does not imply that credence is non-propositional; neither representation nor perception are species of entertaining, yet both can have propositional content. On my view, however, credence is not the entertaining of a content, but rather a certain attitude toward an entertained content. So *pistis* should not be taken as something like acceptance or taking-true. Instead, we should take it to denote credence, in the sense we have previously discussed.[102]

---

99. For an apparent instance of this entertaining without commitment, see *Metaphysics* 4.5, 1008b9-11, discussed on page 35.

100. Pure examples of this case are probably quite rare. In my experience, experimental scientists often put forward hypotheses in which they are already invested to an extent. How frequently such cases occur in the real world is, however, irrelevant. What matters is that they are quite conceivable.

101. The argument here seems to be that individual substances have their species essentially, which entails that a given substance cannot cease to fall under a certain species and remain the same substance. See Kripke 1980, 123ff. for consideration of a similar thesis regarding natural kinds.

102. See page 14.

There is a further reason to think that *pistis* does not itself denote commitment, in the sense of a binary taking-to-be-true. Aristotle says that *pistis* is something that non-human animals cannot have. He both states the claim on its own and as a consequence of the claim that non-human animals do not possess reason. It is not the case, however, that animals are unable to commit to the representational content of their mental states. It is more accurate to say that animals cannot help but commit to such representational content. Humans are the ones who are able to doubt, be slightly convinced, and evince a broad range of stances toward claims.[103] Such an interpretation, then, commits Aristotle to a contradiction with himself, and my interpretation saves him from it. A defender of the view that *pistis* just denotes commitment might respond that the commitment Aristotle has in mind is of a special sort, open only to humans. There are several ways to fill in such a claim: perhaps the sort of commitment is taken toward propositional claims, and only humans can have any sort of attitude toward propositional claims. That particular way is not going to work because perception and representation can also propositional content (though they need not always).[104] We can have a representation that the sun is a foot across, and lions can hear that a goat is nearby.[105] Animals can therefore commit to propositional content, even if that content does not take the form of a belief.

We might instead say that the kind of commitment *pistis* denotes is the result of linguistic consciousness. It represents our ability to talk each other into and out of believing things, and this is a process in which animals cannot participate.[106] I will postpone discussion of whether speech and language play a relevant part in the argument Aristotle gives in our passage from *On the Soul*.[107] We need not settle that question to see a

---

103. See Chapter 4, "Reason and Restraint," page 157, where I substantiate these claims. See also Sorabji 1993 for a brief discussion (with plenty of citations) of the Stoic position on this question. Commitment, for the Stoics (which they call "assent") seems from our sources to be a positive mental act, one of which animals are incapable, which incapacity partially explains their lack of reason. I take this position to be very different (and markedly less plausible) than Aristotle's own. Sorabji makes a fair point, however, that the implausibility might be due to the passages' filtering down to us from hostile sources, which no doubt affected their context and formulation.
104. See Sorabji 1992 and Sorabji 1996, which argue that Aristotle expands the content of perception and *phantasia* precisely because he does not allow rational thinking to animals.
105. In the order mentioned: *On Dreams* 2, 460b18-19 and *Nicomachean Ethics* 3.10, 1118a20-21.
106. See especially Heil 2003 and Labarrière 1984, 30-34.
107. See Chapter 2, "A Radical Alternative?," page 69.

strange consequence of the interpretation. If this interpretation is correct, then Aristotle must say that beliefs only form as a result of those capacities we have due to linguistic consciousness. He would not, for instance, be able to refer to perceptual beliefs, because perception is not a linguistic capacity and is moreover something that we share with animals who do not enjoy linguistic consciousness. The interpretation does not deny that we commit to our perception, but it must say that this commitment is not *pistis*, the special kind of commitment that non-rational animals do not share. If there is no *pistis* toward perception, there can be no perceptual belief. This sounds too messy to be right, and indeed it is dead wrong, because Aristotle grants an important role to belief that comes through perception. Perception holds sway over the beliefs that we have about particulars (as opposed to universals). In Aristotle's formalization of practical reasoning, a universal belief and a particular belief interact in the manner of a syllogism and force the practical conclusion:

> One belief concerns a universal, the other [belief] a particular, over which
> perception is already authoritative. Whenever one claim arises out of them, it
> is necessary that the soul affirm the conclusion, and in matters that concern
> doing, to act immediately.[108]

The universal premise of the practical syllogism represents a relevant rule of thumb or guiding principle of conduct.[109] The particular premise represents the relevant aspect of the situation in which the agent currently finds herself, and the two result in a "conclusion" in accordance with which the agent must act, on pain of irrationality or some other defect.[110] It is certainly possible for the agent to hold her particular belief as a result because she was talked into thinking that things are that way. Aristotle is, however, certainly right to say that our powers of observation hold sway over how we take the

---

108. *Nicomachean Ethics* 7.3.1147a25-28: ἡ μὲν γὰρ καθόλου δόξα, ἡ δ' ἑτέρα περὶ τῶν καθ' ἕκαστά ἐστιν, ὧν αἴσθησις ἤδη κυρία· ὅταν δὲ μία γένηται ἐξ αὐτῶν, ἀνάγκη τὸ συμπερανθὲν ἔνθα μὲν φάναι τὴν ψυχήν, ἐν δὲ ταῖς ποιητικαῖς πράττειν εὐθύς.
    For a thorough discussion of how to translate this passage, with which my translation agrees in all relevant ways, see Charles 2009.
109. See especially Bäck 2009, 118-20 for a view of how perception gives practical reasoning some of its raw material. Bäck seems, however, to think that incidental perception, is the product of inference. Against this, see Cashdollar 1973. If Bäck's view were correct, then animals would be capable of inference, and Aristotle says explicitly that they are not.
110. See, for example, Santas 1969, 169-71, Charles 1984, 114-17, and McKerlie 1991, 307-8.

world to be. He calls the grasp we have of the particulars of our situation a *doxa*, and according to our passage from *On the Soul* 3.3, *doxa* depends on *pistis*. If belief can result from perception, and belief depends on *pistis,* then it must be possible for *pistis* to come about by perception, which is non-linguistic. *Pistis* is not, therefore, a special kind of commitment that we have in virtue of our linguistic consciousness.[111]

So *pistis* does not denote commitment itself, even a special kind of commitment that only humans can have. My suggestion, in line with my translation as "credence," is that it is a sort of mental bookkeeping that determines whether we commit to various claims. We have seen that credence lies on a continuum for Aristotle. On my proposed account for how belief depends on credence, there is for any given claim a threshold of credence which represents the point at which a subject commits, thereby forming a belief about the claim. To put it in more intuitive terms, there is a point at which the subject becomes sure enough of something to employ it in her practical and theoretical reasoning. This kind of scheme does not require that the subject be certain. Aristotle's remarks about credence, in fact, indicate the opposite. His discussion of akrasia in the *Nicomachean Ethics* indicates that someone's believing something is compatible with a measure of doubt (*distazein*). All it means is that there is a point beyond which more credence means that the subject will commit to the claim.

The text we have already surveyed gives us grounds to accept this interpretation. Foremost, we have Aristotle's discussion of debunking explanation at *Nicomachean Ethics* 7.14.[112] There, he claims that debunking explanations add to credence that the positive argument provides for the true view. The debunking explanation makes us put more credence in the truth (*pisteuein tôi alêthei mallon*) than the positive argument alone. This presupposes that the positive argument furnishes some credence for the true view on its own. There must be cases, however, when the credence that comes from positive argument is not enough. If this were the case, we would not require a debunking explanation that

---

111. See also *Sophistical Refutations* 5, 167b4, where Aristotle refers to "mistakes that occur regarding belief that results from perception (*ek tês aisthêseôs*)."
112. See quotation at page 27.

makes us trust the truth even more.[113] Yet Aristotle says that we do require such explanations, and concludes from this, in the manner of a particular truth derived from general principle, that he owes an explanation for why the bodily pleasures seem to be choice-worthy but are actually not. There are, as I see it, two ways to interpret Aristotle's thinking here.

The first is what we might call the "therapeutic" interpretation. On this interpretation, Aristotle is obliged to furnish a debunking explanation because the positive argument will not create sufficient psychological attachment to the claim for someone to adhere to it view in their practical reasoning. The bodily pleasures have an enticement that the competing, choice-worthy alternatives do not always have, and so agents require a debunking explanation to armor themselves against the temptation. It serves as a reminder of the reasons (excessive) bodily pleasure is not actually choice-worthy, even though it may seem that way sometimes. I call this interpretation "therapeutic" because it takes the function of a debunking explanation to be helping the agent get by, rather than aiming at the truth. This is philosophy in something of an Epicurean mode, where the arguments are meant to set one's mind at ease, and removing doubts is but a means to that end.[114] The main consideration in favor of this interpretation is Aristotle's concern, earlier in book 7, with an agent's ability to abide by her convictions in the face of temptation. It is plausible that such a concern might also animate his discussion about the choice-worthiness of pleasure.

Against this I propose the "epistemic" interpretation. Aristotle's argument on this reading concerns whether the subject believes the view, not whether she is willing to "stick to her guns." On this view, the debunking explanation rules out considerations that seem to weigh in favor of the competing view. Insofar as a competing (and so contrary) view appears to be true, it provides a consideration against thinking that the competing view is true. In other words, any consideration in favor of the contrary view is a prospective

---

113. *Dei* is Aristotle's general "ought" verb. It connotes a normative requirement, but carries no overt moral connotation. That is, it does not denote specifically moral obligation, but obligation of any sort. See especially Kraut 2006 and note 250 on page 96 of this dissertation.
114. See especially Nussbaum 1994, 102ff.

defeater for what is in fact the true view. Without a debunking explanation, the competing view still appears to be true, which means that it continues to provide a consideration against the true view. A debunking explanation shows that the defeater is in this case merely apparent: it is not actually reasons to doubt the true view. This is debunking explanations they "add to the credence," as Aristotle puts it.

This interpretation is more plausible than the therapeutic interpretation for two reasons. First, Aristotle couches this passage in a debate between advocates of different views on pleasure: he has left the discussion of *akrasia* behind, as of *Nicomachean Ethics* 7.11. The opening lines of 7.14 establish an argumentative burden:

> It is necessary to investigate bodily pleasures, necessary for those who say that some pleasures are very worthy of choice, i.e. the noble ones, but not those which are bodily and regarding which someone is unbridled (*akolastos*).[115]

He then lays out several questions that await someone who advocates such a view of pleasure, and offers the hypothesis that someone is a fool by virtue of pursuing *an excess of* pleasure, not the pleasure simply as such.[116] He follows this up with the statement that one should offer debunking explanations as well as positive argument. From this general principle he takes it to follow (*hôste* at 1154a25) that he ought to explain why bodily pleasures seem more worthy of choice than they actually are. The context of the passage about debunking explanation does not, therefore, suggest an attempt to shore up someone's conviction in the face of temptation, but rather an attempt to convince interlocutors that something is true, partly by means of debunking explanation.

The second reason to favor the epistemic interpretation is Aristotle's language in the passage itself. Debunking explanations "contribute to the *pistis*," and someone who favors the therapeutic interpretation might take that as evidence that such explanations are meant to shore up one's conviction in the face of temptation. The image of one's faith providing "strength" in trying times is common, but it is not plausible to attribute such an

---

115. *Nicomachean Ethics* 7.14, 1154a8-10: Περὶ δὲ δὴ τῶν σωματικῶν ἡδονῶν ἐπισκεπτέον τοῖς λέγουσιν ὅτι ἔνιαί γε ἡδοναὶ αἱρεταὶ σφόδρα, οἷον αἱ καλαί, ἀλλ᾽ οὐχ αἱ σωματικαὶ καὶ περὶ ἃς ὁ ἀκόλαστος.
116. *Nicomachean Ethics* 7.4, 1154a16-22.

image to Aristotle. First of all, the Christian worldview from which this image draws its power is entirely alien to him. Second, among the instances where *pistis* denotes a mental state, there are only three where it clearly denotes some non-epistemic kind of "confidence."[117] By this, I mean the sort of confidence that the student has in his team after attending the pep rally, where the attitude does not bear on the truth or falsehood of some claim, but rather a sense of allegiance or faith in a person or institution.[118] Aristotle's argument for the claim that debunking explanation "adds to the *pistis*" shows that he does not have in mind the kind of "strengthening" on which the therapeutic interpretation relies. Instead, he argues that a *reasonable* explanation (*eulogon*) makes us put more credence in the *truth* (*tôi alêthei*). The vocabulary describes someone weighing reasons in favor of believing something, not someone casting about for reassurance. The epistemic interpretation seems the way to go. Furthermore, we do not in our passage from 7.14 see the one word we would expect Aristotle to use if he meant that we needed help standing firm against temptation: *emmenein*, "to abide by" something. In the preceding discussion of agents who lack self-control, Aristotle uses *emmenein* to describe people who stand by their convictions, and holds up the akratics as paradigm cases of those who fail to do so.[119] If Aristotle were worried that considerations of pleasure might overwhelm the appeal of his positive argument, we would expect him to use his characteristic language for describing such scenarios. Instead, we see only the argument that debunking explanations give us more credence in the *truth*. This favors the epistemic interpretation.

How, then, does this passage (read epistemically) support my hypothesis about how belief depends on credence? Consider two claims A and B, such that A entails not-B and B entails not-A. Suppose that B has a certain intuitive pull: it "appears to be true," regardless of whether it is actually true. Since B entails not-A, any reason to think that B is true is a reason to think that A is false. Consider the sets of claims which express putative reasons to think that A and B are true: call them **R(A)** and **R(B)**, respectively**.** A

---

117. *Eudemian Ethics* 7.2, 1237b13, *Politics* 5.5, 1305a22, and 5.11, 1313b2**.** For this sense of "confidence" he usually uses the word *thrasos,* on which see Garver 1982.
118. For the pep rally example see page 30.
119. See *Nicomachean Ethics* 7.2, 1146a19-21, 7.7, 1150b20, 7.8, 1151a2, 7.9, 1151b19-23, and 7.10, 1152a28-30. See also *Nicomachean Ethics* 3.1, 1110a29-31 for another example.

debunking explanation (call it *D*) explains why the putative reasons expressed in **R(B)** are not genuine reasons to think that B is true. It undermines the intuitive appeal of B, granting that B appears to be true but is nevertheless false. Consider now a subject S, before she thinks about *D*. She has some reasons to think that A is true—expressed in **R(A)**—and some reasons to think that A is false, expressed in **R(B)**. Her credence in A gets dragged down by the putative reasons expressed in **R(B)**. When she considers *D*, however, she learns that **R(B)** is no longer relevant to whether A is true. The net effect is that she puts more credence in A, just as Aristotle says.

If we adopt an epistemic interpretation of Aristotle's argument, his reasoning commits him to a threshold view about about how belief depends on credence. His talk about debunking explanations comes couched in prescription, something that he *should* do if he is going to defend his view that some pleasures are worth choosing. He feels an obligation to do so because debunking explanations make us put more credence in the true claim. Aristotle's remarks in other philosophical contexts, however, indicate that he does not think that one must introduce a consideration simply on the grounds that it will increase someone's credence in a true proposition. That is, there is not a general obligation to bring every possible consideration to bear during a discussion. What matters, and what limits the obligation, is whether additional considerations would add up to convince someone who is not already convinced. Aristotle says as much as he finishes his discussion about the ontology of numbers in the *Metaphysics*. It is not worth arguing further for a view if it will not bring people on board who were not already convinced:

> But about numbers, what has been discussed and laid down is enough (for someone who has already been persuaded would be persuaded yet further by more [sc. arguments], while someone who has not already been convinced would get no closer to being convinced).[120]

Aristotle grants that, were he to bring forward more arguments, the people who already believe him would give even more credence to what he says.[121] He stops, however, because

---

120. *Metaphysics* 13.9, 1086a18-21: ἀλλὰ περὶ μὲν τῶν ἀριθμῶν ἱκανὰ τὰ διηπορημένα καὶ διωρισμένα (μᾶλλον γὰρ ἐκ πλειόνων ἂν ἔτι πεισθείη τις πεπεισμένος, πρὸς δὲ τὸ πεισθῆναι μὴ πεπεισμένος οὐθὲν μᾶλλον).
See also page 20 for more on this passage.

he thinks that, if someone is not on board by this point, more argument is not going to bring him around. This shows that the mere potential to increase someone's credence in a claim (to "make them even more convinced," as Aristotle puts it here) does not generate an obligation to continue the argument. The obligation comes up if the argument has the potential to push someone over the threshold from not believing the claim to believing it. Our passage about debunking explanation is a context where he does feel the need to provide further considerations. His point is not simply that there is a debunking explanation at hand, though, since that alone is not enough to ground the obligation. He must instead think that the debunking explanation could make the difference between someone accepting the view and falling short of accepting the view. He presupposes that the positive argument already makes us "put credence in the truth" to some extent (since he claims that debunking makes us do so *to a greater degree*), so his need for further argument shows that he thinks positive argument alone will not be enough to carry full conviction. The intuitive pull of the undefeated competing view might be sufficient to prevent people from believing the true view. This is exactly the scenario that the epistemic interpretation of the passage puts forward.

It is reasonable, then, to think that a threshold account expresses Aristotle's view about the relation between credence and belief. The exegetic move is one of charitable parsimony: it accounts for Aristotle's explicit views by assuming that those views are consistent and attributing to him no more conceptual apparatus than is necessary to deliver a plausible view about the issue in question. In this case, we attribute a threshold type of dependence view to Aristotle because a) he stakes an important argument on the claim that belief requires credence in some way, b) he thinks that credence varies by degree, and c) he thinks that someone can give a certain amount of credence to a claim but still need some convincing before they believe it. The therapeutic interpretation of Aristotle's discussion does capture a certain aspect of Aristotle's view, but for the wrong reason. On the therapeutic interpretation, the need for debunking explanation stems from

---

121. The Greek does not have forms of *doxazein*, but rather perfect forms of *peithesthai*, "to be persuaded."

the need to resist the temptation to pursue pleasure despite one's "better judgment." The worry is that the agent's commitment will not stand up to the temptation of bodily pleasures, which will lead the agent astray. This means that the agent's considered judgment will not play the role in her action and reasoning that it is supposed to. On the epistemic interpretation, we can agree that one of Aristotle's concerns is that the true view will not play the role that it should in the agent's reasoning and action. On the epistemic interpretation, however, it does not do so because the agent does not believe it, i.e. she does not form the relevant *doxa*.

6. Conclusion

We now have an account of Aristotle's claim that belief depends on credence. Someone will not believe a claim without sufficient credence in the claim. This does not require Aristotle to say that there is some single threshold that must be met in every context. Aristotle makes no such claim, in part because his view of credence is not sufficiently formalized to formulate state a claim succinctly, the way we might say "S believes that p just in case S's credence in p is at least .85." Such thresholds are no doubt, for Aristotle, beholden to elements of the particular case.[122] It matters to him how exact the arguments are supposed to be, how many and how pressing the puzzles are, and whether the competing views have any intuitive pull of their own.[123] It also matters how trustworthy the speaker is, and even non-epistemic factors (such as how stubborn the believer is) can have an effect. Emotional manipulation, to take another example, is a part of rhetoric because someone who is, for example, angry at another person will be more easily convinced that the person has done wrong.[124] Whether this means that they give any piece of evidence that he has done wrong more weight than they otherwise would, or that they form their belief at a lower threshold of credence, is difficult to decide, but Aristotle's

---

122. Sturgeon 2008 notes that many and varied elements of context will determine what the threshold is in various cases.
123. See especially *Nicomachean Ethics* 1.3, 1094b24-27, where Aristotle argues that it is foolish to demand more precision than a certain subject matter will admit of.
124. See especially *Rhetoric* 2.1, 1378a1-3. See also my discussion of emotion-arousal in Chapter 2, page 58.

explicit remarks leave both possibilities open. The point is that Aristotle need not think that every subject must meet some fixed point of credence in order to form a belief.

It remains, however, that Aristotle does not pack these considerations into his argument at *On the Soul* 3.3, 428a20-2. He says only that we must put credence in those things that seem to be the case. One might object, then, that there is little reason to apply this involved discussion about credence, persuasion and thresholds to those two short lines. My response is that we should bring such considerations to bear because those considerations represent the rules which govern credence and its relation to belief. *Pistis*, when it denotes a mental state, denotes a mental state that comes in degrees. To invest one's credence in something (*pisteuein*) is to put some degree of credence or other in it. Aristotle has sophisticated views about how credence relates to other states of committed judgment (persuasion, belief, and knowledge), which he makes evident in the passages we discuss in this chapter. If he does not rehearse those views in *On the Soul* 3.3, it does not follow that they are not meant to apply, especially if they are the views to which he is committed across a wide swath of the corpus, and which he deploys to do serious philosophical work. In any event, Aristotle need not explicitly evoke his entire view to make his point. It is true, as he says, that one cannot form a belief without investing credence in the claim. He need not clarify with "enough credence" or "more credence than one puts into competing views" to support his contention that belief constitutively depends on credence. Nonetheless, that is his view.

A question to take us into the next chapter: why would Aristotle think that animals cannot put credence in things? Credence, we saw, is a kind of mental accounting which tracks how likely she takes the claim to be. When Aristotle denies that credence belongs to beasts, he is denying that any non-human animals have any of this structure as part of their mental life. This is, if anything, a more controversial claim than denying that animals have beliefs. To see why he might make this claim, we need to understand how he connects this mental accounting to reason itself, a subject we will discuss in the next chapter.

7. Appendix: Other Uses of Pistis

I have assumed that *pistis* in our passage from *On the Soul* denotes a mental state, specifically one that varies by degrees. This is not the only way that Aristotle uses the word. As we noted before, the word can mean many things in Greek, but Aristotle for the most part uses it in two broad senses: to denote a mental state, in the way I assume above, and to denote a proof, argument or piece of evidence, i.e. something that instils said mental state. We often do not have enough data from a given context of use to determine with any certainty which broad category Aristotle intends to denote. Many of Aristotle's uses occur in contexts that fit the following (mostly translated) schema:

The *pistis* for p comes from/through δ

Where p is some claim and δ denotes some method of proof or argument.[125] Aristotle's favorite values for δ are logical inference (*sullogismos)* and induction (*epagôgê*).[126] One also sees for δ "similar things" (*tôn homoiôn*) and "observation" (*aisthêsis*).[127] It is difficult to tell in these instances whether Aristotle is referring to the mental state that δ instills in us, or to the very act of proving, the way we might say that a mathematical proof is "by induction." I lean toward the former, but making a case is difficult. The word appears without any comparison to other items in Aristotle's philosophy (unlike our passage from *On the Soul*), which makes it impossible to triangulate and determine what sense of *pistis* Aristotle has in mind. I therefore ignore these contexts; they provide no dispositive evidence toward one reading or another.

Another prominent family of uses which should not impact our reading of *On the Soul* 3.3 comes from the *Rhetoric,* where Aristotle discusses the *pisteis* that rhetoric deploys. These uses have received considerable attention.[128] The consensus seems to be

---

125. A sampling of where instances of this schema occur: *Prior Analytics* 2.24, 69a4; *Posterior Analytics* 2.3, 90b14; *Sophistical Refutations* 4, 165b27; *Physics* 3.4, 203b14; 5.1, 224b30; 8.8, 262a18; *Meteorology* 4.1, 378b14; *Metaphysics* 11.11, 1067b14. Instances that do not exactly fit the schema, but say basically the same thing: *On the Heavens* 1.3, 270b32-33; 2.4, 287a31; *Meteorology* 3.2, 372a31-32; *Politics* 7.4, 1326a29.
126. For Aristotle's notion of *epagogê* and how it differs from the process we call "induction," see especially Hamlyn 1976, 168-70 and also McKirahan 1983 and LaBarge 2004, 202-12, who takes himself to supplement the account found in Lesher 1973.
127. Similar things: *Prior Analytics* 2.24, 69a5, 11-13**.** Observation: *Physics* 8.8, 262a18**.**
128. See, for instance, the competing views of Grimaldi 1957 and Wikramanayake 1961, as well as Lienhard

that when Aristotle uses the term *pistis* in the *Rhetoric,* especially in the plural, he generally is talking about proofs or arguments, rather than the mental state engendered in the audience by rhetorical demonstration.[129] We can immediately rule this meaning out as the right one to apply to our *On the Soul* passage. It would imply, first of all, that one can only hold a belief when one also has in hand a proof or argument. Some weaker form of this view might be plausible. One might, for instance, take someone's beliefs to be determined by their evidence, where "evidence" is taken to mean what, by their own lights, indicates whether a claim is true or false. Aristotle, however, is willing to ascribe *doxa* to people who do not know what their belief amounts to, as he does with Heraclitus in Book 11 of the *Metaphysics.*[130] Second, Aristotle argues that belief cannot happen without investing credence (the verb is *pisteuein*), and he takes this to establish his claim that belief depends on *pistis*. Aristotle uses the verb *pisteuein*, which is derived from *pistis* and can only mean that the subject trusts or relies on something; it has no meaning which parallels *pistis* as proof or argument. This does not entail that Aristotle's premise could not be used to argue that belief depends on having, by one's own lights, an argument or proof for the content of the belief. Such an argument would, however, be much more involved, and Aristotle gives no indication that he needs anything further to establish his claim. In our *On the Soul* passage, then, *pistis* denotes a mental state. It is the sort of mental state on which belief depends in order to be belief (as opposed to idle fancy).

1966, who supports Grimaldi. Grimaldi 1972 contains an exhaustive catalogue of where *pistis* is used in the *Rhetoric,* and what he takes them to mean in each instance.

129. So Lienhard 1966, 454: "the meaning [of the term] varies enough to allow separate definitions, but not enough to lose the note of 'proof' in any of the occasions." The remark is meant to exclude three instances where *pistis* obviously denotes some kind of mental state: *Rhetoric* 1.9, 1367b30, 2.1, 1377b25, and 2.20, 1394a10. On this, see Lienhard 1966, 450 and Grimaldi 1957, 189-90**.** Whether Grimaldi and Lienhard are right to distinguish *pistis* as form of proof vs. *pistis* as subject-matter of proof is irrelevant for the distinction that matters to me, between the *pistis* as proof and *pistis* as mental state.

130. *Metaphysics* 11.5, 1062a29-34.

Chapter 2
Evidence and Rationality

1. Introduction

To understand the second argument in the pair at 428a18-24, we must answer the questions I deferred in Chapter 1:

> 1) How should we understand *logos*? Like many important pieces of Aristotle's vocabulary, the term has several meanings. Sometimes it denotes reason itself. Sometimes it denotes a verbal or propositional item (a speech or account of something); sometimes it denotes language, or the ability to speak.

> 2) How do credence and persuasion depend on *logos* (for a given understanding of the term) such that one can infer the absence of the former from the absence of latter, as Aristotle does with respect to non-human animals?

My hypothesis is that, when Aristotle denies reason to animals at *On the Soul* 3.3, 428a18-24, he denies them fine-grained evaluative responses to their environment. My answer to question (1) is therefore that *logos* denotes reason itself, that which makes a creature capable of the special brand of cognition that, on Aristotle's view, separates the rational creatures from all the other animals. This opposes an interpretation on which *logos* means something like "speech" or "language." If such an interpretation is correct, then no substantive conclusion about reason or rationality follows from Aristotle's argument or its presuppositions.[131]

My answer to question (2) is that the non-rational animals, in virtue of lacking reason, are incapable of responding to their environment in such a way as to have fine-grained evaluative responses to it. Fine-grained credence is the cognitive response to evidential relationships. The ability to discriminate these relationships in the world is

---

131. For extended consideration of this rival proposal, see below at "A Radical Alternative?," page 69.

partially constitutive of rational cognition, in the sense that no creature who lacks such a capability can be "rational" in the constitutive sense.[132] In other words, part of what makes a creature rational is its ability to discriminate evidential relationships.

In the first chapter, we discussed Aristotle's conception of *pistis* as credence. Based on Aristotle's use of the term and its cognates, credence in p (for some proposition p) represents the subject's evaluation of the likelihood that p is true. It admits of degrees, meaning that a subject can put more or less credence in a proposition. The notion therefore roughly corresponds to our modern notion of subjective probability. "Subjective," because evaluating the likelihood of an outcome does not imply that the outcome itself is "chancy" or probabilistic, e.g. the value of a die roll.[133] We might also call it "epistemic," because the attitude is evaluative with respect to truth. It is difficult to describe this in more basic terms, but comparisons are possible. Credence is not, for instance, a measure of how much someone hopes it is the case the p, or wants it to be the case that p. It is rather of measure of how the world currently looks to the person whose credence we are describing. This description makes clear that the state has phenomenological aspects; it is easy to talk both in terms of how likely someone finds it that p and how it "looks to her" regarding p, and even how "sure she feels" that p. It is a separate question, however, whether *pistis* itself reduces to these felt experiences. Aristotle says nothing to commit himself to such a claim, but as we have seen, he is willing to characterize a subject's credence in terms of felt doubt or certainty.

Credence is, therefore, a kind of epistemic evaluation that is gradational: one can think of something as more or less likely, and compare the likelihood of different propositions. The majority of contexts where Aristotle makes clear that credence is gradational are these sorts of comparative contexts.[134] We might wonder what, for

---

132. For my use of this term, and its distinction from a normative sense of "rational," see the Introduction at page 1. In brief, constitutive rationality is a descriptive way of sorting certain kinds of cognitive capabilities from others, and normative rationality is a way of sorting the correct from incorrect uses of such capabilities.

133. This notion of "objective" chanciness itself is not meant to imply that the event lacks a determining cause. The roll of a die, for instance, is determined completely by the forces which act on it, but it is the sort of event we would call "objectively" chancy.

134. See Chapter 1, "Pistis as Credence: A Mental State that Varies by Degree," page 18, for a survey of the positive textual evidence.

Aristotle, might cause these sorts of gradational response. Credence is a subjective state: unlike knowledge (*epistêmê*) and understanding (*nous*), it does not necessarily mirror logical relationships in the world. The demonstrations of scientific knowledge perfectly capture relationships between what syllogistic terms represent. This means that it is impossible that the following happen all at once:

1) One has a demonstration that p via some explanation E[135]

2) That demonstration captures some bit of scientific knowledge

3) Either it is not the case that p, or p obtains through some other explanation E*

Knowledge is what we might call an objective state: in virtue of how it comes about (via demonstration), it answers perfectly to how things are in the world.[136] Credence does not enjoy this kind of security. Just as it is possible for someone to believe that p even while p is false, so is it possible for someone to have a very high credence that p when it is incredibly unlikely that p, or have her doubts about whether p when there is almost no chance that not-p. Consider, for example, an arrogant student who, having neglected to study for an exam, is the first to finish it (she thinks exams are a race) and leave the class. Her arrogance leads her to think, "I finished long before anyone else. That's a sign that I understood the material better than anyone else in the class!" She thereby comes to find it more likely that she understood the material than she did when she was sweating her way through a thicket of baffling questions. It is highly unlikely that she understood the material better than anyone else in the class (including her more diligent peers), still less so that she finished first for that reason.[137] Her confidence is misplaced, but it does not for that reason fail to express her credence.

This example illustrates a natural next step, which is that our credences reflect something about the world, even if that reflection is distorted. They do not reflect truth or

---

135. True scientific demonstrations do not just prove some fact of the matter, but also give the reason why, expressed in the middle term of the syllogism.

136. For a concise explication of the difference between knowledge—with the strict requirements Aristotle puts on it—and reasoning from signs and evidence (which will concern us shortly), see especially Allen 2001, 72-78.

137. We can all probably remember doing well on a test that we did not study for. I cannot speak for everyone, but I never took my good performance in such instances as a sign that I really understood the material, despite my lack of preparation.

falsehood: credences are not truth-apt, so they cannot represent states of affairs as true or false. That is what our beliefs are for, in any event.[138] Instead, they seem to reflect our *evidence*. A state of affairs p is evidence for another state of affairs q in the minimal sense I have in mind just in case it is more likely that q, given that p. Our lazy student's credence that she understood the material did not go up all by itself. Rather, it went up when she observed that she had finished first. She took her finishing first as evidence that she understood the material better than anyone else in the class (she even called it a "sign," on which more later). This shows also that what constitutes evidence by someone's own lights is not necessarily evidence.

Our lazy student takes her putative understanding of the material to *explain* why she finished first, but evidential relationships need not follow after causal or explanatory relationships. To see this, suppose our student returns home and is browsing Facebook in her room when she hears the front door creak open, followed by unfamiliar footsteps. Amidst incipient panic, her credence that she left the front door unlocked rises dramatically. There was no sound of forced entry, so the unfamiliar footsteps do provide good evidence that she forgot to lock the door. The unlocked door, however, seems neither the cause nor the explanation for the unfamiliar footsteps, except in a roundabout way. These evidential relationships are what credence attempts to capture, and our lazy student shows that it can fail or succeed. We can put this more succinctly and say that credence is an evaluative response to evidence. Agents need not be completely aware of what they are responding to, and the response need not take the form of a conscious inference, of the kind our lazy student carried out regarding her performance on the exam.

This sketch helps us see how Aristotle's two arguments fit together. In the argument we examined in Chapter 1, Aristotle denies to animals the ability to have credence. This amounts to saying that non-rational animals are unable to find things more or less likely. A striking claim, for which we were at the time unable to provide much of a rationale. In Aristotle's further argument, which many editors bracket as a double

---

138. For the relation between belief and truth, see Chapter 3.

recension, he does provide a rationale. I regard this as a strong reason to doubt that the passage is a double recension: it belongs in the text. That non-rational animals lack credence is no longer a bald assertion, but follows from two further claims:

1) Having credence in something requires being persuaded

2) Being persuaded requires reason (*logos*)

Non-rational animals, then, cannot find things more or less likely because they lack some capacity or other that makes for constitutive rationality. The term by which we proceed from lacking reason to lacking credence is "persuasion." In fact, it is the perfect articular infinitive of the verb "to persuade," which we might translate as "having been persuaded." This suggests the result of a process finished at the present time. For Aristotle, then, rational cognition is not about being able to entertain a kind of content that other, non-rational creatures cannot. His argument does not suggest that beliefs latch onto a species of content to which animals are blind. Rather, rational cognition depends on the ability to process information in a way that non-rational animals cannot. It requires the ability not just to react to the world in ways determined by one's psychological states (perception, representation, desire, etc.), but to be open to persuasion. Persuasion is the process by which subjects gain and lose credence in a proposition, and this is the basis for obtaining various results, such as a favorable vote or commitment to some course of action. Seen in this light, Aristotle's claim that credence requires the ability to be persuaded is uncontroversial. Subjects change their credence in response to what they see as evidence. Persuasion, therefore, involves the evaluation of evidence. Non-animal's lacking reason, then, entails their lacking the ability to recognize states of affairs as evidence for other states of affairs.

The result: part of what makes for constitutive rationality is the ability to respond to evidence. This is not to say that a constitutively rational subject must respond *correctly* to evidence. Deciding whether a creature is constitutively rational is a matter of descriptive metaphysics: the categorization itself makes no normative demands, though it might entail that the creature so characterized is vulnerable to certain normative

demands.[139] Still, this is a striking claim for Aristotle to make, and if my interpretation is correct, it tells a different story about Aristotle's conception of rationality than the family of interpretations on which scholarly consensus has settled.

2. Persuasion and Distortion

We need to understand the connection between persuasion and rationality. In addition to our passage from *On the Soul*, there is a passage in the *Rhetoric*[140] where Aristotle commits himself to the view that persuasion determines whether a mental state is non-rational or rational. When we can say that a mental state is due to persuasion, according to Aristotle, we can also say that it participates in reason (*meta logou*). In the following passage from the *Rhetoric,* Aristotle applies this scheme to desires:

> But among desires, some are non-rational and some rational (*meta logou*). I call non-rational those desires which men do not have as a result of entertaining something (*hupolambanein*) (these are, by the way, the kinds of desires which are referred to as "natural" …), while rational desires are the ones people have from being persuaded (*peisthênai*); for they want to see and acquire many things because they listened and were persuaded.[141]

Rational desires just are those desires which we acquire as a result of being persuaded. To justify this classification, Aristotle argues that people desire to see and acquire things after just hearing about them and "being persuaded." He characterizes non-rational desires as those desires which do not come about as a result of entertaining some content (*ek tou hupolambanein*). Since "rational" and "non-rational" are mutually exclusive characterizations, we can conclude that rational desires are those that *do* result from entertaining some content. Entertaining something does not necessarily mean believing it,

---

139. For discussion of this claim, see Chapter 3.
140. This passage is not often noted in the literature. See also Labarrière 1984, 30-34 for consideration of both the passages from *On the Soul* and the *Rhetoric*, though his analysis differs from my own; he seems committed to a view whereby the conventional symbol system of language is what makes for rational thought. For more on this, see below at "A Radical Alternative?," page 69.
141. *Rhetoric* 1.11, 1370a19-25: τῶν δὲ ἐπιθυμιῶν αἱ μὲν ἄλογοί εἰσιν αἱ δὲ μετὰ λόγου. λέγω δὲ ἀλόγους ὅσας μὴ ἐκ τοῦ ὑπολαμβάνειν ἐπιθυμοῦσιν (εἰσὶν δὲ τοιαῦται ὅσαι εἶναι λέγονται φύσει […] μετὰ λόγου δὲ ὅσας ἐκ τοῦ πεισθῆναι ἐπιθυμοῦσιν· πολλὰ γὰρ καὶ θεάσασθαι καὶ κτήσασθαι ἐπιθυμοῦσιν ἀκούσαντες καὶ πεισθέντες.
I elide in this passage a list of paradigmatic "natural" desires, which includes the desire for food, drink and sex.

but in this context it is likely Aristotle means "entertaining" to stand in for belief or some other kind of conviction (such as knowledge). After his list (elided in my quote) of the sorts of things that count as "natural" desires—which all seem to involve either the satisfaction of a basic bodily need or a need for pleasant sensory stimulus—Aristotle calls those desires rational which "result from being persuaded" (*ek tou peisthênai*). One cannot be persuaded of something and yet fail to believe that it is the case. Such a scenario has the flavor of contradiction.

So the entertaining that results in rational desire is the kind that comes with commitment to the entertained content. What is the content, then? Aristotle does not say explicitly; it would need to involve a characterization of the object of desire, though it involves more, as well. Representation alone (*phantasia*) would be sufficient for that purpose, and representation prepares all sorts of desires, not just the rational ones.[142] The entertaining is the cause of the desire, which is brought about by "listening and being persuaded." People often want things because they hear them described, sometimes things they did not even know they wanted. In my own experience, this happens often with food, especially if the description is lavish. Hearing a string of words causes a representational state, which then causes desire for the represented object. This cannot be all that the process amounts to, however, because Aristotle says it is an instance of persuasion, but non-rational animals can form desires through words in the same way. If I say, "Would you like some food?" to my cats, their ears perk up and they wander over to their dish, calling for me. If they had not wanted food before, they sure did after I mentioned it. Since animals cannot be persuaded, Aristotle would deny that this exchange amounts to persuasion, and I think he is right in this case. That the desire was caused by a string of words is not sufficient for its being persuasion, nor is it necessary. If my cats were not persuaded by my mention of food, then neither am I persuaded (in the proper sense of the

---

142. See *Movement of Animals* 8, 702a17-19, where representation "prepares desire," and in turn comes from either perception or thought (which is not the same as entertaining). On this passage see especially Lorenz 2006, 124-28 and Nussbaum 1978, essay 5.

term) by a lavish description. The mental content involved in the latter case seems more sophisticated than what my cats have, but the cases do not differ in kind.

Compare a situation where someone forms a desire because they come to believe that the object in question is something that they should have. This is more obviously an instance of persuasion, and I would say it is the missing ingredient in the lavish-description case. Such persuasion can proceed in two different ways. One might, first, be persuaded that the object has characteristics which one already thinks makes something desirable. For example, members of the Athenian assembly preferred to keep Athens the dominant force in the Aegean, so persuading them that course of action C would maintain Athens' power more than course of action C* would lead them to prefer C to C*. One might also, however, be persuaded to desire the object even if it does not fit any antecedently-held scheme for desirability. A good deal of modern advertising seems to work in this fashion. I do not, for instance, want an iPhone because of some antecedent conception of the Good Phone, which the iPhone exemplifies to a greater degree than its competitors. Rather, advertising and word of mouth have convinced me the iPhone's characteristics are something I should want in a phone.[143] Our answer to the question "what is the content?" will therefore have no neat answer. Sometimes it will be a thought to the effect that something has such-and-such desirable characteristics, and sometimes it will be a thought to the effect that such-and-such characteristics (which this object happens to exemplify) are desirable. What distinguishes both scenarios from the lavish-description scenario, however, is that instead of merely prompting certain thoughts which cause certain desires, the entertaining results from an *evaluation*, and so the desire does as well, insofar as it is caused by the entertaining.

Evaluation of what, though? I will want eventually to say "evaluation of evidence," but this passage alone does not allow that. An important part of the view I wish to attribute to Aristotle is that evaluation of evidence is not an all-or-nothing affair, but

---

143. This, of course, only applies to cases where the advertisement effects genuine persuasion, and does not simply amount to a lavish description. A huge, backlit image of a hamburger might make me want one, but not by persuading me that I should want to eat one. Which instances of advertisement work through which avenue is a tricky empirical question.

admits of degrees just like the credences which represent the results of such evaluation. Our current passage from the *Rhetoric* does not mention degrees. We might say that it discusses successful persuasion, where the subject is convinced beyond the threshold necessary to entertain and commit to the propositions for which the persuader furnishes putative evidence.

We need, therefore, to examine passages where Aristotle deploys a graded notion of evidence. Aristotle does not have a single word for "evidence:" the closest candidate is *sêmeion*, which means "sign," but can also mean "evidence" in many contexts.[144] From Aristotle's lack of a unified vocabulary, however, it does not follow that he lacks a coherent conceptual framework to discuss these sorts of evidential relationships.[145] On the contrary, he adopts such a framework to do philosophical work about emotions, persuasion and judgment. We seem him apply the framework most often to cases where various factors distort the subject's judgment and evidential reasoning. This is reason to think that Aristotle's notion of evidence accords with the sketch we gave earlier. Credence responds to evidence, but we can be mistaken as to what is actually evidence and how strong the evidence really is. Aristotle not only allows for such cases, but uses them to do philosophical work. His treatment of emotion in the *Rhetoric*, for instance, amounts to a systematic examination of the ways that emotions affect people's judgment, and how to cause such emotions through argument.[146] For the purpose of his study, he even defines emotions (*pathê*) in terms of their effect on a listener's judgment:

> The emotions are those things through which people, when they change,
> differ with regard to their judgments, and on which follow pleasure and pain,
> e.g. anger, pity, fear and other things like that as well as their opposites.[147]

---

144. See Burnyeat 1982, 193-94, where Burnyeat says also that in many contexts "evidence" is as good a translation as "sign" for instances of *sêmeion*, but rightly insists that it does not always denote something we would recognize as empirical evidence.
145. See Caston 1992, 10-13 for argument against tracing the history of a *word* and taking that to stand in for the history of a *concept*.
146. For the thorough discussion I do not provide here, see Leighton 1996, Striker 1996 and Fortenbaugh 2006.
147. *Rhetoric* 2.1, 1378a19-22: ἔστι δὲ τὰ πάθη δι᾽ ὅσα μεταβάλλοντες διαφέρουσι πρὸς τὰς κρίσεις οἷς ἕπεται λύπη καὶ ἡδονή, οἷον ὀργὴ ἔλεος φόβος καὶ ὅσα ἄλλα τοιαῦτα, καὶ τὰ τούτοις ἐναντία.

Emotions just are those things change in which brings about change in judgment. More accurately, they are a subset of those things that are followed by pleasure or pain. This restriction rules out things like belief or credence being considered emotions. Such a classification would not sound as absurd to Aristotle as it does to us: he at one point calls representation (*phantasia*) a *pathos*.[148] Nonetheless, there is an intuitive distinction between logical and emotional sources of persuasion, which Aristotle wants to preserve even as he recognizes that all the elements work together to get an audience to make a certain judgment. Most important for our purposes is the following remark, which Aristotle makes to motivate his study of emotions in a rhetorical context:

> For these things [i.e. the facts that are the concern of public deliberation or trials] do not seem the same to those who have affection and those who hate, neither to those who are angry and who are calm, but rather [they seem] either entirely different or different in a *matter of degree* (*kata megethos*).[149]

This apt observation shows some psychological acumen. It also makes two points in support of my interpretation. First, affecting the listeners' emotions ("disposing them a certain way" is how Aristotle puts it) affects their judgment because it makes them evaluate the facts differently than they would otherwise. Aristotle does not give any indication that this is a bad thing or something to avoid.[150] Appeals to emotion are a part of rhetoric not because they make the listeners *do* something that they would not do otherwise. This would make emotion-arousal analogous to tweaking someone until they lose their cool. It is, of course, possible to do this, and to do it with words. It is, however, no more an instance of persuasion than causing desire through lavish description is an instance of persuasion. This is not to say that emotion-arousal does not amount to clouding the listener's judgment. Aristotle is neutral on this point; he addresses emotion because they can be affected by argument, and so come under the heading of rhetoric proper. Whether the method can be misused or not (i.e. used to cloud the listener's

---

148. *On the Soul* 3.3, 427b16-21, on which see Chapter 3.
149. *Rhetoric* 2.1, 1377b31-33: οὐ γὰρ ταὐτὰ φαίνεται φιλοῦσι καὶ μισοῦσιν, οὐδ᾽ ὀργιζομένοις καὶ πράως ἔχουσιν, ἀλλ᾽ ἢ τὸ παράπαν ἕτερα ἢ κατὰ μέγεθος ἕτερα.
150. I do not think his remarks against previous theoreticians of rhetoric (1.1, 1354a11-18) does not amount to a condemnation of emotional appeal as such: see especially Dow 2007. Book 2 of the *Rhetoric* is premised on the view that it is possible to "domesticate" appeals to emotion and make them a part of rhetoric proper, which is about fashioning arguments.

judgment and make worse at weighing the evidence) is a normative question, irrelevant to the science of persuasion itself. Aristotle is concerned with all factors that can affect a listener's evaluation, so emotion-arousal is fair game. Important for our purpose is that emotional change makes things *seem* different, rather than simply making the listeners *act differently*, though that may be the orator's goal.

The second point helpful to our interpretation: emotion-arousal can affect a listener's evaluation in two different ways, either completely or *as a matter of degree*. Changing one's evaluation completely is straightforward: one's considered judgment comes to be the opposite of what it would have been without emotional manipulation. If a juror is angry enough at a defendant, he will seem guilty to her when he would previously have not seemed guilty. Changing how things seem to the listener as a matter of degree is harder to parse, but I suggest that it refers to the sort of credal evaluation we discussed in the last chapter. A listener who is affected emotionally will feel a little less or a little more sure. Consider, for example, a speaker bringing suit against a man, claiming that he stole from him. Among the evidence he offers is the fact that the accused disappeared for several minutes during a drinking-party at the speaker's house. This is circumstantial evidence, hardly probative by itself. Someone in a calm state of mind would likely see it this way, but if the listener were angry at the accused (and so inclined to believe the worst about him), it would carry far more weight. Why would he disappear and tell no one where he was going, the angry juror might think, unless he were up to no good? Aristotle's rhetorical treatment of emotion therefore includes attention to the sort of gradational evaluation that we say makes for rational cognition.

We will return shortly to the *Rhetoric* and Aristotle's positive views about evidence. We need first, however, to address the objection that my interpretation is overly speculative and begs the question as to whether graded evaluation of evidence is something that Aristotle cares about. We need a more explicit text to answer this objection, and we find it in the minor treatise *On Dreams*. Aristotle is discussing a fact about perception that makes dreaming and other forms of representation (*phantasia*) possible, namely that the result of the perceptual experience (the *aisthêma*) remains even

after the perceptible is gone, and subjects can have the experience again absent further external stimuli. He then makes a tangential argument that we can be deceived about our perceptions when in the grip of some emotion or other:

> We are easily deceived about our perceptions when we are enthralled, different people by different emotions, for instance the coward is easily deceived in his fear, the lover in his erotic passion, so that the former supposes that he sees, from very slight resemblance, his enemies, and the second the object of his love. What's more, those things will appear from ever slighter resemblance, in proportion to how enthralled they are.[151]

The passage starts off talking about how we can be deceived about our *perceptions*, which gives the impression that it will not be relevant to Aristotle's theory of evidence, which we have considered so far in terms of judgment and (if I am right) credal evaluations which underly but do not themselves constitute judgments. The passage is relevant, however; credence can come from perception as well as argument.[152] This allows that persuasion is not merely a verbal process, but an evaluative process open to a wide range of phenomena. Furthermore, Aristotle goes on to say that the deception does not occur with respect to what we perceive, but rather with the *beliefs* we form on the basis of our perception. The lover is wrong about what he *takes himself* (*dokein*) to see, as is the coward. The mechanisms in question therefore pertain to epistemic evaluation and the forces that hinder it, not to the mechanics of perception as such.[153]

Here as in the *Rhetoric* passage, Aristotle assumes a scheme whereby emotion affects a subject's judgment by degrees, but here the gradation is more explicit, as is the kernel of a general view about the relationship between the distorting factor and the character of the distortion. The view is intuitive and hard to deny: the degree of distortion varies in direct proportion to the strength of the distorting emotion. That is to say, we

---

151. *On Dreams* 2, 460b3-9: ῥᾳδίως ἀπατώμεθα περὶ τὰς αἰσθήσεις ἐν τοῖς πάθεσιν ὄντες, ἄλλοι δὲ ἐν ἄλλοις, οἶον ὁ δειλὸς ἐν φόβῳ, ὁ δ᾽ ἐρωτικὸς ἐν ἔρωτι, ὥστε δοκεῖν ἀπὸ μικρᾶς ὁμοιότητος τὸν μὲν τοὺς πολεμίους ὁρᾶν, τὸν δὲ τὸν ἐρώμενον· καὶ ταῦτα ὅσῳ ἂν ἐμπαθέστερος ᾖ, τοσούτῳ ἀπ᾽ ἐλάσσονος ὁμοιότητος φαίνεται.
152. See also *Physics* 8.8, 262a12-19. There the word *aisthêsis* is better translated "observation," but the distinction from argument or thinking remains clear.
153. These cases are therefore distinct from cases of incidental perception, the mechanism by which perceivers recognize individual objects based on their sense data: see *On the Soul* 2.6. *Pace* Bäck 2009, who treats incidental perception as a kind of inference that is vulnerable to "fallacies" (particularly the fallacy of accident), Aristotle never gives uses any logical or inference-involving vocabulary in his discussions of incidental perception. See especially Cashdollar 1973 for references and discussion.

become worse at properly evaluating the evidence on which we base our judgments as we experience stronger emotions. Aristotle talks about the effects of the emotions on certain character types, e.g. people in love and cowards, but it is hard to see why his observations would not generalize to people who do not share these character traits.

This passage, unlike our passage from the *Rhetoric*, talks about evidence itself, not just the subject's (distorted) evaluation of it. The cases in question concern judging that one has seen a certain person, on the basis of a resemblance (*homoiotês*). The resemblance is in fact slight, and we are led to believe that someone in a similar epistemic position, but unaffected by the relevant emotion, would not be taken in. This scenario lends itself easily to characterization in terms of evidence. The resemblance provides a certain amount of evidence that the person seen is one's lover (or enemy). The resemblance varies by degree: Aristotle says that it is slight and also refers to the possibility of a "lesser resemblance" that could trick someone even more enamored or terrified. Since the resemblance is small, it does not make it likely that the enemy or lover has been spotted. The observer, since he is in the grip of a distorting emotion, wrongly takes the scant evidence to make it highly likely that his enemy or lover is standing right over there, hence the mistaken judgment.

3. Evidence and Epistemic Evaluation

Note that Aristotle does not treat these sorts of mistakes as mere *non-sequiturs*. That is, he does not treat them as conclusions which do not follow from supplied premises. These mistakes are instead a matter of taking evidence too seriously (i.e. thinking that it makes likely what it does not). He goes back and forth about whether this kind of reasoning from evidence counts as a form of inference, and it does not fit comfortably into the syllogistic by which he formalizes the steps of reasoning.[154] That is to say, a large swath of this reasoning is deductively invalid, because the sign does not necessitate what it is supposed to be evidence for, even if it is genuine evidence. Aristotle nonetheless recognizes such

---

154. See Allen 2001, 26-33 for useful discussion of Aristotle's differing attitudes toward different kinds of sign inferences, including inferences that proceed from premises true "for the most part." On the second point, regarding the formal character of sign inference, see Burnyeat 1982, 195-97.

relationships as legitimate subjects for reasoning even though evidential relationships fall short of deductive validity and do not guarantee a grasp of the truth.

He considers them legitimate because they make up much of our epistemic lives. Most everyday reasoning concerns contingent matters: things could have been different than they in fact are, and may change without our knowing. Rhetoric, which Aristotle conceives as a systematic understanding of everyday reasoning,[155] must accommodate this fact by providing guidance in how to reason about contingent matters:

> Since few of the matters due to which rhetorical syllogisms exist are necessary…it is clear some of the things from which enthymemes[156] are said will be matters of necessity, but most will be true for the most part. And it is clear that enthymemes [come about] from likelihoods (*eikota*) and from signs (*sêmeia*), so that it is necessary for each [of these enthymemes] to be the same as each [of these things, i.e. signs and likelihoods].[157]

A conclusion is only as sure as the premises from which one draws it. If the premise expresses what Aristotle calls a "likelihood," then the conclusion will not be necessary, but likely.[158] With likelihoods, the generalization from which one proceeds (represented formally by the major premise) does not establish a necessary or universal connection. If the major premise does not assert that all As are Bs, but rather asserts that any given A is pretty likely to be a B (or something to that effect), then the conclusion for any Cs that are A cannot be that C is B, but rather that C is pretty likely to be a B. One might, for example, assert that most thieves are liars and that Vince is a thief, concluding that Vince is also a liar. What is interesting about this sort of argument is that, unlike demonstration and other forms of deduction, it does not transmit *truth*. The premises need to be true for the

---

155. See especially *Rhetoric* 1.1, 1354a3-8: "Everyone participates to some extent in [both rhetoric and dialectic]: for everyone up to a point endeavors to examine and provide reason and defend and attack in argument. While many do this at random or through an understanding born of habit, since both these ways of doing it are possible, it also should be possible to do the same things by a method."

156. The meaning of this word, which seems to represent the kind of reasoning native to rhetorical contexts, is controversial and not germane to my present concern: see Burnyeat 1994 for an excellent survey, as well as Rapp's commentary on the *Rhetoric* (Rapp 2002, 2:223-43).

157. *Rhetoric* 1.2, 1357a22-23, 30-34: ἐπεὶ δ᾽ ἐστὶν ὀλίγα μὲν τῶν ἀναγκαίων ἐξ ὧν οἱ ῥητορικοὶ συλλογισμοί εἰσι…φανερὸν ὅτι ἐξ ὧν τὰ ἐνθυμήματα λέγεται, τὰ μὲν ἀναγκαῖα ἔσται, τὰ δὲ πλεῖστα ὡς ἐπὶ τὸ πολύ, τὰ δ᾽ἐνθυμήματα ἐξ εἰκότων καὶ ἐκ σημείων, ὥστε ἀνάγκη τούτων ἑκάτερον ἑκατέρῳ ταὐτὸ εἶναι.

158. Accepting Allen's argument (2001, 31) that the "for-the-most-part character" of an argument from likelihood derives from the premise, rather than the relationship between the premise and the conclusion, though as we see in this paragraph, that relationship is not one of entailment or implication.

argument to be credible, but such argument can be correctly deployed even if the conclusion turns out to be false. Instead of truth, the argument bestows *likelihood*. This means that it influences a person's credence, and only derivatively their beliefs (if the conclusion is likely enough to be believed).

This makes arguments from likelihood a formal reconstruction of evidential reasoning. They seem to work differently, however, from the evidential reasoning I discussed earlier, whereby someone concludes that some proposition is more likely to be the case upon observing, hearing, or otherwise being persuaded that something else is the case. In our paradigm case, the evidence is not a general truth, but some particular state of affairs. This paradigm case more closely matches Aristotle's discussion of signs (*sêmeia*). For example, we might say that Vince is a thief (suppose we caught him on camera), and this is a sign that he is a liar. The effect of this, given that we accept Vince's thieving as evidence that he is a liar, is that we think it more likely that he is a liar (though we may not yet be ready to believe it, especially if we are friends of his). In the end, though, these paradigm cases and argument from likelihood are not different in kind. The argument from likelihood instead represents reasoning from a certain strong kind of evidence. Strong, because the generalization through which we derive the likelihood of the conclusion assumes that there is a close (though not necessary or universally applicable) connection between the terms in question. Not all evidential reasoning has such a strong basis; we will soon see some examples where the connection is more tenuous. Nevertheless, these arguments formalize evidential reasoning because the connection between the premises and the conclusion is not one of truth, but rather likelihood.

The majority of Aristotle's systematic views about evidential reasoning lies in his treatment of signs, to which we now turn. He defines a sign (*sêmeion*) in the *Prior Analytics*[159] as follows: "anything which, when it obtains, then the matter (*pragma*) [in question] obtains, or which, when it has come to be either before or after, then [the matter

---

159. Referring to the *Analytics* is appropriate in our discussion of the *Rhetoric,* for Aristotle does so himself at the start of his discussion of signs and likelihood (*Rhetoric* 1.2, 1357a30). This indicates that his discussion in the *Rhetoric* post-dates and relies on Aristotle's considered view in the *Prior Analytics.* For this reason, Allen (2001, 23, 30, and 32) calls the passage "*Analytics*-oriented."

in question] has come to be—that is a sign of [the matter's] coming to be or being" (*Prior Analytics* 2.27, 70a7-9).[160] He offers this to justify his remark that a sign is a "demonstrative proposition, either necessary or reputable (*endoxon*)" (2.27, 70a6-7). The latter quote makes it seem as though signs do not represent evidence at all, especially since he calls them "demonstrative," which brings to mind the sort of deduction I contrast with evidential reasoning. This tension is only apparent; Aristotle does not have in mind the standards of demonstrative knowledge, as his examples go on to make clear.[161] There remains something of a mismatch between his technical and non-technical definitions, however; characterization in terms of *pragmata* suggests that signs are token events, not premises. Aristotle is trying, however, to distinguish the forms of evidential *reasoning*. It is natural, then, that he would speak in terms of propositions leading to other propositions.[162]

Aristotle's talk of a "necessary" sign is further cause for confusion. If a sign is a proposition (or the matter of fact thereby expressed), it is natural to think that a necessary sign is a necessary proposition, or a state of affairs that obtains of necessity. This goes against, however, Aristotle's insistence that rhetorical argument proceeds through signs precisely because rhetorical argument deals with what can be otherwise. This problem does not arise if the necessity applies to the relationship between the sign and what it provides evidence for, rather than the modal status of the sign itself.[163] This in turn suggests that we should take "proposition" not in the sense of some truth-evaluable content, but in the looser sense of "something offered or put forward." What is "put forward" is the evidential connection itself: to say that p is a sign that q is to say that such a connection holds between p and q. In order to refer to the connection between the proffered evidence and what it provides evidence for, Aristotle must use the word "sign" to

---

160. οὗ γὰρ ὄντος ἔστιν ἢ οὗ γενομένου πρότερον ἢ ὕστερον γέγονε τὸ πρᾶγμα, τοῦτο σημεῖόν ἐστι τοῦ γεγονέναι ἢ εἶναι.

161. That is, knowledge which meets the conditions given at *Posterior Analytics* 1.2, 71b9-16. See Burnyeat 1982, 198n13.

162. Hence Burnyeat (1982, 197-98) calls the propositional characterization a "logician's technical definition," as opposed to the non-technical definition that supports it.

163. This tells against Burnyeat's view (1982, 198) that this passage refers to the sign as a premise, while the rest of passage uses the term in an extended sense, referring to the inference based on the sign.

refer to the entire piece of evidential reasoning (often called a "sign-inference"). A "necessary sign" therefore denotes a relationship wherein the evidence guarantees what it evinces. In the *Rhetoric,* Aristotle calls these signs "tokens" (*tekmêria*).[164]

Leave necessary signs to one side for the moment: their value is well-understood, because deploying a necessary sign makes for logically-valid inference. The rest of the signs are not logically valid; they fail to constitute a syllogism (Aristotle's term for them is *asullogiston*).[165] He does not, I think, mean to say that these sorts of signs fail even to be inferences (i.e. that they are not *sullogismos* in a looser, non-technical sense). That they are inferences is in part why non-rational animals cannot recognize them.[166] They are not, however, *logical* inferences, reasoning which one could reconstruct as a valid syllogism, and this is what Aristotle means when he says that they are *asullogiston.* What kind of reasoning, then, are they supposed to represent? They represent evidential reasoning. Here are two examples of such reasoning, one from each discussion of evidence:

> The [inference] through the middle figure is always and in each case open to refutation (*lusimos*), for a syllogism never happens when the terms are put this way. For it is not the case that, if a women who has given birth is pale, and this woman is pale, that she has necessarily given birth.[167]

> And there is among signs one which is the way that a particular is toward a universal,[168] for example if someone were to say that there is a sign that the wise are just, for Socrates was both wise and just. This is a sign, but it is open to refutation, though what was said be true (for it fails to form a syllogism).[169]

---

164. *Rhetoric* 1.2, 1357b4-9. We need not examine the peculiar folk etymology by which Aristotle justifies his terminology.
165. See *Rhetoric* 1.2, 1357b14-15; 2.24, 1401b9 and 2.25, 1403a4.
166. See *On Memory* 2, 453a9-14 and *On the Soul* 3.10, 434a5-11, where Aristotle denies certain capacities to non-human animals on the basis of their inability to perform inferences.
167. *Prior Analytics* 2.27, 70a34-37: ὁ δὲ διὰ τοῦ μέσου σχήματος ἀεὶ καὶ πάντως λύσιμος· οὐδέποτε γὰρ γίνεται συλλογισμὸς οὕτως ἐχόντων τῶν ὅρων· οὐ γὰρ εἰ ἡ κύουσα ὠχρά, ὠχρὰ δὲ καὶ ἥδε, κύειν ἀνάγκη ταύτην.
168. Aristotle divides signs into those which are oriented as a universal is toward a particular and vice versa (1357b1-3). His meaning is obscure: the example cited in the main text makes some sense, since it adduces a statement about Socrates to support a general claim about wisdom and goodness. His example of a sign oriented the other way, however, is that someone's breathing heavily is a sign that he has a fever, which relates two particular statements. This issue seems worth exploring (I am aware of no literature on it), but we need not settle it here.
169. *Rhetoric* 1.2.1357b10-14: ἔστιν δὲ τῶν σημείων τὸ μὲν ὡς τὸ καθ' ἕκαστον πρὸς τὸ καθόλου ὧδε, οἷον εἴ τις εἴπειεν σημεῖον εἶναι ὅτι οἱ σοφοὶ δίκαιοι, Σωκράτης γὰρ σοφὸς ἦν καὶ δίκαιος. τοῦτο μὲν οὖν σημεῖον, λυτὸν δέ, κἂν ἀληθὲς ᾖ τὸ εἰρημένον (ἀσυλλόγιστον γάρ).

As attempts at logical inference, these signs are clearly invalid. The first argument affirms the consequent, while the second amounts to a hasty generalization. We are not, however, supposed to take them this way: Aristotle says that the fact that Socrates is both wise and just is a sign that the wise are just, *even though the corresponding formalization of the argument is logically invalid*. The same applies to the first passage quoted: Aristotle is discussing signs, not fallacies. Neither example presents a problem if we understand them as instances of evidential reasoning. On this understanding, Socrates' being wise and just is evidence that wise men are just. It is by no means decisive, but it is reason to believe the conclusion, if only as part of an inductive base. In the other example, a woman's being pale is evidence that she has given birth. Aristotle under-describes the case, so it is difficult to tell whether this is actually an instance of good evidential reasoning. Given that women who have given birth are pale (grant Aristotle this), observing that a women is pale would make it slightly more likely that she had just given birth, though in a real world case there would likely be many other considerations that could furnish better evidence.

On my proposal, Aristotle's discussions of signs and likelihood amount to discussions of evidence, and presuppose a method of reasoning with evidence that differs from that of demonstrative science. One might object that Aristotle seems only to care that many signs are invalid, not that they represent a different character of reasoning. He never misses an opportunity to mention their invalidity, after all. On this basis, one might question whether Aristotle really means to be offering an account of a different kind of reasoning. Aristotle's introductory remark to his discussion in *Rhetoric* 1.2, however, indicates that he is in fact concerned with relationships between facts different from those we might capture in a scheme of demonstrative deduction. He introduces signs and likelihood to characterize arguments about this realm of contingent connections. Evidence turns out, then, to be Aristotle's way of modeling ordinary rational thinking within the confines of an extended syllogistic. My proposal was never that Aristotle cares only about evidential reasoning: the modes of deductive validity clearly matter to him. The best kind of evidence, in fact, guarantees what it evinces. It does not follow, however,

that he sees value in forms of reasoning only insofar as they fit into the scheme of deductive validity characteristic of scientific knowledge and demonstration.

Furthermore, Aristotle recognizes proper ways to respond to this kind of reasoning that are distinct from the ways in which one would respond to reasoning that aspires to logical validity. To refute *that* kind of reasoning, you offer counterexamples. Someone who thinks that counterexamples work against evidential reasoning, on the other hand, is mistaken. In his discussion of how to demolish an opponent's argument (*Rhetoric* 2.25), Aristotle observes that many objections to signs and likelihood take the form of counterexamples, and explicitly disapproves.[170] That kind of fallacious objection can mislead those who are deciding the case:

> And the judge supposes, if an objection is brought in that way, either that the statements are not likely or that it is not for him to decide, but he reasons incorrectly in doing so, as we said (for one should judge not only based on what is necessary, but also based on likelihoods, for that is to judge by the best comprehension).[171]

If Aristotle cared only that arguments from signs and likelihood did not have the same type of logical validity as his favored brand of argument, he would not bestow such arguments with their own standards of evaluation and accuse people of making a mistake if they do not observe them. He mentions only likelihood in this passage, but the principle applies just as well to signs, and the context makes clear that Aristotle means to include them in his defense. This is because the contrast Aristotle makes is between reasoning from necessities and reasoning from likelihoods. Aristotle introduces signs as a package deal with likelihoods, so his defense applies to them as well. He says that it is not only fallacious, but epistemically irresponsible for judges to dismiss evidence that lacks deductive validity, and insists that making use of it is simply best practice.

What, then, does this have to do with the cognitive capacities of animals? If my interpretation is correct, we have the following picture: credence changes in response to

---

170. On this mistake, and the correct way, by Aristotle's lights, to object to a likelihood, see Madden 1957, 167-68.
171. *Rhetoric* 2.25, 1402b30-33: ὁ δὲ κριτὴς οἴεται, ἂν οὕτω λυθῇ, ἢ οὐκ εἰκὸς εἶναι ἢ οὐχ αὑτῷ κριτέον, παραλογιζόμενος, ὥσπερ ἐλέγομεν (οὐ γὰρ ἐκ τῶν ἀναγκαίων δεῖ αὐτὸν μόνον κρίνειν, ἀλλὰ καὶ ἐκ τῶν εἰκότων· τοῦτο γάρ ἐστι τὸ γνώμῃ τῇ ἀρίστῃ κρίνειν).

evaluations of likelihood, not assessments of truth. Such changes in credence come about through a process of persuasion, which involves responses to evidence, including evidence that enjoys a necessary connection to what it evinces. Animals cannot participate in this process because they lack reason. Reason, then, is partially constituted by the ability to engage in the sorts of evidential reasoning that bring about persuasion. This is also why they do not have credence: they are incapable of evaluating the likelihood of a proposition or state of affairs. This is just to say that they cannot respond to evidence.

4. A Radical Alternative?

My account claims that, when Aristotle says that a creature needs *logos* in order to have *doxa,* he means that believing, among other mental activities, expresses a special kind of cognition that only certain creatures, i.e. constitutively rational creatures, possess. In other words, Aristotle offers *cognitive* criteria to distinguish the animals that have beliefs from the animals that rely on perception and the non-rational representation (*phantasia*) that result from it. On this account, *logos* means "reason," but that is not the only way Aristotle uses the word, even when he uses it to distinguish humans from other animals.

There is a plausible rival account which goes like so: Aristotle is not talking about any sort of cognitive capacity when he denies that animals enjoy *logos*. Instead, he is talking about a *linguistic* capacity and only derivatively about that capacity's role in shaping human thought. Humans influence each other through speech; they persuade each other to hold certain beliefs, desire certain things and take certain actions.[172] Humans can also, of course, use words and significant gestures to interact with properly-trained non-human animals. For instance, one can shout and crack a whip to urge a horse or mule onward. An interaction of this kind would not, however, amount to persuasion, for reasons discussed previously.[173] The mere presence of words or commanding gestures

---

172. See especially *Rhetoric* 1.11, 1370a19-27, where Aristotle distinguishes desires which are "non-rational" (*aloga*) from desires which are "rational" (*meta logou*). Rational desires, he says, are those we have as a result of being persuaded (a25), and supports this by saying that we come to desire many things by "hearing about them and being persuaded" that we should want them (a27).
173. The author of the commentary on *On the Soul* 3.1-8, commonly attributed to John Philoponus, observes such a distinction in his discussion of this passage. The horse example is his.

in the cause of a creature's motion is not what makes for persuasion. Persuasion requires that the subject evaluate what is being said and act in accordance with that evaluation. One might say that the persuaded subject is not responding merely to the utterance (as a commanded animal does). Those who hear about something and come to desire it on that basis do not form their desires simply because certain sounds struck their eardrums. What they respond to is rather what gets said, the content of the assertions and exhortations.[174]

Creatures with the power of speech therefore have what we might call "linguistic consciousness." To non-linguistic animals, the sound of speech is mere noise. It can cause them to respond just as any other event in the natural world, but it does not *mean* anything to them. Creatures with the power of speech, on the other hand, are party to a range of activities and concerns to which non-linguistic animals are blind. Aristotle seems to say as much in the *Politics*, when he asks how human society differs from that of other social animals, such as ants and bees. His answer is that humans have language, and the expressive power of human language far outstrips the expressive power of other animal vocalizations:

> That the human is a political animal more than any bee or gregarious animal is clear. For nature, as we say, does nothing in vain, and man alone among the animals possesses speech (*logos*). Voice, then, is a sign of the pleasant and painful, and for this reason it belongs to other animals (for their nature has proceeded as far as having awareness [*aisthêsin*] of what is pleasant and painful and signifying these to each other), but speech is up to the task of communicating (*dêloun*) the helpful and harmful, and so also the just and the unjust: for it is peculiar to humans, as opposed to other animals, that they have an awareness of good and bad and just and unjust and other [notions]: and the common sharing of those makes for a household and a city.[175]

---

174. Labarrière so argues (1984) when he says that persuasion involves a "mediated" representation, while the kind of representation open to animals is not mediated. It is this mediation, he says, that creates a space for belief, persuasion and other forms of rational cognition. He goes on to advocate an understanding of *logos* in our target passage as speech, rather than rationality. His elaboration , that what makes humans special is the ability to "put into play the multiplicity of [one's] experiences" does not, however, seem to explain (as he takes it to) why human mental representations are genuine beliefs and those of animals are not. His claim that beliefs result from "a certain contact with reasoning and calculation" just assumes the difference I hope to explain.

175. *Politics* 1.2, 1253a7-18: διότι δὲ πολιτικὸν ὁ ἄνθρωπος ζῷον πάσης μελίττης καὶ παντὸς ἀγελαίου ζῴου μᾶλλον, δῆλον. οὐθὲν γάρ, ὡς φαμέν, μάτην ἡ φύσις ποιεῖ· λόγον δὲ μόνον ἄνθρωπος ἔχει τῶν ζῴων· ἡ μὲν οὖν φωνὴ τοῦ λυπηροῦ καὶ ἡδέος ἐστὶ σημεῖον, διὸ καὶ τοῖς ἄλλοις ὑπάρχει ζῴοις (μέχρι γὰρ τούτου ἡ φύσις αὐτῶν ἐλήλυθε, τοῦ ἔχειν αἴσθησιν λυπηροῦ καὶ ἡδέος καὶ ταῦτα σημαίνειν ἀλλήλοις), ὁ δὲ λόγος ἐπὶ τῷ δηλοῦν ἐστι τὸ

There can be little question that, in this passage, *logos* refers to the capacity for speech and language, rather than the faculty of reason. This is plain from his comparison with voice (*phônê*), the non-linguistic vocalization of which animals are capable. His argument is that humans are uniquely suited to forming cities and other political units because their linguistic capacity opens up a broad array of concerns which other animals do not share. Human linguistic consciousness allows us to communicate information about goodness and justice, thereby allowing us to share the pursuit of these things with each other.[176] This in turn makes us suited to forming cities, because cities are constituted by the shared pursuit of justice and the good.[177] Aristotle even puts the point in terms of a difference in awareness (*aisthêsis*). Linguistic creatures are literally conscious of things that non-linguistic creatures are not. This is not, however, because non-linguistic animals cannot produce significant sounds. Aristotle, both here and elsewhere, holds that animals communicate with each other.[178] Certain birds even teach their young to sing, as humans teach their children to talk.[179] The passage from the *Politics* tells us that there is more to linguistic consciousness than the ability to produce and recognize significant sounds.[180]

συμφέρον καὶ τὸ βλαβερόν, ὥστε καὶ τὸ δίκαιον καὶ τὸ ἄδικον· τοῦτο γὰρ πρὸς τὰ ἄλλα ζῷα τοῖς ἀνθρώποις ἴδιον, τὸ μόνον ἀγαθοῦ καὶ κακοῦ καὶ δικαίου καὶ ἀδίκου καὶ τῶν ἄλλων αἴσθησιν ἔχειν· ἡ δὲ τούτων κοινωνία ποιεῖ οἰκίαν καὶ πόλιν.

176. For a contemporary parallel, see Korsgaard 1997, 398-400, who argues that the source of our moral obligation to one another is, quite literally, our ability to intrude into one another's linguistic consciousness. Two crucial differences, however: (1) Korsgaard's view depends on her theory that our self-consciousness is the source of our obligation to ourselves, a claim which has no parallel in Aristotle; and (2) Korsgaard is explicit that the social structure of our linguistic consciousness is what gives rise to our interpersonal obligations. Aristotle stops short of making that claim; see below.

177. For confirmation, see the end of *Politics* 1.2, at 1253a39-40: "and justice is something political, for it is the arrangement of the association pertaining to society."

178. See especially *On the Soul* 2.8, 420b30-34, where Aristotle insists that voice is meaningful (*sêmantikos*) sound produced by an ensouled creature, accompanied by a representation (*meta phantasias*). This implies that animal vocalization *means something*. Also see *On the Soul* 3.13, 435b24-26, where he says that animals have hearing so that "something can mean something to it," and a tongue so that "it can mean something to another [animal]," though Ross 1961 brackets that last phrase.

179. *History of Animals* 4.9, 536b15-19. Birds sing differently from their parents if not raised around them, and mother nightingales "have been seen teaching their young," which suggests to Aristotle that "discourse (*dialektos*) is not by nature similar to voice, but is able to be molded." That observation is applied, in the next sentence, to humans, implying that birds and humans are relevantly similar. On this passage see Ax 1978, and Wedin (1984, 153-55) in response.

180. See also Labarrière 1993, though what he takes the extra human ingredient to be is not clear. He says, for instance (1993, 248, 256) that human speech is "composed" and "articulated," and perhaps by this he means that human speech fits together in a grammatical way, while animal speech does not. Relevant here is Caston's observation (1998, 284) that *phantasia*, which animal vocalization signifies, does not have linguistic structure.

Non-human animals can do as much, though they remain out of touch with the broad range of other concerns that circumscribe human social life.

This passage from the *Politics* shows that Aristotle sees some correlation between the human capacity for language and whatever cognitive capabilities set us apart from non-rational animals. Someone inclined to defend the view that *logos* means "speech" in our passage from *On the Soul* 3.3 could therefore point to it as evidence that, since Aristotle is doing the same thing there as he is in the *Politics* passage—namely, distinguishing humans and other creatures on the basis of whether they possess *logos*—he is employing the same tactic in our passage from the *On the Soul.* This move is hasty, though, because the *Politics* passage never claims any sort of dependence between linguistic consciousness and rational cognitive capability. Aristotle's argument in the *Politics* runs like this: humans alone have awareness of goodness and justice. Speech (unlike other animal vocalization) is up to the task of communicating (*epi to dêloun*) these notions to conspecifics. Nature does nothing in vain, so humans must have the ability to communicate about justice for a reason. Administration of shared justice is what makes for political society. It is likely, then, that humans are most apt to form political societies, in light of how nature has equipped them. Nowhere does he claim that the awareness of justice is caused, constituted or in any other way *dependent* on linguistic capacity.[181] So the context of the *Politics* passage seems quite different from that of our passage from *On the Soul,* where Aristotle does claim that belief (a cognitive phenomenon) depends in some way on *logos*. It is a mistake, therefore, to say that Aristotle explains human political aptitude with linguistic consciousness, because Aristotle does not claim that possession of political notions (such as goodness and justice) depends on possessing the language to express them. Human political aptitude rather depends on language because language allows for communication and therefore a shared conception and administration of

---

181. Wedin 1984, 147-56 defends at length the claim that language is a necessary condition for thought, using this passage among others as evidence. My discussion, if right, undercuts a piece of his evidence, and one piece of his data concerns the word *dialektos* and not *logos.* This suggests that his conclusion should have limited impact on how we read *logos* in our passage from *On the Soul.* The thesis he defends, that language is a necessary condition for rational thought, is weaker than the thesis under discussion in the main text, that linguistic capacity somehow explains or underlies rational cognition.

justice. His view does not, however, involve anything like a notion of "linguistic consciousness" because he does not ground human awareness of justice and goodness in the possession of the appropriate language.[182]

His considered view, in fact, is that the explanation runs in the opposite direction. Humans do not think because they employ language, but rather employ language because of the sort of cognition they enjoy. In the introduction to his semantic treatise *On Expression,* he states that written marks symbolize spoken sounds, which in turn symbolize "things that happen in the soul" (*On Expression* 1, 16a4-5). The latter phrase refers most likely to the beliefs, concepts and other mental items which words are supposed to express. His claim that language symbolizes things in the soul does not itself imply that language does not have a hand in molding, shaping, or serving as a necessary condition for those things in the soul. He goes on, however, to say that even though spoken sounds are not the same for all humans, what they symbolize is the same:

> And just as written marks are not the same for everyone, neither are vocal sounds the same. What happens in the soul, however—those primary things of which these [vocal sounds] are signs—those are the same for everyone, and so are the real things (*pragmata*) of which those [happenings] are resemblances (*homoiômata*).[183]

There is quite a bit going on in this passage that would distract us to unpack. For instance, Aristotle uses different terms to express the relationship between the different terms in his theory. Written marks are symbols (*sumbola*) of vocal sounds, while the sounds are signs (*sêmeia*) of happenings in the soul, which in turn are resemblances (*homoiômata*) of things in the world.[184] Crucial for our purpose is Aristotle's claim that, although language is molded by convention—and therefore differs person to person—the mental

---

182. Wedin (1984, 155) aptly notes *Sophistical Refutations* 1.1, 165a6-8, where Aristotle says that we employ words in the place of the things themselves, when the things themselves are not present. He seems, however, to take this view as evidence that it is a "mark of reason" itself to employ conventional symbol-strings in expression. For reasons not to accept this view, see below at page 76.

183. *On Expression* 1, 16a5-8: καὶ ὥσπερ οὐδὲ γράμματα πᾶσι τὰ αὐτά, οὐδὲ φωναὶ αἱ αὐταί· ὧν μέντοι ταῦτα σημεῖα πρώτων, ταὐτὰ πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταὐτά.

184. For a thorough discussion of Aristotle's semantic model, with copious reference to other secondary sources, see Wheeler 1999. A defining characteristic of symbols seems to be that they signify by convention: see also *On Expression* 2, 16a26-28, as well as *Politics* 3.9, 1280a36-39 for a more literal example, of which Aristotle's semantic usage is probably a metaphorical extension. On this, see especially Labarrière 1984, 34-40, who rightly observes that *sêmeion* is likely synonymous with *sumbolon* in *On Expression*, though in general the two are not synonymous.

representations that language symbolizes are not. Aristotle does not, therefore, hold the view that language molds or constructs the mental representations that it symbolizes.[185] If that were the case, then the representations would not be invariant under changes in vocalization. Aristotle does claim in *On Sense and Sensibles* that speech (*logos*, again) is the cause of learning (*aitios mathêseôs*), which seems to contradict my interpretation.[186] He goes on, however, to say that it is the cause of learning not in and of itself, but rather incidentally, because language is made up of names (*onomata*), which again serve as symbols. The thought seems to be that language serves to instruct when it connects in the right way to what goes on in the hearer's soul. Aristotle does not say that language contributes to the growth of wisdom or instruction because of any holistic effect that language use or acquisition has on thinking. He instead explains the role of language in terms of its basic significant ingredients[187] and the role those ingredients have as symbols for thought. In other words, language is the cause of learning not because it allows for thought, but because it allows for the closest possible thing to a sharing of thoughts with other individuals. This function, however, does not rely on or even hint at any relation of constitution or dependence between the capacity for speech and the capacity for rational cognition.

All this is reason to doubt that *logos* in our passage from *On the Soul* means anything like "speech" or "language," and that Aristotle is therefore making a claim that certain types of cognition (in this case, belief) depend on the capacity for speech. One might object, however, that the passages I have discussed do not tell against such a reading to a greater extent than his many uses of *logos* as "speech" tell in favor of it. Nor does Aristotle's view that "what happens in the soul" is the same for everyone imply that

---

185. See also *On Expression* 13, 23a32-35 and 14, 24b1-3, where Aristotle deduces facts about the logic of affirmation and negation from facts about the respective beliefs that they symbolize. In the former passage, Aristotle uses the word *akolouthei,* which appears in our main passage from *On the Soul* 3.3 and which I translate there as "depend on," with the dependent thing as the subject of the verb. In *On Expression*, however, the word has its more basic meaning of "following after" in a causal sense. This is clear because Aristotle supports his claim by citing how the structure of things in the soul determines the structure of the spoken language, not the other way around.

186. *On Sense and Sensibles* 1, 437a12-15.

187. I add "significant" because words are made up of sounds which do not signify in and of themselves but which are still part of language (i.e. they are not meaningless the way that a cough is meaningless).

language does not somehow underlie or constitute a *sine qua non* for beliefs and other rational cognitive capacities. All languages possess certain common traits, which Aristotle elaborates in *On Expression:* they consist of names and verbs, which are symbols for what happens in the soul and combine with each other to express complex thoughts. Perhaps it is access to this sort of symbol system, whatever form it takes in spoken language, that allows for rational thought.[188] Rational cognition does, then, depend on the capacity for speech, though the exact mechanism and nature of the dependence would take more work to spell out. The basic thesis is enough, however, to make sense of Aristotle's brief argument in our passage from *On the Soul.*

I grant that the human capacity for language allows us to formulate more complex thoughts than what non-linguistic animals are able to entertain and express. Non-human animals can find something pleasant or painful, and think that something should be sought after or avoided, but as Aristotle says in our passage from the *Politics*, it is unlikely that they can find something just or unjust, less likely still that they could form a shared conception and administration of justice. If access to a conventional symbol system allows for a greater range in the *contents* of one's thoughts, however, it is a further step to the claim that employing this conventional symbol system is what constitutes or underlies rational cognition. In our passage from *On the Soul*—even if *logos* does mean "speech" there—Aristotle is not simply pointing out that humans can talk and animals cannot. That fact alone would not serve to distinguish between belief and representation. His argument denies beliefs to animals on the grounds that they do not have *logos*. If Aristotle means to argue that employment of the conventional symbol system of language is what makes for rational cognition, and it is for this reason that animals cannot form beliefs, then he is committed to the thesis that all rational cognition is symbolically mediated. That is, nothing that counts as the special brand of cognition occurs without linguistic mediation. By "linguistic mediation," I mean that the content of thoughts which count as rational cognition are formulated in terms of elements in the conventional symbol system. This is

---

188. See Wedin 1984, 149-50.

still somewhat vague, but the overall thrust is that we think in terms of the words in our language: thought is internalized talk.

It is enough to refute this interpretation, then, to show that Aristotle is not committed to the thesis that our thinking is linguistically mediated. That is, he does not hold the view that reasoning always takes the form of manipulating a conventional symbol system, though of course it can and often does take that form. He makes his view clear in the *Sophistical Refutations*, when he discusses fallacies that stem from equivocation, i.e. mixing up the different senses of words. It is difficult, Aristotle says, to keep track of all the different possible meanings of words, and mistakes occur easily. This is because we have a tendency to assume that, when something gets predicated of something else, the predicated thing is an individual (*tode ti*) and we understand it as a unity.[189] Because of this assumption, equivocation and ambiguity tend to catch us by surprise, and lead to errors in speaking and reasoning. He says, therefore, that equivocation and ambiguity belong among the errors that stem from language, and the further reason he provides commits him against the idea that all thinking is linguistically mediated. He says that the error stems from language because we are especially prone to it when we carry on our inquiries with other people:

> For this reason, this way (of going wrong) should be put among those stemming from language (*para tên lexin*), chiefly because the error happens more to those inquiring with others than on their own (for with another the inquiry is through words (*logôn*), while with oneself it is no less through the matter itself), and when someone happens to err (in this way) on their own, it is when he fashions the inquiry based on the word. Furthermore, the mistake is due to similarity, and similarity is due to language.[190]

Using language in argument and inquiry introduces a complication that is absent when one does not use language. Aristotle allows that a significant amount of rational cognition

---

189. This is my reading of Aristotle's remark at *Sophistical Refutations* 7, 169a31-35. It is hard to see exactly what he is getting at, but a precise understanding is not necessary to grasp the import of the remark that follows.

190. *Sophistical Refutations*, 7, 169a36-40: διὸ καὶ τῶν παρὰ τὴν λέξιν οὗτος ὁ τρόπος θετέος, πρῶτον μὲν ὅτι μᾶλλον ἡ ἀπάτη γίνεται μετ᾽ ἄλλων σκοπουμένοις ἢ καθ᾽ αὑτούς (ἡ μὲν γὰρ μετ᾽ ἄλλου σκέψις διὰ λόγων, ἡ δὲ καθ᾽ αὑτὸν οὐχ ἧττον δι᾽ αὐτοῦ τοῦ πράγματος)· εἶτα καὶ καθ᾽ αὑτὸν ἀπατᾶσθαι συμβαίνει, ὅταν ἐπὶ τοῦ λόγου ποιῆται τὴν σκέψιν. ἔτι ἡ μὲν ἀπάτη ἐκ τῆς ὁμοιότητος, ἡ δ᾽ ὁμοιότης ἐκ τῆς λέξεως.

is mediated by language, even when one is not carrying on a discussion but rather thinking on one's own. A significant amount of thinking, however, happens "through the thing itself." It is not immediately clear what Aristotle means by this, but he explicitly contrasts whatever this kind of thinking is with thinking that occurs through language.[191]

This is enough to conclude, I think, that such thinking is not formulated using linguistic symbols, and is therefore not linguistically mediated. If we take Aristotle's "no less" literally, he is saying that human thinking consists of about equal parts thinking which is mediated by the conventional symbol system of human language and thinking which is not so mediated. Nor is the thinking which is not linguistically mediated a kind of thinking on a level below that of rational cognition. One might imagine a system where rational cognition consists of linguistically mediated thinking, and the non-linguistic thinking is exclusively the kind of cognition which animals also have: representation, memory, certain limited kinds of expectation. On this picture, linguistic capacity would still be a *sine qua non* for rational cognition, even though not all cognition undertaken by rational creatures was in fact linguistically-mediated.

Our passage from *Sophistical Refutations,* however, speaks against such a picture. Aristotle seems to believe that thinking which proceeds through the matter itself, without linguistic mediation, is equally fit to carry out inquiries about abstract concepts. It is a robust alternative to linguistically-mediated thinking, not a lower-level remnant of our animal nature. The final remark, after "furthermore," provides another piece of evidence that linguistic formulation is a separate, non-constitutive operation that introduces complications into what already qualifies as the special brand of cognition that separates rational from non-rational creatures. He says that "similarity" is the cause of ambiguity and equivocation, a similarity which is specifically "due to language." When we carry on our inquiry through language, we are in part hostage to the contingent development of our language. Meaning is conventional, so there is no natural connection between words

---

191. The thinking occurs *through* language, but is not necessarily *about* language. That is, the distinction is not between thinking about real things and thinking about the meanings of words. Rather, the distinction is in the means by which the reasoning occurs.

and the "real matter" (*pragma*) they ultimately (through their role in symbolizing mental entities) stand in for. In a given language, an identical mark may signify two very different things, and the homonymy need not signal any kind of similarity or connection between the things signified.

Due, however, to our tendency to think that predicates signify an individual thing, we are liable to overlook the homonymy that results from the contingent development of language and so stumble in our reasoning about the actual things. An example from English would be the word "bank." Here is some mistaken reasoning about banks: I have some savings, and want to earn interest on it. Well, money earns interest inside a bank, banks are located next to rivers, therefore I should bury my money by the side of a river. My concepts of river banks and monetary banks are radically different. Were I just thinking about the relevant objects, thinking that proceeded "through the things themselves," there would be no chance to make such a mistake. Nor would a speaker of French, Arabic or Inuit (whose words for river banks and monetary banks differ from one another) be vulnerable to the mistaken reasoning given above.

If the non-mediated kind of thinking is open to us, and linguistically-mediated thinking is prey to these sorts of errors, one might ask why we bother with linguistically-mediated thinking in the first place. Answering this question is not crucial here, but such an answer would likely involve the social character of language, which allows us to share conclusions and carry on joint inquiry. It would also likely involve the fact which I granted earlier, that linguistic mediation allows us to formulate highly complex thoughts about a wide range of content with relative ease. If the mistakes due to language can be avoided, then language is a powerful reasoning tool. Aristotle says as much immediately prior to the passage we quoted above:

> For it is difficult to determine which [expressions] say the same thing, and which say different things (for the man who is able to do this is basically next door to an understanding of the truth, and knows best how to join in assenting [to a claim]).[192]

---

192. *Sophistical Refutations* 7, 169a31-34: χαλεπὸν γὰρ διελεῖν ποῖα ὡσαύτως καὶ ποῖα ὡς ἑτέρως λέγεται (σχεδὸν γὰρ ὁ τοῦτο δυνάμενος ποιεῖν ἐγγύς ἐστι τοῦ θεωρεῖν τἀληθές, μάλιστα δ᾽ ἐπίσταται συνεπινεύειν).

Facility in linguistically-mediated thinking gives one an advantage in thinking about the matters themselves, in part because someone with such a familiarity does not make the mistakes that more careless people make, but also because he knows how to reason quickly and effectively with the tool of language.

Whatever the details of Aristotle's view about those matters, these passages from the *Sophistical Refutations* makes this clear: there is more to rational cognition than thinking mediated by a conventional symbol system. It is possible to carry out reasoning without linguistic mediation, and such mediation is not constitutive of rational cognition because Aristotle sees linguistic thinking as prey to certain fallacies and mistakes which thinking "through the matter itself" is not prey to. Aristotle is therefore committed against the view that language is necessary for constitutively rational cognition. Since taking *logos* for "speech" in our passage from *On the Soul* would commit him to such a view, this is reason to reject the interpretation. It is correct, then, to think that *logos* denotes a cognitive or mental capacity (reason in particular), rather than some other capacity, such as the ability to speak or be linguistically conscious.

Chapter 3
The Normativity of Belief

1. Introduction

We come now to the side-by-side arguments that occupy *On the Soul* 3.3, 427b16-24. Unlike the arguments discussed in Chapters 1 and 2, Aristotle seems concerned here primarily with cognition open only to humans. His does not mention animals and how they differ from humans, and his examples depend on forms of representation (*phantasia*) which we would not attribute to animals, such as building a mnemonic system and appreciating a work of art. The arguments nonetheless remain relevant to his conception of constitutive rationality. Believing is still something that only rational creatures can do, and the properties that he attributes to belief in order to distinguish it from representation are properties which make it a form of rational cognition.

In the argument at *On the Soul* 3.3, 427b16-21, Aristotle distinguishes believing and imagining[193] by saying that believing is not up to us, while imagining is. My understanding of what Aristotle means by this differs radically from previous commentary on the passage. He does not mean that we lack causal or conative control over the formation of our beliefs, but rather that we have a positive obligation to believe the truth, and so cannot believe as we please. Belief's normative connection to truth takes two forms: first, truth governs belief as a standard of procedural correctness that belief has in virtue of its role as a guide to rational agents in advancing their concerns. Aristotle goes further than that, however, and says that truth has a value all its own which can come into felt conflict with the agent's other values and concerns. Our beliefs are therefore subject to

---

193. For discussion of these passages, I prefer the conventional "imagination," because here Aristotle seems to be referring to a mode of representation to oneself that we can more or less use as we please. That is, he seems to be talking about what we would recognize as the recreative imagination, *pace* Freudenthal 1863.

normative evaluation with respect to truth, and we go wrong to the extent that we believe falsehoods. Being subject to these normative constraints is part of what makes for constitutive rationality, on Aristotle's view. In order to be a rational creature, one must be subject to the norms which govern rational creatures, and one violates them on pain of irrationality. In order to establish anything close to this, I must cut through a thicket of mistaken interpretation. First, I set out and dismantle two guiding assumptions of the conventional interpretation: that belief's connection to truth lies merely in its having a truth-value, and that something is up to us just in case it is under our causal or conative control. I replace each of these in turn with my own interpretation. The conclusion tells a story about what Aristotle's normative views about belief and truth amount to.[194]

2. The Argument, and Two Crucial Assumptions

To start, here is Aristotle's argument in full:

> It's clear as well that it [i.e. imagination] is not thinking, or rather entertaining. For that state is up to us, whenever we want (for it is possible to put something in front of our eyes, like those who fashion images and put them into mnemonics), but believing is not up to us. For when forming beliefs we must either be in error or hit on the truth.[195, 196]

Imagining is up to us because we can conjure images for various purposes, whenever we want. Aristotle's specific example is a person who is putting together a mnemonic system, but nothing in his remark indicates that this is the full range of the ability. The conventional interpretation of this argument makes two assumptions, both of which I reject. The first is that, when Aristotle says that imagining is "up to us" and believing is not, he means that we have some sort of causal control over the former and not the latter. That is, we can make ourselves imagine something but we cannot make ourselves believe

---

194. This passage is notoriously difficult to interpret, in part because the text itself is the subject of editorial controversy. Translation throughout reflects my own choices; for discussion of why I read the text and translate it as I do, see "Appendix: Text and Translation of 427b16-21," page 123.

195. Reading *hautê* with the Budé edition (Jannone 1966, 75), against Rodier 1900, 2:405-6 and Hicks 1907, 457-58, and retaining *noêsis* against Ross 1961 and Wedin 1984, 73.

196. *On the Soul* 3.3, 427b16-21: ὅτι δ᾽ οὐκ ἔστιν αὕτη νόησις καὶ ὑπόληψις, φανερόν. τοῦτο μὲν γὰρ τὸ πάθος ἐφ᾽ ἡμῖν ἐστιν, ὅταν βουλώμεθα (πρὸ ὀμμάτων γὰρ ἔστι τι ποιήσασθαι, ὥσπερ οἱ ἐν τοῖς μνημονικοῖς τιθέμενοι καὶ εἰδωλοποιοῦντες), δοξάζειν δ᾽ οὐκ ἐφ᾽ ἡμῖν· ἀνάγκη γὰρ ἢ ψεύδεσθαι ἢ ἀληθεύειν.

something.[197] The second assumption is that the connection between belief and truth goes no deeper than the fact that beliefs have truth-values. Call mental states that share this feature TRUTH-APT. This assumption requires a different translation from my own: where I have "we must either be in error or hit on the truth," substitute something like "we must believe either truly or falsely."[198] I examine the second assumption first; it is more straightforwardly false, and correcting it will motivate us to question the first assumption.

3. Dismantling the Second Assumption: TRUTH-APT

Grant for now the assumption that Aristotle is talking about causal control when he says that belief is not "up to us." It is nonetheless difficult to see why belief's being TRUTH-APT would entail that believing is not up to us. The problem gets worse when we observe that imagination is TRUTH-APT as well. Several of the distinctions Aristotle makes between imagination and other states throughout *On the Soul* 3.3 depend on imagination being either true or false. For instance:

> Also, [perceptions of intrinsic objects] are always true,[199] while instances of imagination are by and large false. Furthermore we don't say, when our senses are operating accurately with regard to something [incidentally] perceived, that it seems to us that it's a man, but we do that more when we are not clearly perceiving whether it's true or false.[200]

197. Among ancient commentators see Ps-Philoponus *Commentary on the Soul* 488.16-21, ps-Simplicius *Commentary on the Soul* 206.8-11, Themistius *On the Soul Paraphrase* 88.37-40. Among modern scholars see especially Freudenthal 1863, 8-11, Hicks 1907, 458, Hamlyn 1968, 130, Wedin 1984, 74-75, and Polansky 2007, 411-13. Rodier 1900 presupposes that this is Aristotle's view, but says nothing explicit. I know of no one in the literature who rejects the assumption; Barnes (2006, 195-97) recognizes that the argument does not work on this interpretation, but nonetheless takes it to be the correct interpretation of Aristotle's argument. I, on the other hand, think this is reason to seek an alternative interpretation.

198. This conventional reading (as in Rodier 1900, Hicks 1907 and Hamlyn 1968) is possible, but not necessary. My translation, however, makes better sense of the argument. Aristotle's point is not about the distribution of truth-values, but rather about how truth regulates the process of belief-formation. He explains his claims about whether states are up to us with examples of human activity, such as forming mnemonic systems. Humans cannot be true or false (except metaphorically), but they can be in error or hit on the truth in their beliefs.

199. The notion that certain perceptions are "always true" sounds strange to us, but exclusive (*idia*) objects of perception are the perceptual qualities which define or constitute the sense in question (e.g. color for vision, sound for hearing). These perceptions are "always true" because our senses are never mistaken about whether some stimulus is taking place, though they can be mistaken about what object they are perceiving via that sensation: see especially *On the Soul* 2.6, 418a15-19 and 3.3, 428b18-30. See also Turnbull 1978, Everson 1997 and Modrak 1987.

200. *On the Soul* 3.3, 428a11-15: εἶτα αἱ μὲν ἀληθεῖς ἀεί, αἱ δὲ φαντασίαι γίνονται αἱ πλείους ψευδεῖς. ἔπειτα οὐδὲ λέγομεν, ὅταν ἐνεργῶμεν ἀκριβῶς περὶ τὸ αἰσθητόν, ὅτι φαίνεται τοῦτο ἡμῖν ἄνθρωπος, ἀλλὰ μᾶλλον ὅταν μὴ ἐναργῶς αἰσθανώμεθα πότερον ἀληθὴς ἢ ψευδής.

Aristotle also argues for a distinction between imagining and understanding (*nous*) or knowledge (*epistêmê*), on the grounds that they are always true, and imagination is sometimes false:

> Neither will imagination turn out to be any of those states which are always true, for example knowledge or understanding; for imagination is also false.[201]

If imagination is not TRUTH-APT, these comparisons make no sense. Furthermore, Aristotle needs imagination, and introduces it in the first place, to account for the possibility of cognitive error. Past theorists, he says, tend to say that thinking is just a form of perception, on the grounds that the soul uses both to discriminate and become familiar with what is the case.[202] Empedocles and others, however, have no story for how we can think that p when it is not the case that p. The sort of representation that we here call "imagining" allows Aristotle to account for the phenomenon. It cannot play the role he needs it to, however, if it can be neither true nor false.[203] A final bit of evidence comes at the end of this chapter, when Aristotle gives a condensed characterization of imagining, its causes and consequences. The "motion" he refers to in the following quote is an imagining:[204]

> This motion would not be possible without perception, nor would it belong to things which do not perceive; and the thing that has it will be able to do and experience many things because of it, and it can be both true and false.[205]

Imagination, as far as Aristotle is concerned, is TRUTH-APT. If being TRUTH-APT were sufficient to make a mental state not up to us, then imagining would not be up to us,

---

201. *On the Soul* 3.3, 428a17-19: ἀλλὰ μὴν οὐδὲ τῶν ἀεὶ ἀληθευουσῶν οὐδεμία ἔσται, οἷον ἐπιστήμη ἢ νοῦς· ἔστι γὰρ φαντασία καὶ ψευδής.
202. *On the Soul* 3.3, 427a17-22: "…it seems like both theoretical and practical thought (*to noein kai to phronein*) are a certain perception: for in both of these the soul discriminates and recognizes some of what is. And the older thinkers, at least, say that thinking and perception are the same thing…"
203. One might argue that *phantasia* simply supplies the content of one's judgment, and that the truth or falsehood is determined by other aspects of the mental state. The plausibility of this objection will depend on how one fills in the details, but my response would be that it is difficult to see where the truth or falsehood of a judgment would come from, if not from its representational content.
204. Wedin (1984, 75ff) calls this the "canonical theory of imagination," and spends a great deal of time reconciling Aristotle's other remarks on *phantasia* with what he takes to be the core doctrine expressed in this section.
205. *On the Soul* 3.3, 428b15-17: εἴη ἂν αὕτη ἡ κίνησις οὔτε ἄνευ αἰσθήσεως ἐνδεχομένη οὔτε μὴ αἰσθανομένοις ὑπάρχειν, καὶ πολλὰ κατ' αὐτὴν καὶ ποιεῖν καὶ πάσχειν τὸ ἔχον, καὶ εἶναι καὶ ἀληθῆ καὶ ψευδῆ.

contrary to Aristotle's claim. Any reconstruction of the argument, then, will have to appeal to some property of beliefs other than their merely having truth-values.[206]

We can deal briefly with the radical suggestion that imagination does not, in general, even have a truth value. Aristotle says that belief is not up to us because it "must be true or false," so one might conclude that imagination need be neither true nor false, i.e. it need not be TRUTH-APT.[207] Some instances of imagining are TRUTH-APT, which accounts for the several pieces of text we have already seen, but others are not. One might say that in order for imagining to have a truth-value, one must take a certain stance toward the representation (*phantasma*). If one does not take it to represent anything in the world—if it amounts to an idle fancy or a daydream—then it has no truth value. If this stance is something that is up to us, it would follow that imagining is up to us.

This proposal falters on both exegetical and philosophical grounds. It is implausible that a thinking subject must take some stance toward a representation for it to have any sort of truth value. A mental state still has content, even when that content is not taken to represent the world.[208] Whether the representation is isomorphic with some part of the world does not depend on any attitude that any subject takes toward it. Since the isomorphism is what determines the truth value of the representation, and the isomorphism holds independent of the subject's attitude toward the representation, it follows that the attitude of the subject does not determine the truth-value of the representation (and, *a fortiori*, whether the state is TRUTH-APT at all).[209] The subject's ability, therefore, to hold different attitudes toward the representation does not imply anything about whether the representational state is TRUTH-APT. Nor have we any good reason to

---

206. Freudenthal (1863, 9-11) seems to notice this, calls the argument "obviously invalid" and concludes that Aristotle did not write it or did not mean for it to be where we read it. Rodier (1900, 2:408-13) tries to make due only with truth-aptness by suggesting that belief must (*anankê*) be true or false, while imagination only might be. His arguments are based on a flawed interpretation of *On Memory* 1, 450b21-451a3. See immediately below in the main text.

207. This argument is due to Rodier (1900, 2:408-13), in response to Freudenthal.

208. On this point see especially Lorenz 2006, 159 and Caston 1998, 257n21. Caston also points out that it is implausible to think that taking a certain stance toward a content is necessary for a state to be representational (and that Aristotle never makes such a claim).

209. This argument takes as a premise some sort of correspondence theory of truth, which seems to be Aristotle's own view. For discussion, see Crivelli 2004, 130-32, Modrak 2001, Irwin 1988 (5, 95), and Nussbaum 1978, esp. ch. 7.

think that Aristotle held a view like this: textual evidence is wanting. The closest we can get is a passage from *On Memory,* where Aristotle says that we "must consider" (*dei hupolabein*) the representation in us both "on its own terms and as a likeness of something else," in the same way that we can contemplate a painting both on its own terms and as a reference to something else out in the world.[210] Aristotle is only there concerned, however, with representations as the medium of memory and recollection; he espouses no general view about imagining there.[211] Furthermore, he says that we "must consider" any given representation in *both* the ways he gives. There is no impression of dichotomy, or that our stance one way or the other is "up to us" in the sense required by our main passage from *On the Soul.*

The situation, then, is as it appeared to be: imagination is TRUTH-APT, so belief's not being up to us must have some other explanation. There are other interpretations, however, that rely on no stronger connection between belief and truth than the fact that beliefs have truth-values. Such proposals still fail, however, because they commit Aristotle to claims which contradict his express views about which states are up to us and which are not. We can see this if we examine a representative sample of such interpretations. The most straightforward proposal is semantic. That is, it attempts to derive that believing is not up to us from considerations about what determines the truth-value of beliefs. We might argue as follows: beliefs get to be true or false by corresponding or failing to correspond to the facts. How the facts fall out are not up to us. We cannot, therefore, control which of our beliefs are true and which false. Therefore, believing is not under our

---

210. *On Memory* 1, 450b21-27: οἷον γὰρ τὸ ἐν πίνακι γεγραμμένον ζῷον καὶ ζῷόν ἐστι καὶ εἰκών, καὶ τὸ αὐτὸ καὶ ἓν τοῦτ᾽ ἐστὶν ἄμφω, τὸ μέντοι εἶναι οὐ ταὐτὸν ἀμφοῖν, καὶ ἔστι θεωρεῖν καὶ ὡς ζῷον καὶ ὡς εἰκόνα, οὕτω καὶ τὸ ἐν ἡμῖν φάντασμα δεῖ ὑπολαβεῖν καὶ αὐτό τι καθ᾽ αὐτὸ εἶναι καὶ ἄλλου [φάντασμα]. ᾗ μὲν οὖν καθ᾽ αὐτό, θεώρημα ἢ φάντασμά ἐστιν, ᾗ δ᾽ ἄλλου, οἷον εἰκὼν καὶ μνημόνευμα.
211. In accordance with Caston 1998, 257-59. Aristotle's point in the quoted passage is that we can a) regard as a likeness what is in fact a likeness (genuine memory), b) regard as a likeness what is not a likeness (seeming to remember) and c) fail to regard as a likeness what is a likeness (doubting one's memory). None of this implies that the representation in question would ever lack a truth-value. Aristotle himself provides an example of case (b) at 451a9-11, when he speaks of lunatics who "spoke of their representations as if they remembered them," when in fact they were mere delusions. See also Caston 1998, 281-84.

control. We find this idea foremost in the commentary for *On the Soul* attributed to Simplicius:[212]

> Endorsement is not simply due to the comprehension of how things fall out, but rather is due to the discrimination of truth and falsehood. Truth and falsehood lies in agreement and disagreement with the facts of the matter (*pragmata*), and the facts of the matter are not up to us.[213]

The truth-value of our beliefs is set by how the facts fall out. Facts, however, are beyond our control. Imagination is unfettered by this connection to facts, so we can do what we want with it.[214] Belief, therefore, does not depend on us but rather on the outside world, which does not depend on us either.[215]

We need to qualify the premise that facts are not up to us; numerous facts seem to be under our control.[216] I can control whether or not a light switch is on in my room, whether or not my students understand the material, whether or not my door is locked. Simplicius seems right, however, that dependence on the actions of an agent is not characteristic of facts as a kind. The facts that are up to us seem limited to a subset of particular facts (*kath' hekasta,* literally "with regard to each individual"). Aristotle also takes this to be the realm of human control.[217] Our influence ends there: we have no control over universal facts (*katholou,* literally "with regard to the whole"), which often represent moral principles or facts of nature. No one controls what is true about fire and lightning, for example. We can have beliefs about both kinds of facts, so Simplicius is right to say that facts are not, in general, up to us.[218] The rest of his argument relies on the following reasonable assumption: anything which depends on a state of affairs that is not

---

212. It is probably not the work of Simplicius, however; see Blumenthal 2000, 1-7.
213. *Commentary On the Soul* 206.32-35: ἡ δὲ συγκατάθεσις οὐ κατὰ μόνην τὴν τῶν προσπιπτόντων σύνεσιν, ἀλλὰ καὶ κατὰ τὴν τοῦ ἀληθοῦς ἢ ψεύδους διάκρισιν. ἐν δὲ τῇ πρὸς τὰ πράγματα συμφωνίᾳ καὶ διαφωνίᾳ τὸ ἀληθὲς καὶ τὸ ψεῦδος· τὰ πράγματα δὲ οὐκ ἐφ᾽ ἡμῖν.
214. Ps-Simplicius says as much before the cited passage, at 206.13-15.
215. Heil (2003, 324n) seems to assume something like this argument in his own reconstruction. See also Barnes 2006, 195-97 for a more thorough reconstruction, though he realizes it does not make any sense of our target passage.
216. In fact, standard modal logics of ability require this by presupposing in their semantics that the actions of agents can make propositions true or false. See for example Brown 1988, 3-5.
217. See, for instance, *Metaphysics* 1.1, 981a15-17, *Nicomachean Ethics* 2.7, 1107a29-32, 3.1, 1110b6-7, 6.7, 1141b14-16, and *Politics* 2.8, 1269a9-12.
218. For the comparison between universal and particular beliefs, see *On the Soul* 3.11, 434a16-21 and *Nicomachean Ethics* 7.3, 1147b1-5. For particular beliefs, see also *On Dreams* 2, 461a31-b2 and *Nicomachean Ethics* 7.3, 1147a25-28.

up to us is also not up to us. If the truth-value of every belief consists in whether it agrees or disagrees with the facts, and the facts are not up to us, then it is not up to us whether that given belief is true or false. Belief, therefore, is not up to us. This account, however, faces a fatal difficulty. If truth is agreement with the facts, and imagination can also be true or false, then the truth of imagination also consists in agreement with the facts.[219] Simplicius' argument works for belief, it also works for imagination, so imagination is not up to us either, contrary to Aristotle's express view.[220] So Simplicius' semantic argument does not explain why belief is not up to us.

Perhaps the pragmatics of belief has a better chance. Beliefs have a different kind of force than imaginings, so maybe the difference lies there.[221] This kind of proposal goes like so: when we form a belief, we do not simply represent a state of affairs, but also assert the content of that representation.[222] What we believe is, therefore, restricted by how we take the world to be; we cannot believe what we do not take to be true, since beliefs encode our commitments about what is true.[223] Imagining is up to us because it faces no such constraint. The appeal to assertoric force yields a clear distinction between belief and imagination, while requiring no deeper a connection between truth and belief than belief's being TRUTH-APT.

The proposal, however, is unsatisfying for two reasons. First, it makes no headway in answering our initial question: why does belief's being TRUTH-APT entail that we have no causal control over it? Our beliefs constitute what we take to be true,[224] so the claim that we cannot believe what we do not take to be true amounts to the claim that we cannot

---

219. This is true even if the operative notion of truth for imagination is truth-of, rather than propositional truth. See Wedin 1984, 77-79 for the distinction. The basic notion of matching-up is, I think, present in both propositional truth and truth-of, so the latter requires no importantly different account. See also Moreau 1961, 23-26 for a discussion of truth which does not involve predication (and therefore does not involve propositions), though Moreau's subject is perception and not imagination proper.
220. It also implies that actively exercising our knowledge is not up to us, even though it is: see page 89.
221. Ademollo (2010, 97n2) is skeptical that Aristotle cared much about the theory of speech-acts and force (what I loosely call "pragmatics"). It would certainly be anachronistic to import too much of our modern theoretical framework into our readings, but I think regimenting Aristotle's intuitions using this kind of language does little harm.
222. Aristotle holds this view explicitly: see especially *Nicomachean Ethics* 6.9, 1142b13-14 and *On Expression* 14, 24b2-4.
223. This proposal, or something like it, is widespread in the literature. It seems to lie behind Wedin's view of the passage (1984, 75-77), though it is hard to be certain, since he says that Aristotle is making a "logical point." See also Hicks 1907, 459, Hamlyn 1968, 130-31, and Polansky 2007, 410-12.
224. Or, as Hamlyn puts it, our "view of the facts."

believe what we do not believe. This is either obviously false (since our beliefs change), or a tautology, and applies as much any other mental state, imagining included. To make the proposal at all convincing, we would need to supplement it with an account of why the commitments involved in making an assertion put the assertoric mental state outside our control.[225]

More damning from an exegetic standpoint, however, is that this proposal commits Aristotle to contradicting his own express view. If a mental state's making an assertion entails that the state is not under our control, then Aristotle should agree that no assertoric mental state is under our control. Knowledge, however, is assertoric in the same sense: it encodes our commitments about what is true, just as our beliefs do. In *On the Soul* 2.5, Aristotle draws a threefold distinction among capabilities, and his example throughout is knowledge.[226] Humans start with the ability to acquire knowledge, then through study acquire a disposition which we would call "knowledge" in contemporary philosophical discourse. Knowing in this sense does not imply that the knowing subject is at any given moment aware of or making use of their knowledge. When someone knows in this dispositional sense, they can, according to Aristotle, enter a further occurrent mental state that amounts to an active exercise of her knowledge.[227] Aristotle says that this active exercise is up to us:

> But there is a difference [between perception and knowledge], namely that those things which produce sensation are external: what is seen, what is heard, and so on for the other senses. The reason for this is that sensation, as an activity, concerns particulars, while knowledge is of universals, and these are in the very soul, in a way. For this reason thinking is up to someone, whenever he wishes, but perceiving is not up to him, for the

---

225. My own proposal, that the connection between belief and truth is normative, provides such a bridge. If beliefs are supposed to be true, then as a matter of course people (if they are good believers) will want their beliefs to be true, and so feel constrained by the truth. This does not validate the current proposal, however, because it is still not the reason why believing is not up to us.

226. For extended discussion of this passage see especially Burnyeat 2002. The present discussion, fortunately, does not require a detailed understanding of the many intricacies of *On the Soul* 2.5.

227. See *On the Soul* 2.5, 417a25-30. Aristotle says that the man who actively exercises his knowledge is a knower in the principal (*kuriôs*) sense, which suggests that he ascribes the disposition to know on the basis of the ability to engage in this more active form of contemplation.

Since Aristotle draws a direct analogy between active perception and active knowing (*On the Soul* 2.5, 417b18-19), it is tempting to say that what characterizes active knowing is a conscious awareness or contemplation of what one knows. As far as I can tell, however, nothing in Aristotle's remarks at *On the Soul* 2.5 commit him to this.

perceptible must be present.[228]

Aristotle says that "thinking" (*noêsai*) is up to us, rather than knowing (*epistamai*), but this passage occurs right after the discussion I summarize above, and so the term "thinking" is meant to include the active exercise of our knowledge, even if it extends more widely. When one exercises one's knowledge, one enters an assertoric mental state. This state is, for Aristotle, distinct from dispositional knowledge. In fact, he refers to active awareness of one's knowledge as "the principle sense" in which we know something. That is, we ascribe dispositional knowledge to a subject on the basis of their ability to actively contemplate some truth. A subject can do this whenever she wants to (provided nothing interferes), which makes exercising her knowledge up to her. Yet it is also assertoric, because it makes a claim about the world (which always happens to be a true claim). Believing cannot therefore be outside our control because it is assertoric. Proposals based on the pragmatics of belief dead-end just as did proposals based on its semantics.

The last type of proposal I will consider appeals to the psychological dynamics of belief. Perhaps, as a matter of psychological fact, humans are incapable of forming certain beliefs at certain times. The ancient commentator Themistius defends such a proposal at length in his paraphrase of *On the Soul*.[229] We can, he says, imagine anything we please at any given time. When it comes to belief, however, we are compelled by what seems obvious (*to dokoun enarges*). We must give our assent to what seems obvious, deny what seems obviously not the case, and suspend our judgment when nothing is clear. In general, what is obvious to someone at a certain time determines what they believe at that time.[230] Again, such a proposal draws a clear distinction between belief and imagination, and appeals to no greater a connection between belief and truth than belief's being TRUTH-

---

228. *On the Soul* 2.5, 417b19-25: διαφέρει δέ, ὅτι τοῦ μὲν τὰ ποιητικὰ τῆς ἐνεργείας ἔξωθεν, τὸ ὁρατὸν καὶ τὸ ἀκουστόν, ὁμοίως δὲ καὶ τὰ λοιπὰ τῶν αἰσθητῶν. αἴτιον δ᾽ ὅτι τῶν καθ᾽ ἕκαστον ἡ κατ᾽ ἐνέργειαν αἴσθησις, ἡ δ᾽ ἐπιστήμη τῶν καθόλου· ταῦτα δ᾽ ἐν αὐτῇ πώς ἐστι τῇ ψυχῇ. διὸ νοῆσαι μὲν ἐπ᾽ αὐτῷ, ὁπόταν βούληται, αἰσθάνεσθαι δ᾽ οὐκ ἐπ᾽ αὐτῷ· ἀναγκαῖον γὰρ ὑπάρχειν τὸ αἰσθητόν.

229. *On the Soul Paraphrase* 88.38-89.10. Ps-Philoponus (*Commentary on the Soul* 15, 488.16-31, 492.24-493.4) also asserts that it is psychologically impossible to believe anything we please at any given time, but he provides no argument for his claim. I engage with Themistius in particular because I am aware of no contemporary interpretation which provides such a cogent defense of the proposal.

230. See especially Barnes 2006, 199-201, who traces of this sort of argument to the Stoic tradition as well.

89

APT. What is more, it tells a psychologically plausible story about why we do not have control over our beliefs.

The proposal fails, however, because belief's not being up to us does not follow from Themistius' argument. According to Themistius, we must, at any given time, believe in accordance with what is obvious to us. He seems to consider this sufficient to rule out belief's being under our causal control; he calls belief an "unwilling affection of the soul." If we are so constrained, then belief is not under our *immediate conative control*. That is, we cannot make ourselves believe something straightaway by willing ourselves to believe it.[231] Belief is not like raising our hand or directing our attention somewhere.[232] If something is obvious to us, we must believe it, whether we want to or not. Immediate conative control, however, is not a necessary condition for a mental state to be "up to us," according to Aristotle. He argues in his discussion of responsibility in *Nicomachean Ethics* book 3 that being virtuous is up to us, even though we cannot become virtuous and vicious at will:

> But if someone knowingly performs those acts due to which he will become
> a wicked man, then he will be willingly wicked, even though of course he will
> not, upon wishing for it, cease to be wicked and become just. For neither will
> a sick man become healthy like that. […] Just as it is not possible for
> someone who has thrown a rock to make it return, but nonetheless less it was
> up to him to throw it, for the source was in him.[233]

We do not become virtuous simply through wanting or intending to. Rather, we acquire these states of character through habitually performing the appropriate actions and learning to take the right attitude toward performing them.[234] Aristotle does not, however,

---

231. Williams' argument against this kind of believing at will (1973) has attracted enough attention and criticism (see, for instance, Winters 1979, Walker 2001, Funkhouser 2003 and Setiya 2008) that it is worth noting the difference between his argument and that of Themistius. For Williams, what makes belief at will impossible is the conceptual impossibility of forming a belief while being indifferent to whether the belief is true or false. Believing at will presupposes this sort of disregard for the truth, so it is conceptually impossible. For Themistius, beliefs result directly from certain evidential states, often against our will (he calls belief an "unwilling affection of the soul"). We need not be aware of these evidential states or have any thoughts about whether our beliefs are true or false, as we must in Williams account.

232. Our control over these actions can also, of course, be wrenched from us, by paralysis or surprise. The point is that we can, in general, perform such actions at will.

233. *Nicomachean Ethics* 3.5, 1114a12-19: εἰ δὲ μὴ ἀγνοῶν τις πράττει ἐξ ὧν ἔσται ἄδικος, ἑκὼν ἄδικος ἂν εἴη, οὐ μὴν ἐάν γε βούληται, ἄδικος ὢν παύσεται καὶ ἔσται δίκαιος. οὐδὲ γὰρ ὁ νοσῶν ὑγιής. καὶ εἰ οὕτως ἔτυχεν, ἑκὼν νοσεῖ, ἀκρατῶς βιοτεύων καὶ ἀπειθῶν τοῖς ἰατροῖς. τότε μὲν οὖν ἐξῆν αὐτῷ μὴ νοσεῖν, προεμένῳ δ' οὐκέτι, ὥσπερ οὐδ' ἀφέντι λίθον ἔτ' αὐτὸν δυνατὸν ἀναλαβεῖν· ἀλλ' ὅμως ἐπ' αὐτῷ τὸ βαλεῖν· ἡ γὰρ ἀρχὴ ἐν αὐτῷ.

shrink from saying that they are up to us. We make ourselves virtuous or vicious, even though acquiring virtue is not the immediate result of any action that we take. Similarly, it might be possible, through our own actions, to change what is obvious to us. Say someone wants to get themselves to believe that p, for some propositional claim p. She might carefully avoid anyone who wishes to argue that not-p and only associate with those who agree that p. Over time, it will start to seem obvious to her that p, because she is no longer aware of any evidence to the contrary. Nothing in Themistius' argument rules this out. If Aristotle thinks that this kind of control is enough to put virtue under our control, then it should also put belief under our control. If we assume that Aristotle does not fall prey to this confusion, then the psychological proposal cannot represent his reasoning.

A broad survey of the ways one might defend the assumption that there is no deeper connection between belief and truth than belief's being TRUTH-APT shows us that there is likely no good defense of the assumption. Semantic, pragmatic and psychological defenses of the assumption all lead the argument into direct conflict with Aristotle's express views and so likely fail to capture the contours of Aristotle's reasoning. My suggestion is that we abandon the assumption and look for evidence that Aristotle sees a more substantial connection between belief and truth which he might plausibly deploy in this argument.

4. Replacing the Second Assumption: Truth Matters

Here is my suggestion: the connection between belief and truth is not semantic, pragmatic or psychological, but normative. Truth is the standard of correctness for belief, not simply one of two values it can take.[235] In other words, belief is not just TRUTH-APT. In addition, believing is what we might call TRUTH-NORMED. Call a cognitive activity (such as believing, imagining and knowing) TRUTH-NORMED just in case it should hit on the truth (that is, there is some normative constraint that requires it to be true), but it can also be false. Put

---

234. See also *Nicomachean Ethics* 10.9, 1179b20-24, *Eudemian Ethics* 2.6, 1223a7-15; 2.11, 1228a5-11.
235. The thesis that belief "aims at truth" has received much recent attention, though the connection to doxastic voluntarism is not always explicit. See especially Velleman 2000, Walker 2001, Shah 2003, Shah and Velleman 2005, Steglich-Petersen 2006b, Gibbard 2007 and Swanson 2007.

slightly differently, an activity is TRUTH-NORMED if it makes sense to say that it is operating correctly when it hits on the truth and makes a mistake when it seizes on a falsehood. Imagining is not TRUTH-NORMED, because our imagining truly or falsely does not determine whether we are imagining as we should. Neither is knowing TRUTH-NORMED, because there is no way to know something false. Knowledge is true as a conceptual matter: part of what it is for a judgment to express knowledge just is for it to be true. Believing falls between these two extremes: it can deviate from the truth and still be belief, but it is not freewheeling the way we think of imagination as freewheeling.

My definition applies to activities (such a believing) rather than states (such as beliefs) because the norm, however we spell it out, applies to believers and governs what beliefs they form, rather than states and which truth-values they possess. The second option sounds bizarre; it implies both that a belief that p and a belief that not-p "should be true," which is a strange thing to say.[236] The first option also better fits the way Aristotle presents his argument; he says not that *doxa* is not up to us, but *to doxazein*, "forming beliefs." If believing is TRUTH-NORMED, then in some sense (to be spelled out), one ought to believe truths and reject falsehoods.[237] For Aristotle, this "should" is a rational compulsion (i.e we violate it on pain of irrationality), and for this reason we cannot believe "as we please," the way we can imagine as we please.[238]

Several texts make it clear that Aristotle takes believing to be TRUTH-NORMED. He argues, for instance, that truth is the right condition of theoretical thinking, because hitting on the truth is what every kind of thinking is supposed to do:

> The right and wrong conditions (*to eu kai kakôs*) of discursive thinking (*dianoia*) which is theoretical, and neither practical nor productive, are the true and the false, for this is the function (*ergon*) of everything concerned with thinking. Of what is concerned with practical thinking[239] [the right

---

236. Thanks to Rich Thomason for making me think about this.
237. As Gibbard would say (borrowing from Sellars), believing is "fraught with ought" (2003, 21, 191). We will see in a moment how the oughts join the fray.
238. This formulation presupposes my replacement of traditional commentary's first assumption about how to understand Aristotle's argument. See below at "Dismantling the First Assumption: Causal Control," page 100.
239. Practical thinking proceeds under a certain conception of the good, which implies a certain desiderative structure on the part of the agent. In order for this kind of thinking to proceed correctly, the desiderative structure must be correct as well as judgments of factual matters, hence Aristotle's

condition] is truth in union with correct desire.[240]

Aristotle talks about thinking (*dianoia*) in this passage rather than belief (*doxa*), but the two are intimately connected; evidence for this is scattered throughout the corpus. At *On Expression* 14, 23a27-35, Aristotle tries to puzzle out whether an assertion is contrary to its corresponding denial—as "all men are just" is contrary to "no man is just"—or to another incompatible assertion, say "all men are unjust." He argues that, since spoken sounds follow "matters in discursive thought" (*tois en têi dianoiai*), we can answer the question by considering which beliefs are contrary to which other beliefs. This presupposes that discursive thought either consists in part of beliefs or is responsible for forming beliefs.

Two further passages suggest that it is the latter. Late in the *Posterior Analytics* (100b5-10)*,* Aristotle lists the states "by which we hit on the truth (*alêtheuomen*)" and which "concern discursive thinking" (*peri tên dianoian*). He divides them into those which are always true and those which can also be false. Belief and reasoning (*logismos*) are his examples of the latter kind, while scientific knowledge and understanding (*nous*) are his go-to examples for states which can never be false, just as they are in *On the Soul* 3.3. By saying that these states "concern discursive thinking," Aristotle does not mean to say that these states are all species of a common genus, *dianoia*. This would be a mistake because discursive thought is not a state, the way belief and knowledge are. Rather, it is the cognitive process which produces those states. Aristotle draws this distinction by saying that discursive thinking is not assertoric, while belief is (presumably the same goes for knowledge and intuitive understanding).[241] During his discussion of excellence in deliberation (*euboulia*), Aristotle rejects the idea that it is correctness of belief or knowledge, and then reaches for a nearby alternative, discursive thinking*:*

> But neither does excellence in deliberation exist without reason (*aneu logou*).
> That leaves its being [a correctness] of discursive thinking (*dianoias*), for (1)

---

second condition; see especially Anscombe 1965, 147-48, 156-58.

240. *Nicomachean Ethics* 6.2, 1139a27-30: τῆς δὲ θεωρητικῆς διανοίας καὶ μὴ πρακτικῆς μηδὲ ποιητικῆς τὸ εὖ καὶ κακῶς τἀληθές ἐστι καὶ ψεῦδος (τοῦτο γάρ ἐστι παντὸς διανοητικοῦ ἔργον)· τοῦ δὲ πρακτικοῦ καὶ διανοητικοῦ ἀλήθεια ὁμολόγως ἔχουσα τῇ ὀρέξει τῇ ὀρθῇ.

241. This leaves *logismos* (reasoning, inference) which also seems to be a process and yet Aristotle describes in the text under discussion as a "state" (*hexis*) like belief and knowledge.

that thing is not yet an assertion (*phasis*), and (2) belief is not a search but already some sort of assertion, while one who deliberates, whether well or ill, seeks something out and reasons.[242]

If someone is deliberating about something, Aristotle argues, that presupposes that the person has not yet formulated a conclusion and therefore has no state which might represent an assertion on the matter. It is a pragmatic contradiction for someone to say "I'm still thinking about whether to φ" while φ-ing, or to say "I'm still wondering whether p" right after asserting that p.[243] Since discursive thinking is not assertoric, it is a better candidate for the cognition of which *euboulia* is the correctness. Aristotle does not say outright in the above passage that discursive thinking is the process which results in belief and knowledge. It is, however, the closest thing to belief and knowledge that can play the role he is trying to fill in his account, and stands to belief as an inquiry does to an assertion, or an inference does to a conclusion. Combine this with the claim in the *Posterior Analytics* that belief is one of the states that "pertains to discursive thinking," and we can conclude that, for Aristotle, *dianoia* denotes the cognitive process that results in belief and other states.

With this context, we can see that Aristotle's argument at *Nicomachean Ethics* 6.2 (quoted first in this section) implies that belief is TRUTH-NORMED. Aristotle's conclusion is that the right state of discursive thinking is the truth.[244] The best way to state this, I think, is that discursive thinking is in its right state when it issues in true states, whether knowledge or true beliefs. If the result in question is knowledge, then truth is guaranteed,

---

242. *Nicomachean Ethics* 6.9, 1142b12-15: ἀλλὰ μὴν οὐδ᾽ ἄνευ λόγου ἡ εὐβουλία. διανοίας ἄρα λείπεται· αὕτη γὰρ οὔπω φάσις· καὶ γὰρ ἡ δόξα οὐ ζήτησις ἀλλὰ φάσις τις ἤδη, ὁ δὲ βουλευόμενος, ἐάν τε εὖ ἐάν τε καὶ κακῶς βουλεύηται, ζητεῖ τι καὶ λογίζεται.
My numbering in the quote represents the structure Aristotle gives to the premises with his *gar…kai gar*. The particle *gar* indicates the premise of an argument, and the conjunction *kai* gives the impression that he is ticking off the premises from which he concludes that *euboulia* is a correctness of discursive thinking.

243. A pragmatic contradiction occurs when a set of statements do not contradict themselves with respect to propositional content, but rather contradict some implicature or presupposition that goes along with their assertion or performance. See especially Dayton 1977 and Kupfer 1987. A notable schema for generating pragmatic contradictions is "Moore's paradox," expressed in statements of the form "p, but I don't believe that p." See Gillies 2001, however, for a solution to the paradox that makes it a *semantic* contradiction, rather than a pragmatic one.

244. I ignore here Aristotle's distinction between theoretical and practical thought. The distinction in *Nicomachean Ethics* 6.2 is that practical thinking has a conative aspect with which the cognitive aspect must agree and resonate. This extra requirement, however, is irrelevant to the fact that the good state of such thinking is truth, just as it is for non-practical thought.

because one can never have knowledge of a falsehood. Aristotle also, however, refers to the bad state of discursive thought, which is when one's thinking produces false beliefs and faulty inferences.[245] The claim therefore emphasizes the results of discursive thinking which can go either wrong or right, and belief is among these. True belief is what happens when discursive thinking is in its right state, and something is going wrong when one forms false beliefs. This means that it is not a matter of indifference whether one's beliefs are true or false, just as it is not a matter of indifference whether one acts rightly or wrongly. *To eu* routinely denotes the right way for something to be, with *to kakôs* its opposite.[246] Beliefs can be false; this is why he can say that they *should* be true. This amounts to the claim that belief is TRUTH-NORMED, as I defined it: beliefs are under a normative constraint to be true because true belief is the result of discursive thinking in its *right state*.

One might wonder how Aristotle's argument about the good state of theoretical and practical thinking implies a normative connection between belief and truth. How, in other words, does the claim that truth is the right condition of the belief-producing activity entail that beliefs should be true? We can draw the connection because Aristotle's argument has exactly the same structure, and betrays the same assumptions, as the so-called "function argument" from *Nicomachean Ethics* 1.7.[247] In this argument, Aristotle attempts to derive what the good life is for humans from considerations about a human being's characteristic activity. The details and foibles of that argument need not detain us.[248] We need only note the metanormative principle which motivates it, that we can derive normative conclusions about something by examining its characteristic activity (*ergon*):

> For just as in the case of flautists and sculptors and every artisan, and in general those activities which have some function and activity—just as in

---

245. The second is my best guess for what might constitute a false *logismos* for Aristotle: an inference that the subject is not entitled to, whether the conclusion happens to be true or not.

246. See for instance *Eudemian Ethics* 1.5, 1216a9-10, b25; 7.12, 1245b18-19 (where the language applies also to divine beings); *Nicomachean Ethics* 1.10, 1100b7-10; 6.7, 1141a25-26; *Generation and Corruption* 2.6, 33b17-19 (where all natural objects have a "right state").

247. *Nicomachean Ethics* 1.7.1097b27-98a17.

248. It has received much attention in the scholarly literature. See, for a sampling, Barney 2008, Lawrence 2001, Whiting 1988, Korsgaard 1986, Kraut 1979 and Suits 1974.

those cases it seems that the good, i.e. the good state (*to eu*) is in the function, so might it seem also in the case of the human as such, if indeed there is a human function.[249]

The reasoning goes that, if one can identify the function of an activity or craft, then one can derive what it is to perform that function well, i.e. perform the function as one ought to.[250] In our quote about *dianoia*, Aristotle claims truth is the "good state" of theoretical thought, and his argument is based on the fact that "this" (reference unclear, but presumably it means something like "hitting on the truth") is the function of everything connected with thinking. It is, in short, an application of the same principle that drives the ethical "function argument." His view on the relation between belief and truth are therefore as normative as what he has to say about the good life. The ethical function argument purports to derive what the good state is for human life, and he offers it as a clarification of the claim that happiness is the chief good, i.e. that it is always chosen for its own sake, and needs nothing else to make life complete.[251] The argument, if sound, has implications about what humans should do, what sorts of things they should value, what sorts of goals they should have. If the ethical function argument states a normative thesis, then so does the argument for the connection between belief and truth.

In book 6, immediately before the passage we previously quoted, we find another argument which presupposes that believing is TRUTH-NORMED. Aristotle wonders what kind of "correctness" goes into good deliberation. Is it a correctness of knowledge? A correctness of belief? In the end, it is neither:

> But since one who deliberates poorly makes a mistake, and one who does it well gives correct advice, it is clear that excellence in deliberation is a kind of correctness (*orthotês*), but a correctness neither of knowledge nor belief; for there is no correctness of knowledge (for there is no error for it), while the correctness of belief is truth.[252]

---

249. *Nicomachean Ethics* 1.7, 1097b25-28: ὥσπερ γὰρ αὐλητῇ καὶ ἀγαλματοποιῷ καὶ παντὶ τεχνίτῃ, καὶ ὅλως ὧν ἔστιν ἔργον τι καὶ πρᾶξις, ἐν τῷ ἔργῳ δοκεῖ τἀγαθὸν εἶναι καὶ τὸ εὖ, οὕτω δόξειεν ἂν καὶ ἀνθρώπῳ, εἴπερ ἔστι τι ἔργον αὐτοῦ.

250. This does not imply that beliefs are a matter of *moral* concern, because Aristotle does not distinguish "morality" as a separate sphere of normativity: see especially Kraut 2006. He does, however, have views on normative and meta-normative issues. It is worth noting that, even though one's beliefs do not in general redound on our moral character, true belief is an object of praise: see *Nicomachean Ethics* 3.2, 1112a5-10.

251. *Nicomachean Ethics* 1.7, 1097b22-25: "but maybe the claim that happiness is the best thing appears to be something easily granted, and what it is needs to be said more precisely."

There is more to being a good deliberator than knowing things or having true beliefs. The premises Aristotle deploys to that end show that he thinks believing is TRUTH-NORMED. The more obvious piece of support is his explicit assertion that truth is the "correctness" of belief. More interesting, however, is the claim that there is no "correctness" for knowledge (*epistêmê*) because "there is no error" for it. Knowledge is TRUTH-APT; at 3.3, 428a17-19[253] he contrasts knowing with imagining and rules out identifying the two because we can have true or false imagination, but only true instances of knowing. As we said above, knowledge is tied to truth as a conceptual matter: a judgment cannot express knowledge while also being false, but this does not mean that truth *regulates* knowledge in the way it does belief. He does not think it makes sense to speak of a "correct" state if there is no chance that the system in question will end up in any other state.[254] This is the case when we know something, but when forming beliefs we can go wrong, so it makes sense to describe truth as the "right state" of belief.

The final piece of evidence does not use the same terminology as our other two quotes. It is valuable, however, because it represents Aristotle's effort to spell out what it means for believing to have a "right state." As Allan Gibbard points out, beliefs do not aim for things; people do.[255] Aristotle would agree. Beliefs are not objects in the natural world which suffer changes of state and so aim for a particular state that constitutes well-being, the way that animals do. Rather, beliefs are themselves states,[256] so any talk of their "aiming" or "being correct" should ultimately reduce to talk about the actions and states of their subjects. In *Metaphysics* book 4, we find Aristotle talking in this more literal way. Against those who deny the principle of non-contradiction, he pushes the intuition that no one behaves as if everything is both F and not-F, especially when whether the object is

---

252. *Nicomachean Ethics* 6.9, 1142b7-11: ἀλλ᾿ ἐπεὶ ὁ μὲν κακῶς βουλευόμενος ἁμαρτάνει, ὁ δ᾿ εὖ ὀρθῶς βουλεύεται, δῆλον ὅτι ὀρθότης τις ἡ εὐβουλία ἐστίν, οὔτ᾿ ἐπιστήμης δὲ οὔτε δόξης· ἐπιστήμης μὲν γὰρ οὐκ ἔστιν ὀρθότης (οὐδὲ γὰρ ἁμαρτία), δόξης δ᾿ ὀρθότης ἀλήθεια.
253. See above at page 83.
254. In other words, there is a tight safety requirement on knowledge. For this requirement on knowledge, see primarily Williamson 2000, esp. ch. 4. Aristotle also seems to think that there is a fallibility constraint on normativity: see Lavin 2004 and especially Dick 2009.
255. Gibbard 2007, 143. For discussion of how Aristotle's view seems to differ with Gibbard's, see below.
256. See Régis 1935, 63-71 for extensive discussion of the metaphysics of belief in Aristotle. His final verdict is that it is a *diathesis*, a disposition of the person which is less firm than a *hexis* like virtue and more long-standing than a *pathos* like imagining.

F affects our interests and projects.[257] People by nature try to get at the unqualified truth. If their judgments do not rise to the level of knowledge, that is no argument against caring about the truth. Quite the opposite, in fact:

> If people do not know but rather believe, they must pay much more attention to the truth, just as someone who is sickly must pay more attention to health than a healthy person; for someone who has a belief, compared to someone who knows, does not have a healthy disposition regarding the truth.[258]

Aristotle's analogy is strained. If knowledge is to truth what healthiness is to health, then those who are healthy have literally no chance of becoming ill.[259] We need not defend every aspect of the analogy, however, to see Aristotle's point. Truth matters more to someone who just believes, because he is not entitled to be sure of himself. In this way, he is like someone who is sickly and must guide their practice in light of what is healthy, in hopes of achieving it. Someone who is robust need not pay the same amount of attention. Aristotle is not, I think, comparing a person who has a cold with someone who is in good health *at the moment*. That would be a bizarrely implausible claim: someone who is in good health at the moment also needs to pay attention to the dictates of healthy living, lest they fall ill themselves. Only a fool takes his present good health as a guarantee that he will never get sick. The analogy is not to present good health, but to a *healthy disposition* (*hugieinôs diakeitai*). Some people are robust, so that they rarely become ill and shake it off easily when they do. Others are sickly (*nosôdês*), so they become ill more often and for lesser causes.[260] Seen in this light, the claim that sickly people "should may more attention to health" makes perfect sense. A healthy person can stray from the dictates of healthy living and be none the worse for it. She can skip meals to meet a deadline, for instance, or

---

257. *Metaphysics* 4.4, 1008b18-27. In other words, when the belief in question has GUIDANCE VALUE. See below at Concluding Remarks: How Belief is Normative, page 116.

258. *Metaphysics* 4.4, 1008b27-31: εἰ δὲ μὴ ἐπιστάμενοι ἀλλὰ δοξάζοντες, πολὺ μᾶλλον ἐπιμελητέον ἂν εἴη τῆς ἀληθείας, ὥσπερ καὶ νοσώδει ὄντι ἢ ὑγιεινῷ τῆς ὑγιείας· καὶ γὰρ ὁ δοξάζων πρὸς τὸν ἐπιστάμενον οὐχ ὑγιεινῶς διάκειται πρὸς τὴν ἀλήθειαν.

259. This is because knowledge is of what cannot be otherwise, and in order to count as knowing something we have to be aware that it can't be otherwise. See *Posterior Analytics* 1.2, 71b9-16.

260. See *Categories* 8, 9a16-25, where he discusses qualities that apply in virtue of a certain disposition (*diakeisthai pôs*). Someone is called healthy "in virtue of having a natural ability to in no way affected easily by what befalls them" (ὑγιεινοὶ δὲ λέγονται τῷ δύναμιν ἔχειν φυσικὴν τοῦ μηδὲν πάσχειν ὑπὸ τῶν τυχόντων ῥᾳδίως), while sickly people are the opposite.

go running in the cold without a jacket. The more robust she is, the further she can stray. A sickly person cannot afford to do so, since he is more likely to become ill.

What does it mean, then, that we should "pay attention to truth?" "Truth" cannot simply mean the fact of the matter, which is manifest to the person forming her beliefs. If one could simply compare one's belief to the truth, as one compares a copy to the original, the believer would not lack a healthy disposition regarding the truth. Here the analogy is illuminating: when we tell someone "pay attention to your health!" we mean that we want them to act in such a way that they remain healthy, or at least to let considerations of health guide their behavior to some extent. Sickly people have to be more diligent, because more things will make them sick. For believers to "pay attention to the truth," then, they must guide and shape their behavior in such a way that they form true beliefs instead of false ones. People with beliefs need to be more careful than people with knowledge because believers do not have the deductive structure of science and necessity of scientific principles to guarantee that their knowledge is a grasp of something true. Believers are in a delicate epistemic position: some fact changes without their knowing, they fail to check their work, and suddenly they are in error. This is what it means to say that some who believes does not "have a healthy disposition regarding the truth." Here, then, is a concrete rendition of Aristotle's view that truth is the "right condition" for belief. Subjects who form beliefs must be careful in order to form true beliefs; they do not have demonstration and understanding to provide firm grounding. The *Metaphysics* passage contains no advice about how to form true beliefs, so the edict is not especially helpful to the believer on the ground. It does, however, illustrate Aristotle's view that truth guides belief formation as some kind of end or final cause.

Our collection of passages show Aristotle's consistent commitment to the view that believing is TRUTH-NORMED. He furthermore considers the claim obvious enough to deploy it as a premise without further explanation. It is, therefore, a plausible candidate for the principle on which he relies to make his terse argument in *On the Soul* 3.3. It is for this reason that I am comfortable translating the clause in question as "we must either make a mistake or arrive at truth," rather than the plainer "we must believe either truly or falsely."

Imagining, on the other hand, is not TRUTH-NORMED. Aristotle nowhere gives any indication that we are supposed to imagine truths instead of falsehoods. In fact, he says that imagination is "mostly false" as a matter of course, but this does not imply that we should not avoid imagining.[261]

5. Dismantling the First Assumption: Causal Control

We must now ask why being TRUTH-NORMED entails that believing is not "up to us." Time to reject the assumption we granted earlier. Conventional interpretations assume that, when Aristotle denies that believing is up to us, he is denying that belief is under our causal control. In what follows, I will refer to this particular assumption simply as "the assumption." Someone has causal control over something if she can make it happen through her own efforts, whether immediately or by bringing about an event that in turn brings about the event in question. We must set some limit on how far downstream the consequences can be before we withhold causal control of its occurrence. In book 3 of the *Nicomachean Ethics,* Aristotle's main interest are the conditions of moral responsibility. Consequences can be unintended and still be "up to us" in a sense that makes us responsible for it, but there comes a point where the consequences of our action in a strictly causal sense are no longer under "causal control." There comes a point, in other words, where we cannot fairly say that the subject could have "seen it coming," and so cannot be held responsible for said unintended consequences.

Causal control seems, at first, to be a natural way to understand the text from *On the Soul* 3.3: in other contexts where Aristotle says that an action, event or state is up to us, he tends to argue for this by claiming that the origin (*archê*) of the event lies inside us, which is his way of talking about how humans have causal control (though not necessarily conative control) over their actions and the effects thereof.[262] An explicit argument for this

---

261. See *On the Soul* 3.3, 428a11-12. Why Aristotle thinks that imagination is "mostly false" is an interesting question. My own suggestion is that *phantasia* "prepares desire" (*Movement of Animals* 8, 702a17-19) by representing the desired object or state of affairs. What it represents cannot be something true, because then the desire would be satisfied. Defending this proposal at length would distract us from the present discussion.

262. The term *archê* is prominent in Aristotle's theory of efficient causation, which he characterizes as the

kind of view occurs early in book 3 of the *Nicomachean Ethics*. Aristotle considers the case of a captain forced to throw his trade goods overboard to stay afloat in a storm. He asks whether the captain willingly threw the goods overboard (a precondition for responsibility), and seems genuinely torn. He concludes:

> But he acts willingly, for the source (*archê*) of moving the organic parts in actions of these kinds is in him, and those things the source of which is in a man, are up to him both to do and not do.[263] Such actions are of course done willingly, though simply as such perhaps they are done unwillingly, for no one would chose any of them on their own merits.[264]

"Such actions" are the family of cases where the agent is unable to endorse his action wholeheartedly, such as throwing away valuable goods. The element of pain and regret pose an *aporia* for Aristotle, because pain and regret are signs of actions done unwillingly, for which the agent cannot be blamed.[265] He appeals, however, to a general view about which actions are up to us: we are accountable for those actions the source of which lay inside us. The captain may not have felt he had a choice, but no one made him move his mouth to give the order, and his own hands seized the cargo and tossed it. The mark of responsibility, it seems, is whether the agent has causal control over his action. Other remarks in *Nicomachean Ethics* book 3 bear this out.[266]

Aristotle also seems to have causal control in mind when he asserts that "thinking" (*to noêsai,* which includes the active exercise of our knowledge) is up to us, while perception is not. Here is the passage from *On the Soul* 2.5 again:[267]

> But there is a difference [between perception and knowledge], namely that those things which produce sensation are external: what is seen, what is heard, and so on for the other senses. The reason for this is that sensation, as an activity, concerns particulars, while knowledge is of universals, and these are in the very soul, in a way. For this reason thinking is up to someone,

---

"source of change or rest." A paradigm case of such a cause is a man who has deliberated and so made an unforced choice. See *Metaphysics* 5.2, 1013a29-34, b12-16 and b23-24.

263. See also *Nicomachean Ethics* 3.1, 1111a20-22, *Rhetoric* 1.4, 1359a38-40.

264. *Nicomachean Ethics* 3.1, 1110a15-19: πράττει δὲ ἑκών· καὶ γὰρ ἡ ἀρχὴ τοῦ κινεῖν τὰ ὀργανικὰ μέρη ἐν ταῖς τοιαύταις πράξεσιν ἐν αὐτῷ ἐστίν· ὧν δ᾽ ἐν αὐτῷ ἡ ἀρχή, ἐπ᾽ αὐτῷ καὶ τὸ πράττειν καὶ μή. ἑκούσια δὴ τὰ τοιαῦτα, ἁπλῶς δ᾽ ἴσως ἀκούσια· οὐδεὶς γὰρ ἂν ἕλοιτο καθ᾽ αὑτὸ τῶν τοιούτων οὐδέν.

265. *Nicomachean Ethics* 3.1, 1110b17-19.

266. See especially 3.5, 1114a13-20 (quoted above) and 3.5, 1115a1-3.

267. See also above at page 88.

whenever he wishes, but perceiving is not up to him, for the perceptible must
be present (*huparchein*).[268]

Aristotle argues thusly: knowledge concerns universals. Universals are not objects out in the world that we encounter, but are already "in the soul," in a way. Aristotle's *pôs* (somehow, in a certain way) is apologizing for a metaphor. When he says that universals are "in the soul," he is not giving us their physical location in space, or suggesting that we carry the universals around in our heads, a claim which it would be hard to make literal sense of. Rather, he is referring to his doctrine that when we think, our conceptual thought is mediated by mental images.[269] Such representational states supervene and depend on the state of our bodies, not the state of the world at large.[270] Thought is therefore available to us whenever we want to use it, provided nothing actively opposes us. Once we have done the necessary cognitive work to have access to a universal, the world need not be any particular way for us to use it in our thinking.[271] Perception works differently; we perceive things by encountering them in the world. This is why Aristotle says that "external things" are what produce perception as an activity. Again, causal control is salient. Perception is not "up to us" because the cause of perception lies outside us, so the source of the perception is not inside us.

Based on these texts, one might conclude (falsely, I think) that Aristotle employs the same idea in his argument that belief is not up to us. His argument in *On the Soul* 2.5 accounts for why perception is not up to us in much more detail than his argument about belief does in *On the Soul* 3.3. If we assume that Aristotle is raising the same issues and deploying the same kind of idea in the perception-passage as he is in the belief-passage, then we can provide a rational reconstruction of the argument that captures Aristotle's train of thought and fills in what his enthymematic presentation merely gestures at. His

---

268. *On the Soul* 2.5.417b19-25: διαφέρει δέ, ὅτι τοῦ μὲν τὰ ποιητικὰ τῆς ἐνεργείας ἔξωθεν, τὸ ὁρατὸν καὶ τὸ ἀκουστόν, ὁμοίως δὲ καὶ τὰ λοιπὰ τῶν αἰσθητῶν. αἴτιον δ᾽ ὅτι τῶν καθ᾽ ἕκαστον ἡ κατ᾽ ἐνέργειαν αἴσθησις, ἡ δ᾽ ἐπιστήμη τῶν καθόλου· ταῦτα δ᾽ ἐν αὐτῇ πώς ἐστι τῇ ψυχῇ. διὸ νοῆσαι μὲν ἐπ᾽ αὐτῷ, ὁπόταν βούληται, αἰσθάνεσθαι δ᾽ οὐκ ἐπ᾽ αὐτῷ· ἀναγκαῖον γὰρ ὑπάρχειν τὸ αἰσθητόν.

269. See *On the Soul* 3.7, 431a16-19, b2-6 and *On Memory* 1, 449b30-50a4 for other references to this doctrine.

270. For a detailed discussion of how *phantasmata* come to be, and Aristotle's naturalistic theory of representation, see Caston 1998.

271. For a more detailed discussion of this passage, see Wedin 1989.

technical discussion of moral responsibility in the *Nicomachean Ethics* provides even more detail, so this approach seems promising. This approach fails to make sense of our argument from *On the Soul*, however, and it is important to see why.

We should become suspicious when we try to understand the analogy between the account of perception's falling outside our causal control and belief's not being up to us. Perception is not under our control because the world has to be a certain way in order for us to perceive its being that way. The perceiver, in other words, must come into direct sensory contact with the perceptible.[272] A direct analogy with belief would then require that the believer come into "direct doxastic contact" with the state of affairs that is believed to obtain. Aristotle's theory of cognitive processing does not, however, work on a contact model. In fact, he criticizes his predecessors for putting forward the notion that the mind cognizes things by reaching out and touching them in some sense.[273] That difficulty aside, belief does not labor under the constraint that perception does. If it is false that p, then there is no state of affairs such that p. A subject can still, however, believe that p. Furthermore, even if we set aside the problems of characterizing "direct doxastic contact," it remains that someone need not encounter (in whatever sense we spell that out) the very state of affairs about which she forms a belief. In other words, a person must see that p in order to perceive that p, but someone can form a belief that p on the basis of hearing something that implies or merely suggests that p. Belief does not, therefore, fail to be "up to us" in the same way that perception fails to be "up to us."

One might respond by loosening the principle of analogy. Belief does not come about through "direct doxastic contact" (whatever that might mean), but the relevant point about perception is that it is a process with an external cause: it comes from without, whereas thinking comes from within. The lesson, so this story goes, is that belief also has an external cause. The source of our beliefs is external to us, because we form our beliefs in response to the world. The cause of the belief is not necessarily the state of affairs that it

---

272. This account applies to exclusive objects of perception, and this seems to be the kind of perception Aristotle is talking about. The story becomes more complicated when we turn to incidental perception, because that kind of perception is prone to error: see especially Bäck 2009, 102-15.
273. See especially Caston 1998, 260-62.

represents. In the case of false beliefs, it cannot be, since there is no such state of affairs. Our beliefs are, however, formed by the impingement of external circumstances, and we cannot control that any more than we can control what we perceive, because the source does not lie within us. This repair strategy is not going to work, either. First and foremost, the account commits Aristotle to saying that we are helpless in the face of input from the outside world. It is part of what makes humans rational, however, that we are able to withhold commitment from what appears to be the case, and be open to doubt.[274] There is a direct causal connection between the state of the world and our perception of it, but the connection between the state of the world and our *beliefs* about it is much more complicated. The state of affairs about which we form the belief plays no straightforward role in the mechanics of belief-formation, and this should make us doubt the existence of a helpful analogy between perception and belief with respect to this topic.

Nor is it even true that the only things that produce belief are external to us. Beliefs about one's own mental or physical state are counterexamples. This kind of metacognition figures in Aristotle's characterization of scientific knowledge. In the *Posterior Analytics*, he says that we think that we know something when we take our grasp of the matter to meet certain conditions:

> We believe (*oiometh'*) that we know each thing simply as such—but not incidentally, in the manner of sophistry—whenever we believe that we recognize (1) the explanation (*aitia*) through which the fact of the matter obtains (*pragma estin*), (2) that it is the explanation of that thing, and (3) that it cannot be otherwise. It is therefore clear that knowing is something of this sort; for both those who know and those who do not believe themselves to be in this position…[275]

Aristotle puts the point this way, I think, to suggest that his account of scientific knowledge accords with our pre-theoretic intuitions about knowledge ascription. We take ourselves to know something, he says, when we think we know the explanation for it, and

---

274. I substantiate this point in Chapter 4.
275. *Posterior Analytics* 1.2, 71b9-14: Ἐπίστασθαι δὲ οἰόμεθ᾽ ἕκαστον ἁπλῶς, ἀλλὰ μὴ τὸν σοφιστικὸν τρόπον τὸν κατὰ συμβεβηκός, ὅταν τήν τ᾽ αἰτίαν οἰώμεθα γινώσκειν δι᾽ ἣν τὸ πρᾶγμά ἐστιν, ὅτι ἐκείνου αἰτία ἐστί, καὶ μὴ ἐνδέχεσθαι τοῦτ᾽ ἄλλως ἔχειν. δῆλον τοίνυν ὅτι τοιοῦτόν τι τὸ ἐπίστασθαί ἐστι· καὶ γὰρ οἱ μὴ ἐπιστάμενοι καὶ οἱ ἐπιστάμενοι οἱ μὲν οἴονται αὐτοὶ οὕτως ἔχειν.

that the explanation renders it inevitable.[276] Aristotle does not use the world *doxazein*, but rather *oiesthai*. The fact remains, however, that Aristotle is referring to beliefs about one's own mental states. What is more, the reference to metacognition figures in a central piece of argument, which entitles us to think that Aristotle would have been generally aware of the phenomenon and the issues that it presents. This in turn entitles us to think it odd if an interpretation of our target argument is open to a counterexample that concerns the very phenomenon Aristotle is presumably aware of.

Yet open it is. My beliefs that I have a certain desire, or that I know something, should be no more "up to me" than any of my beliefs about the world. Yet the source (*archê*) of those beliefs is inside me, which Aristotle gives as the condition for an action, event or state to be "up to us," when that term denotes causal control. If Aristotle's use of "up to us" in *On the Soul* 3.3 is supposed to denote causal control, and if Aristotle cashes that notion out in terms of the "source" of the affection or experience, then his account of why belief is not up to us amounts to the claim that the sources of our beliefs do not lie within us. Our desires and other mental states, however, are inside us if anything is, so this would imply that beliefs about those things are up to us after all.

A last way to preserve the spirit of the assumption about causal control is to say that Aristotle is not concerned with the sort of downstream causal control by which he argues that we are responsible for our state of character. When he says that imagining is up to us "whenever we want," he is instead saying that we can imagine *at will*, which is a stronger statement than simply saying that imagining is "up to us." Imagining is, to put it another way, under our immediate conative control, while believing is not. Aristotle's argument in *Nicomachean Ethics* book 3 implies that we are responsible for our state of character because our state of character is molded by the actions we perform. We therefore have causal control over our character, but we cannot adopt a new character at will.[277] This is the relevant difference between belief and imagination: we cannot believe *at*

---

276. See Kosman 1990.
277. See especially *Nicomachean Ethics* 3.5, 1114a12-19, where he compares a person becoming willingly unjust to someone who makes themselves ill (and cannot then wish their illness away), and also to a person who throws a stone and cannot then will it back.

will.[278] Simplicius gestures at this kind of solution, though he ultimately prefers the one already discussed:[279]

> Because we do not fashion those impressions entirely in keeping with the facts, nor do we put forward our imaginings wholly while keeping the truth in mind.[280]

Simplicius seems to be saying that imagination is more flexible than belief in the following way: one can imagine contrary to what the facts are, by one's own lights. Simplicius does not explicitly add the "by one's own lights," instead just saying that we do not fashion those impressions in ways that abide by the facts. His second claim, however, that we do not "keep the truth in mind" when we imagine, suggests that we ought to supply it for him. If he means only that imagining can be false, then he completely misunderstands Aristotle's argument; the reason Aristotle needs a more sophisticated argument to distinguish belief and imagining is that both of them can be either true or false.[281] Imagining, then, can go against what we take to be true, while believing cannot. If we could believe what we wanted, then we could believe regardless of whether what we believed was true or false. Since we care about whether our beliefs are true, this constrains our believing and we cannot believe at will.[282]

This account helps itself to two distinct mental states, taking-true and belief, and then claims that the latter cannot conflict with the former, but must follow where it goes. There are two reasons to be suspicious of this. The first is that Aristotle does not have an independent type of mental state that we might call "taking-true."[283] The closest we might come to that is *pistis*, which is not itself a committal attitude. Rather, it is the cognition that underlies various committal states like belief and knowledge. The point is that belief is

---

278. Thanks to Greg Salmieri for bringing this possibility to my attention.
279. See "The Argument, and Two Crucial Assumptions," page 86.
280. *Commentary On the Soul* 206.13-15: διότι οὐχὶ τοῖς πράγμασι πάντως ἑπομένως ἀναπλάττομεν τοὺς τύπους, οὐδὲ προβάλλομεν τὰς φαντασίας τῆς ἀληθείας φροντίζοντες πάντως.
281. See *On the Soul* 3.3, 428a18.
282. This interpretation, therefore, attributes to Aristotle the reasoning found in Williams 1973.
283. *Hupolambanein* does not work because there is non-committal *hupolêpsis*, so the state as a kind is not the sort of "taking-true" I have in mind, though it is considering *as true*, in the way we might consider a working hypothesis as true in order to test its consequences. In this regard, it is no different from imagining, since when we imagine something, we imagine it *as true*.

a way that subjects take things to be true, as far as Aristotle is concerned, so it does not make sense to ask whether we can believe contrary to what we take to be true.

Even if my account of *pistis* does not allow me to put the objection in this form, the argument itself still gives us no reason to think that we cannot alter what we "take to be true" at will and thereby come to believe whatever we like. The intuition seems sound; we encounter resistance when we try to just will away what seems to be true to us. Denial is difficult, and exacts a toll on people who practice it. The intuition, however, does not support the idea that we cannot believe at will. Instead, it supports the intuition that there are typically considerations against willing to believe something, and so most people will not do it. To see this, consider an ethical parallel. A person with a good state of character is made to do something shameful in order to secure something he greatly desires. He resists doing it. Aristotle devotes attention to cases like this in his discussion of moral responsibility. There is a sense in which a good man cannot perform a bad action "at will," because there are deep-seated psychological forces acting against the impulse. The virtuous man finds doing evil inconceivable, in a way. We cannot conclude from this, however, that he is unable to perform the action "whenever he wants." It is not literally impossible for him to do evil, but so long as he is genuinely a good man, he will encounter psychological resistance to acting wrongly. The constraint itself is normative: a good man cannot do evil and remain good. Good men in general, however, wish to remain good, and this gives rise to a further psychological constraint.

If this resistance in the ethical case does not undermine the idea that we have control over our actions, then resistance in the doxastic case should not undermine the idea what we have control over our beliefs.[284] There is a different way for us to explain the felt difficulty in believing and acting contrary to our convictions, and it does not rely on a notion of causal control or the ability to enter the state "at will". Rather, it relies on the felt obligation generated by belief's normative connection to the truth.[285]

---

284. Montmarquet 1986 makes a similar but distinct point: our actions are determined by practical reasons, our beliefs by theoretical reasons. There seems therefore to be a parity of determination: any reason to think that one is not up to us is reason to think that the other is not. See also Osbourne 1990 and Montmarquet 1993.

285. See the next section, "Concluding Remarks: How Belief is Normative," page 116.

We can pound a final nail into this idea's coffin. First, we note that Aristotle deploys the term "up to us" in *Nicomachean Ethics* Book 3 to provide an account of moral responsibility. An agent cannot be held accountable for something if it is not up to her. This is why Aristotle feels the need to argue that we are ultimately responsible for our own states of character. He responds in the following way to an objection against his view that someone should be held responsible for the effects of his ignorance and carelessness:

> But perhaps he is of such a kind as not to take care. But they themselves are responsible for becoming that sort of person because they live carelessly, and for being unjust and greedy, the latter by acting wrongly, the former by spending their time in drinking parties and things of that sort. For the activities concerning each thing make people of that sort.[286]

The statement of the objection is enthymematic (and Aristotle makes no effort to spell it out), but the argument seems to be that certain people habitually do bad or careless things because that's just the kind of people they are. Since, however, people do not control the kinds of people they are, they cannot be held responsible for the actions they perform as a result of having that character. Aristotle denies the second claim of the objection: such people are in fact responsible for their bad characters, because we form our bad character through our actions. I offer this passage to illustrate Aristotle's view that, in order to be held responsible for something, it has to be the result of something that is under our control. This means that the event's or state's being "up to us" (still taking that term in the sense of causal control) is a necessary condition for us to be held responsible for it. If that were not the case, Aristotle would not answer the character-based objection in the way he does. So if something is not up to us, we are not responsible for it.

Next, we note that Aristotle associates praise and blame with those things that are under our control. The way he introduces the topic of responsibility at the beginning of *Nicomachean Ethics* book 3 makes this clear:

> Since virtue is concerned with affections and actions, and since praise and blame attach to willing [affections and actions], sympathy and pity on those

---

286. *Nicomachean Ethics* 3.5, 1114a3-7: ἀλλ᾽ ἴσως τοιοῦτός ἐστιν ὥστε μὴ ἐπιμεληθῆναι. ἀλλὰ τοῦ τοιούτους γενέσθαι αὐτοὶ αἴτιοι ζῶντες ἀνειμένως, καὶ τοῦ ἀδίκους ἢ ἀκολάστους εἶναι, οἳ μὲν κακουργοῦντες, οἳ δὲ ἐν πότοις καὶ τοῖς τοιούτοις διάγοντες· αἱ γὰρ περὶ ἕκαστα ἐνέργειαι τοιούτους ποιοῦσιν.

> unwilling, it is perhaps necessary for those who study things that have to do
> with virtue to delineate the willingly and unwillingly done.[287]

The things that are under our control (and which are therefore willingly done) are the sorts of things that can be praised and blamed.[288] If Aristotle meant that belief is not up to us in the sense that it is not under our causal control (or that we cannot do it at will), it would follow that he does not think they can be the subject of praise and blame. Yet he does think beliefs are objects of praise and blame. He says so when he distinguishes choice from belief in book 3, chapter 2:

> And choice is praised for being [a choice] of what one should do, or rather
> for being the right choice, and belief [is praised] for being true.[289]

Aristotle might easily have said that we do not praise people for having certain beliefs, but that we *do* praise people for making the right choices. He chooses instead to distinguish the respect in which we praise people for their choices and for their beliefs. This presupposes that beliefs are objects of praise, which they could not be if we did not exercise causal control over them. I conclude from all this that, when Aristotle says that belief is not up to us in *On the Soul* 3.3, it is a mistake to read into his remark the account of something's being "up to us" that we find in his technical discussion of responsibility in the *Nicomachean Ethics*. That is, it is a mistake if Aristotle is being consistent across these discussions. On my way of reading him, he is not only consistent, but holds a more interesting view than he would hold if he simply contradicted himself.

6. Replacing the Second Assumption: As You Please

There are two passages where Aristotle denies that various activities are "up to us," but where a proper understanding of his argument rules out the idea that "up to us" denotes causal control. Rather, something is up to us if we can do it "as we please," that is, if we

---

287. *Nicomachean Ethics* 3.1, 1109b30-34: Τῆς ἀρετῆς δὴ περὶ πάθη τε καὶ πράξεις οὔσης, καὶ ἐπὶ μὲν τοῖς ἑκουσίοις ἐπαίνων καὶ ψόγων γινομένων, ἐπὶ δὲ τοῖς ἀκουσίοις συγγνώμης, ἐνίοτε δὲ καὶ ἐλέου, τὸ ἑκούσιον καὶ τὸ ἀκούσιον ἀναγκαῖον ἴσως διορίσαι τοῖς περὶ ἀρετῆς ἐπισκοποῦσι.

288. Themistius also seems to have this taxonomy in mind when he paraphrases our main passage (*On the Soul Paraphrase* 88.38 - 89.10), since he calls belief an "unwilling affection of the soul."

289. *Nicomachean Ethics* 3.2, 1112a5-7: καὶ ἡ μὲν προαίρεσις ἐπαινεῖται τῷ εἶναι οὗ δεῖ μᾶλλον ἢ τῷ ὀρθῶς, ἡ δὲ δόξα τῷ ὡς ἀληθῶς.

face no relevant constraints in doing the thing in question. Sometimes those constraints are causal or physical, as in his discussion of perception at *On the Soul* 2.5. This does not, however, imply that "up to us" just *means* "facing no causal or physical constraints." There are other contexts, other options.

We find the first passage in book 5, chapter 9 of the *Nicomachean Ethics*. One of the puzzles Aristotle considers about justice is whether it is possible to willingly be wronged (*adikeisthai*). To help consider this question, he raises a further issue about whether it is possible for someone to wrong *himself*. Someone who lacks self-control (the *akratês*) might be said to harm himself willingly, and if wronging someone amounts to harming them willingly, it would follow that someone who lacks self-control can wrong himself and therefore be wronged willingly:

> If the akratic harms himself willingly, then he would be wronged willingly *and* it would be possible for someone to wrong himself (and this is also one of things in question, whether it is possible to wrong oneself). Furthermore, a man might willingly (due to *akrasia*) be harmed by another willing person, so that he would be wronged willingly.[290]

Here we have two cases that meet the first-pass definition for wronging someone, which is to harm someone willingly. In the first, someone who lacks self-control acts contrary to his own best judgment and ends up worse off for it. He acted willingly, and the result was that he himself was harmed. The second case involves a second agent, but the mechanics are the same: the subject ends up worse off on account of his lack of self-control, so that even though he is wronged, he is also a willing participant. For our purposes, the first case holds more interest because it seems to admit another possibility about which Aristotle has his doubts, namely whether someone can wrong himself. His response to the former puzzle is straightforward; he refines his definition of unjust treatment to exclude it:[291]

> Or is our definition not correct? Must we add to "doing harm while knowing the object, means and manner" [the further clause] "against the will of that [wronged] person?" Someone, then, is harmed willingly and willingly suffers

---

290. *Nicomachean Ethics* 5.9, 1136a32-b2: ὁ δ᾽ ἀκρατὴς ἑκὼν βλάπτει αὐτὸς αὑτόν, ἑκών τ᾽ ἂν ἀδικοῖτο κἂν ἐνδέχοιτο αὐτὸς αὑτὸν ἀδικεῖν. ἔστι δὲ καὶ τοῦτο ἓν τῶν ἀπορουμένων, εἰ ἐνδέχεται αὐτὸν αὑτὸν ἀδικεῖν. ἔτι ἑκὼν ἄν τις δι᾽ ἀκρασίαν ὑπ᾽ ἄλλου βλάπτοιτο ἑκόντος, ὥστ᾽ εἴη ἂν ἑκόντ᾽ ἀδικεῖσθαι.
291. He makes his first attempt at a definition in the previous chapter, at 5.8, 1135a19-28.

things which are unjust (*tadika paschei*), but no one is willingly wronged (*adikeitai*). For no one, even someone who lacks self-control (*akratês*), wishes [to be wronged], but he does *act* against his own wish. For neither does anyone wish for what they do not consider worthy, but the man who lacks self-control does not do what he thinks he should.[292]

No one wishes for something that they do not think is good, according to Aristotle. From this, plus the tacit assumption that everyone thinks that it is a bad thing to be treated unjustly, he infers that unjust treatment always occurs against one's wishes.[293] The emendation therefore brings the definition in line with intuition: no one is wronged willingly, although they might willingly suffer things that, had they not suffered them willingly, would constitute wronging.[294] One cannot say that they were wronged willingly, because the person who lacks self-control acts contrary to their own wish. The action is performed willingly, but still done against the person's wishes. The new definition does not, however, exclude wronging oneself. It specifically rules out cases where one is wronged willingly, since being wronged requires, by definition, that the person suffer injustice *against her wishes*. Aristotle notes twice, however, that lack of self-control implies a break in the default connection between one's wishes and one's actions. This leaves open the possibility that someone could wrong themselves. They willingly perform the action that constitutes the wrong, yet receive it unwillingly. It is clear that Aristotle is considering both puzzling cases at the same time, yet his suggested emendation precludes only cases of willingly being wronged. We ought to conclude, then, that he thinks it is possible for someone to wrong himself.

The akratics who wrong themselves have causal control over their actions, since the source of their action is within them. This is important, because Aristotle immediately goes on to argue that being wronged is not up to us, with no sense of contradiction:

---

292. *Nicomachean Ethics* 5.9, 1136b5-9: ἢ οὐκ ὀρθὸς ὁ διορισμός, ἀλλὰ προσθετέον τῷ βλάπτειν εἰδότα καὶ ὃν καὶ ᾧ καὶ ὡς τὸ παρὰ τὴν ἐκείνου βούλησιν; βλάπτεται μὲν οὖν τις ἑκὼν καὶ τἄδικα πάσχει, ἀδικεῖται δ᾽ οὐδεὶς ἑκών· οὐδεὶς γὰρ βούλεται, οὐδ᾽ ὁ ἀκρατής, ἀλλὰ παρὰ τὴν βούλησιν πράττει· οὔτε γὰρ βούλεται οὐδεὶς ὃ μὴ οἴεται εἶναι σπουδαῖον, ὅ τε ἀκρατὴς οὐχ ἃ οἴεται δεῖν πράττειν πράττει.

293. Without this assumption, Aristotle's conclusion does not follow, and it seems uncontroversial enough that there is no harm in granting it to him.

294. I take this to be what Aristotle means when he says at 5.9, 1136a25 that we can "share in just things" (*metalambanein tôn dikaiôn*) incidentally.

The one who gives what is his own, as Homer says Glaucus gave Diomedes "gold for bronze, 900 heads of cattle for 9"—that man is not wronged, for giving is up to us, while being wronged is not up to us, but there must be someone present who is wronging. With regard, then, to being wronged, it is clear that it is not suffered willingly.[295]

The argument takes the same form as his argument in *On the Soul* 2.5[296] that perception is not up to us. He infers from the fact that a certain object (a perceptible, a perpetrator) must be present (*huparchein*) to the intermediary conclusion that the experience in question (perception, being wronged) is not "up to" the person who suffers it. Unlike the argument about perception, however, the present argument does not make reference to unjust treatment being outside our causal control. Aristotle does not say that what is "productive" of injustice must be external to the subject, nor does his argument have anything to do with where lies the "source" of injustice. One might object that his using the crucial term "up to us" is meant to import those sorts of considerations into this context. That interpretive strategy, however, begs the question against my proposal that there are contexts where "up to us" does not come freighted with the causal baggage of the *Ethics* passages. We have no reason to assume that "up to us" just means that the event in question is under our causal control, so importing that discussion is illegitimate.

Nor is Aristotle's claim that "there must be someone present who is wronging" any reason to think that the argument turns on a notion of causal control. One might say that there is an implicature or presupposition in effect, that the perpetrator is a different person from the victim. The discussion beforehand, wherein he allows the possibility of wronging oneself while emending his definition to exclude willingly being wronged, cancels this presupposition. Aristotle has already established that it is possible to treat oneself unjustly. The one perpetrating the injustice can therefore be oneself, if one suffers

---

295. *Nicomachean Ethics* 5.9, 1136b9-14: ὁ δὲ τὰ αὐτοῦ διδούς, ὥσπερ Ὅμηρός φησι δοῦναι τὸν Γλαῦκον τῷ Διομήδει "χρύσεα χαλκείων, ἑκατόμβοι᾽ ἐννεαβοίων," οὐκ ἀδικεῖται· ἐπ᾽ αὐτῷ γάρ ἐστι τὸ διδόναι, τὸ δ᾽ ἀδικεῖσθαι οὐκ ἐπ᾽ αὐτῷ, ἀλλὰ τὸν ἀδικοῦντα δεῖ ὑπάρχειν. περὶ μὲν οὖν τοῦ ἀδικεῖσθαι, ὅτι οὐχ ἑκούσιον, δῆλον.
   The Oxford translation (1984, page 1794) starts its rendition of b9-14 with "again," giving the false impression that Aristotle is offering a new, separate argument, and that we are not to import the conclusion of the previous argument, including the amendment of the definition (b3-9). The Greek has only the weak conjunction *de*, which implies a continuation of the thought, rather than a break (which something like *eti* would indicate).
296. See above at page 88.

from a lack of self-control. I propose that being treated unjustly fails to be up to us instead because it is conceptually impossible to be wronged willingly. We cannot, for lack of a better phrase, be wronged "as we please." It is impossible, in other words, for someone to be wronged in accordance with her wishes.[297] This is consistent with an agent's having causal control over actions which will result in his being treated unjustly, as when someone acts against their own wishes.

The discussion at *Nicomachean Ethics* 5.9 is an instance of a broader sense of "up to us" where something is not "up to us" if we cannot do it as we please because we face some kind of contextually-relevant constraint. In Aristotle's discussion of treating oneself unjustly, the constraint seems to be conceptual. We can be the perpetrators of our own unjust treatment, but that does not contradict the claim that being wronged is not up to us. The reason for this is that we cannot be wronged willingly; Aristotle is so committed to this principle as to revise his definition of wronging to accommodate it, and his later discussion about wronging oneself is guided by it.[298] Aristotle himself draws the distinction between suffering injustice and being wronged.[299] A man can willingly do things to himself, the consequences of which he accepts. Those consequences might, as a matter of fact, amount to unjust treatment in the sense that doing those things to an unwilling party would be an instance of wronging. It does not follow, however, that he thereby wrongs himself. Being wronged includes the provision that the treatment which constitutes the injustice happen contrary to the person's wish. If the person accepts the consequences that he brings on himself, this condition goes unmet. In order for being wronged to be "up to us," then, it would need to be possible for us to be wronged willingly. This is a conceptual impossibility, so being wronged is not up to us. This might strike us as a terminological point, and there is something to that. If the move is largely conceptual or even terminological, my account is strengthened, for it is clear that Aristotle takes his

---

297. That is, someone's having the thought "I am being treated unjustly in accordance with my wishes" requires that she be conceptually confused about either unjust treatment (perhaps she thinks it is a good thing) or about wishing (perhaps she thinks it can be directed at things she takes to be bad).
298. I refer to *Nicomachean Ethics* 5.11, which introduces nothing of novel relevance to our main point about how "up to us" and causal control can come apart.
299. See *Nicomachean Ethics* 5.9, 1136a25-31.

emendation to entail that being wronged is not up to us, even if we have causal control over whether we suffer unjust treatment. This strengthens the view that "up to us" is here deployed in a broader sense which has nothing to do with causal control as such.

The lesson of this first passage is broadly negative: it gives us reason to think that Aristotle's use of the term "up to us" does *not* always denote causal control, as it does in his technical discussion of moral responsibility. It does not by itself, however, give us a clue as to what Aristotle is trying to say about belief. Our second passage, on the other hand, does directly suggest a way to understand our passage from *On the Soul*, and is much more compact besides. Aristotle motivates his discussion of friendship in the *Eudemian Ethics* by saying that "everyone says that the just and unjust exist foremost among friends" (7.1, 1234b25-26), and after some observations about friendship and virtue, concludes with this strange remark *in propria persona*:

> Private just actions toward our friends are up to us alone, while those [just actions] taken toward strangers have been legislated (*nenomothetêtai*), and are not up to us.[300]

Aristotle is not arguing here that the just actions we take toward strangers are those for which the "source" lies outside us. If that were true, we could be neither praised nor blamed for them, and there could be no laws about them.[301] We require something other than causal control to make sense of Aristotle's distinction. He says immediately beforehand that friends are among the greatest of goods because "all willing (*hekousia*) company is kept with them" (1234b35). The point he is getting at, I think, is that among friends there grows a complex web of justice and reciprocity that extends far beyond the minimum norms of treatment mandated by law. They make informal promises to each other and depend on each other in various ways. Aristotle does not refer only to "just actions" between friends, but to "private just actions." The law does not impose any of these relationships, either in their specific form or towards the specific people with which we form them.[302] In this sense, we are free to treat our friends "as we please," and what has

---

300. *Eudemian Ethics* 7.1, 1235a2-3: καὶ τὰ ἴδια δίκαια τὰ πρὸς τοὺς φίλους ἐστὶν ἐφ᾽ ἡμῖν μόνον, τὰ δὲ πρὸς τοὺς ἄλλους νενομοθέτηται, καὶ οὐκ ἐφ᾽ ἡμῖν.
301. See above, at page 108.
302. Elite citizens, however, often used prosecution in the law-courts to settle their own personal enmities.

been legislated is not a relevant constraint. This does not mean that the law suddenly does not apply to people once they become friends: the minimum obligations of legislated justice still apply, and if someone wanted to take illegal advantage of one of their friends, they would find themselves afoul of the law. If one could, however, actually question whether the way someone treated her "friends" was illegal, this would be very good reason to doubt that the people in question were even friends.

We treat our friends well, then, because we want to, and act justly toward strangers because the law compels us. The law mandates that we treat strangers in certain ways: it establishes both negative and positive obligations that we have towards them. We cannot therefore treat strangers "as we please." It is possible, of course, for someone to treat strangers well because she wants to; this will be the case for someone with a just state of character. There remains a sense, however, in which even the person who acts willingly is constrained. The constraint in this case is normative: one cannot treat strangers wrongly without facing the consequences of being a lawbreaker. Again, someone with a just state of character would encounter psychological resistance to the thought of mistreating a stranger, and resist doing so. The relevant constraint is not psychological, however, since it applies equally to people who would not face such difficulty (e.g. bad people). In this way, Aristotle can say that treating strangers justly is not "up to us" even though we are in control of our actions in the narrow causal sense. His point is that we cannot treat strangers "as we please," but *must* (in a normative sense) instead treat them as the law dictates.

I propose that belief is not "up to us" in our passage from *On the Soul* in this normative sense. Believing is TRUTH-NORMED, which means that beliefs are in their right state when they are true, and false beliefs are in a wrong state. We are not, therefore, at liberty to form any old belief at any given moment in our epistemic lives. Often we pursue and latch onto the truth gladly and take pleasure in doing so, and abandon false beliefs

---

The legal system had a place both for public and private suits, but litigators often seemed guided more by convenience than legal principle in choosing their venue. See especially Ruschenbusch 1957, Osbourne 1985, and more recently Kurihara 2003.

without regret. Even if the truth brings no pleasure, though, it is no less wrong to be indifferent to it. We do not form any given belief that p because we want that particular belief, but because of some compulsion. Just as there are norms that governs how we treat strangers, so are there norms that governs how we form our beliefs, and we violate them on pain of irrationality.

Here, then, is Aristotle's argument. We can imagine as we please; imagination is not TRUTH-NORMED, so we have no obligation to imagine the truth. We can instead, as Aristotle says, visualize various objects and states of affairs for our own purposes. Aristotle uses the middle voice (*poiêsasthai*) at 427b19, which suggests that the "making" is for the subject's own benefit, and not due to some external compulsion. It is best to understand the phrase "whenever we want" (*hotan boulomai*) in the sense of "as we please." I am not suggesting that the phrase just means this, but that Aristotle uses this form of words to express that someone crafting mental images is not under the contextually-relevant constraint that belief is. Beliefs, on the other hand, are supposed to be true, so we cannot believe as we please. Belief and imagination are therefore not the same.

7. Concluding Remarks: How Belief is Normative

I suggested at the outset that a proper understanding of Aristotle's argument tells us new things about Aristotle's conception of human rationality. The broad lesson is that Aristotle is committed to a kind of epistemic normativity. Non-rational cognition is not subject to normative constraint, and therefore this subjection to norms is, in part, what makes for rational cognition. What is more, the normativity is peculiar to belief, since there is no "correctness" or "error" when it comes to knowledge. Considerations of truth, then, regulate belief formation in a way that they do not regulate other cognition. How, though, can we characterize this regulative connection? Aristotle calls truth the "correctness" of belief, and it is worth noting that he recognizes at least two different kinds of normative constraint. The distinction he draws gives us some ground consider which of the constraints best characterizes the relationship between belief and truth.

We find Aristotle's distinction in book 6 of the *Nicomachean Ethics*, during his discussion about excellence in deliberation.[303] There is a sense in which an agent can deliberate "correctly" in a purely procedural way, but still come by a bad result. In other words, the correct execution of means-end reasoning does not mean that one has deliberated "correctly" by choosing the correct end:

> And since correctness [is spoken of] in a variety of senses, it is clear that [excellence in deliberation] is not every kind. For the akratic person and the trivial man will attain by their reasoning what they put in front of themselves, so that they will have deliberated "correctly," even though they acquired a great misfortune. But deliberating well seems to be something good, for the correctness of one's deliberation seems to be of that sort, namely that which tends to attain the good.[304]

It is not enough simply to avoid procedural mistakes in one's reasoning. That is not the correctness that makes for excellence in deliberation, because a vicious person can flawlessly reason their way to all sorts of base ends.[305] Aristotle is nonetheless willing to call this a kind of correctness, which means that he acknowledges a sort of normative connection that does not derive from the value of the goal attained. Aristotle goes on to say that it is possible to attain a good end through erroneous means, and neither is that the correctness that constitutes excellence in deliberation.[306] A lucky idiot is no more wise in counsel than a clever scoundrel.[307] The normative regulation between belief and truth obtains, for Aristotle, because hitting on the truth is the function of everything that is connected with thinking, whether it be practical or theoretical. The reasoning faculty is in its right state when it hits on the truth, and there are functions of that faculty (i.e.

---

303. See also above at page 96.
304. *Nicomachean Ethics* 6.9, 1142b17-22: ἐπεὶ δ᾽ ἡ ὀρθότης πλεοναχῶς, δῆλον ὅτι οὐ πᾶσα· ὁ γὰρ ἀκρατὴς καὶ ὁ φαῦλος ὃ προτίθεται †ἰδεῖν† ἐκ τοῦ λογισμοῦ τεύξεται, ὥστε ὀρθῶς ἔσται βεβουλευμένος, κακὸν δὲ μέγα εἰληφώς. δοκεῖ δ᾽ ἀγαθόν τι τὸ εὖ βεβουλεῦσθαι· ἡ γὰρ τοιαύτη ὀρθότης βουλῆς εὐβουλία, ἡ ἀγαθοῦ τευκτική.
   The text is corrupt, indicated by the obelus, but the passage makes good sense without whatever was inside the corrupted portion.
305. Aristotle's discussion of cleverness at *Nicomachean Ethics* 6.12, 1144a23-29, implies this claim as well. Cleverness is a capacity for to act and attain what one sets out to do, which is distinct from excellence in deliberation but seems to include it. If the aim is good, says Aristotle, then cleverness deserves praise, but if not, then not.
306. *Nicomachean Ethics* 6.9, 1142b21-26.
307. See also *Nicomachean Ethics* 7.10, where Aristotle argues that practical wisdom (which includes excellence in deliberation) is incompatible with *akrasia*, but one can still be clever and akratic. His explanation is fully in line with the passage quoted above: someone can be very good at reasoning their way to unworthy ends.

believing) where the attainment of the truth is not guaranteed. The "correctness" which governs belief might therefore be this sort of procedural correctness, reflected in a subject's ability to form true beliefs, quite apart from any value the truth has on its own.

There is textual evidence for this. It seems that belief aims at the truth, for Aristotle, because of what we might call GUIDANCE VALUE.[308] Actions we take on the basis of true beliefs are more likely to achieve our ends than actions taken on the basis of false beliefs.[309] This says nothing, however, about whether having a true belief is valuable in and of itself. This is why I use the term "procedural correctness:" the belief has value in terms of its place in a procedure for securing some further value. On this picture, true beliefs are correct in the way that a deliberation that attains the reasoner's end is correct, regardless of whether that end is good or not. We cannot believe as we please, because what we believe is constrained by the role that belief plays in achieving our ends. Anyone who believes at random, yet relies on beliefs for guidance, could be considered irrational, and a particularly grievous offender—who seemed to care nothing about whether her beliefs were true or false—could not even be considered a rational agent.

Aristotle evinces this sort of view in his discussion in *Metaphysics* 4.4 against Protagoras and his ilk. Protagoreans assert that either some or all contradictions are true.[310] Aristotle presses the objection that such an attitude is pragmatically impossible; no rational agent can accept both sides of a contradiction:

> For one does not seek out and suppose all things equally when, upon thinking that it is better to drink some water or see a man, he then seeks them out. He would have to, though, if the same thing were alike man and not-man. But, as was said, there is no one who is not clearly concerned with some things and not others, so that, as seems likely, everyone supposes things to hold absolutely, if not about all things, then at least about what is better and worse.[311]

---

308. The term is Gibbard's (2007, 143-44). On Gibbard's view, the only way to make sense of the idea that belief is TRUTH-NORMED is in terms of GUIDANCE VALUE, and not INTRINSIC VALUE, on which see more below.

309. So the story goes. For an argument against the idea that beliefs with GUIDANCE VALUE must for that reason be true, see Plantinga 1993, 228-38, though he does not use the term itself. Gibbard does not, however, require that there be a necessary connection, just that agents who act on beliefs with high GUIDANCE VALUE tend to fare better than agents who act on beliefs with low GUIDANCE VALUE.

310. *Metaphysics* 4.4, 1007b19-22.

311. Metaphysics 4.4, 1008b20-27: οὐ γὰρ ἐξ ἴσου ἅπαντα ζητεῖ καὶ ὑπολαμβάνει, ὅταν οἰηθεὶς βέλτιον εἶναι τὸ πιεῖν ὕδωρ καὶ ἰδεῖν ἄνθρωπον εἶτα ζητῇ αὐτά· καίτοι ἔδει γε, εἰ ταὐτὸν

This quote immediately precedes the passage previously quoted from *Metaphysics* 4.[312] Aristotle observes that rational agents take care to pursue some outcomes and avoid others. From this, he infers that people make definite judgments, i.e. they assent to one side of a contradictory pair of claims. Seeking out water requires us to have beliefs about where water is and is not, what is water and what is not. Correct beliefs about this will aid the subject in getting water and avoiding substances that are not water, like lamp oil. The beliefs therefore have GUIDANCE VALUE, and that value evaporates if belief is an activity that we can do as we please. A belief formed capriciously or at random provides guidance for nothing. Even if such a belief happens to be true, there is a far more important sense in which it is failing to do its job.

GUIDANCE VALUE cannot, however, fully capture the normative connection Aristotle takes to hold between belief and truth. Per our passage from *Nicomachean Ethics* 6.9, Aristotle recognizes another kind of correctness, whereby one deliberates correctly if the end towards which one deliberates is a good end. In addition to their GUIDANCE VALUE, Aristotle thinks that truth is an end that believing must attain, regardless of whatever procedural value that attainment may have. True beliefs have greater GUIDANCE VALUE than false beliefs, but this does not impose an obligation to believe the truth, the way that we have an obligation to treat strangers justly. GUIDANCE VALUE measures how effectively a belief guides the subject to achieve her aims and goals. A true belief that p has GUIDANCE VALUE for an agent only insofar as believing the truth with respect to p helps that agent to attain her ends. It seems to follow that, if the agent's ends have nothing to do with matters p-related, then the agent need not care about whether her belief that p is true or not. There is no room for this kind of value to come into conflict with the agent's other ends, because believing the truth only has GUIDANCE VALUE insofar as believing the truth contributes to securing those other ends. This cannot ground a general obligation to believe the truth and so cannot ground a general claim that believing is not up to us. Aristotle, however,

---

ἦν ὁμοίως καὶ ἄνθρωπος καὶ οὐκ ἄνθρωπος. ἀλλ᾽ ὅπερ ἐλέχθη, οὐθεὶς ὃς οὐ φαίνεται τὰ μὲν εὐλαβούμενος τὰ δ᾽ οὔ· ὥστε, ὡς ἔοικε, πάντες ὑπολαμβάνουσιν ἔχειν ἁπλῶς, εἰ μὴ περὶ ἅπαντα, ἀλλὰ περὶ τὸ ἄμεινον καὶ χεῖρον.

312. See above, at page 98.

sees our obligation to the truth as capable of coming into conflict in just this way. This is a different kind of value, which we might call INTRINSIC VALUE. That is, belief aims at the the truth for its own sake, and not just because this is the best way to advance one's other ends. Aristotle relies on this kind value for truth when he opens his critique of Plato's conception of the good in book 1 of the *Nicomachean Ethics:*

> It would seem, perhaps, that it is better to, and indeed that we must, do away with what it near and dear to us for the preservation of the truth, especially us philosophers. For though both are dear, it is a righteous thing to hold the truth in higher esteem.[313]

Aristotle uses a word with normative or obligatory force (*dein*),[314] and his vocabulary has a touch of the religious (*hosion,* subject of the *Euthyphro*). If we take Aristotle seriously here (and I see no reason not to), he commits himself to the view that the value of truth imposes an obligation on those who inquire about any given question. This obligation can lead those who inquire into conflict with their other values (what is "near and dear" to them). This value is of a different kind from GUIDANCE VALUE, because it does not make sense to compare the GUIDANCE VALUE of beliefs to one's other values. We might call it INTRINSIC VALUE. Felt conflict is possible between the INTRINSIC VALUE of truth and the value of other goods. Aristotle's substantive view is that one's obligation to the truth is greater.

Since the above passage concerns the good, one might consider it further evidence that, for Aristotle, the value of truth consists in its GUIDANCE VALUE, rather than bringing in a different notion of value. Aristotle insists that we study ethics not merely to know what goodness is, but to become good.[315] A correct conception of the good life and the virtues, it stands to reason, has immense GUIDANCE VALUE for cultivating those virtues and living the good life. This is consistent with Aristotle's remarks at *Nicomachean Ethics* 1.6.[316]

---

313. *Nicomachean Ethics* 1.6, 1096a14-16: δόξειε δ᾽ ἂν ἴσως βέλτιον εἶναι καὶ δεῖν ἐπὶ σωτηρίᾳ γε τῆς ἀληθείας καὶ τὰ οἰκεῖα ἀναιρεῖν, ἄλλως τε καὶ φιλοσόφους ὄντας· ἀμφοῖν γὰρ ὄντοιν φίλοιν ὅσιον προτιμᾶν τὴν ἀλήθειαν.
314. For a comprehensive discussion of this word and the kind of obligation it denotes in Aristotle's ethical works, see Kraut 2006, especially 168-171, on this passage. Kraut's main contention, that *dein* does not generally connote moral obligation or duty, bolsters my view, since then it makes all the more sense that Aristotle is using the word here to denote a kind of normative force that is nonetheless non-moral.
315. *Nicomachean Ethics* 2.2, 1103b27-29.
316. See especially *Nicomachean Ethics* 1.7, 1098b4-8: beginnings determine "more than half" of the journey, and this is Aristotle's reason for starting the ethics course with high-level concerns before discussing individual virtues.

Aristotle's objection to Plato's view, however, has nothing to do with the GUIDANCE VALUE of one conception of good versus another. Rather, his reasoning consists of weighing the value that truth has against the value of various other goods in one's life. His cites none of the pragmatic considerations we find in *Metaphysics* 4.[317] He claims that it is righteous to value the truth more highly than what is near and dear to oneself, which is different from claiming that paying attention to truth is the only viable way to achieve one's ends. We conclude, then, that truth has INTRINSIC VALUE as well as GUIDANCE VALUE for Aristotle.

One further remark on belief's normative connection to truth is possible. In *On the Soul* 3.7, Aristotle discusses how mental representations of non-present goods and evils can impart the same type of motivation to a subject as present perception.[318] He then compares the good to the true, saying that they are the same kind of thing:

> And when [the thinking faculty][319] says that in this place there is something pleasant or painful, in that case it pursue or avoids, and so generally in action.[320] And the truth and falsehood which occurs without action is in the same category (*en tôi autôi genei*) as good and bad; but the difference is that one is taken absolutely (*haplôs*) and the other relative to someone.[321, 322]

The good and the bad are the same kind of thing as the true and the false. This is what we would expect Aristotle to say, given his view that belief is TRUTH-NORMED. Just as subjects pursue good and shun evil in action, they pursue truth and shun falsehood in belief. The truth therefore regulates inquiry and belief in a way similar to how the good regulates deliberation. Practical truth and falsehood, which implicates action, has GUIDANCE VALUE.[323] The subject aims at the truth because they want to secure the good and avoid the bad. Truth and falsehood without action (e.g. theoretical reasoning) still aims at the truth, but

---

317. GUIDANCE VALUE is a concern later in the passage, however, when Aristotle questions whether craftsmen would benefit at all from knowledge of a simple Platonic good. See *Nicomachean Ethics* 1.6, 1097a7-13.

318. *On the Soul* 3.7, 431b2-10.

319. The anaphora goes all the way back to *to noêtikon* at b2.

320. Reading *holôs en praxei* with Hicks 1907 and Hamlyn 1968, against Ross 1961 and Jannone 1966, who read *holôs hen praxei*, with *praxei* a verb instead of the dative singular of *praxis*.

321. *On the Soul* 3.7, 431b9-13: ὡς ἐκεῖ τὸ ἡδὺ ἢ λυπηρόν, ἐνταῦθα φεύγει ἢ διώκει – καὶ ὅλως ἐν πράξει. καὶ τὸ ἄνευ δὲ πράξεως, τὸ ἀληθὲς καὶ τὸ ψεῦδος, ἐν τῷ αὐτῷ γένει ἐστὶ τῷ ἀγαθῷ καὶ τῷ κακῷ· ἀλλὰ τῷ γε ἁπλῶς διαφέρει καὶ τινί.

322. Grammatically, the last clause is very difficult; my translation is in agreement with Rodier 1900, Hicks 1907, Hamlyn 1968 and Jannone 1966. Hamlyn's view (1968, 148) that Aristotle merely means that the true and the good fall on the same side of a "table of opposites" does not explain why Aristotle would mention truth in this context rather than, say, blackness, being high-pitched, or anything else.

323. See above at note 239 on page 92.

because of truth's INTRINSIC VALUE. Aristotle draws a further telling distinction in the last clause of the quoted passage. What is good and bad are so relative to a given subject in a given set of circumstances.[324] Truth, however, is the same for all subjects, whether or not they know or want it to be so.

The question of whether to believe is simpler, for Aristotle, than the question of whether to pursue. The practical deliberator must first ask of the end, "is this good for me?" and, when the end is set, deliberate about how to achieve it. Whether an end is correct to pursue depends on many things about the end, the subject and the circumstances. Whether a belief is correct to hold, on the other hand, depends only on whether it is true.[325] The desires and goals of the subject are irrelevant. Believers are therefore bound by a norm to believe truly, just because they are in the business of believing.[326] Given this, it is tempting to say that the prescription to form true beliefs is a constitutive norm of rationality.[327] Indeed, Aristotle suggests that those who run afoul of this requirement relinquish their position as rational creatures worthy of epistemic consideration.[328] Aristotle's argument that truth is the good state (*to eu*) of believing lends some credence to this reconstruction. Discerning matters of truth and falsehood is the *ergon* of thinking, and the thinking subject which arrives at the truth performs this function well. True belief therefore has INTRINSIC VALUE, since the value of arriving at truth derives from the characteristic activity (*ergon*) of thinking, and not from any positive

---

324. This does not commit Aristotle any kind of relativism about value as we deploy that term in contemporary philosophy. The good for S need not be relative to S's desires or beliefs about what is good.

325. This claim is similar to the contemporary claim that deliberation about whether to believe that p is "transparent." This means, roughly, that our consideration about whether to believe that p reduces to consideration of whether p is true. I hesitate to frame Aristotle's view in these terms because he does not speak of belief-formation as a type of deliberation which is parallel to practical deliberation. What transparency further implies about belief is controversial. For some recent discussion, see Shah 2003, Shah and Velleman 2005, Steglich-Petersen 2006b (a response to the first two) and Steglich-Petersen 2006a, which argues against the idea that transparency entails doxastic non-voluntarism.

326. The term "business of believing" is Velleman's; see Velleman 2000, a *locus classicus* for discussions about belief's connection to truth (though he has since changed his view on the connection; see Shah and Velleman 2005).

327. Shah and Velleman 2005 take this view. See Steglich-Petersen 2006b for arguments against. Situating Aristotle's apparent view in this debate would take more space than available, as would consideration of how Aristotle's view stands outside, and prompts reconsideration of, the terms of the debate.

328. See especially *Metaphysics* 4.4, 1006a11-15, 1008b7-13, and *Metaphysics* 11.5, 1062a29-34 and 11.6, 1063b8-14. In these passages, Aristotle meets Heracliteans and Protagoreans not with demonstrative argument, but accusations of bad epistemic behavior, and twice compares them to plants, which do not cognize anything.

consequences that truth-seeking might have (though of course it has many). This value exists independent the potential negative consequences of truth-seeking. Aiming at the truth therefore constitutes the sort of thinking that leads to belief. Since only rational creatures can participate in this kind of thinking, such a norm (partially) constitutes rational cognition.

8. Appendix: Text and Translation of 427b16-21

Several questions confront anyone who wants to understand what Aristotle is talking about in this stretch of text. The first sentence states his conclusion: imagining is not the same thing as thinking (*noêsis*) and it is not the same thing as entertaining (*hupolêpsis*).[329] We would expect, then, an argument about thinking and apprehension. Instead, Aristotle argues that imagining differs from believing (*doxazein*), and takes that to establish his point. He even offers a further argument (b21-24) about imagining and believing, as if that were his point all along. Why the change? Furthermore, why mention both *noêsis* and *hupolêpsis*? This textual difficulty is exacerbated by the conventionally-accepted text (*hê autê noêsis kai hupolêpsis*), which demands a translation like "thinking is not the same thing as apprehension." So the conventional text does not even mention imagining, which is purportedly Aristotle's main concern.

Commentators agree that we need to get the passage to refer to imagination somehow, but differ about how to emendations the text.[330] Our editorial choices will affect the conclusion of the argument, so we cannot separate philological and philosophical considerations. From the standpoint of pure expedience, it is tempting to delete *noêsis*: this would leave *hê autê* (the same) to refer anaphorically to *phantasia,* which appears two lines before the present passage:

> For imagination differs both from perception and discursive thinking (*dianoias*). It (*hautê*) does not occur without perception, and without it there

---

329. For a plausible view of *hupolêpsis* as the consideration of a propositional content, see Wedin 1984, 102-07.
330. For conflicting readings and proposals, see Philoponus (*Commentary on the Soul* 492.22-3), Freudenthal 1863, 13, Rodier 1900, 2:405-06, Hicks 1907, 457-58, Hamlyn 1968, 130-31, and Wedin 1984, 73-74.

is no entertaining.[331]

This emendation would allow us to translate the passage as I did above, but amounts to textual butchery. *Noêsis* is too well-attested in the manuscript tradition for us to think it does not belong.[332] It must, therefore, stay in the text. The solution, I think, is to delete the article *hê* and read *hautê* ("this" or "it") instead of *hê autê* ("the same"). The passage at b14-16 immediately precedes the argument we are trying to understand, and the *hautê* there clearly refers to *phantasia*. Without another anaphoric pronoun at b16, the argument suddenly swerves off-topic with a claim about thinking and entertaining, then just as suddenly resumes the argument about imagining. On my reading, no such issue arises.[333]

If my reading is correct, Aristotle means in this passage to distinguish imagining from entertaining. We must still understand why thinking (*noêsis*) comes up,[334] but first a more pressing issue: if Aristotle wants to argue that imagination is not the same as entertaining (*hupolêpsis*), then why do his subsequent arguments deal only with belief (*doxa*)? Belief is a species (*diaphora*) of entertaining, but establishing that imagining is not the same as one species of a genus is not sufficient to put it entirely outside of that genus. Knowledge and belief are not the same, after all, but both are species of entertaining. Some commentators claim that subsequent uses of "*doxa*" are meant to stand in for *hupolêpsis* as a sort of metonymy, and so the argument is meant to establish that imagining is not a form of entertaining.[335]

---

331. *On the Soul* 3.3, 427b14-6: φαντασία γὰρ ἕτερον καὶ αἰσθήσεως καὶ διανοίας, αὕτη τε οὐ γίγνεται ἄνευ αἰσθήσεως, καὶ ἄνευ ταύτης οὐκ ἔστιν ὑπόληψις.

332. It is missing only from manuscript y, from the late 13th century. For a description, see De Corte 1933, 365-67. Its transmission of the *Meteorology* is contaminated (see Fobes 1913 and Fobes 1915), which warrants doubt about the remaining text as an independent witness. Another manuscript (U) substitutes *phantasia*, which the commentator Themistius either read or understood (*On the Soul Paraphrase* 91.20-4); see also Chaignet 1883, 445. On the manuscript evidence see also Freudenthal 1863, 10, Rodier 1900, ii.405-06, and Hicks 1907, 457-58.

333. Hicks notes (1907, 458, ad b17) that *noêsis* and *phantasia* are closely connected in Aristotle and suggests that the "thinking" Aristotle has in mind here is in fact *phantasia*: see also *On the Soul* 3.10, 433a10-11. There does seem to be some overlap between the capacities to which Aristotle refers with the those words, but Aristotle just (at b9) used *to noein* with the same extension that he will give to *hupolêpsis* at b26. This suggests that we should not take *noêsis*, a synonym of *to noein*, in the way Hicks suggests, since *phantasia* and *hupolêpsis* clearly refer to very different kinds of cognition.

334. See below, at page 126.

335. Most explicitly Simplicius (*Commentary On the Soul* 206.30-31), but see also Rodier (1900, 2:408), who cites the commentator approvingly. Simplicius holds this view, however, because he takes all *hupolêpsis* to involve endorsement, i.e. he does not think there is non-committal *hupolêpsis*, despite Aristotle's explicitly allowing for it: see *Topics* 4.5, 125b34-37.

I do not think this is the best way to understand the argument. They prove exactly what they seem to, that belief and imagining are not the same thing, and it is true that this, by itself, is not sufficient to establish that imagining does not belong in the family of entertaining. We can fill this hole, however, if we note that Aristotle introduces imagining into his theory of cognition to account for false representations.[336] With this new moving part, Aristotle hopes to correct a widespread error in past thinking on the topic of mental representation.[337] If imagination is meant to allow for error, then it must be able to represent falsehood, and this immediately rules out an identity with any mental state which can only represent the truth. This includes, for Aristotle, any judgment which expresses a person's practical wisdom (*phronêsis*) or knowledge.[338] These mental states can only apprehend the truth: one cannot know a falsehood, and false judgment cannot express a person's practical wisdom.[339] Among the species of entertaining, this leaves only belief. Aristotle's argument, then, is by cases: if imagination is a species of entertaining, then it is either a type that is always true, or a type that can be either true or false. It can represent falsehood, so it cannot be any of the always-true states. This leaves belief, which can be either true or false, but it can't be belief either, for such-and-such reasons. No metonymy is necessary.[340]

---

336. See especially Caston 1996, 27ff.
337. *On the Soul* 3.3, 427b1-5.
338. Aristotle says as much later in the same chapter: see 428a16-18. There he mentions knowledge (*epistêmê*) and understanding (*nous*), but not practical wisdom (*phronêsis*). The references, however, are for the sake of example; his argument applies to any of those states which always achieve truth (*aei alêtheuontôn*).
339. The latter formulation shows that it is more difficult to render the relation of practical wisdom (*phronêsis*) to the sorts of propositional judgment that we deal with in contemporary philosophy. My formulation is indebted to Taylor 1990. Thrasymachus makes a similar claim in the first book of the *Republic* (340d-e) when he insists that, strictly speaking, doctors, accountants and other experts never err insofar as they are experts. When we speak loosely and say that a doctor has made a mistake, we mean that his knowledge has failed him in this case, which according to Thrasymachus makes him no doctor (in this particular case). So when Aristotle says that practical wisdom is always true, he does not mean that someone who possesses practical wisdom will never make a mistake, but rather that no mistake on their part will amount to an expression of their practical wisdom.
340. There remains a question of how to rule out an identity between imagining and the entertaining to which we do not give credence, which Aristotle mentions at *Topics* 4.5, 125b34-37 (on which see Chapter 1). We can rule this possibility out because Aristotle is clear in the *Topics* that someone can give credence to and withhold credence from *the same entertaining*. Suppose, then, that imagination is non-committal entertaining. If someone then gives credence to such an entertaining, then depending on other epistemic conditions the entertaining can express belief, knowledge, practical wisdom or understanding. We already established, however, that imagination is not any of these forms of entertaining. So the entertaining would not be *the same entertaining* before and after we furnish credence on it, and we have a contradiction.

My interpretation makes the predicate of the sentence *noêsis kai hupolêpsis*. We need to explain why *noêsis* appears here: thinking as such figures no further in Aristotle's argument. I propose this solution, which my translation incorporates: the *kai* in the predicate is not a standard conjunctive "and," but is instead used epexegetically. Rather than joining two objects to form a compound referent, it clarifies what Aristotle meant by *noêsis*, and so means something like "or should I say."

To establish this, we observe that *noêsis* and *hupolêpsis* are, in the context of this passage, used to designate the same bundle of rational capacities which Aristotle distinguishes from perception and imagination. At 427b8-11, he distinguishes thinking (*to noein*)[341] from perception on the grounds that thinking can be done correctly or incorrectly, unlike perception. Aristotle lists three kinds of correct thinking: practical wisdom (*phronêsis*), scientific knowledge (*epistêmê*), and true belief (*doxa alêthês*). Someone's thought can express states opposite these, various kinds of foolishness and false belief, and still be considered thinking, while perception of those objects which are special to each sense (*idion*) is always correct.[342] Furthermore, perception belongs to every animal. Thinking, on the other hand, belongs only to animals that have reason (*logos*), i.e. only to humans (b13-14). Now comes the passage quoted before. In this stretch of text, then, Aristotle refers to the process or capacity of thinking with four different terms: *to noein* (b8), *dianoeisthai* (b13), *dianoia* (b15) and *noêsis* (b16). There are no doubt subtle variations of meaning between these terms. The articular infinitives, for instance, might refer to the process of thinking, since Aristotle uses them when he talks about the process turning out correctly or incorrectly. The nouns, by contrast, might refer to the capacities as such. The main point, however, is that a continuous string of nouns with the common root (*noê-*) connect the enumeration of kinds of thinking at b8 to the distinction claim at b16. This suggests that Aristotle is referring to the same family of rational capacities at b16 that he is at b8. Furthermore, Aristotle lists the different kinds of entertaining (*hupolêpsis*)

341. *To noein* is an articular infinitive, which turns a verb into a noun: see Smyth 1920, §450-53. *Noêsis* is a nominalization of the same verb.
342. For an explanation of this doctrine, which is puzzling and irrelevant to our discussion, see Turnbull 1978 and Hamlyn 1959, 11-13.

at b25-26, and they are exactly the same states that comprise thinking at b8: practical wisdom, scientific knowledge, true belief and "the opposites of these." This suggests that, at least in the confines of this discussion, Aristotle is using both terms to designate the same family of rational capacities that differ from both perception (because they can go wrong) and from imagination (in the ways argued for at b16-24). This justifies our suggestion that the *kai* at b16 is, as I said, epexegetic; Aristotle is not distinguishing imagination from two different things in this claim, but is clarifying what he means by "thinking." The conclusion of the argument, therefore, is that imagining is not the same thing as entertaining. The presence of *noêsis* poses no problem, because it is clarified by *hupolêpsis*.

Eidôlopoiountes is a rare word, and does not occur before Plato (and there only once). It occurs only in scholarly contexts, often literary criticism or exegesis (especially Longinus), and the remainder of the uses occur in commentaries on Aristotle and Plato.[343] It has two main senses: the representation of something in words, and a more explicitly psychological sense that denotes vivid mental representation, not necessarily visual. Plato uses the term to describe the activity of the imitative poet, who sets up a "bad regime" in the soul by fashioning pleasant images which the irrational part fixates on (*Republic* 10, 605b7-c4). Poetry uses language, but what makes the poetry bad is that it provokes images in the soul that warp it. We can see, then, how Plato's original usage could well be responsible for both senses of the term. Aristotle clearly means the more explicitly psychological sense. This word is the reason I feel comfortable translating *phantasia* as "imagination," i.e. the more or less free play of mental imagery. It denotes a (perhaps distinctly human) ability to represent something in thought without proximate external stimulus.[344] We can deploy this faculty pretty much as we please, for our own purposes (which does not mean that it is under our complete control). As an example, Aristotle offers a person putting a mnemonic system together.[345]

---

343. Results derived from TLG searches of *eidôlopoieô* and its two composites.
344. Some past perception of the imagined object is nonetheless necessary: see *On the Soul* 3.3, 427b15-17 and 428b12-16.
345. Wedin (1984, 75-77) denies that this argument implies that imagination is any sort of faculty on its own. His argument is that, whether Aristotle is referring to the construction of the mnemonic itself or

Chapter 4
Response and Restraint

1. Introduction

The last characteristic of rational cognition that we will consider involves Aristotle's argument that having beliefs about scary and encouraging things shares a special connection to the respective emotional responses (fear and encouragement) that imagining those scary and encouraging things does not. Some rational reconstruction is necessary before we can understand what Aristotle takes the distinction to be. This is because his distinction relies on a simile which he does not explicate: as he puts it, in the case of imagination we are "just as if we saw terrible or encouraging things" in a picture.

It is conventional to interpret Aristotle's simile as a claim that imagination does not cause emotional arousal, while belief does. I argue instead that the comparison is more subtle: there is a default causal connection between forming certain kinds of belief and feeling certain emotions, while no such default connection exists between imagining similar things and feeling those emotions. Aristotle's analogy involves our interaction with mimetic representation, and he is committed to the idea that we can respond emotionally to mimetic representation even if we do not believe that it represents goings-on in the world, which speaks against the conventional interpretation.

So we can respond emotionally both to what we believe and what we imagine. The difference is that we do not act on the basis of our emotional responses to what we imagine, though we do act on the basis of our emotional responses to what we believe. Imagination is motivationally inert because it does not encode our commitments about

---

its deployment, the relevant imaging is only of things that have been committed to memory, and so the faculty being used is actually memory (rather than imagination). This seems plausible for deploying the mnemonic system, but not at all for the construction of the system itself. Even if one must learn the system by rote, there must have been a first imagining which could not plausibly be called memory.

the world. This distinction, however, between motivationally-inert representations and those which motivate only exists among rational creatures. Non-rational creatures—both animals and people whose judgment is obscured—commit to the appearances of their imagination, and indeed cannot help but do so: they lack the rational faculty which discriminates and withholds commitment by contradicting the deliverances of perception and imagination. This is, therefore, a third constituent of rational cognition: the ability to doubt and withhold commitment, to go unaffected by what appears.

2. Fitting Affections and Causal Connections

Here is Aristotle's argument in full:

> Moreover, when we believe that something is scary or alarming we are immediately affected accordingly, and similarly if it is something encouraging; but in virtue of imagination we are just as if we saw the terrible or encouraging things in a picture.[346]

This argument has the same form we have observed in the two other passages from *On the Soul* 3.3 to which we have devoted our attention. Aristotle contrasts belief and imagination, asserting that one has a property or characteristic that the other lacks. This gives us a basis for distinguishing belief and imagination, which is Aristotle's goal.[347] Like the argument about the normativity of belief, but unlike the argument about credence and rationality, this passage restricts our attention to human cognition. Aristotle uses the first-person form of verbs throughout, talking about how *we* are affected when *we* form a belief or look at a picture. This lets us assume the full range of human cognitive capacity in trying to understand Aristotle's argument. We will soon see upshot for animal cognition, but there are important differences between belief and imagination even at the human level.[348] When we believe that something is scary or encouraging, we "immediately" feel

---

346. *On the Soul* 3.3, 427b21-24: ἔτι δὲ ὅταν μὲν δοξάσωμεν δεινόν τι ἢ φοβερόν, εὐθὺς συμπάσχομεν, ὁμοίως δὲ καὶ ἐὰν θαρραλέον· κατὰ δὲ τὴν φαντασίαν ὡσαύτως ἔχομεν ὥσπερ ἂν εἰ θεώμενοι ἐν γραφῇ τὰ δεινὰ ἢ θαρραλέα.
  I read the aorist *doxasômen*, with Torstrik 1862, Rodier 1900, Hicks 1907 and Ross 1961, against Jannone 1966, who reads the present. Jannone's (Budé) translation, however, is "form a belief," which is more suggestive of the unmarked aspect of the aorist than the progressive aspect of the present.
347. We find the conclusion of the argument earlier, at 427b17: "It is clear that it [*sc.* imagination] is not thinking (*noêsis*), that is to say, apprehension (*hupolêpsis*)." For this passage and my reasons for reading it the way that I do, see Chapter 3, page, 123.

the corresponding emotion, but imagining scary and encouraging things lacks this immediacy, however we end up understanding it.

We need to understand his claim about what happens when we form the belief, as this will affect how we understand the contrast. Start with "affected accordingly." Forms of *sumpaschein* are rare before Aristotle, appearing twice[349] in Plato and, so far as I can tell, in no earlier authors. Both instances in Plato work on what we might call a "contagion" model. That is, being affected "accordingly" by something means coming to share some relevant characteristic with the affecting object (*sun-* in the sense of "together"). In the *Charmides,* for instance, Socrates says:

> And Critias, when he heard these things and saw me puzzled, seemed to me to be fettered by my puzzlement and conquered by perplexity—just as when those who see people yawning across from them suffer the same thing in accordance (*sumpaschousin*).[350]

If someone sees someone yawning, they start to yawn themselves. In this example, the object passes its own condition to the subject who is *sumpathês*. This is also the scheme at work in Plato's more conspicuous use of *sumpaschein* in the *Republic*. Socrates warns that even the best men can fall prey to the presentation of a putative hero's lamenting and grieving excessively:

> …We know that we enjoy [watching the hero's laments] and, giving ourselves up to it, we follow along suffering the same feelings (*sumpaschontes*) and, since we are eager for this, we praise as a good poet the man who can put us the most in this mood.[351]

Plato's objection to the presentation of excessive grieving makes no mention of how we come to pity the heros, identify with or excuse them. His problem is not that we might feel

---

348. See especially Osborne 2007, 87-93, who argues that imagination accounts for a psychological continuity between the impulse-driven movement of animals and the abstract thought of which humans are capable. For a different view on which *phantasia* serves as a synthesizer of perceptual data, see Frede 1992, though her account seems to apply just as much to the more cognitive animals as it does to humans.

349. *Sumpeisêi* at *Laws* 4, 720d7 is actually a form of *sumpeithein.* Plato makes no use of the derived adjective *sumpathês.*

350. *Charmides* 169c3-6: Καὶ ὁ Κριτίας ἀκούσας ταῦτα καὶ ἰδών με ἀποροῦντα, ὥσπερ οἱ τοὺς χασμωμένους καταντικρὺ ὁρῶντες ταὐτὸν τοῦτο συμπάσχουσιν, κἀκεῖνος ἔδοξέ μοι ὑπ᾽ ἐμοῦ ἀποροῦντος ἀναγκασθῆναι καὶ αὐτὸς ἁλῶναι ὑπὸ ἀπορίας.

351. *Republic* 10, 605d3-5: οἶσθ᾽ ὅτι χαίρομέν τε καὶ ἐνδόντες ἡμᾶς αὐτοὺς ἑπόμεθα συμπάσχοντες καὶ σπουδάζοντες ἐπαινοῦμεν ὡς ἀγαθὸν ποιητήν, ὃς ἂν ἡμᾶς ὅτι μάλιστα οὕτω διαθῇ.

sympathy for the wrong person, but that we might come to act like they do. The quoted passage comes at the end of a string of argument meant to establish that the good man controls himself in a crisis and that the part of the soul that should rule in a subject is the part that constrains emotion. A page later, Socrates generalizes his point to sexual desire, anger and other affections.[352] Plato's point is that tragic poetry causes the audience to suffer the same objectionable emotions that it portrays and implicitly endorses. Poetry gives free rein to our negative emotions and impulses when they should be subdued and discouraged. The depiction of lamenting heroes is a contagion that passes the negative emotions on to its audience. Plato's use of *sumpaschein*, therefore, seems limited to the sense of a contagion that causes the subject to take on its own characteristics.

This contagion model does not fit our passage from *On the Soul*; Aristotle's claim under such an interpretation would be that when we believe that something is scary, we become scary ourselves. There is no reason to credit this claim, and no evidence that Aristotle makes it. He uses the term in a broader sense than Plato, to denote a matching or calibrated affection instead of a simple contagion. When we form a belief that something is scary, we immediately experience fear, the affective response calibrated to scary things. This is not a normative claim: it says nothing about whether the reaction to the scary stimulus is appropriate or praiseworthy. Aristotle is not, that is, committing the "moralistic fallacy" by conflating the question whether an emotion fits a stimulus with whether it is right to feel that emotion in that circumstance.[353] Even a coward's excessive or misdirected fear is the "fitting" response in this non-normative sense.

Even if this sense of the term were unattested elsewhere in Aristotle, charity would make it the most attractive choice. Aristotle does, however, use the term elsewhere in this sense. The *Posterior Analytics* gives us a short discussion about the possibility of physiognomics, the science of reading the conditions of the soul from the conditions of the body. Such a science can only get off the ground, he argues, if there is an evident

---

352. See *Republic* 10, 606d1-4.
353. For the moralistic fallacy and its widespread appearance in the contemporary literature, see D'Arms and Jacobson 2000. Not to be confused with what Edward Moore (1957) calls the "moralistic fallacy," which is really the assertion of some kind of fact-value distinction.

connection between what the soul undergoes and characteristics of the body to which it gives form:

> …and if we were able to grasp the peculiar affection of each class and the sign as well, then we would be able to do physiognomy. For if there is an affection that belongs separately to some class as a whole—as courage for instance belongs to lions—then of necessity there will also be some sign, for it is assumed that they are affected in accordance with one another.[354]

The soul and the body have different sets of native affections; the sorts of things that happen to the body and the sorts of things that happen to the soul are different. Souls cannot be cut in half or nourished with food, and bodies cannot grasp universals or be saddened. If the assumption, then, is that body and soul coordinate their affections in an orderly way, the coordination is not one of convergent affections. It must be that the affection of the body is a sign of some fitting affection in the soul. To make sense of the above passage, then, we must take the *sun-* in *sumpaschein* to connote a matching or calibrated affection, not a mirror one.

We should distinguish what I take to be Aristotle's plausible claim—which still needs some interpreting—from one that is superficially similar but implausible. Aristotle is saying that there is some kind of immediate connection between forming certain beliefs and feeling the matching emotional response. The nearby implausible claim is that all our beliefs have an immediate emotional effect on us. Many beliefs have no emotional effect whatsoever on their believers. My belief that gold has an atomic number of 79, for instance, does not make me feel any particular way. One might defend the general claim against this counterexample by pointing to situations where believing that gold has an atomic number of 79 *does* prompt an emotional response. One might feel smug superiority when one sees an annoying classmate base a chemistry presentation on the proposition that gold has an atomic number of 85. If one notices the chemistry teacher write "GOLD - 77" in what is meant to be a column of elements opposite their atomic

---

354. *Posterior Analytics* 2.27, 70b11-16: καὶ δυναίμεθα λαμβάνειν τὸ ἴδιον ἑκάστου γένους πάθος καὶ σημεῖον, δυνησόμεθα φυσιογνωμονεῖν. εἰ γάρ ἐστιν ἰδίᾳ τινὶ γένει ὑπάρχον ἀτόμῳ πάθος, οἷον τοῖς λέουσιν ἀνδρεία, ἀνάγκη καὶ σημεῖον εἶναί τι· συμπάσχειν γὰρ ἀλλήλοις ὑπόκειται.

numbers, one's true belief might contribute to nervousness at the prospect of speaking up to correct her. In general, so the response goes, it is ill-advised to limit, as a conceptual matter, the sorts of belief that prompt affect. Believing almost any proposition can cause someone to feel something if it interacts in the right way with her desires and interests. Even beliefs with content that is necessary and *a priori* can cause affect. One might be comforted by the thought that God is great and knows all, though the claim is necessary if true. A mathematician who has put many hours of fruitless labor into proving Goldbach's conjecture might come to believe that it is unprovable, which would annoy him greatly even though the claim is necessary and *a priori* if true.

This response does not touch the objection, because it remains implausible that *all* of our beliefs have an *immediate* emotional effect on us. We have not yet discussed Aristotle's notion of immediacy, but the connection between belief and emotion in the above examples is not "immediate" in any sense that Aristotle would—or that we should— recognize. Given some combination of interests, desires, tastes, etc., almost any belief can cause almost any emotional response. For someone who thinks that homosexual relationships are deeply immoral and their tolerance a sign of societal turpitude, the belief that gay marriage will become more widespread in America might cause anger and distress. For those with no such prejudice, it is a matter of indifference, even cause for celebration. The belief's power to cause affect depends on aspects of the subject, and in different subjects those same beliefs can have different effects. This kind of connection cannot ground a general claim that our beliefs affect us emotionally in a certain way, because there is quite simply no *certain* way in which beliefs affect their subjects emotionally. The confidence and lack of argument with which Aristotle makes his claim in our passage from *On the Soul* should, therefore, caution us against attributing the completely general, and highly implausible, claim to him.

The connection Aristotle is claiming between belief and emotional response is therefore tighter than the causal connection that can hold between any belief and any agent so disposed as to be affected by said belief. We need to characterize this connection, and we can start by noting that Aristotle's claim is not about belief and emotion in general.

133

Rather, it concerns the connection between coming to believe *that something is scary* or encouraging and *becoming scared or encouraged*. One might suggest that he is only offering these cases as examples, and means the point to apply generally. Nothing in the text requires this, however, and since generalizing yields the implausible claim discussed above, we do Aristotle no favors if we attribute this thought to him. Furthermore, Aristotle needs no such general claim to make the point that he wants to make about the difference between believing and imagining. If the two work differently when it comes to scary things, then *a fortiori* they work differently, and are therefore distinct as types. Best then to give Aristotle the benefit of the doubt and assume he is only talking about fear and encouragement. Since the two are structurally analogous, and the references to encouraging situations seem tacked-on,[355] the discussion will lose nothing if we concentrate on fear and leave encouragement by the wayside.

How then, do we characterize the connection between believing that something is scary and feeling fear? Aristotle gives us a clue in book 2 of his *Rhetoric*, which offers some discussion and provisional definition of the emotional responses that an orator would need to be most familiar with to sway his audience. He defines fear as a pain that results from the prospect of some imminent danger:

> Let fear be a certain pain or disturbance resulting from the appearance (*phantasias*) of some imminent destructive or painful evil. For people do not fear all evils, like whether they will become unjust or slow-witted, but those which are able [to bring] great pains or destruction, and those if they do not seem far away but rather near at hand, so that they are imminent.[356]

Fear, according to Aristotle, is the disturbance one feels when confronted with the appearance of imminent danger.[357] The "imminent" part is important: people do not fear evils which are unlikely ever to afflict them (the virtuous man does not fear becoming wicked) or that lie far from them (e.g. an army half-way around the world). It is not

---

355. As with most of his references to encouragement in his ethical works: see primarily Garver 1982 for citations and discussion, and also Heil 1994, 69-71.
356. *Rhetoric* 2.5, 1382a21-25: ἔστω δὴ ὁ φόβος λύπη τις ἢ ταραχὴ ἐκ φαντασίας μέλλοντος κακοῦ φθαρτικοῦ ἢ λυπηροῦ· οὐ γὰρ πάντα τὰ κακὰ φοβοῦνται, οἷον εἰ ἔσται ἄδικος ἢ βραδύς, ἀλλ' ὅσα λύπας μεγάλας ἢ φθορὰς δύναται, καὶ ταῦτα ἐὰν μὴ πόρρω ἀλλὰ σύνεγγυς φαίνηται ὥστε μέλλειν.
357. "Danger" is a more convenient way to refer to Aristotle's "destructive or painful evil."

immediately clear what he means when he says that "people do not fear" certain things. He does not mean to rule out such fear as a matter of definition, nor even to claim that people never, as a matter of contingent fact, fear those things. It is best to take it as a descriptive claim about normal psychological functioning, however he wishes to understand that. A definition of fear alone is not enough for our purpose; to understand the claim in our main argument, we need to understand what makes an object scary. We are in luck, for Aristotle goes from his definition of fear to define scariness in a way that falls right out of said definition. If fear is pain caused by confronting imminent danger, then scary objects are those objects which prompt the *appearance* of imminent danger:

> Now if this is what fear is, then it is necessary that scary objects are such things as seem to have a great power to destroy or cause harm that is bound up with great pain. For this reason even evidence (*sêmeia*) of such things is scary, for it seems that the scary object is nearby. For that is what danger is, the approach of something scary.[358]

The "seem" in Aristotle's definition is not a hedge or urbane understatement, the way someone might politely open with an "it would seem that…" His point is that what *makes* an object scary is its power to make things appear a certain way to relevant subjects. The word *phainetai* ("seems") occurs within his attributive relative clause ("such things as seem to…" rather than "seem to be such things as…") and so is part of the characterization, not a modalizing auxiliary verb. Whether an object is scary or not depends, therefore, on its ability to cause the appearance of imminent danger. This is why Aristotle says that evidence of scary things is itself scary, even when it is not itself dangerous. A shark's fin, for instance, cannot wreak much havoc on its own, but it tends to be attached to a shark.

It is tempting, given these two quotes, to understand Aristotle's claim in our *On the Soul* passage like so: to believe that something is scary *just is* to be afraid of it, and to believe that something is encouraging *just is* to perk up in response to it. The response is "immediate" because it constitutes the belief, and nothing can come between something

---

358. *Rhetoric* 2.5, 1382a27-32: εἰ δὴ ὁ φόβος τοῦτ᾿ ἐστίν, ἀνάγκη τὰ τοιαῦτα φοβερὰ εἶναι ὅσα φαίνεται δύναμιν ἔχειν μεγάλην τοῦ φθείρειν ἢ βλάπτειν βλάβας εἰς λύπην μεγάλην συντεινούσας· διὸ καὶ τὰ σημεῖα τῶν τοιούτων φοβερά· ἐγγὺς γὰρ φαίνεται τὸ φοβερόν· τοῦτο γάρ ἐστι κίνδυνος, φοβεροῦ πλησιασμός.

and its constituents. On this account, Aristotle takes SCARY and other structurally-analogous properties to be response-dependent. On one standard account, a property is response-dependent just in case instantiation of the property is constituted by a community or individual's relevant responses to that object.[359] To take a simplified example, a joke is funny just in case it makes the right people laugh. This cannot, however, be what Aristotle has in mind. From the claim that SCARY is response-dependent in this way, it follows that if someone is not afraid of something, then she does not believe that it is scary. As we will see when we try to figure out what "immediately" means in this passage, the aforementioned claim contradicts Aristotle's express views about courage.[360] In short, someone does not have courage because they believe that nothing is scary; that is the mark of a fool. Rather, a courageous person lacks fear even in the face of what they believe is scary. This is impossible if believing that something is scary *entails* being afraid of it, as is the case if the feeling of fear constitutes the belief.

The relationship between believing that something is scary and feeling the fear must, therefore, be looser than constitutive, but at the same time tighter than the relationship whereby any belief can cause affect in concert with the right desires or interests. Aristotle's remarks in the *Rhetoric* give us a way to characterize this middle-of-the-road connection. According to Aristotle, fear is a painful disturbance that results from the representation (*phantasia*) of some imminent destructive or painful misfortune. Let us call imminent destructive or painful misfortune DANGEROUS for short. From this characterization of fear, Aristotle takes it to follow that something is SCARY if it either appears DANGEROUS or evinces something DANGEROUS. We can distinguish three moving parts in Aristotle's discussion. First there is the feeling of fear itself, which Aristotle calls a kind of pain or disturbance (*tarachê*). Second, we have the appearance of something as

---

359. The paradigmatic response-dependent properties are the so-called "secondary qualities" like color, which depend for their instantiation on certain responses in relevant subjects: see McDowell 1997, Yablo 2002 and Egan 2006. As the McDowell piece indicates, there is a family of views which take moral and aesthetic properties to be response-dependent on the model of secondary qualities: see also Wiggins 1997, Lebar 2005, Prinz 2006 and Gert 2009a. The claim that properties like SCARY and FUNNY are response-dependent is less controversial, I think, than respective claims about color (which might be analyzed as reflectance properties, which are primary qualities) and moral properties.

360. See page 139.

DANGEROUS, which prompts the disturbance and so is distinct from it. Third, we have the property SCARY. Aristotle says that something has this property if it prompts in us the appearance of something DANGEROUS.[361] The resulting view is that things are SCARY insofar as they are able to prompt a certain response in us. The determining response, however, is not the feeling of fear itself, but the experience of the thing in question as DANGEROUS, i.e. able to cause painful misfortune. This suggests that Aristotle's claim about the connection between believing that something is SCARY and feeling fear is not a conceptual or constitutive claim. Rather, believing that something is SCARY is constituted by having an experience of the object in question as DANGEROUS, and committing to that experience.[362] SCARY is still, therefore, what we would call a response-dependent property: to be SCARY for a certain individual just is to prompt the appearance of imminent danger for that person.[363] The instantiation of the property, however, is not constituted by the ability to prompt a certain *feeling*. The claim in our passage from *On the Soul*—that we are "immediately affected accordingly" by believing that something is scary—does not, therefore, have the force of definition or conceptual truth. It is instead a substantive assertion about the causal relationship between belief and affect. Aristotle is not defining the property SCARY in terms of the power to cause observers to feel fear, and he is not defining belief that something is SCARY in terms of feeling fear. Nor is he making a completely general claim about the relationship between forming beliefs and experiencing affect; his claim applies only to beliefs about objects that have a certain property, which in turn depends on the subject's having a certain experience.

None of this, however, tells us what the close-but-not-definitional connection is between these sorts of beliefs and their fitting emotional responses. Aristotle evinces in

---

361. This slightly different formulation captures both a case where something appears DANGEROUS and cases where something is evidence of something else DANGEROUS.

362. For a discussion on commitment and the role it plays in Aristotle's argument, see page 158.

363. What is more, the connection between the response and the property is *a priori* and necessary. This is because it follows necessarily from the definition of fear, and the definition of fear is an *a priori* truth. Though Aristotle does not speak of it in those terms, he characterizes fear by a stipulative definition, and it is fair to say that someone who thought fear was a different feeling entirely, or a disturbance felt at the sight of something one desires, would simply not understand what fear is. Scariness therefore meets the commonly-proffered criteria for response-dependence: see Gert 2009b and Menzies and Pettit 1993 especially. These criteria are not universally accepted, however; see Lebar 2005.

other works, particularly the *Eudemian Ethics*, that he has the conceptual resources to characterize this connection, and my suggestion is that he is deploying these resources in the background of our passage from *On the Soul.* When Aristotle discusses courage in the *Eudemian Ethics,* he makes a distinction between two different kinds of SCARY. Some things, he says, are scary simply as such (*haplôs*), which he takes to mean that they are scary to people in general, or scary because human nature is the way it is.[364] Other things he describes as SCARY "for someone" (*tini*).[365] These are things which a particular person finds SCARY, and may or may not match up with what is SCARY simply as such:

> In the same way,[366] some things are scary without qualification, some scary to a certain person. What frightens a coward, of course, insofar as he is a coward, is not scary at all, or at least only a little. But things that are scary to the majority, and what is scary according to human nature, these we say are scary without qualification.[367]

As one would expect from the way Aristotle defines fear in the *Rhetoric,* he here allows for idiosyncratic conceptions of what is SCARY and what is not. This does not mean that the potential disagreement between subjects is faultless, or that scariness is "all relative," as we might say. The example Aristotle gives in the *Ethics* passage in fact concerns a deviant subject; calling someone a coward presupposes that we are not meant to share his conception of what is scary. This, however, is merely giving us an obvious example to motivate the distinction. In our passage from *On the Soul,* Aristotle could be using either of these senses of SCARY, and the character of his claim changes depending on the sense he is using.

If he means SCARY simply as such, his claim is that, when we form a belief that something is SCARY either to the majority or according to human nature, we immediately

---

364. See also *Nicomachean Ethics* 3.1, 1110a22-26, where Aristotle says that we offer pardon and sympathy to people who do what they are not supposed because of what "overstrains human nature."

365. Aristotle uses the *haplôs/tini* contrast elsewhere to draw a distinction between evaluation which takes the peculiarities of a certain subject into account and evaluation which does not do so. See especially *On the Soul* 3.7, 431b9-13, on which see Chapter 3 at page 121.

366. Aristotle motivates his example with an analogy (b19-22): it is natural to say that some things are not good without qualification, but rather just for a specific person: what is helpful for worthless men or pleasant to children should not be called helpful or pleasant *tout court.*

367. *Eudemian Ethics* 3.1, 1228b22-26: ὁμοίως δὲ καὶ τὰ φοβερὰ τὰ μὲν ἁπλῶς ἐστί, τὰ δὲ τινί. ἃ μὲν δὴ δειλὸς φοβεῖται ᾗ δειλός, τὰ μὲν οὐδενί ἐστι φοβερά, τὰ δ᾽ ἠρέμα· τὰ δὲ τοῖς πλείστοις φοβερά, καὶ ὅσα τῇ ἀνθρωπίνῃ φύσει, ταῦθ᾽ ἁπλῶς φοβερὰ λέγομεν.

become afraid. This claim is implausible on its own merits: there is no reason to think that someone would become scared of something simply because he came to the judgment that it would appear DANGEROUS to lots of other people. Such a belief might form part of an internal dialectic that terminates in becoming afraid; for instance, if someone believes that a situation would scare most everyone else, this might lead her to think that it is actually extremely dangerous, which in turn would make her question her own resolve and so become afraid. Aristotle's claim that we become afraid "immediately," however, does not seem to describe that kind of case. We have yet to discuss what Aristotle means when he says that the affection is immediate, but the connection between the belief and the fear in the case I just described is not immediate in any plausible sense. The connection would be closer if the believer included herself in the "majority," since the set of people that took the situation to be scary, according to her judgment, would include herself. There seems to be a difference, however, between conceiving of something as scary for people of a certain description that includes oneself, and conceiving of something that is scary for oneself. In the first case, it seems possible for it to escape the believer's notice that the situation in question is scary for her. The belief in the second case, however, seems to be intrinsically self-regarding.[368] In the first case, there still seems to be some distance between forming the belief and becoming afraid. Aristotle himself seems to be aware of this sort of distinction, so our discussion has interpretive relevance as well. At the beginning of the discussion of courage from which I drew the earlier quote, Aristotle asks what sort of SCARY thing the courageous man endures, and concludes that it must be things that he himself would find scary:

> What sorts of things does the courageous man endure? First of all, [does he endure] what is scary for himself or for another person? Well of course if [he endures] what is scary for another person, one would say that this is nothing worthy of respect. But if [he endures] what is scary for himself, then many great things would have to be scary for him.[369]

---

368. In other words, the second case is a *de se* attitude, while the first case is not. For this distinction see primarily Lewis 1979, and also to an extent Perry 1979, though he approaches the issue from a different angle and with a very different vocabulary.

369. *Eudemian Ethics* 3.1, 1228b9-12: ποῖα οὖν ὑπομένει ὁ ἀνδρεῖος; πρῶτον πότερον τὰ ἑαυτῷ φοβερὰ ἢ τὰ ἑτέρῳ; εἰ μὲν δὴ τὰ ἑτέρῳ φοβερά, οὐθὲν σεμνὸν φαίη ἄν τις εἶναι· εἰ δὲ τὰ αὑτῷ, εἴη ἂν αὑτῷ μεγάλα καὶ πολλὰ φοβερά.

Aristotle actually uses this line of argument to set up a paradox, which the later passage (quoted above at page 138) is an attempt to dispel. If someone is courageous by virtue of resisting what they find SCARY, then they need to be scared of a lot of things, in order to exercise their virtue. We do not say someone is courageous, however, if they are scared all the time: the courageous person is supposed to be fearless, hence the paradox.[370] After he draws the distinction, Aristotle suggests that the courageous man finds SCARY those things which are SCARY simply as such, but that he does so in a special way. Here is what he says immediately after he draws the crucial distinction:

> The courageous man is fearless when it comes to these things [that are scary simply as such], and endures scary things of this sort, namely those which are in one way scary for him, i.e. scary insofar as he is a man, but in another way not scary (either a little or not at all), i.e. insofar as he is courageous. These things are scary, though, for they are scary to the vast majority.[371]

The thrust of this argument seems to be the following: the courageous person is still a member of the human community relative to which we define what is SCARY simply as such. That is, they do not become some other sort of creature in terms of whose responses it is no longer appropriate to define the property. The SCARY things that the courageous person endures is, therefore, SCARY *to her*, because she is still a human being. On the other hand, those same things are not SCARY if we take the relevant responses to be the responses only of courageous people, because these are the very people who stand firm against them. This is the sense in which the things in question are not SCARY *to her*. It is sometimes suggested, contrary to my own view, that the distinction Aristotle has in mind is between the feeling of fear itself and acting in a fearful way, for instance by running away.[372] The brave person, on this solution, feels the fear that anyone else would feel, but she stands firm because of a noble motivation. This does not, however, seem to be the distinction

---

370. The most thorough discussion of the paradox itself, and Aristotle's mixed success in resolving it, is Heil 1994. If my interpretation of Aristotle's thinking in our passage from *On the Soul* is correct, then we need not accept the problem Heil diagnoses: that courage implies a struggle against one's own inclination and hence strength of will, but not virtue (1994, 62-65).

371. *Eudemian Ethics* 3.1, 1228b26-30: ὁ δ᾽ ἀνδρεῖος πρὸς ταῦτ᾽ ἔχει ἀφόβως, καὶ ὑπομένει τὰ τοιαῦτα φοβερά, ἃ ἔστι μὲν ὡς φοβερὰ αὐτῷ, ἔστι δ᾽ ὡς οὔ, ᾗ μὲν ἄνθρωπος, φοβερά, ᾗ δ᾽ ἀνδρεῖος, οὐ φοβερὰ ἀλλ᾽ ἢ ἠρέμα ἢ οὐδαμῶς. ἔστι μέντοι φοβερὰ ταῦτα· τοῖς γὰρ πλείστοις φοβερά.

372. The best example, again, is Heil, especially 1994, 58-61.

Aristotle draws in the text. There we find a distinction between the ways in which something can be SCARY for a person, not a distinction between the ways in which someone responds to something that she finds SCARY. The paradox dissolves because Aristotle has found a way to deny the intuition that gave rise to the paradox in the first place. This is the intuition he voices at 1228b10-11, that enduring that which is SCARY to someone else (but not, presumably, to oneself) is not something worthy of respect. Enduring what is SCARY simply as such is worthy of respect because it takes a special kind of person to do so.

So the type of SCARY we find in our passage from *On the Soul* must be what the believer herself finds SCARY, not what is SCARY in general. However Aristotle resolves the paradox he diagnoses in his community's unexamined intuitions about courage, the point that motivates the paradox seems sound: we have no reason to think that there is any connection between feeling fear and experiencing things that we believe are SCARY for other people but not for ourselves. This is why Aristotle says that facing down what is scary for other people is not emblematic of courage. The lesson for our interpretation of *On the Soul* 3.3 is that Aristotle must be talking about SCARY in the sense of things that are SCARY to the person who forms the belief, and not things that are SCARY for other people or SCARY "simply as such" (which he defines as things that are SCARY to the majority of people).

This is important, because it means that Aristotle's claim about imagining must also be about things that are SCARY for the person doing the imagining, rather than SCARY simply as such. He means for his argument to show us that belief and imagination are not identical as types, and it would fail if all Aristotle could claim is that believing that something is SCARY for us affects us immediately, while imagining something simply SCARY does not. Aristotle must argue that believing and imagining behave differently under relevantly similar circumstances. It will help us understand Aristotle's distinction if we understand what he takes his picture-analogy to amount to. We therefore turn to this before our discussion of what he means by "immediately."

3. Imagining Scary Things

We are examining Aristotle's arguments in *On the Soul* because of what their claims about belief tell us about rational cognition. His own stated aim, however, is to distinguish belief and imagining. Since he claims that there is an immediate connection between forming a belief that something is scary and feeling fear, all that he needs to establish his distinction is to deny an immediate connection between imagining something scary and feeling fear. The bulk of ancient and modern commentary, however, take him to draw a stronger distinction. According to this tradition, the distinction runs as follows: forming beliefs lead to emotional response, and imagining does not make us feel anything. Call this the "feel-nothing view."

Reading the target *On the Soul* passage this way attributes to Aristotle a stronger claim than he needs to make, which is cause for concern. The response to this worry is that there is some evidence that Aristotle holds and argues for such a view elsewhere in the corpus, and that it is therefore sensible to read him as deploying it in this argument, since it represents his considered view on the issues at stake. Among ancient commentators, Themistius gives us the clearest statement of the feel-nothing view. For him, imagination provokes no response whatsoever:

> But although people often bring upon themselves imaginings of earthquakes or onrushing beasts, they undergo nothing in accordance with this, but rather as with those looking at the lines drawn in a painting they feel nothing, so are those who look at images in the soul.[373]

Imagining earthquakes and attacking beasts (presumably attacking *us*) does not affect us in any way whatsoever (*sumpaschomen ouden*). For Themistius, the picture analogy signals the complete severance of any affective connection. We do not even feel the bodily response correlate to the emotions, such as trembling or going pale.[374] Above the quoted passage, he claims that, when we believe that something is terrible or scary, we are

---

373. *Paraphrase of On the Soul,* 89.17-20: φαντασίας δὲ προβάλλοντες ἑαυτοῖς πολλάκις μὲν σεισμῶν, πολλάκις δὲ ἐπιόντων θηρίων οὐ συμπάσχομεν οὐδ᾽ ὁτιοῦν, ἀλλ᾽ ὥσπερ ἐν τοῖς πίναξι τὰ γεγραμμένα θεώμενοι πάσχομεν οὐδέν, οὕτω καὶ ἐν τῇ ψυχῇ τὰ φαντάσματα.

374. See *On the Soul* 3.9, 432b29-433a1, where Aristotle allows that contemplating something scary will not always cause someone to be afraid, but may nonetheless cause a physiological reaction that we associate with fear, such as a quickening of the heart. On this see Sorabji 1993, 45**.**

"affected in our body as well, by trembling or going pale" (89.15-16). He is not, therefore, making a comparison between a "full-blooded" emotional response and some lesser simulacrum of emotion. We must suppose that Themistius was not aesthetically sensitive, or at least took Aristotle not to be.

The author of the commentary for *On the Soul* attributed to John Philoponus[375] takes a similarly stark view. We immediately feel fear when we form the belief that something is scary, but when we imagine something scary, nothing happens at all:

> In the case of imagination, he says that we are just the same, that is that we neither feel fear nor are we terrified, but as we were previously, so are we still, not changing in any way.[376]

Pseudo-Philoponus' reading is curious because he ignores the picture analogy completely. He seems to have understood "we are the same" without its correlative clause, and from there inferred that imagination leaves us unaffected, since we do not change at all. We need not, then, attribute the same impoverished view of aesthetic interaction to pseudo-Philoponus as we do to Themistius, but his view on the relevant passage seems to be identical: imagination does not move us at all. This is the starkest feel-nothing view in the historical record, and the bulk of modern commentators adopt it.[377]

I find this interpretation implausible. If Aristotle's point were that emotionally-charged belief affects us according to its content (as belief that something is scary leads us to fear) and imagining does not, then there would be no reason for him to say that the belief affects us "immediately," thereby implying that imagining affects us some other way. Furthermore, as we will see later, Aristotle would not agree to the claim that *phantasia*

---

375. For authorship of this commentary, see Charlton 2000, 1-7.
376. *Commentary On the Soul,* 493.17-19: ἐπὶ δὲ τῆς φαντασίας, φησίν, ὡσαύτως ἔχομεν, τουτέστιν οὔτε φοβούμεθα οὔτε ταραττόμεθα, ἀλλ᾽ ὥσπερ πρώην, οὕτω καὶ ἔχομεν μηδὲν παρατρεπόμενοι.
377. See especially Freudenthal 1863, 11-12, Rodier 1900, 2:408, and Hicks 1907, 459, beyond which understanding of this passage has not much advanced. Hamlyn (1968, 132) states that what Aristotle says in this argument "seems quite correct," but does not say what he thinks Aristotle says, or what the picture analogy amounts to. Sorabji (1993, 57) cites this passage to support the claim that "the mere imagining of terrible things does not provoke fear in humans," though it is unclear whether he would assent to the true feel-nothing view or something more sophisticated. Polansky (2007, 411-12) is the most recent proponent, and seems to come by the view himself: he cites none of the ancient commentators. There are exceptions; Heil (1994, 53-54) acknowledges in passing that imagination can lead to emotional response, as does Everson (1997, 170). I am not, however, aware of any systematic discussion of the argument.

never represents our commitments about the world. Sometimes they do, in ways relevant to his view of rational cognition. More on that later. Last but not least, Aristotle's definition of fear in the *Rhetoric* says that it can arise from imagination (*phantasia*) and not simply belief (*doxa*). This does not mean that every imagining of painful misfortune will make one afraid, but it does seem to allow the possibility of fear without belief. Aristotle's claim in our passage from *On the Soul* is not straightforward enough to suggest an interpretation that rules the possibility out.[378]

Even if we dismiss these objections, however, the interpretation contradicts Aristotle's settled view about how humans use and engage with imitative representation, what Aristotle calls *mimesis*. In the *Poetics,* he defines tragedy as an imitation of action which arouses pity and fear in order to subject such emotions to clarifying scrutiny (*katharsis*):[379]

> Tragedy, then, is the imitative representation (*mimêsis*) of an action which is solemn and, having magnitude, complete; [enacted] by means of pleasant speech, each of the forms separate in the parts [of the work]; acted out and not merely recited; and such that it, by means of pity and fear, accomplishes the clarification of emotions of that sort.[380]

Tragedy is meant to bring about the clarification of pity and fear through the imitative representation of human actions. The imitations prompt this reflection "by means of pity and fear." The definition of tragedy therefore presupposes emotional response. It is possible, one might say, to "work through" one's emotions about something without having an occurrent episode of that emotion. Anger management counseling, for example, does not require that one be enraged for the duration of every session. It is far more difficult to believe, however, that tragedy induces clarification "by means of pity and fear"

---

378. There is some controversy in the literature over the extent to which the *phantasia* that triggers an emotional episode must nonetheless represent something that the subject believes in, or commits to. See Fortenbaugh 1975, Fortenbaugh 2006, 109-37 and Dow 2010 for the view that they must, and Sorabji 1993 and Sihvola 1996 for considerations against. For my part, I do not think Aristotle has a general theory that delivers a verdict on whether emotions as a kind require beliefs or not, though arguing that point is beyond the scope of this discussion.

379. I reject the view found in Veloso 2007 that we must delete references to pity and fear from the definition of tragedy. His argument amounts to a *lectio facilior*. On my rendering of *katharsis*, a much-disputed word, see Nussbaum 1986, 378ff and Lear 1988. Nothing in my argument depends, however, on a particular understanding of *katharsis* or its significance.

380. *Poetics* 6, 1449b24-28: ἔστιν οὖν τραγῳδία μίμησις πράξεως σπουδαίας καὶ τελείας μέγεθος ἐχούσης, ἡδυσμένῳ λόγῳ χωρὶς ἑκάστων εἰδῶν ἐν τοῖς μορίοις, δρώντων καὶ οὐ δι᾽ ἀπαγγελίας, δι᾽ ἐλέου καὶ φόβου περαίνουσα τὴν τῶν τοιούτων παθημάτων κάθαρσιν.

without any pity and fear occurring. One cannot claim to drive the nail with a hammer and also claim that no hammer is present during the driving of the nail. Specification of means presupposes their presence during the action in question, so when Aristotle says that tragedy works "by means of pity and fear," we should assume that pity and fear are aroused during one's appreciation of the tragedy (assuming that the tragedy is not a laughable misfire).[381]

Audiences in a tragedy do not, according to Aristotle, feel fear and pity because they mistake imitation of action for the real thing. Humans delight, he says, in viewing imitations of things that, in real life, are painful to look at. His examples are particularly ugly animals and corpses.[382] There are, therefore, affective differences between experience we take to be of real goings-on and experience we take to be of imitations. Consider now Aristotle's claim about imagination: when we imagine scary or encouraging things, it is as though we were looking at them in a picture. Aristotle asks us to understand the emotional impact of imagination in terms of the emotional impact of imitations. An interpretation on which he claims that imagination is emotionally inert (again, dominant in the commentary tradition) therefore commits him to saying that our interactions with imitations are emotionally inert. They are clearly not, so this interpretation fails.

I do not mean to attribute to Aristotle an imagination-based theory of fictional engagement, certainly not on the basis of our passage from *On the Soul*. Any attempt to reconstruct a theory of fictional engagement from Aristotle's writings is bound to be speculative.[383] The argument is not that

a) Aristotle thinks that fictional engagement can prompt emotion,

b) imaginative experience is constitutive of fictional engagement,

therefore c) imagination can prompt emotion, in Aristotle's view.

Rather, I would put it like this:

---

381. Even if the *pathemata toiauta* which are subject to *katharsis* are not real emotions but rather fictional simulacra, the argument stands, for the emotions denoted in the instrumental phrase are not qualified so as to give the impression that they are anything other than genuine.
382. *Poetics* 4, 1148b9-12.
383. Taylor 2008 attributes a broadly Waltonian view—for which see especially Walton 1990—to Aristotle, based on no direct textual evidence. His purpose, however, is to make salient for a contemporary audience Aristotle's views on learning via sympathy, so the speculation does little harm.

a*) It is central to Aristotle's theory of imitation that imitative representation can prompt emotions

b*) Aristotle explains the affective power of imagination by comparing it to engagement with a form of imitation

therefore c*) It is not reasonable to think that Aristotle's point is that imagination does not prompt emotion.

One might object that watching a tragedy is different enough from seeing something in a picture that I am not entitled to use Aristotle's views in the *Poetics* to explicate the analogy in our target *On the Soul* passage. Tragedies and paintings are very different: the former are extended in time and on the whole resemble things going on in the world more than a painting ever could.[384] We might think it is easier to get drawn into the experience of a drama in such a way that our belief about the non-reality of the proceedings does not cancel our emotional reactions to it. If this is how tragedies engage our emotions, then they are not relevant for the picture case.

Aristotle is aware of the possibility of getting drawn in by a performance, and says explicitly that tragedy can make its audience feel fear and pity through how it is presented. The phenomenon is familiar to us: movie soundtracks can cause us to feel certain things about what is going on onscreen, sometimes against our own wishes; a good performance can elevate mediocre material; great effects and stagecraft can be awe-inspiring. All this is true, but poses no threat to my interpretation, because Aristotle also thinks that consideration of fictional content alone can provoke emotion, absent the trappings of performance. Indeed, he considers it the test of a superior author to craft plots that affect people in this way:

> It is possible for the scary and the pitiable to come about due to the spectacle (*opsis*), but also from the very combination of events, which is prior and [the mark] of the superior poet. For one must frame the story in such a way that one who hears the events that take place [in the plot] *both frets and feels pity as a result of what happens*: this is how someone who hears the story of Oedipus would be *affected*.[385]

---

384. Worth noting, though, that Plato at least seems to think that it is fairly easy to deceive people into thinking that the representational content of a painting is part of the real world. Perhaps the Greeks were just gullible?

385. *Poetics* 8, 1453b1-7: Ἔστιν μὲν οὖν τὸ φοβερὸν καὶ ἐλεεινὸν ἐκ τῆς ὄψεως γίγνεσθαι, ἔστιν δὲ καὶ ἐξ αὐτῆς τῆς συστάσεως τῶν πραγμάτων, ὅπερ ἐστὶ πρότερον καὶ ποιητοῦ

A dramatic production can be scary and pitiable simply in virtue of how it is performed (literally from "how it looks" on stage). It is better, however, not to rely on cheap tricks, and craft such a plot that people cannot help but be moved, even when they just think about it. Here is why the objection fails: in the current passage, Aristotle describes the following case: a subject who a) hears about what happened to Oedipus, b) understands that it is the plot of a story (a *muthos*) and not, say, something that happened to the speaker's uncle, yet nonetheless c) frets and feels pity from thinking about those events. Imitations, therefore, do not provoke emotion primarily by "taking in" their audience and dazzling them with presentation. The emotion prompted by hearing a summary of the fictional content is prior in importance to the emotion prompted by the spectacle.

For Aristotle, the content of an imitation, though disbelieved, can cause emotional response.[386] Since this is true in the case of tragic drama, it ought also to be true in the case of paintings, which are imitations as well. An aural depiction of some fictional content can move someone to fret and feel pity, so I see no reason to deny that same power to visual depiction. Since the distinction Aristotle draws between belief and imagination in our target *On the Soul* passage is not the clean but implausible "emotion over here, no emotion over there" type of distinction that the tradition has settled on, what sort of distinction is it? Aristotle says that, when we believe that something is scary, we *immediately* feel accordingly. I propose that his intended distinction is that, in the case of imagination, we do not *immediately* feel accordingly (which does not entail that we never do).

ἀμείνονος. δεῖ γὰρ καὶ ἄνευ τοῦ ὁρᾶν οὕτω συνεστάναι τὸν μῦθον ὥστε τὸν ἀκούοντα τὰ πράγματα γινόμενα καὶ φρίττειν καὶ ἐλεεῖν ἐκ τῶν συμβαινόντων· ἅπερ ἂν πάθοι τις ἀκούων τὸν τοῦ Οἰδίπου μῦθον.

386. See also Worth 2000, 335.

4. The Difference: What "Immediately" Amounts To

So Aristotle's view cannot fit the clean but implausible "emotion here, no emotion over there" type account. The distinction depends on what Aristotle means when he says that the connection is "immediate," so we must now turn to that.

The most common sense of *euthus* in Greek seems to be temporal.[387] That is, if one event follows another *euthus*, then no relevant event occurs between the first event and the one that follows.[388] If this is what Aristotle means in our target passage, then his claim is that there is no temporal delay between forming a belief that something is scary and feeling the fear. Aristotle does discuss the speed with which a subject acts, given the type of cognition which led to the action, so this would not be a bizarre claim for him to make about the relationship between belief and affective response.[389] The argument would then imply that there *is* a temporal delay in imagination. I can think of instances where this is true: it may take a while for the horror of an imagined scenario (e.g. a world without zinc) to become fully apparent. Such a problem never arises in the relevant cases of belief, since the affective connection has already been made (e.g. the subject already believes that the situation is scary). Still a stretch, though, to claim that such a difference always holds, and constitutes the relevant difference between belief and imagination. It is unlikely that Aristotle would draw the line between belief and imagination in this way, because he seems to think that *imagination* has immediate motive consequences in animals.[390] Temporal immediacy does not, therefore, seem the best way to understand the argument.

Aristotle uses the word, however, in several other senses. In all of its uses, *euthus* contributes the idea that there is nothing that occurs or exists between the two elements. The elements in question are determined by context. Here is a range of passages that

---

387. LSJ gives *euthus* as the temporal adverb, and *euthu* without the ς as the adverb of place, as we might say "it's directly in front of you."

388. A more-or-less random scattering of examples from notable authors: Plato *Apology* 29e4, *Phaedo* 70a4; Thucydides 2.54.5.3, 2.71.1.5 (where it seems to mean something like "without delay") and 4.107.3.6 (used along with *meta* for an explicit temporal ordering); Aristophanes *Lysistrata* 1231; Plutarch *against Colotes* 1122D3. There are, of course, hundreds more.

389. See especially *Movement of Animals* 7, 701a28-32.

390. See *Movement of Animals* 8, 702a18-21.

suggest that this is how Aristotle uses the term. In the *History of Animals,* Aristotle uses *euthus* with a spatial connotation during a discussion of the bone structure of birds relative to the four-footed animals. Here is why birds have a long hip-joint that looks kind of like a thigh bone:

> As in the case of men and the four-footed creatures, the thigh and the rest of the leg would come straight from the hip-joint, however small. Their whole body would then lean too far forward [to support themselves].[391]

Birds, unlike quadrupeds and humans, have a long hip joint that "kind of looks like another thigh" and allows the birds to stand erect on two legs despite their upper bodies being disproportionately larger than their legs.[392] *Euthus* here conveys a spatial relationship; quadruped thighs connect *directly* to their short hip joints. Birds, on the other have, have a whole other bone coming out of their hip that "looks kind of like a second thigh." The conceptual ingredient that *euthus* contributes to the claim that men and quadrupeds have a leg that comes straight off the hip-joint is that nothing else intervenes.

Aristotle also uses the term in a logical context, where there are no causal, spatial or temporal relationships. In the *Prior Analytics,* he discusses the relationship between deduction which establishes its conclusion positively (*deiktikôs*) and which does so by deriving a contradiction from an assumption (*dia tou adunatou).* He concludes that every problem can be proved using both methods:

> It's clear, then, that it is possible to prove each of the problems both positively and *per impossibile.* In the same way, it will be possible also, when syllogisms are done probatively, to reduce them to what is impossible in the terms that have been assumed, whenever a premise is assumed that negates the conclusion. For the syllogisms come to be the same as those we get through conversion, so that right away we have the figures through which each syllogism will be. It is clear, then, that every problem is proven using both methods, *per impossibile* and probatively, and that it is impossible to pull them apart.[393]

---

391. *Progression of Animals* 11, 710b2-4: ὥσπερ γὰρ τοῖς ἀνθρώποις καὶ τοῖς τετράποσι ζῴοις, εὐθὺς ἂν ἦν ἀπὸ βραχέος ὄντος τοῦ ἰσχίου ὁ μηρὸς καὶ τὸ ἄλλο σκέλος· λίαν οὖν ἂν ἦν τὸ σῶμα πᾶν προπετὲς αὐτῶν.
392. Aristotle says as much right before the quoted passage. Men can stand erect with short hip joints because their legs are long enough relative to their upper bodies (*Progression* 11, 710b9-11). This is why children cannot walk; they are out of proportion until they grow (b11-3).

Aristotle's syllogistic allows for the conversion of certain premises into other forms, which in turn transforms certain forms of syllogism into other valid forms.[394] In any given valid syllogism S, the first two premises S1 and S2 entail the conclusion C. C therefore cannot be false without negating at least one of the premises. So from a given valid syllogism {S1 S2 C}, we can obtain {not-C S1 conS2} or {Not-C S2 conS1}, where conS denotes the contrary of S. The passage therefore makes a point about how syllogisms are arranged in logical space. The two methods "cannot be pulled apart," in that once we perform the requisite formal operation, we "immediately" obtain the other kind of syllogism. Aristotle seems to think, at least, that there are no conclusions open to one method of proof, but not the other. If *euthus* carries any causal or temporal connotation in this context, it is metaphorical; Aristotle perhaps imagines someone bending and turning the syllogisms in various ways to turn the probative proof into proof *ad impossibile*. Whatever his imagery, the point is that the transformation is sufficient to convert one deduction into the other.

From these examples it would appear that *euthus* just means that nothing intervenes between the two elements. If we interpret our passage from *On the Soul* along these lines, Aristotle's claim becomes the following: when we form the belief that something is scary or encouraging, then fear and encouragement inevitably follows along, just as we immediately obtain a proof *ad impossibile* from a probative deduction when we take the negation of its conclusion as a premise. This makes for a necessary connection between the relevant belief and its fitting emotional response. This, however, does not seem the right way to interpret the claim. First, the claim so interpreted expresses a view that has little plausibility on its own merits. It dismisses as literally impossible any scenario where someone can believe that something is SCARY and yet not feel any fear. Such cases are possible, however: consider a soldier who has fought in many battles and no longer

393. *Prior Analytics* 2.14, 63b12-21: φανερὸν οὖν ὅτι διὰ τῶν αὐτῶν ὅρων καὶ δεικτικῶς ἔστι δεικνύναι τῶν προβλημάτων ἕκαστον [καὶ διὰ τοῦ ἀδυνάτου]. ὁμοίως δ᾽ ἔσται καὶ δεικτικῶν ὄντων τῶν συλλογισμῶν εἰς ἀδύνατον ἀπάγειν ἐν τοῖς εἰλημμένοις ὅροις, ὅταν ἡ ἀντικειμένη πρότασις τῷ συμπεράσματι ληφθῇ. γίνονται γὰρ οἱ αὐτοὶ συλλογισμοὶ τοῖς διὰ τῆς ἀντιστροφῆς, ὥστ᾽ εὐθὺς ἔχομεν καὶ τὰ σχήματα δι᾽ ὧν ἕκαστον ἔσται. δῆλον οὖν ὅτι πᾶν πρόβλημα δείκνυται κατ᾽ ἀμφοτέρους τοὺς τρόπους, διά τε τοῦ ἀδυνάτου καὶ δεικτικῶς, καὶ οὐκ ἐνδέχεται χωρίζεσθαι τὸν ἕτερον.
394. For discussion of proof *ad impossibile* and its place in Aristotle's logical theory, see Lear 1980, 34-5, 39-41, 44-47, Rose 1968, 35-36, and Ross 1949, 31-32.

feels terror when he faces the enemy.[395] If the connection between believing that something is SCARY and feeling fear were necessary in the sense suggested, then the only way to explain the soldier's lack of fear would be to say that he does not believe that facing down the enemy is scary. How plausible this claim is will depend on how we determine what sorts of things are SCARY. The claim is true if scariness (for an individual) is fully constituted by that individual's feeling fear toward the object. Making such a move, however, comes with a cost that no one, I think, should want to pay: if that is how we determine what is SCARY, it follows that someone cannot even entertain a thought about the object in question without feeling fear. Even a coward, however, can contemplate an object of fear from a position of safety and not actually feel the emotional disturbance. Aristotle himself seems to agree:

> But neither does [practical reason], whenever it considers an object of this sort [i.e. something to be pursued or avoided], at that very moment urge one to pursue or avoid . For instance, often it thinks (*dianoeitai*) about something scary or pleasant, but does not urge us to be afraid, but the heart is moved and, if it is something pleasant, some other part.[396] [397]

Just thinking, even about something scary, can leave the subject unaffected, at least emotionally; Aristotle allows for some involuntary physiological response. He seems to share the view, then, that it is impossible to peg what is SCARY for individuals to their emotional responses as such. Aristotle does not, in this passage, observe the distinction between feeling the disturbance of fear and doing something on the basis of those feelings. His main point is that practical reason can be inert, even when it considers something with the power to move the subject. His general claim is that considering something to be avoided does not always lead reason to "urge" us to avoid (*pheugein*) the object. He seems

---

395. This is distinct from Heil's interpretation (1994) of the paradox of courage, wherein a courageous man will feel fear but not let it determine what action he takes. It is not clear to me that this is a solution to the paradox, since it seems a stretch to call the emotional state and the motivational state (as Heil calls them) two different ways of thinking that something is scary, which is how Aristotle casts the problem.

396. *On the Soul* 3.9, 432b29-433a1: ἀλλ᾽ οὐδ᾽ ὅταν θεωρῇ τι τοιοῦτον, ἤδη κελεύει φεύγειν ἢ διώκειν, οἷον πολλάκις διανοεῖται φοβερόν τι ἢ ἡδύ, οὐ κελεύει δὲ φοβεῖσθαι, ἡ δὲ καρδία κινεῖται, ἂν δ᾽ ἡδύ, ἕτερόν τι μόριον.

397. Sorabji (1993, 40) cites this passage as an example of thinking that is not propositional, and hence not related to truth or falsehood the way belief is. The syntax of the clause that depends on *dianoeitai*, however, is identical to that which depends on *doxasômen* in our passage from *On the Soul* 3.3. The difference, then, does not seem to be whether the state is truth-apt, but whether it makes a commitment about how things are. This might be what Sorabji means by "affirmation and negation."

to be making a point about action, but illustrates his point with an example that has to do with emotion (*phobeisthai*), and the extent to which these two come apart, the plausibility of his discussion suffers. This confusion does not, however, obscure his point that the mere occurrence of something scary in the course of discursive thought need not trigger the fitting emotional response.

The soldier in our example can think about facing down the enemy without becoming afraid, and he furthermore can believe that facing down the enemy is SCARY without feeling fear. Some sort of interruption must be possible between the act of cognition (forming a belief that something is SCARY) and the affect that it causes. Aristotle's analysis of fear in the *Rhetoric* helps spell that relation out.[398] Fear, so the story goes, is a disturbance caused by the appearance of something that is capable of bringing painful misfortune. From this it follows necessarily, for Aristotle, that something is SCARY if it appears (to the relevant observer) capable of causing great and painful misfortune, i.e. if it appears DANGEROUS.[399] Our soldier need not be misled about what is DANGEROUS to lack fear when he faces the enemy.[400] The enemy can appear DANGEROUS to him, since they have a great power to kill him, and by Aristotle's lights this means that he finds the enemy SCARY. The enemy is the sort of thing that produces fear in him, but he need not necessarily become afraid. Interruption must be possible, even if the relation is "immediate."

I propose, therefore, that we understand the connection between belief and fear in the same way that we understand the relationship between concluding a valid practical syllogism and performing the entailed action. There we find the same dynamic: an act of cognition brings about a bodily reaction "immediately," but the connection is not necessary or inevitable. Aristotle draws a parallel in *Nicomachean Ethics* book 7 between theoretical thinking (which terminates in belief or assertion of the conclusion) and practical reasoning, which terminates in an action:

---

398. See above at page 134 for discussion.
399. Or if, by extension, it is evidence that something capable of causing great and painful misfortune is nearby.
400. Aristotle discusses this kind of "courage" at *Eudemian Ethics* 3.1, 1129a15-17, and says that children and madmen typically possess it. I put "courage" in scare-quotes because he concludes his fivefold list (a30-31) by saying that none of them are actually courage in the proper sense.

> Whenever one [proposition] emerges from these other [propositions], it is necessary in the [theoretical] case that the soul assert what was concluded (*to sumperanthen*), and in productive cases to do [what was concluded] immediately (*euthus*). For example, if one should taste every sweet thing, and this thing here (one of the particulars) is sweet, then it is necessary for one who is able and not prevented at the same time also to act (*sc.* taste the sweet thing).[401]

Aristotle here describes what he sees as the normal, everyday interaction between an agent's practical reasoning and her actions. In cases that do not involve action, the dynamic is clear enough; if someone becomes aware that two claims in which they believe[402] entail some other claim, they must (presumably on pain of irrationality) come to believe the entailed claim.[403] In cases where the conclusion calls for action (the so-called "practical syllogism"), it is further required that the agent act in accordance with the conclusion. This is because the proposition concluded in the practical case is not a description of how things are, but something with imperative or obligatory force. From "all sweet things should be tasted" and "this is sweet," the claim that *this* should be tasted follows. When we conclude this, according to Aristotle, we naturally act as our reasoning tells us we should. Aristotle uses the adverb *euthus* to characterize the relationship between concluding the practical syllogism and acting accordingly. The connection is, therefore, immediate in the way we are trying to understand. Nothing else needs to happen for the agent to act beside the thought process that Aristotle formalizes using the practical syllogism. There is no step, in other words, that comes between the conclusion and the action.

---

401. *Nicomachean Ethics* 7.3, 1147a26-31: ὅταν δὲ μία γένηται ἐξ αὐτῶν, ἀνάγκη τὸ συμπερανθὲν ἔνθα μὲν φάναι τὴν ψυχήν, ἐν δὲ ταῖς ποιητικαῖς πράττειν εὐθύς· οἷον, εἰ παντὸς γλυκέος γεύεσθαι δεῖ, τουτὶ δὲ γλυκὺ ὡς ἕν τι τῶν καθ᾽ ἕκαστον, ἀνάγκη τὸν δυνάμενον καὶ μὴ κωλυόμενον ἅμα τοῦτο καὶ πράττειν.
Translation and supplied words follow Charles 2009, 52.
402. The antecedents for the feminine pronouns in this passage are a matter of some debate; I accept the argument of Charles (2009) that they refer to contents (hence "proposition") and not psychological states, such as beliefs. His reasoning is that Aristotle says in the theoretical case that the soul must "assert what was concluded," and one does not conclude beliefs, but rather their contents.
403. See Chapter 3 for the argument that the necessity here is a normative necessity derived from the regulative relationship between belief and truth, and not something which suggests that the affirmation is something automatic or involuntary.

So the relation is immediate, but also contingent, despite Aristotle's use of *anagkê* at a26. Not all practical conclusions result in their corresponding action.[404] Aristotle himself allows for cases where the agent is prevented by external forces.[405] There can also, however, be interruption of a different kind, interruption due to the agent's other mental states, especially desire. Desire, according to Aristotle, can lead us to do things our reasoning bids us avoid:

> Whenever, then, the universal [belief] is present which prevents from tasting, and so is the [belief] that everything sweet is pleasant, and [the belief that] this thing right here is sweet (and this [belief] is effective), and when desire happens to be present, then [the belief] tells us to avoid this [sweet thing], but desire leads us on, for it is able to move each bodily part.[406]

Aristotle here changes the practical syllogism from one which orders that one taste the sweet thing to one which orders that one abstain from it. The transition is abrupt, but motivated, because indulging despite one's intention not to is a more intuitive instance of breakdown in self-control (*akrasia*) than intending to indulge but abstaining instead. The psychological moving parts, in this passage, are (1) a universal belief[407] that one should abstain from things that are sweet, (2) a universal belief that everything sweet is pleasant, (3) a particular belief that the thing in front of one is sweet, and finally (4) a desire, which motivates one to pursue what is pleasant, absent any explicit belief that this is the thing to do. The particular belief is "effective," which means that it plays a role both in the agent's practical syllogism which orders her not to taste it, and in a separate piece of reasoning that the thing in front of her is pleasant (since it is sweet).[408] This separate, descriptive conclusion interacts with the agent's appetitive desire for the pleasant. The descriptive[409]

---

404. That of Charles 2009, 52-55 and Charles 1984, 117-32. Charles traces this interpretation back to medieval logician Walter Burley (2009, 42).
405. Though see Charles 1984, 129-30 for text which suggests that Aristotle's reference to things which prevent the action from occurring is meant to include internal as well as external factors. If this is correct, it can only strengthen the case I wish to base on this passage.
406. *Nicomachean Ethics* 7.3, 1147a31-35: ὅταν οὖν ἡ μὲν καθόλου ἐνῇ κωλύουσα γεύεσθαι, ἡ δέ, ὅτι πᾶν γλυκὺ ἡδύ, τουτὶ δὲ γλυκύ (αὕτη δὲ ἐνεργεῖ), τύχῃ δ᾿ ἐπιθυμία ἐνοῦσα, ἡ μὲν οὖν λέγει φεύγειν τοῦτο, ἡ δ᾿ ἐπιθυμία ἄγει· κινεῖν γὰρ ἕκαστον δύναται τῶν μορίων.
407. Charles continues to take the feminine pronouns to refer to propositions (feminine noun *protasis*), but here Aristotle is talking about mental states. Furthermore, both the first feminine pronoun and desire (a mental state) are given present participles which describe their *psychological* effects. suggesting that the pronouns refer to psychological states.
408. Charles 1984, 131-32 agrees that there are two overlapping pieces of reasoning in this passage, but takes the universal premise to forbid tasting pleasant things, while I take it to be against tasting sweet things.
409. The participle is descriptive rather than circumstantial because we know that, as a matter of fact, the

participial phrase "which prevents us from tasting," as well as Aristotle's description of the result that "the belief tells us to avoid" the sweet thing, implies that the agent drew the good conclusion from the practical syllogism. Her desire for the pleasant, however, ultimately determines her action, in contradiction to that good conclusion.

In the case of *akrasia,* then, we have a psychological state (the prescriptive belief formed from the conclusion of the practical syllogism) that "immediately" leads to the agent behaving accordingly (i.e. performing the action that the conclusion characterizes). The immediacy, I suggest, is causal: action enjoys a presumptive causal connection to the execution of relevant practical reasoning. In the normal course of events, concluding a practical syllogism causes the action, and nothing further needs to happen in order for the action to follow. The connection between practical reasoning and action is literally immediate in the sense of "not mediated." This does not imply, however, that the connection is necessary or inevitable.

I propose that we understand along the same lines Aristotle's connection between believing that something is SCARY and feeling an emotional response. There is a natural, presumptive causal connection between committing to the appearance that something is DANGEROUS and becoming afraid. The connection is immediate: forming the belief is all that has to happen for the agent to become afraid. This means that no further background beliefs or any other positive circumstances are necessary in order to bring about the fear. Short circuit is possible, however. Aristotle himself admits as much in his discussion of courage. In the *Nicomachean Ethics,* he refuses to call sailors courageous who face a storm undaunted, because their experience (*empeiria*) tells them how to handle the situation[410]:

> Yet even at sea and in sickness is the courageous man fearless, but not in the same way that sailors are. For those men (*sc.* the courageous) have given up on safety and scorn this kind of death, while the others (*sc.* the sailors) are hopeful due to their experience.[411]

---

belief does not prevent the tasting. One can call a belief "the one that prevents" as a means of characterizing it, without saying that it prevents in that particular situation.

410. See in addition to the quoted passage *Rhetoric* 2.5, 1383a28-32**,** where Aristotle says that those experienced at sea are confident in a storm because they have the resources to meet the challenge. This puts them in a different state of mind from those who are confident due to their *lack of experience*, whom Aristotle mentions in the same breath.

411. *Nicomachean Ethics* 3.7, 1115a35-b4: οὐ μὴν ἀλλὰ καὶ ἐν θαλάττῃ καὶ ἐν νόσοις ἀδεὴς ὁ

Aristotle describes both the courageous man and the sailors as "fearless."[412] Both of them face terrifying circumstances (a storm at sea, a deadly illness), but in both their cases the causal link between finding one's circumstances SCARY and actually feeling the fear is broken. The courageous man does not feel fear because he thinks there is no hope for escape. This is consistent with a further remark Aristotle makes in his discussion of fear in the *Rhetoric:* when someone thinks that they have already "suffered every terrible thing" and so have no hope for the future, they will not be afraid but rather grow cold and indifferent. In order for a situation to elicit fear, then, there must be some hope of escape.[413] The way Aristotle describes this case, however, implies that he takes the default position to be hope of escape: most of us do not live our lives *in extremis*. That they have suffered every horror already is something that these people *acknowledge* (*nomizein*), and this causes a cold indifference (they are *apopsugmenoi*).[414] Their belief and the resignation to which it gives rise are additional mental ingredients, just as the imbalance between desire and right reason in the person who lacks self-control is an extra mental ingredient that throws the natural causal connection between practical reasoning and action out of whack. That additional ingredient disrupts the causal connection between believing that something is SCARY and feeling the natural response. The mechanism is much the same in the sailor's case, though easier to reconstruct. Being out in a storm at sea is something that anyone would find SCARY, even experienced sailors. The sailors face it without fear, however, because their sailing experience (*empeiria*) lets them see how, with the right combination of luck and skill, they will come out of it alive. They must still think that their situation is SCARY, because their experience does not stop them from recognizing that a storm at sea is DANGEROUS, even to them. Sailing in the ancient world had its dangers, even

---

ἀνδρεῖος, οὐχ οὕτω δὲ ὡς οἱ θαλάττιοι· οἳ μὲν γὰρ ἀπεγνώκασι τὴν σωτηρίαν καὶ τὸν θάνατον τὸν τοιοῦτον δυσχεραίνουσιν, οἳ δὲ εὐέλπιδές εἰσι παρὰ τὴν ἐμπειρίαν.

412. See also *Eudemian Ethics* 3.1, 1229a12-16, where Aristotle discusses courage that comes "from experience and knowing," though it is doubtful he has exactly the same case in mind, for two reasons. First, he calls this kind of courage "concerned with soldiering," and does not mention sailors. Second, the discussion as a whole suffers from Aristotle's conflation of enduring what is scary (which leaves open the question of whether those resisting feel fear or not) and being fearless.

413. See *Rhetoric* 2.5, 1383a3-7.

414. The Greek that I paraphrase is οἱ ἤδη πεπονθέναι πάντα νομίζοντες τὰ δεινὰ καὶ ἀπεψυγμένοι πρὸς τὸ μέλλον.

to the most experienced. The sailors are not terrified because of their experience, not because they stop recognizing the danger. The extra mental ingredient in this case is their *empeiria*, a complex of memories and inductive belief about cases relevantly similar to their circumstances. This experience breaks the causal connection between belief and fear and lets them respond without fear.

So when Aristotle says that we are *immediately* affected accordingly when we form the belief that something is SCARY, he means that feeling fear is the immediate causal result, under normal circumstances, of forming such a belief. It is immediate because nothing else needs to happen, aside from the belief, for the fear to occur. The connection is not inevitable or failsafe, however, because other aspects of the subject's total mental state can intervene and prevent the fear even with the formation of the belief. In order to distinguish believing from imagining (which is his purpose in our passage from *On the Soul*), Aristotle need only deny that the property by which he characterizes belief applies to imagination. I suggest that this is how we read Aristotle's claim that in the case of imagination we are "in the same state as if we were looking at scary or encouraging things in a picture." His analogy, that is, amounts to the claim that there is no *immediate* causal connection between imagining something SCARY and becoming afraid. This is not the same thing as saying, however, that imagining does not cause emotional response. The relationship between imagining and fearing is just not immediate; rather, it is mediated by other aspects of our mental state and circumstances.

5. Reason and Restraint

That said, we should recall that, on my interpretation, the phrase "being affected accordingly" concerns feeling the fear itself, not acting as a result of that fear. This leaves Aristotle able to say that, though the emotion we feel when we imagine things is of the same kind as the emotion we feel when we form beliefs, it does not follow that we do the same things because of imagining-prompted emotion that we do as a result of belief-prompted emotion. For instance, if we were to see an enraged woman draw a knife on the

street, say that she is going to murder her children to spite their father, and then enter her house, we would immediately start deliberating about how to stop her. When we see the same scene in a theater as part of *Medea,* we do no such deliberation. The scene may fill us with dread, but we take no steps to stop it; we may even, as Aristotle observes, feel some pleasure at our dread.

There is no mystery here: in deliberating about what to do, we are guided by our commitments, i.e. how we take the world to be. Our imaginings do not number among our commitments about the world, and that makes them motivationally inert. When we look at scary things in a picture, we may experience fright, but if we confront ourselves with the explicit belief that it is *just a picture*, and represents no actual danger, we feel no need to do anything about it. The fear we felt will likely evaporate or attenuate as well.[415] The point is that our action and deliberation (not necessarily our emotion) are tied to commitments about the world, and those are encoded in our beliefs, not our imaginings.

One might object at this point that non-human animals do not form beliefs, according to Aristotle. They only have perception and *phantasia*. If imagination interacts with affective and motivational states in the way that my account implies, we should expect animals always to behave the way we do in movie theaters. This is absurd, of course. Animals get around the world just as well with their perception and *phantasia* as we can with our beliefs and deliberation (we have perception too, of course).[416] Aristotle (as I interpret him) should be able to accommodate this observation. Answering the worry leads into our lesson about Aristotle's conception of rationality. The difference between the cognition humans possess and deploy, and those available to the non-rational animals, does not lie in its ability to prompt and guide behavior. Belief is not special, that is to say, because it represents commitments about the world. What we do is determined

---

415. This explanation most resembles a "Thought Theory" about our emotional response to fiction. When we engage with fiction, our beliefs about the non-reality of the goings-on can become comparatively inert in our thinking, allowing us to experience genuine emotion toward the fiction. This view opposes various brands of fictionalism, wherein the emotions themselves are part of an imagination-game we play as part of our appreciating the fiction. For defense of Thought Theory, see especially Yanal 1999, and also Wilkinson 2000. See Walton 1978 and Walton 1990, 195-204 for a motivation and defense of fictionalism.

416. See especially Lorenz (2006, 124-38) for the idea that *phantasia* allows animals to envision prospects and thereby guide themselves effectively in the world.

in part by our commitments about the world, and the same goes for animals. Aristotle's discussion elsewhere in *On the Soul* 3.3 mentions how imagination, because its content derives from perception, can cause and guide behavior:

> …if this change [*sc. phantasia*] is not able to happen without perception or to creatures who do not perceive, then the subject who has it can both do and experience many things in accordance with it, and it can be both true and false.[417]

Creatures react to the sensory world, which their perception reveals to them. The content of imagination, according to Aristotle, is parasitic on the content of perception. This is what Aristotle means when he says that imagination is "of what perception is of" and "cannot occur without perception." This relationship imbues imagination with the motive force of perception, at least when it comes to animals. Animals experience the mental representations of *phantasia* as if they were perceptual states; they come from the same source, and they have no way of telling the difference. Just as perception guides behavior, then, *phantasia* (in the form of memory and a certain kind of expectation) can also guide behavior.

What, then, makes belief special, and deserving of a status distinct from the representation that guides animals? Belief, unlike *phantasia*, represents commitments with the stamp of rational processing. Humans, like non-rational animals, receive a stream of perceptual appearance. They also, however, have a further faculty which can override that stream and cause us not to commit to it the way that non-rational animals do. Aristotle identifies this faculty as reason (*nous*), the cognitive difference between the rational and non-rational animals. When this faculty breaks down, so does the ability to withhold commitment from *phantasia*:

> Due to the fact that imaginings remain and are similar to perceptions, animals do many things in accordance with it; some because they do not have reason (*nous*), like beasts, and others because their reason is sometimes clouded over by emotion (*pathei*) or illness or sleep, like men.[418]

---

417. *On the Soul* 3.3, 428b15-17: εἴη ἂν αὕτη ἡ κίνησις οὔτε ἄνευ αἰσθήσεως ἐνδεχομένη οὔτε μὴ αἰσθανομένοις ὑπάρχειν, καὶ πολλὰ κατ᾽ αὐτὴν καὶ ποιεῖν καὶ πάσχειν τὸ ἔχον, καὶ εἶναι καὶ ἀληθῆ καὶ ψευδῆ.
418. *On the Soul* 3.3, 429a4-8: καὶ διὰ τὸ ἐμμένειν καὶ ὁμοίας εἶναι ταῖς αἰσθήσεσι, πολλὰ κατ᾽ αὐτὰς πράττει τὰ ζῷα, τὰ μὲν διὰ τὸ μὴ ἔχειν νοῦν, οἷον τὰ θηρία, τὰ δὲ διὰ τὸ

Imagination, again, does what it does because it has the same sort of representational power that perception has, and because imaginings "remain." That is, they continue to influence the soul after the episode that creates them has passed. Furthermore, animals act in accordance with their imaginings *because* there is no higher faculty (such as *nous*) to gainsay them. Humans, on the other hand, have *nous*, which lets them reason and form beliefs. A subject's reasoning capacities, however, can break down. When this happens, the human subject's behavior is guided the way an animal's is guided: by perception and imagination.[419] The end of *On the Soul* 3.3 gives the impression that both humans and animals use imagination as a source of information about their environment, but that the circumstances under which imagination affects humans and animals are quite different. For animals, there is no such thing as "mere" imagination. Mere imagination occurs in the absence of or in direct contradiction to a belief about the content in question. It is the imagining that makes us fear for Medea's children without trying to do anything about it (since we believe that no one is in any danger). When a person's reason (*nous*) is obscured, her position becomes the same as that of a non-rational animal, relying uncritically on the deliverances of perception and *phantasia*.

Aristotle elaborates on this view of rational cognitive functioning in his treatise *On Dreams*. There, he observes that subjects in the grip of illness and other kinds of affection (*pathê*) will take at face value appearances that a healthy subject would dismiss. The passage is worth quoting at length because of its telling detail:

> In the same way everyone becomes easy to deceive when in the grip of moods and appetites of all kinds, and the more so according as they are more in the grip of the affections. For this reason it is also the case that animals sometimes appear on the walls to people who suffer from fever, due to the slight resemblance of lines when they are put together. And these [*sc.* appearances] sometimes agree in intensity with the affections, so that if the subjects are not sorely feverish, it may not escape their notice that [the appearances] are false, but if the affection is stronger, they may even move

ἐπικαλύπτεσθαι τὸν νοῦν ἐνίοτε πάθει ἢ νόσῳ ἢ ὕπνῳ, οἷον οἱ ἄνθρωποι.

419. This does not imply that the stream of appearance that a rational creature receives is identical to the stream of appearance that a non-rational creature would receive in the same circumstances. For instance, dogs and cats do not see animals coming out of lines in the walls, the way that sick people do (see discussion immediately below). This is because they are not conceptually equipped to perceive the slight resemblances that prompt the sick person's appearance.

themselves on their account (*pros auta*). The reason these things happen is that the authoritative faculty (*to kurion*) and that by which the images come about do not discriminate on the basis of the same capacity.[420]

Imbalances in the subject can throw off his ability to make good judgments about what is really going on. When someone is feverish, or drunk, or in a blind rage, he will accept the world as it appears to him (however bizarre), and his rational faculty will be unable to contradict the stream of appearance. Aristotle acknowledges differences of degree for this phenomenon. The appearance of threatening shapes on the walls may not be compelling enough to cause a reaction, if the person is not sick enough to be fully taken in. Still, he presents the deceived subject as a straight-forward case of animal motion in response to stimulus. The subject still receives information about his environment in the form of imagination, and acts on it ("moves himself on [its] account"). The information received is orderly, in a sense: absence or non-functioning of the rational faculty does not result in cognitive chaos. What appears to the ailing subject is not a hellscape of random colors and shapes, but *animals,* threatening objects that provoke fear and flight. This line of argument gives the impression that, even in rational subjects, the stream of data that comes from imagination and sensation flows constantly, ready to provide motivation and affect if reason breaks down.

The last sentence of Aristotle's discussion is cryptic, and requires further comment. "These things" that Aristotle has been talking about—animals appearing to sick people, so that they sometimes act in accordance with what they "see"—happen because "what is authoritative and that by which images come about do not discriminate in accordance with the same capacity." Aristotle is referring to two mental faculties here—parts of the soul, as he would call them. The second one Aristotle mentions is imagination itself; he refers to the faculty by nearly identical words in *On the Soul* 3.3.[421] What exactly the

---

420. *On Dreams* 2, 460b9-17: τὸν αὐτὸν δὲ τρόπον καὶ ἐν ὀργαῖς καὶ ἐν πάσαις ἐπιθυμίαις εὐαπάτητοι γίνονται πάντες, καὶ μᾶλλον ὅσῳ ἂν μᾶλλον ἐν τοῖς πάθεσιν ὦσιν. διὸ καὶ τοῖς πυρέττουσιν ἐνίοτε φαίνεται ζῷα ἐν τοῖς τοίχοις ἀπὸ μικρᾶς ὁμοιότητος τῶν γραμμῶν συντιθεμένων. καὶ ταῦτ᾽ ἐνίοτε συνεπιτείνει τοῖς πάθεσιν οὕτως, ὥστε, ἂν μὲν μὴ σφόδρα κάμνωσι, μὴ λανθάνειν ὅτι ψεῦδος, ἐὰν δὲ μεῖζον ᾖ τὸ πάθος, καὶ κινεῖσθαι πρὸς αὐτά. αἴτιον δὲ τοῦ συμβαίνειν ταῦτα τὸ μὴ κατὰ τὴν αὐτὴν δύναμιν κρίνειν τό τε κύριον καὶ ᾧ τὰ φαντάσματα γίνεται.
421. *On the Soul* 3.3, 428a1-2: "If, then, *phantasia* is that due to which we say that an image comes about for

161

"authoritative" faculty is, is less clear. Aristotle gives us an example to provide evidence for his claim, and the example seems to imply that the "authoritative faculty" is reason, which would be in line with the rest of our discussion. Here is the text immediately following the long quote above:

> The evidence of this is that the sun seems to measure a foot across, but something else often speaks against this impression.[422]

This passage uses the same example as a more picked-over passage from *On the Soul* 3.3:

> But even false things can appear [to be the case], about which one has at the same time a true entertaining (*hupolêpsis*). For instance, the sun appears to be a foot across, but one is convinced that it is greater than the earth.[423]

It is not clear from visual inspection alone that the sun is a huge sphere. The bright thing we see in the sky never looks more than about a foot across, but in normal circumstances we do not stop at naive visual appearance: astronomy and other considerations (such as why we can't reach out and touch it) tell us it must be very far away, and anything that far away that still looks a foot across must be huge. This scenario, according to the passage from *On the Soul*, is an example of our having a false appearance coupled with an overriding true belief.[424] Aristotle then says in *On Dreams* that this very same scenario is evidence (*sêmeion*) that two faculties can conflict because they "do not discriminate in accordance with the same ability." We can conclude, then, that the "authoritative" faculty that butts heads with *phantasia* is the faculty responsible for our judgments and beliefs, many of which are formed on the basis of something other than perception. As we have already seen, that faculty is reason (*logos* or *nous*).[425]

In these passages Aristotle gives us an example using two representational faculties, and subjects use both to navigate their environment. He does not, however, seem

---

us…"

422. *On Dreams* 2, 460b17-19: τούτου δὲ σημεῖον ὅτι φαίνεται μὲν ὁ ἥλιος ποδιαῖος, ἀντίφησι δὲ πολλάκις ἕτερόν τι πρὸς τὴν φαντασίαν.

423. *On the Soul* 3.3, 428b2-4: φαίνεται δέ γε καὶ ψευδῆ, περὶ ὧν ἅμα ὑπόληψιν ἀληθῆ ἔχει, οἷον φαίνεται μὲν ὁ ἥλιος ποδιαῖος, πιστεύεται δ᾽ εἶναι μείζων τῆς οἰκουμένης.

424. For more on this example, its elaboration in *On the Soul* 3.3, and Aristotle's disagreement with Plato over how to interpret the data, see especially Lycos 1964 and Heil 2003.

425. Aristotle uses the words more or less synonymously in these texts (though perhaps they give different emphasis), so we should not pause too long over his use of different words in the different texts I cite. See Lorenz 2006, 177-78.

to think that appearances must stop at some cognitive gate so that we can evaluate them and stamp them with reason's imprimatur, whereby they might influence us. That picture is implausible: most of our interactions with our environment do not require this kind of conscious oversight. On the contrary, we very often take our stream of appearances as veridical, putting our trust in them unless some other consideration or appearance gives us pause. Aristotle seems to hold to this more reasonable picture. In the normal course of things, he seems to think, our perceptual appearance goes unchallenged. For evidence that he thinks this, we have another passage from *On Dreams,* where he argues that hallucinatory experience feels no different from genuine sensory experience; nothing inside the experience tells us we are hallucinating. This is because perception enjoys a presumptive privilege unless something overrides it:

> The same goes for the other sense organs. For one seems to see and hear and perceive because the motion comes to the ruling principle from there [*sc.* from the sense organs], and we say that we see because sometimes the sight seems to be moved without actually moving…for in general (*holôs*) the ruling principle asserts what comes from perception, unless another more authoritative movement contradicts it.[426]

We accept information from the perceptive/imaginative faculty as a matter of course, though it is always defeasible by something more authoritative, since we are creatures with access to something more authoritative which could override it. The content of the appearance does not change, however, when it is overridden. Perception and imagination can influence a subject's beliefs, but the influence does not run the other way. Aristotle is clear that the sun still *looks* like it measures a foot across, even if we know better. The fact that the ruling principle does not affirm "what comes from perception" does not prevent what comes from perception from impinging on the subject. Immediately after the passage just quoted, Aristotle makes exactly this claim:

> In all cases something appears, but one does not believe the appearance in every case, unless the discriminating faculty (*to epikrinon*) is fettered or is

---

426. *On Dreams* 3, 461a30-b5: ὁμοιοτρόπως δὲ καὶ ἀπὸ τῶν ἄλλων αἰσθητηρίων· τῷ μὲν γὰρ ἐκεῖθεν ἀφικνεῖσθαι τὴν κίνησιν πρὸς τὴν ἀρχὴν καὶ ἐγρηγορὼς δοκεῖ ὁρᾶν καὶ ἀκούειν καὶ αἰσθάνεσθαι, καὶ διὰ τὸ τὴν ὄψιν ἐνίοτε κινεῖσθαι δοκεῖν, οὐ κινουμένην, ὁρᾶν φαμεν, καὶ τῷ τὴν ἁφὴν δύο κινήσεις εἰσαγγέλλειν τὸ ἓν δύο δοκεῖ. ὅλως γὰρ τὸ ἀφ᾽ ἑκάστης αἰσθήσεώς φησιν ἡ ἀρχή, ἐὰν μὴ ἑτέρα κυριωτέρα ἀντιφῇ.

not moving in its proper manner.[427]

Believing that not-p does not prevent it from appearing to you that p, according to Aristotle. The appearance is only believed, however, when there is something wrong with our faculty of judgment (the faculty responsible for our belief that p), as with our sick person who sees animals coming out of the walls. The authoritative beliefs that stable subjects take for granted—that wild animals cannot appear out of walls, that they usually make some kind of noise, that terror makes people more apt to see things that aren't there—do not register because the judgment of unstable subjects is "fettered."

Non-human animals "do many things in accordance with imagination" because their perception (and accompanying imagination) is the only system they have to represent the world. They take everything at face value, because they have no faculty which overrides commitment to the content of perception and imagination. Humans, on the other hand, do many things in accordance with *phantasia* when their reason (*nous*) gets occluded by sickness or emotion. He revisits his comparison later, at *On the Soul* 3.10, 433a10-12, though there he is vaguer about how and why humans act in accordance with their imagination rather than their reason. He just says that people "often follow imaginings contrary to their knowledge," and leaves it at that. The comparison to animals, however, is just as explicit: humans use this information against their better judgment, animals use it because they have no better judgment. Since the judging/believing faculty is what contravenes imagination and perception, and makes sure we don't buy into them, it follows that animals, who lack this additional faculty, can't help but buy into the contents of their imagination and perception. There are, in short, no skeptical animals.[428]

The important point is that the perceptive/imaginative faculty provides a stream of information to the subject, and it takes an imposition by the rational faculty to prevent the subject from taking it at face value. The imposition is not necessarily conscious and deliberate, though it can be. Animals do not have this second level of processing to

---

427. *On Dreams* 3, 461b5-8: φαίνεται μὲν οὖν πάντως, δοκεῖ δὲ οὐ πάντως τὸ φαινόμενον, ἀλλ᾽ ἂν τὸ ἐπικρῖνον κατέχηται ἢ μὴ κινῆται τὴν οἰκείαν κίνησιν.

428. See *On Memory* 2, 453a7-15, where Aristotle describes recollection as a kind of inquiry (*zêtêsis tis*), which is something that animals are incapable of.

question the input that their perceptions, and resulting imagination, give to them. This ability to question the input of one's perceptual system and override it with further considerations is partially constitutive of human rationality. Animals receive unfiltered, uncritical guidance and motivation by default. Part of what makes humans rational is their ability to correct that stream of information with other information, and restrain themselves from believing or acting upon any old appearance that comes their way.

Conclusion

Now is an opportunity to take stock of the previous discussions and address general questions about the account. Each chapter of this book sets out a different condition that cognition needs to meet in order to be constitutively rational, according to Aristotle. The first two chapters set out his notion of credence, a mental state that varies by degree and responds to *evidence* that a claim is true or false. Evidence can weigh in favor of a claim without entailing it or guaranteeing that it is true. Credence therefore amounts to evaluation of likelihood, and our binary commitments—whether they amount to belief or knowledge—supervene on our credences. Non-human animals do not have these graded mental states, which suggests that they do not respond to evidence. This gives us the first condition:

> 1) Rational cognition results from a special way of processing information. Rational creatures can regard events and circumstances in the world *as evidence*. This entails that the subject is capable of epistemic evaluation with a finer grain than binary acceptance or rejection. These binary assessments then grow out of those finer-grained evaluations.

The third chapter discussed belief's normative connection to the truth. In order to qualify as rational, we must endeavor to believe truths and avoid believing falsehoods. This amounts to the claim that we cannot believe "as we please," since such liberty would imply that there are no relevant constraints in place when we form our beliefs. Truth is the right condition for every form of thinking, according to Aristotle, but truth has a special regulative connection to belief, because beliefs in particular can go wrong. This gives us the second condition:

> 2) Rational cognition constitutively depends on the subject's adhering to certain normative demands. Rational subjects are obliged, on pain of irrationality, to seek the truth. As a result, they cannot believe as they please.

In the final chapter, we examined Aristotle's claim that an *immediate* connection holds between certain beliefs and their fitting emotional response. Imagination and other forms of mental representation do not share such a connection in rational creatures. Belief has this connection to how we respond to the world because it encodes our commitments, the claims we take to represent the world. Aristotle argues that, in rational subjects, there is a critical faculty that can intervene in our perceptual and imaginative experience and thereby prevent us from committing to it. Non-rational animals and malfunctioning rational subjects do not have this critical faculty and so commit to all of their perceptual and imaginative experiences. This gives us our third condition:

> 3) Rational cognition implies the existence of a critical faculty that can contradict and override what perception and other forms of mental representation put forward.

All three of these conditions fit together into a coherent and interesting view of rational cognition. We have so far, however, only discussed them in isolation, and it is fair to raise questions about how they are supposed to interact.

Start with condition (2), which imposes normative constraints on forming beliefs (*doxa*). Those constraints pertain to binary assessments that, I argue in Chapters 1 and 2, supervene on credences. The first question, then, is how belief can be TRUTH-NORMED and also supervene on mental states that are not even TRUTH-APT. The answer is that subjects form beliefs when they are *convinced*, i.e. when they have sufficient credence to commit to the claim. On my interpretation, credence tracks how likely a subject takes it that a claim is true. Credences themselves are neither true nor false, but they do *pertain* to truth and falsehood. If one has an obligation to believe the truth, and beliefs supervene on credence, then one should have high credence in what is true and low credence in what is false. This in turn means that one should do one's best to believe in accordance with one's evidence, which includes evaluating that evidence correctly. The story is more complicated with credence involved, but there is nothing to suggest any incompatibility between credence and belief just because credence is not TRUTH-APT. Its status as an epistemic evaluation gives it an orientation toward the truth in a broader sense. This makes it a fitting candidate for the state on which binary belief supervenes.

One might say that this does not address the spirit of the worry. The real objection concerns the nature of the relation between belief and credence. Credence, so my story goes, determines belief in the sense that a subject with sufficiently high credence in a claim will come to believe that claim. One's credence in a claim, on the other hand, seems to be a function of the putative evidence to which the subject has access. This makes belief formation what we might call a "pneumatic" process: evidence exerts a certain amount of epistemic pressure on the subject and forces her credence upwards or downwards. What beliefs she has depends on where her credence rests at any given time. If her credence in true claims is sufficiently high, she will have true beliefs, and if not, then not. Nothing in this picture seems to leave any room for an obligation to believe the truth. Ought implies can, one might say, and if one's beliefs are simply responses to how one sees the world, then one can no more be obliged to have certain beliefs than one can be obliged to have certain perceptual experiences. Condition (1) therefore conflicts with condition (2).

My response to this objection is to deny that the pneumatic picture of belief-formation entails that subjects have no ability to affect what they believe. If a subject's binary belief supervenes on her credence, then any difference in binary belief implies a difference in her credence. Subjects can do many things, however, to affect their credences, and through that influence their beliefs. They can, for example, seek out more evidence, consider whether there is any more evidence to find, or wonder whether more evidence is even necessary. They can decide that the question is not important enough to remain skeptical, given how likely they now take the claim to be. This is all compatible with the pneumatic picture, but also implies that subjects can affect what they believe.

There is textual evidence that Aristotle cares about this issue and takes my side on it. I claim he has these sorts of considerations in mind when he says that someone who merely believes has to "pay more attention to the truth," compared to those who have knowledge.[429] His comparison of the believer to a sickly person suggests that the believer has to be more careful in matters of truth and falsehood, since belief goes wrong much

---

429. *Metaphysics* 4.4, 1008b27-31.

more often than knowledge, which has no chance of going wrong at all. Someone might uncritically accept as decisive some putative evidence that actually leaves room for doubt. A person who does this fails to fully respect her obligation to the truth, and we need not deny the pneumatic picture of belief-formation for this to be true. The obligation that condition (2) imposes is not, therefore, incompatible with the pneumatic picture of belief-formation that I prefer for explicating condition (1). In a similar way, we can see that condition (1) and condition (3) fit together. Reason's critical faculty allows the subject to withhold commitment from perception and imagination in a way that subjects without a critical faculty cannot. Commitment is, on my picture, binary, and in the case of rational creatures it supervenes on the subject's level of credence.[430] A rational subject is able to question whether the fact that it appears that p makes it likely enough that p for her to believe that p. In many circumstances, having a perceptual experience to the effect that p does provide good evidence that p is true. Sometimes, however, other information intervenes and removes the presumptive influence of perception and its associated faculty, imagination. This is fully consistent with a pneumatic picture of belief-formation. One might even go further and say that such a picture is a plausible way to fill in Aristotle's remarks about the "intensity" of appearances and the conditions under which subjects fall under their sway.[431]

The best way to see how conditions (2) and (3) cohere is to address an apparent tension between them. As I put it in Chapter 4, the critical faculty present in rational subjects allows those subjects to withhold commitment from their perception and imagination. This does not prevent things from appearing a certain way to them. To use Aristotle's example, the sun still appears about a foot in diameter, even to someone who knows her astronomy. The critical faculty does, however, prevent the subject from being "taken in" by the appearance and basing any action or reasoning on it. This might make it sound as though the subject gets to decide which bits of perception and imagination she

---

430. Non-rational creatures, of course, have no credence, so their commitment cannot supervene on credence. Animals commit to all of their perceptual and imaginative experience, so the set of their commitments just is the set of those experiences. For some reasons to worry about this view and some responses Aristotle might make, see below.
431. I have in mind his argument at *On Dreams* 2, 460b9-17, on which see below.

commits to and which she does not. Such a claim would conflict, however, with condition (2), which states that rational subjects are constrained to form true beliefs and do not get to choose what they will believe and what they will not. If rational subjects must aim to believe the truth on pain of irrationality, it is difficult to see how they could also decide which information they are going to base their beliefs on. If subjects get to decide what counts as evidence and what does not, they can get themselves to believe as they please, which violates condition (2).[432]

This tension is only apparent, because condition (3) makes no claim about whether the subject has any direct control over the "interception" her critical faculty sometimes makes with respect to perception and imagination. Consider Aristotle's example of the sick man who sees animals coming out of the walls and gets scared.[433] The objection presupposes that the subject consciously chooses what to believe. The healthy man gets to choose whether he to believe that animals are coming out of the walls, and the sick man does not get to choose. Nothing in the way that Aristotle describes the case, however, suggests that he thinks the mechanism works in that way, nor that he suggests the mechanism works the same way in every case. His view is much more subtle and correlates the credibility of the appearance with the strength of the distorting influence. Whether the subject is able to make a choice or not never comes up. The appearances "agree in intensity" with the distorting influence, which I take it means that the subject finds the appearances more compelling the more she falls under the sway of the distorting influence. If the distorting influence is not too strong, the critical faculty is still able to override the appearance with other cognition, thereby preventing the subject from committing to the appearance (which entails, among other things, "moving [herself] on their account"). Condition (3) does not state or imply that it is part of being a rational subject that one can be freewheeling or capricious about forming one's beliefs. Since it is

---

432. It is true that, in cases where we have conflicting evidence from different sources, we must indeed decide which evidence to trust. This sort of activity still, however, aims at truth in the relevant way. The objection is that condition (3) allows for caprice in such decisions. It is mistaken in this: see below.
433. *On Dreams* 2, 460b9-17.

not a question of whether the subject *decides* to commit or not, there is no chance for condition (3) to come into conflict with the normative demands implied in condition (2).

This discussion provides, I hope, a sketch of how Aristotle's three conditions for rational cognition fit into a coherent and interesting picture. These conditions emerge from interpretation of Aristotle's systematic views on belief and its status as a form of rational cognition. As I said in the introduction, these views give us data about Aristotle's conception of rationality that goes unheeded if one assumes the only relevant types of cognition to be higher achievements like knowledge and practical wisdom. Such states are also, however, instances of rational cognition. There should, then, be some way in which our conditions also show that knowledge and other higher cognitive achievements are constitutively rational. For the sake of simplicity, we will concentrate on knowledge (*epistêmê*). Knowledge does not result from a subject's response to evidence in the same way that belief does. There are conditions which cognition must fulfill in order to rise to the level of knowledge that go beyond what it would need to qualify as a belief. For example, in order to know that p, one must a) know that q, where q is an explanation for p and b) recognize that q is the explanation for p. Knowledge, for Aristotle, seems to be inherently systematic: one's knowledge of a claim depends in part on having a grasp of other claims that explain or ground it. Belief does not have such a requirement, so such a requirement is not reflected in the three conditions.

Despite this complication, we saw in Chapter 1 that whether one knows something *through a demonstration* does in fact depend on the state of one's credence. In order for someone to have knowledge through a demonstration, two things must be true about her credence. First, she must put more credence in the starting-points of the demonstration than she puts in the conclusion. Second, she cannot put more credence in any set of starting-points from which she might deduce a claim contrary to the claim she supposedly knows through the demonstration. If either of these conditions go unmet, then her cognition of the claim does not amount to knowledge through demonstration. This means that, for Aristotle, at least one higher cognitive achievement depends for its character on the kind of gradational epistemic evaluation that is partially constitutive of rational

cognition, according to Aristotle. This discussion is itself, of course, no more than a starting-point. A detailed reckoning of the relation between belief and knowledge, and how both manage to express constitutive rationality despite their radically different characteristics and relationships to the truth, is a worthwhile subject for future work.

Two last nagging questions: if my interpretation of Aristotle is correct, and these conditions describe rational human cognition, then what does animal cognition look like, and in what way does it not fit these three conditions? A full examination will have to wait for subsequent work, but a sketch of an answer is possible. Animals are not, for Aristotle, automata in the way that term is standardly meant. They have genuine conscious experience, including the morally-relevant conscious experiences of pain, distress and delight. He is explicit, however, that the cognition of non-human animals fails to meet conditions (1) and (3). We can also assume that it fails to meet condition (2), because attributions of normative rationality only make sense if the creature in question is constitutively rational. Animal cognition does not include credence. Since credence expresses epistemic evaluation of likelihood, animals are incapable of evaluating likelihood. This entails that animals never experience a broad range of mental activity. They cannot, for instance, wait for more evidence before acting on a suspicion: they do not recognize facts as evidence for other facts, and none of their mental states amounts to suspicion, insofar as that means having a positive but sub-committal level of credence that something is true. Hand-in-hand with this lack of what we might call an "internal epistemology," they also lack a critical faculty to override the information that their perception and imagination furnishes. This means that they act on what appears to them, be that false or true. They are always in the position of a man whose judgment is clouded over by sickness, drink or emotion: what appears to an animal is always fully "intense," as Aristotle puts it, which means it is always a candidate for being the basis of pursuit or avoidance.

This view is open to an objection that is based on our intuitive experience with animals. Anyone who has ever played fetch with a dog and faked it out by only pretending to throw the ball has an example of an animal who is (eventually) unwilling to accept that

you have thrown the ball, even when you seem to have thrown it. Anyone who has ever sprayed a cat for getting on the dining room table can observe how *suspiciously* it will approach that table the next time around, unsure of whether it will be sprayed again. Aristotle's response to these objections would likely be that they anthropomorphize the animals in a way that mistakes the actual cognition that animates their behavior. We do not need an internal epistemology to explain either case. The dog does not run to chase the ball after multiple fake-outs because it does not *appear* to the dog that the ball was thrown: its perception and imagination does not convey the information THROWN BALL, so of course it does not chase after it. Its frustration may be very real, but has nothing to do with whether its "decision" to stay put is the result of any kind of reasoning. An analogous story explains away the cat's "suspicion." The table, which before appeared to be a nice place to climb, now appears to be THE PLACE WHERE I GOT SPRAYED. Animals act in accordance with their perception, memory, and desire. The cat wants to get up on the table, but she also wants to stay dry. To her, the table appears both to be where she wants to sit and where she will get sprayed. An internal struggle between her two desires ensues, and which one dominates at any given moment will account for whether she proceeds to the table or shies away from it. If this oscillation happens quickly enough, it may look like the cat is deliberating about whether to get on the table, and it is not a huge leap to attributing a view to her about how likely she is to get sprayed. Those last two steps go too far, in Aristotle's view: we need attribute no internal epistemology to the cat to account for her behavior. Aristotle can even say that she is undergoing a genuine internal struggle, since she has two competing desires, and there is a question which will win out. Such cases happen even with people, but they are quite distinct from cases where one suspects or doubts something. The point is that the cat will never have the latter experience.

One can, however, press the further objection that this bifurcation in the explanation of behavior is ill-conceived. Why is behavior that signals reasoning and credence in humans a sign of nothing more than desire and perceptual appearance in non-human animals? Is Aristotle right to assume that only humans could ever evince rational cognition? The short answer is "probably not." Anytime a theorist makes a claim,

from the armchair, that some characteristic marks humans off from all the other animals, smart money is on an advance in our understanding of animal cognition that falsifies it. Aristotle provides no exception that I can see. When any given attempt at demarcation fails, we have two options: accept that the concept RATIONAL ANIMAL will include some non-humans, or redraw the boundaries of rational cognition to exclude the upstart animal who falsified our previous attempt. It is impossible to know which option Aristotle would choose: in a way, he lies at the very beginning of this "what makes humans special" game, or at least the beginning of its recorded history. The virtue of his account, in my view, is not that he succeeds in marking off humans where all other attempts to do so have failed. It is rather that his view of what makes cognition rational is far more nuanced and insightful than he has previously gotten credit for, and his views suggest a robust framework for understanding rationality as a cognitive category. In particular, his view that rational cognition proceeds from a particular kind of internal reckoning is fascinating and worth further study, if we can operationalize and test for that kind of internal epistemology. His views about the constitutive normativity of rational cognition cut ice even in contemporary debates about the ethics of belief, and their interest is independent of whether the function argument he himself favors is any good. Some non-human animals may turn out to be rational, in the sense that they have an internal epistemology, even if we hesitate to hold them to the epistemic norms to which we hold each other. Even that hesitation might, in the final analysis, be debunked as a form of speciesism. Whatever the answer to those empirical and further philosophical questions, Aristotle's conception is an intriguing way in to why we should care about the distinction.

Bibliography

Ademollo, Francesco. 2010. "The Principal of Bivalence in *De interpretatione* 4." *Oxford Studies in Ancient Philosophy* 38:97-113.

Allen, James. 2001. *Inference From Signs: Ancient Debates About the Nature of Evidence*. Oxford: Clarendon Press.

Anscombe, G.E.M. 1957. *Intention*. Oxford: Basil Blackwell.

———. 1965. "Thought and Action in Aristotle: What is 'Practical Truth?'." In *New Essays on Plato and Aristotle*, edited by Renford Bambrough, 143-58. New York: Humanities Press.

Ax, Wolfram. 1978. "ψόφος, φωνή und διάλεκτος als Grundbegriffe aristotelischer Sprachreflexion." *Glotta* 56:245-71.

Bäck, Allan. 2009. "Mistakes of Reason: Practical Reasoning and the Fallacy of Accident." *Phronesis* 54:101-35.

Barnes, Jonathan. 1969. "Aristotle's Theory of Demonstration." *Phronesis* 14:123-52.

——— (ed.). 1984. *The Complete Works of Aristotle: The Revised Oxford Translation*. (= Bollingen Series 71, part 2). 2 vols. Princeton: Princeton University Press.

———. 2006. "'Belief is Up to Us'." *Proceedings of the Aristotelian Society* 106:189-206.

Barney, Rachel. 2008. "Aristotle's Argument for a Human Function." *Oxford Studies in Ancient Philosophy* 34:293-322.

Beisecker, David. 2002. "Some More Thoughts about Thought and Talk: Davidson and Fellows on Animal Belief." *Philosophy* 77:115-24.

Bennet, J. 1990. "Why is Belief Involuntary?" *Analysis* 50:87-107.

Bergmann, Michael. 2005. "Defeaters and Higher-Level Requirements." *The Philosophical Quarterly* 55:419-36.

Biehl, G. 1896. *De anima libri III*. Edited, with an introduction. Leipzig: Teubner.

Bishop, John. 1980. "More Thought on Thought and Talk." *Mind* 54:1-16.

Blackburn, Simon. 2011. "All Souls Night: When People Leave Out Food for the Dead." Last modified 12 Jan 2011, accessed 20 March 2011. http://www.phil.cam.ac.uk/~swb24/PAPERS/Allsoulsnight.htm.

Blumenthal, H.J. 2000. *"Simplicius," on Aristotle on the Soul 3.1-5*. Translated with notes. London: Duckworth.

Brown, Mark A. 1988. "On the Logic of Ability." *Journal of Philosophical Logic* 17:1-26.

Brunschwig, Jacques. 2007. Aristote, *Topiques*. Edited, with translation, introduction and notes. 2 vols. Paris: Les Belles Lettres.

Burnyeat, M.F. 1982. "The Origins of Non-Deductive Inference." In *Science and Speculation: Studies in Hellenistic Theory and Practice*, edited by Jonathan Barnes, Jacques Brunschwig, Myles Burnyeat, and Malcolm Schofield, 193-238. Cambridge University Press: Cambridge.

———. 1994. "Enthymeme: Aristotle on the Logic of Persuasion." In *Aristotle's Rhetoric: Philosophical Essays*, edited by David J. Furley and Alexander Nehamas, 3-55. Princeton: Princeton University Press.

———. 2002. "*De anima* II 5." *Phronesis* 47:28-90.

———. 2008. *Aristotle's Divine Intellect*. The Aquinas Lecture. Milwaukee: Marquette University Press.

Cashdollar, Stanford. 1973. "Aristotle's Account of Incidental Perception." *Phronesis* 18:156-75.

Caston, Victor. 1992. "Aristotle on Intentionality." Ph.D. diss., Philosophy, The University of Texas at Austin.

———. 1996. "Why Aristotle Needs Imagination." *Phronesis* 41:20-55.

———. 1998. "Aristotle and the Problem of Intentionality." *Philosophy and Phenomenological Research* 63:249-98.

———. Forthcoming. *Alexander of Aphrodisias, On the Soul Part I: Soul as Form of the Body, Parts of the Soul, Nourishment and Perception*. Translated, with introduction

and commentary. Ancient Commentators on Aristotle Series. Bristol Classical Press.

Chaignet, A.-E. 1883. *Essai sur la psychologie d'Aristote*. Paris: Librarie Hachette et Co.

Chantraine, Pierre. 1968. *Dictionnaire etymologique de la langue greque: Histoire des mots*. Paris: Éditions Klincksieck.

Charles, David. 1984. *Aristotle's Philosophy of Action*. London: Duckworth.

———. 2009. "*Nicomachean Ethics* VII.3: Varieties of *akrasia*." In *Aristotle's Nicomachean Ethics Book VII*, edited by Carlo Natali, 41-71. Oxford: Oxford University Press.

Charlton, W. 2000. *Philoponus, On Aristotle on the Soul 3.1-8*. Translated, with notes and an introduction. London: Duckworth.

Cooper, John M. 2009. "*Nicomachean Ethics* VII.1-2: Introduction, Method, Puzzles." In *Aristotle: Nicomachean Ethics Book VII*, edited by Carlo Natali, 9-40. Oxford: Oxford University Press.

Crivelli, Paolo. 2004. *Aristotle on Truth*. Cambridge: Cambridge University Press.

D'Arms, Justin and Daniel Jacobson. 2000. "The Moralistic Fallacy: On the 'Appropriateness' of Emotions." *Philosophy and Phenomenological Research* 61:65-90.

Davidson, Donald. 1975. "Thought and Talk." In *Mind and Language*, edited by Samuel Guttenplan, 7-23. Oxford: Clarendon Press.

Dayton, Eric. 1977. "Pragmatic Contradiction." *Ethics* 87:222-36.

De Corte, Marcel. 1933. "Études sur les manuscrits du traité *De l'Âme* d'Aristote." *Revue de Philologie, de Littérature et d'Histoire Anciennes* 59:141-60, 261-281, 355-367.

Dick, David Gordon. 2009. "Ethics and the Possibility of Failure: Getting it Wrong About Getting it Right." Ph.D. diss., Philosophy, University of Michigan.

Dow, Jamie. 2007. "A Supposed Contradiction about Emotion-Arousal in Aristotle's Rhetoric." *Phronesis* 52:382-402.

———. 2010. "Feeling Fantastic? Emotions and Appearances in Aristotle." *Oxford Studies in Ancient Philosophy* 37:143-76.

Dreckmann, Frank. 1999. "Animal Beliefs and their Contents." *Erkenntnis* 51:93-111.

Egan, Andy. 2006. "Secondary Qualities and Self-Location." *Philosophy and Phenomenological Research* 72:97-119.

Emilsson, Eyjólfur Kjalar. 2003. "Discursive and Non-Discursive Thought." In *Non-Conceptual Aspects of Experience*, edited by Hallvard Fossheim, Tarjei Mandt Larsen, and John Richard Sageng, 47-65. Oslo: Unipub Vorlag.

Engmann, Joyce. 1976. "Imagination and Truth in Aristotle." *Journal of the History of Philosophy* 14:259-65.

Everson, Stephen. 1997. *Aristotle on Perception*. Oxford: Clarendon Press.

Fellows, Roger. 2000. "Animal Belief." *Philosophy* 75:587-98.

Fobes, F.H. 1913. "A Preliminary Study of Certain Mss. of Aristotle's *Meteorology*." *The Classical Review* 27:249-52.

———. 1915. "Textual Problems in Aristotle's *Meteorology*." *Classical Philology* 10:188-214.

Fortenbaugh, William W. 1975. *Aristotle on Emotion*. New York: Rowan & Littlefield.

———. 2006. "Aristotle's Rhetoric on Emotions." In his *Aristotle's Practical Side: On his Psychology, Ethics, Politics and Rhetoric*, 9-37. Leiden: Brill.

Foster, Susanne. 1997. "Aristotle and Animal *phronesis*." *Philosophical Inquiry* 14:27-38.

Frede, Dorothea. 1992. "The Cognitive Role of *phantasia* in Aristotle." In *Essays on Aristotle's* De anima, edited by Martha C. Nussbaum and Amélie Oskenberg Rorty, 279-96. Oxford: Clarendon Press.

Frede, Michael. 1996. "Aristotle's Rationalism." In *Rationality in Greek Thought*, edited by Michael Frede and Gisela Striker, 157-73. Oxford: Clarendon Press.

Freudenthal, J. 1863. *Über den Begriff des Wortes* phantasia *bei Aristoteles*. Göttingen: A. Rente.

Funkhouser, Eric. 2003. "Willing Belief and the Norm of Truth." *Philosophical Studies* 115:179-95.

Garver, Eugene. 1982. "The Meaning of ΘΡΑΣΟΣ in Aristotle's Ethics." *Classical Philology* 77:228-33.

Gert, Joshua. 2009a. "Response-Dependence and Normative Bedrock." *Philosophy and Phenomenological Research* 79:718-42.

———. 2009b. "Toward an Epistemology of Certain Substantive *a priori* Truths." *Metaphilosophy* 40:214-36.

Gibbard, Allan. 2003. *Thinking How to Live*. Cambridge: Harvard University Press.

———. 2007. "Rational Credence and the Value of Truth." In *Oxford Studies in Epistemology* 2:143-64.

Gillies, Anthony. 2001. "A New Solution to Moore's Paradox." *Philosophical Studies* 103:237-50.

Gregoric, Pavel and Filip Grgic. 2006. "Aristotle's Notion of Experience." *Archiv für Geschichte der Philosophie* 88:1-30.

Grimaldi, William M.A. 1957. "A Note on *pisteis* in Aristotle's *Rhetoric* 1354-1356." *The American Journal of Philology* 78:188-92.

———. 1972. "Studies in the Philosophy of Aristotle's *Rhetoric*." *Hermes* 25:1-151.

Hamlyn, D.W. 1959. "Aristotle's Account of *aisthêsis* in the *De anima*." *The Classical Quarterly* 9:6-16.

Hamlyn, D. W. 1968. *Aristotle's* De anima*: Books 2 and 3 (with Certain Passages from Book 1)*. Translated with notes and an introduction. Oxford: Clarendon Press.

Hamlyn, D. W. 1976. "Aristotelian *epagôge*." *Phronesis* 21:167-84.

Heil, John. 1994. "Why is Aristotle's Brave Man so Frightened? The Paradox of Courage in the *Eudemian Ethics*." *Apeiron* 29:47-74.

———. 2003. "Aristotle's Objection to Plato's 'Appearance' : *De anima* 424a24-b9." *Ancient Philosophy* 23:319-35.

Hicks, R. D. 1907. Aristotle*, De anima*. Edited, with translation, notes and an introduction. Cambridge: Cambridge University Press.

Irwin, T.H. 1988. *Aristotle's First Principles*. Oxford: Clarendon Press.

Jannone, A. 1966. *Aristote, De l'âme*. Edited, with French translation and notes by E. Barbotin. Paris: Les Belles Lettres.

Jeffrey, Richard C. 1970. "Dracula Meets Wolfman: Acceptance vs. Partial Belief." In *Induction, Acceptance and Rational Belief*, edited by Marshall Swain, 157-85. Dordrecht: D. Reidel.

Joyce, James M. 2004. "Bayesianism." In *The Oxford Handbook of Rationality*, edited by Alfred R. Mele, 132-55. Oxford: Oxford University Press.

Joyce, Richard. 2001. *The Myth of Morality*. Cambridge: Cambridge University Press.

Korsgaard, Christine M. 1997. "The Sources of Normativity." In *Moral Discourse and Practice: Some Philosophical Approaches*, edited by Stephen Darwall, Allan Gibbard, and Peter Railton, 389-406. Oxford: Oxford University Press.

———. 1986. "Aristotle on Function and Virtue." *History of Philosophy Quarterly* 3:259-79.

Kosman, Aryeh. 1990. "Necessity and Explanation in Aristotle's *Analytics*." In *Biologie, logique et métaphysique chez Aristote*, edited by Daniel Devereux and Pierre Pellegrin, 349-64. Paris: Éditions du CNRS.

Kraut, Richard. 2006. "Doing Without Morality: Reflections on the Meaning of '*dein*' in Aristotle's *Nicomachean Ethics*." *Oxford Studies in Ancient Philosophy* 30:159-200.

———. 1979. "The Peculiar Function of Human Beings." *Canadian Journal of Philosophy* 9:467-78.

Kripke, Saul. 1980. *Naming and Necessity*. Cambridge: Harvard University Press.

Kupfer, Joseph. 1987. "Pragmatic Contradiction as Irrational Speech." *The Monist* 70:237-48.

Kurihara, Asako. 2003. "Personal Enmity as a Motivation in Forensic Speeches." *Classical Quarterly,* new series, 53:464-77.

LaBarge, Scott. 2004. "Aristotle on 'Simultaneous Learning' in *Posterior Analytics* 1.1 and *Prior Analytics* 2.21." *Oxford Studies in Ancient Philosophy* 27:177-215.

Labarrière, Jean-Louis. 1984. "Imagination humaine et imagination animale chez Aristote." *Phronesis* 29:17-49.

———. 1993. "Aristote et la question du langage animal." *Mètis* 8:247-60.

———. 2005. "De la *phronêsis* animale chez Aristote." In his *La Condition animale: Études*

sur Aristote et les stoiciens, 121-48. Leuven: Peeters.

Lavin, Douglas. 2004. "Practical Reason and the Possibility of Error." *Ethics* 114:424-57.

Lawrence, Gavin. 2001. "The Function of the Function Argument." *Ancient Philosophy* 21:445-75.

Lear, Jonathan. 1980. *Aristotle and Logical Theory*. Cambridge: Cambridge University Press.

———. 1988. "Katharsis." *Phronesis* 33:297-326.

Lebar, Mark. 2005. "Three Dogmas of Response-Dependence." *Philosophical Studies* 123:175-211.

Leighton, Stephen R. 1996. "Aristotle and the Emotions." In *Essays on Aristotle's Rhetoric*, edited by Amélie Oksenberg Rorty, 206-57. Berkeley: University of California Press.

Lesher, J. 1973. "The Meaning of ΝΟΥΣ in the *Posterior Analytics*." *Phronesis* 18:44-68.

Lewis, David. 1979. "Attitudes *de dicto* and *de se*." *Philosophical Review* 88:513-43.

Lienhard, Joseph T. 1966. "A Note on the Meaning of *pistis* in Aristotle's *Rhetoric*." *American Journal of Philology* 87:446-54.

Lorenz, Hendrik. 2006. *The Brute Within: Appetitive Desire in Plato and Aristotle*. Oxford: Clarendon Press.

Lycos, K. 1964. "Aristotle and Plato on 'Appearing'." *Mind* 73:496-514.

Mackie, John. 1977. *Ethics: Inventing Right and Wrong*. New York: Penguin.

Madden, Edward H. 1957. "Aristotle's Treatment of Probabilities and Signs." *Philosophy of Science* 24:167-72.

McDowell, John. 1997. "Values and Secondary Qualities." In *Moral Discourse and Practice: Some Philosophical Approaches*, edited by Stephen Darwall, Allan Gibbard, and Peter Railton, 201-14. Oxford: Oxford University Press.

McKerlie, Dennis. 1991. "The Practical Syllogism and *akrasia*." *Canadian Journal of Philosophy* 21:299-321.

McKirahan, Richard D. 1983. "Aristotelian *epagôge* in *Prior Analytics* 2.21 and *Posterior*

Analytics 1.1." *Journal of the History of Philosophy* 21:1-14.

Menzies, Peter, and Philip Pettit. 1993. "Found: The Missing Explanation." *Analysis* 53:100-09.

Modrak, Deborah. 1987. *Aristotle: The Power of Perception*. Chicago: University of Chicago Press.

———. 2001. *Aristotle's Theory of Language and Meaning*. Cambridge: Cambridge University Press.

Montmarquet, James. 1993. *Epistemic Virtue and Doxastic Responsibility*. Lanham: Rowan & Littlefield.

———. 1986. "The Voluntariness of Belief." *Analysis* 46:49-53.

Moore, Edward C. 1957. "The Moralistic Fallacy." *The Journal of Philosophy* 54:29-41.

Moreau, Joseph. 1961. "Aristote et la vérité antéprédicative." In *Aristote et les problèmes de méthode*: *Communications présentées au Symposium Aristotelicum tenu à Louvain du 24 août au 1er septembre 1960,* 21-33. 2nd ed. Louvain-la-Neuve: Institut supérieur de philosophie.

Nussbaum, Martha. 1978. *Aristotle's* De Motu Animalium. Text with translation, commentary and interpretive essays by Martha Craven Nussbaum. Princeton: Princeton University Press.

———. 1986. *The Fragility of Goodness: Luck and Ethics in Greek Tragedy and Philosophy*. Cambridge: Cambridge University Press.

———. 1994. *The Therapy of Desire*. Princeton: Princeton University Press.

Osborne, Catherine. 2007. *Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy and Literature*. Oxford: Clarendon Press.

Osbourne, R.G. 1985. "Law and Action in Classical Athens." *The Journal of Hellenic Studies* 105:40-58.

Perry, John. 1979. "The Problem of the Essential Indexical." *Nous* 13:3-21.

Plantinga, Alvin. 1993. *Warrant and Proper Function*. Oxford: Oxford University Press.

Polansky, Ronald. 2007. *Aristotle's* De anima. Cambridge: Cambridge University Press.

Price, Huw. 1986. "Conditional Credence." *Mind* 95:18-36.

Prinz, Jesse. 2006. "The Emotional Basis of Moral Judgments." *Philosophical Explorations* 9:29-43.

Rapp, Christof. 2002. Aristoteles *Rhetorik*. Translated, with introduction and commentary. 2 vols. Berlin: Akademie Verlag.

Régis, L.-M. 1935. *L'opinion selon Aristote*. Ottawa: Inst. d'études médiévales.

Rodier, G. 1900. *Aristote, Traité de l'âme*. Edited, with translation, introduction and notes. 2 vols. Paris: Ernest Leroux.

Rose, Lynn E. 1968. *Aristotle's Syllogistic*. (=American Lecture Series 699). Springfield: Charles C. Thomas.

Ross, W. D. 1949. *Aristotle,* Prior and Posterior Analytics. Revised text with introduction and commentary. Oxford: Clarendon Press.

———. 1961. *Aristotle,* De anima. Edited, with introduction and commentary. 1967 ed. Oxford: Clarendon Press.

Ruschenbusch, E. 1957. "ΔΙΚΑΣΤΗΡΙΟΝ ΠΑΝΤΩΝ ΚΥΡΙΟΝ." *Historia* 6:257-74.

Santas, Gerasimos. 1969. "Aristotle on Practical Inference, the Explanation of Action and *akrasia*." *Phronesis* 14:162-89.

Schofield, Malcolm. 1992. "Aristotle on the Imagination." In *Essays on Aristotle's* De anima, edited by Martha C. Nussbaum, and Amélie Oskenberg Rorty, 249-78. Oxford: Clarendon Press.

Setiya, Kieran. 2008. "Believing at Will." *Midwest Studies in Philosophy* 32:36-52.

Shah, Nishi. 2003. "How Truth Governs Belief." *The Philosophical Review* 112:447-82.

Shah, Nishi and David Velleman. 2005. "Doxastic Deliberation." *The Philosophical Review* 114:497-534.

Sihvola, Juha. 1996. "Emotional Animals: Do Aristotelian Emotions Require Beliefs?" *Apeiron* 29:105-44.

Smyth, Herbert Weir. 1920. *Greek Grammar*. Cambridge: Harvard University Press.

Sorabji, Richard. 1992. "Intentionality and Physiological Processes: Aristotle's Theory of Sense Perception." In *Essays on Aristotle's* De anima, edited by Martha C. Nussbaum and Amélie Oskenberg Rorty, 195-226. Oxford: Clarendon Press.

———. 1993. *Animal Minds and Human Morals: The Origins of the Western Debate*. Ithaca: Cornell University Press.

———. 1996. "Rationality." In *Rationality in Greek Thought*, edited by Michael Frede, and Gisela Striker, 311-34. Oxford: Clarendon Press.

Steglich-Petersen, Asbjørn. 2006a. "Voluntarism and Transparent Deliberation." *South African Journal of Philosophy* 25:171-76.

———. 2006b. "No Norm Needed: On the Aim of Belief." *Philosophical Quarterly* 225:499-516.

Striker, Gisela. 1996. "Emotions in Context: Aristotle's Treatment of the Passions in the *Rhetoric* and his Moral Psychology." In *Essays on Aristotle's* Rhetoric, edited by Amélie Oksenberg Rorty, 286-302. Berkeley: University of California Press.

Sturgeon, Scott. 2008. "Rationality and the Grain of Belief." *Nous* 42:139-65.

Suits, Bernard. 1974. "Aristotle on the Function of Man." *Canadian Journal of Philosophy* 4:23-40.

Swanson, Eric. 2007. "A Note on Gibbard's 'Rational Credence and the Value of Truth'." *Oxford Studies in Epistemology* 2:179-89.

Taylor, C.C.W. 1990. "Aristotle's Epistemology." In *Epistemology*, edited by Stephen Everson, 116-42. (= Companions to Ancient Thought 1). Cambridge: Cambridge University Press.

Taylor, Paul A. 2008. "Sympathy and Insight in Aristotle's *Poetics*." *The Journal of Aesthetics and Art Criticism* 66:265-80.

Torstrik, Adolf. 1862. *Aristotle, De anima libri III*. Edited, with an introduction. Berlin: Weidmann.

Turnbull, R. G. 1978. "The Role of 'Special Sensibles' in the Perception Theories of Plato and Aristotle." In *Studies in Perception: Interrelations in the History of Philosophy and Science*, edited by P. K. Machamer and R. G. Turnbull, 3-26. Columbus: Ohio State University Press.

Velleman, David. 2000. *The Possibility of Practical Reason*. Oxford: Clarendon Press.

Veloso, Claudio William. 2007. "Aristotle's *Poetics* without *katharsis*, Fear or Pity." *Oxford Studies in Ancient Philosophy* 33:255-84.

Walker, Mark Thomas. 2001. "Williams, Truth-Aimedness and the Voluntariness of Judgment." *Ratio* 14:68-83.

Walton, Kendall. 1978. "Fearing Fictions." *The Journal of Philosophy* 75:5-27.

———. 1990. *Mimesis as Make-Believe*. Cambridge: Harvard University Press.

Wedin, Michael V. 1984. *Mind and Imagination in Aristotle*. New Haven: Yale University Press.

———. 1989. "Aristotle on the Mechanics of Thought." *Ancient Philosophy* 9:67-86.

Wheeler, Mark. 1999. "Semantics in Aristotle's *Organon*." *Journal of the History of Philosophy* 37:191-226.

Whiting, Jennifer. 1988. "Aristotle's Function Argument: A Defense." *Ancient Philosophy* 8:33-48.

Wiggins, David. 1997. "A Sensible Subjectivism." In *Moral Discourse and Practice*, edited by Allan Gibbard, Stephen Darwall, and Peter Railton, 227-44. Oxford: Oxford University Press.

Wikramanayake, GH. 1961. "A Note on the ΠΙΣΤΕΙΣ in Aristotle's *Rhetoric*." *American Journal of Philology* 82:193-96.

Wilkinson, Jennifer. 2000. "The Paradox(es) of Pitying and Fearing Fictions." *South African Journal of Philosophy* 19:8-25.

Williams, Bernard. 1973. "Deciding to Believe." In his *Problems of the Self: Philosophical Papers 1956-1972*, 136-51. Cambridge: Cambridge University Press.

Williamson, Timothy. 2000. *Knowledge and Its Limits*. Oxford: Oxford University Press.

Winters, Barbara. 1979. "Believing at Will." *The Journal of Philosophy* 76:243-56.

Worth, Sarah. 2000. "Aristotle, Thought and *mimesis*: Our Responses to Fiction." *The Journal of Aesthetics and Art Criticism* 58:333-39.

Yablo, Stephen. 2002. "Coulda, Woulda, Shoulda." In *Conceivability and Possibility*, edited by Tamar Szabó Gendler and John Hawthorne, 441-92. Clarendon: Oxford.

Yanal, Robert J. 1999. *Paradoxes of Fiction and Emotion*. University Park: Penn State University Press.