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THE LEGACY OF THE MENO PARADOX:

PLATO AND ARISTOTLE ON LEARNING AND ERROR

by

Scott LaBarge

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As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Scott LaBarge

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and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy

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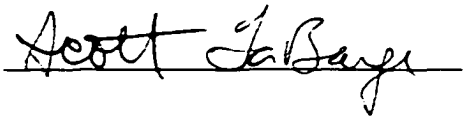
SIGNED: 

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ABSTRACT

This thesis will argue that Plato's influential philosophical puzzle known as the Meno Paradox and the related Problem of False Belief are a more serious threat to Plato's philosophical programme (and ours) than many interpreters recognize. Furthermore, Plato's most obvious candidate for a solution to these problems, the Theory of Recollection, is not sufficient to explain how the Paradox misunderstands the epistemic processes of learning which it treats.

This failure of Plato's account motivates a close consideration of Aristotle's sophisticated attempt to resolve the difficulties Plato raises. I will argue that a proper understanding of Aristotle's philosophy of mind and the forms of cognition through which he thinks humans progress yields the key to a powerful and heretofore unrecognized Aristotelian solution to the Meno Paradox and the Problem of False Belief.

"He remarked to me then," said that mildest of men,
'If your Snark be a Snark, that is right:
Fetch it home by all means — you may serve it with greens
And it's handy for striking a light.

"'But oh, beamish nephew, beware of the day,
If your Snark be a Boojum! For then
You will softly and suddenly vanish away,
And never be met with again!'"

— Lewis Carroll, *The Hunting of the Snark*

INTRODUCTION

Plato was good at many things, not least of which was the construction of philosophical puzzles, and many of these are still interesting enough to provoke a considerable amount of philosophical activity. One of the most stimulating and influential of these puzzles is the Meno Paradox, the claim that successful investigation is impossible because one either already knows what one seeks to investigate — in which case there is no point to the investigation — or one does not know what one seeks to investigate — in which case it is possible to conduct the investigation successfully. The details of the epistemological theory which underlie this puzzle are complex and disputed, but the puzzle itself exerted a continuous influence on the ancient tradition and raises many issues about the nature of learning and epistemological development which still exercise philosophers today. Less often recognized is the importance of the contribution to this area made by Aristotle, who developed a sophisticated epistemology and philosophy of mind in part as a solution to problems like the Meno Paradox. My hope is that there is still something of value, historically and perhaps even philosophically, to be said about both the problem that Plato places before us and the solutions that Plato and Aristotle propose. That is the goal of this thesis.

The first part of the work will concentrate on Plato, beginning with an analysis of what precisely the Meno Paradox is and what problems it lays before us. In Chapter 1 I will argue that the problem is deeper and more serious than many contemporary

interpreters recognize, and that it poses a genuine threat to Plato's philosophical programme (and ours). Chapter 2 turns to the *Theaetetus* to offer confirmation of my interpretation of the epistemological position that underlies the Meno Paradox; I will claim that the Problem of False Belief with which the second part of that dialogue is occupied springs from the same basic epistemological assumptions as the Meno Paradox, and that an answer to the one puzzle should thus be expected to offer some purchase on the other puzzle. In Chapter 3 I then consider the most obvious candidate for a Platonic solution to the Meno Paradox, i.e. the Theory of Recollection. It will be my contention that that theory, at least as it is presented in the *Meno* itself, does not satisfactorily resolve the paradox. Though Plato may indeed intend recollection as his answer to the paradox, at most what he shows in the *Meno* is *that* learning is possible, not *how* it is possible; in other words, he does not give an account of our epistemic development detailed and clear enough to explain specifically where the paradox gets the nature of human learning wrong.

The second, and larger, part of the thesis considers Aristotle's treatment of the problems with which Plato leaves us. We find in Chapter 4 that the most obvious place in which to look for his response to the Meno Paradox, i.e. his explicit references to the *Meno* in his *Analytics*, are a red herring. Though many interpreters have believed Aristotle's mention of the Meno Paradox in *Post. An.* I.1 provides his solution to the paradox, it turns out that he actually is confronting an entirely different problem there. Chapter 5 then begins the process of constructing a new Aristotelian solution to the Meno Paradox from scratch, laying out the broad parameters which Aristotle's clear

epistemological commitments permit us to draw for any Aristotelian solution to Plato's puzzles. Chapters 6 and 7 then analyze in turn each of the forms of human cognition relevant to the learning process, beginning with perception and progressing through memory, imagination, experience, and belief to culminate in *nous*. With the results of these chapters in hand, Chapter 8 then constructs an Aristotelian answer to the Meno Paradox, concentrating on the form of cognition known as experience (*empeiria*) as the key to human learning. Then, finally, I will apply the epistemological theory that solves the Meno Paradox to construct an Aristotelian answer to the Problem of False Belief as well.

PART I

Plato on the Meno Paradox

CHAPTER 1

Snarks and Boojums: An Interpretation of the Meno Paradox

The argument known as the Meno Paradox is located in Plato's *Meno* at 80d-e. At this point in the dialogue, Meno has just been forced by Socratic examination to abandon a series of possible definitions of virtue, and finally throws his hands up in exasperation:

> — Meno: "How will you seek [virtue], Socrates, when you do not know at all what it is? Which of the things you do not know will you set before you to seek? And even if you should happen upon it, how will you know that this is the thing that you did not know?"
>
> — Socrates: "I understand what you want to say, Meno. Do you see what a contentious argument you are introducing, [i.e.] that it is possible for a man to seek neither what he knows nor what he does not know? He cannot seek what he knows — for he knows it, and such a man has no need to seek — nor what he does not know — for he does not know what he will seek."

Socrates is famous for his investigations into the virtues and the proper conduct of life, so the challenge Meno offers here, if genuine, is a dangerous one; if the paradox were sound it would mean the end of all Socrates' hopes for the philosophical attainment of ethical knowledge. An important question is what exactly the challenge of the paradox is, i.e. what the paradox is a paradox for. I intend to answer this question, but doing so requires us to attend to another issue first, for it is possible that this passage confronts us with not one, but two separate challenges. This is because Socrates' response to Meno's statement of the paradox is not a verbatim repetition; it is a different statement of the paradox which, on the surface, appears to differ from Meno's statement in potentially important respects.

This is often noted by commentators, and some, like Vlastos and Moravcsik, believe that the differences matter. Others believe that the differences are merely apparent, and that Socrates' restatement does not alter Meno's paradox in any substantial way. I think this is the right answer, but I am not content with the way commentators typically present this position. Usually commentators note the differences, more or less stipulate they do not really matter, and move on. But it is important to see *why* the two versions of the paradox amount to the same thing, and a failure to see this has led some to make serious mistakes about the paradox and its solution. I am going to show in detail why the two versions of the paradox amount to the same problem, and hopefully thereby clarify what the paradox is and what sort of thing it is a paradox for.

First, a few words about the phenomena that are central to the Meno Paradox and its solution — the process of investigation[1] and the learning that results from it. Many of these brief comments will seem quite obvious, even commonplace, for we all have experience of investigation and learning. Answering a question like "What is learning?" seems at some level very simple; at the most fundamental level it is simply coming to know something that you did not know before. However obvious that may be, it is important to keep in mind that what the Meno Paradox challenges, and what Plato and later philosophers exerted great effort to account for, is this simple, readily demonstrated claim: we somehow manage to exchange a state in which we cannot correctly answer some

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[1] I will use the terms "search", "investigation", and "inquiry" (and their cognates) interchangeably; all should be taken to translate the Greek "*zêtêsis*".

question for a state in which we can. Investigation is one process by which we undertake this exchange.

A number of distinctions between sorts of investigation will be important to our discussion of the paradox. Probably the most important distinction is one Plato lays out earlier in the *Meno* by means of what is often called the Priority of Definition Principle: "If I do not know what something is, how could I know what qualities it possesses? Or do you think that someone who does not know at all who Meno is could know whether he is good-looking or rich or well-born, or the opposite of these" (*Meno* 71b3-8)? The idea here is that there are two sorts of questions we can try to answer about a thing: one sort of question asks what a thing is, i.e. what makes it the particular object it is, while the other sort of question asks about qualities of the object that are not part of its essence or identity. Importantly, Plato thinks that we cannot conduct the second sort of investigation until we have successfully completed an investigation of the first sort. If I were to ask you to tell me what, for instance, Bill Clinton is wearing, you would not be able to answer the question until you first had identified the object of the question by finding an answer to the question, "Who is Bill Clinton?" And in the dialogue itself, Socrates introduces the principle in order to show Meno that it is fruitless to ask whether virtue is teachable until we have figured out first what virtue is, i.e. identified it as a specific object of which we can then conduct our investigation. Generally, the first question we have to answer about any potential object of investigation is which object we are talking about; otherwise, we will not know where to look to answer other sorts of questions.

Note, however, that this principle may apply differently to investigations of individual people on the one hand and investigations of abstract objects like virtue on the other. That is because knowing what virtue is and knowing who a person is seem to require different kinds of information. Knowing who Bill Clinton is requires merely that I know his identity; if I can recognize him in a room full of people and point him out, I know who he is. But knowing what virtue is does not seem to be like this. When Socrates first asks Meno what virtue is, Meno responds by enumerating a list of specific virtuous actions. But this does not satisfy Socrates. What he requires is not a mere pointing out of specific instances of virtue, but an account or definition of virtue which explains what makes specific acts instances of virtue. One way to put this difference is to say that, in the case of an individual person, all we know when we know who someone is, is his identity. It would be absurd for Socrates to ask someone to give a definition of Meno. But in the case of an abstract object like virtue, we require more than an ability to identify virtuous acts; Plato demands as well that a person be able to define the concept itself, and even if we today hesitate to ask for a definition of a concept, we still mistrust a person's ability to identify virtuous acts reliably if he cannot at least give an account that explains why his identifications are correct. Meno's inability to define virtue casts his identification of specific acts as virtuous ones into question.

Another distinction turns on what sort of epistemic state the investigator starts from. The best way of grasping this distinction would be to imagine a range of epistemic states on a continuum stretching from total ignorance at one extreme to a perfect and

complete knowledge at the other, with some indeterminate number of intermediate positions between. Some investigations involve an agent who starts out at one extreme on the continuum, knowing absolutely nothing about the object of the investigation. For instance, sometimes in the kitchen my wife will ask me to bring her "that thing". At these times I know she has some particular thing in mind, but, being deficient in marital telepathy, I have no idea specifically what that something is. I'll call this sort of investigation one which starts from total ignorance. More commonly, we start from a limited grasp of the object of investigation and move to a more thorough grasp of the object, such as when, knowing something about Rome, we pick up Gibbon's *Decline and Fall of the Roman Empire* and put it down knowing a little more about Rome. I'll call this an investigation which starts from a partial specification.

Finally, we may also distinguish investigations by the way their objects are initially specified. To grasp this distinction, it is helpful to think of a conceptual space in which every thing which could be the object of an investigation or the subject of a question has a place. We then might ask how we could catalog all these different objects. One way might be to catalog them by their relations to me and my experience. We might, for instance, imagine a person simply cataloging all the objects by counting them as she encounters them in experience. Similarly, I might specify the objects of some investigation by first picking some particular object at random without classifying it — say, "the first thing I see"— and then studying the object to develop an account of its nature. In such an investigation, the object of the investigation is specified by a purely random process which

is essentially tied to my experience, and anything I can isolate *as* a distinct object would do equally well. Other investigations might proceed a bit less randomly, as when a person looks for something to make her feel better, but still, the object is specified more by a fact about the investigator's experience — what makes her feel good — than by anything unique to that particular object. I'll say that investigations of this sort are "anchored in experience".

This is not, however, the only way by which we can catalog the possible objects of investigations. The things out there in the world come already sorted by kind, and we can thus specify all the different possible objects by their objective nature or essence. This method of cataloging allows us to specify the object of an investigation in a way that makes no reference to any particular person's or group's experience. Take the case in which you are directed to find out what Bill Clinton had for breakfast. In this case, the object of the investigation has been specified for you, and you will only conduct the investigation successfully if the person you investigate is the person you were actually directed to investigate. The object of this sort of investigation is specified by its determinate nature apart from any person's relation to it. Thus, when Socrates asks us what happiness is, presumably there is some answer to the question waiting out there for us to find, but it may be that no one has an epistemic relationship with that object such that she knows in advance what that answer will turn out to be. In such a case there is a sense in which the object of the investigation has not yet been identified at all; part of what the investigation requires is to identify its object. I'll call all investigations with objects

that are specified in this non-relational way "unanchored investigations".

So much suffices by way of preliminary comment on investigation and learning; we can divide investigations in at least three ways, by (1) whether they involve an object's identity/essence or some other quality, (2) their epistemic starting place, and (3) whether they are anchored or unanchored investigations. We are now ready to examine Plato's paradox. But as we introduce the paradox, we must keep firmly in mind what it is generally a problem for: How do we use investigation to move from a weaker epistemic state to a stronger one?

Here is a thumbnail sketch of Meno's version of the paradox first. We may begin by characterizing the sort of investigation that concerns Meno using the distinctions we have outlined above. For starters, Meno is conducting an unanchored investigation; Socrates has set him the task of defining virtue, conceived as a specific object with an objectively determinate nature. Second, the fact that Meno is seeking a *definition* means his investigation concerns the identity or essence of an object. Finally, Meno emphasizes his investigator's *total ignorance* about the object of his investigation; he uses a strong Greek qualifier (*to parapan*) to indicate that he is considering the case of the investigator who knows *nothing at all* about his object. So Meno's investigation is an unanchored investigation of a thing's essence which is starting from total ignorance.

Turning to the paradox passage itself, Meno presents us not so much with an argument as with two intuitions about the situation of an investigator who knows *nothing at all* concerning what he is inquiring about. Such a person faces two problems. On the

one hand, because the inquirer does not know anything about the object of her inquiry, she has a real problem knowing how to conduct her search. Call this the Starting Line Problem: if you do not know anything about the object of inquiry, you have no idea how to structure and direct your inquiry. On the other hand, the totally ignorant inquirer also faces a problem in bringing an inquiry to a successful close. If she has no idea what the object of her search might be, even if she stumbles on to the thing itself she will not know she has successfully completed her search. Thus she has no way of telling when she has met success and can stop searching. Call this the Finish Line Problem: if you do not know anything about the object of inquiry, you have no criteria for telling when you have found the thing you were looking for.

To elucidate how the problems work, let us enter for a moment the world of the great master of nonsense poetry, Lewis Carroll. In *The Hunting of the Snark*, he depicts a motley party of adventurers on a quest to capture a mysterious creature called the Snark. These hunters are brave, for lurking with the Snarks out there are also Boojums. Boojums are easily mistaken for Snarks, and while grabbing a Snark is a good thing, grabbing a Boojum by accident is a disaster:

> "He remarked to me then," said that mildest of men,
> "'If your Snark be a Snark, that is right:
> Fetch it home by all means — you may serve it with greens
> And it's handy for striking a light....
>
> "'But oh, beamish nephew, beware of the day,
> If your Snark be a Boojum! For then
> You will softly and suddenly vanish away,
> And never be met with again!'"

The threat of vanishing is a real one; the poem ends with the Baker, a member of the hunting-party, falling prey to the enigmatic Boojum:

> They hunted till darkness came on, but they found
> Not a button, or feather, or mark,
> By which they could tell that they stood on the ground
> Where the Baker had met with the Snark.
>
> In the midst of the word he was trying to say,
> In the midst of his laughter and glee,
> He had softly and suddenly vanished away —
> For the Snark *was* a Boojum, you see.

The Snark-hunters are thus undertaking an investigation to find the Snark, and their situation is largely analogous to Meno's. If Meno or the Snark-hunters already had what they sought in hand, they would have no need to hunt in the first place, while if they don't have what they seek in hand, there is always a threat that the next thing they grab, thinking it is the object they seek, might turn out to be something else. Meno might unwittingly endorse a false definition of virtue, and the Snark-hunters might grab a Boojum when they expect a Snark.

Admittedly, Meno and the Snark-hunters are on different sorts of hunt; Meno's mission is to learn the answer to some question, while the mission of the Snark-hunters is the acquisitive goal of physically catching a Snark. In order to avoid any possible confusion this might cause, let us slightly alter the nature of the Snark-hunters expedition and make it a voyage of discovery; say the hunters heard certain aboriginal tribes talking about Snarks and decided to go find out what Snarks are.

With this alteration, Meno's version of the paradox fits nicely into Carroll's picture. If we imagine ourselves in the position of one of the members of Lewis Carroll's Snark-hunting party, say the Butcher, and furthermore imagine that the Butcher has not yet heard any description of the Snark, then we have a very good approximation of the situation Meno envisions. The Butcher knows very little about the Snark except that it is something that can be hunted for. Indeed, he does not even know at this point whether the Snark is something one can take hold of with one's hands like a hat, or whether it is to be hunted for in one's conscience like a conviction, or hunted through prayer like a revelation, or wherever and however anyone looks for anything at all. Perhaps the Snark is even something familiar which he can bring to hand easily, wherefore he cannot rule out that the Snark is one of the things he already knows, though under a different description. He is totally in the dark about the Snark.

If this is the situation that Meno has in mind, then it is easy to see how the two problems follow. Given that the Butcher has absolutely no information about the Snark which would make it possible for him to narrow the search, practically everything that exists, everything both known to him and unknown to him, has equal claim on his attention as a possible Snark. In such circumstances, since anything might be a Snark (and likewise a Boojum), there is no way even to begin narrowing things down, and it is impossible for him to conduct his search methodically. The totally ignorant Snark-hunter is like a runner who has heard the shot fired to begin the race but who does not know where the course is laid; any direction is as likely to be right as another. And that just is

the Starting Line Problem.[2]

Likewise, because the Butcher has no knowledge of what Snarks are like, it is impossible for him to know when he has gotten his hands on a Snark and so declare the hunt over. Even if by some lucky chance he happened to stumble on to a Snark, because the specifications of his search are so thoroughly vague he has to continue to give equal attention to everything else that exists as though it were a possible Snark. Since he is seeking specifically to identify Snarks, in order to declare the investigation over and call it a day, he has to not only get hold of a Snark, he also has to be confident for good reasons that what he has *is* a Snark. For all he knows, anything he merely *thinks* might be a Snark might suddenly turn out to be a Boojum at any moment unless he has some way of being sure the Snark is a Snark. In epistemic terms, it is not enough that he get hold of the right answer to his question, "What is the Snark?"; he also has to be able somehow to demonstrate that it is indeed the right answer that he has.[3] If he fails in any of these tasks, he might as well have gotten hold of a Boojum, and his epistemic situation will be at the best unstable, at the worst intolerable. And that just is the Finish Line Problem.

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[2] Nicholas White puts the point nicely: "A search that begins with no goal obviously cannot be said to have reached its goal, and no subsequent illumination, however welcome, can make up for the fact that it had no goal to begin with." ((1976) p. 206.)

[3] This point reflects as well the difference Socrates draws between knowledge and true belief at *Meno* 98a; true belief, like Daedalus' statues, wanders away if not tied down by an "account of the reason why", and for us the statue's walking away is equivalent to a Snark turning into a Boojum.

But perhaps we have moved too quickly; perhaps the aborigines who set the hunters looking for the Snark have been removed from the picture too soon. Clearly, if the Butcher were set down on an island and told to find a Snark relying only on his own devices, both the Starting Line and the Finish Line Problems would beset him. But imagine the Butcher is accompanied by one of the aborigines who told him about Snarks in the first place. Now he need not flail around helplessly, for now he can simply ask the aborigine to show him what sort of thing his people call a Snark, and then investigate that thing. If the Butcher were investigating that which is called "the Snark" by the aborigines, he can take the aborigines' identification as authoritative. In other words, he could anchor the specification of his investigation's object in the experience of the aborigines. Were this the case, the Starting Line and Finish Line Problems would disappear.

But is this the sort of situation that faces Meno? His task is to investigate the definition of virtue, but where the Butcher wants to investigate what the aborigines call "the Snark", Meno cannot simply investigate what people call virtue. This is because we cannot be sure that what people call virtue is what virtue really is. When Socrates tests people, they routinely fail to give a consistent explanation of what they mean when they say something is virtuous, and so we cannot take established conventions about what virtue is and what specific acts are virtuous to be authoritative. Everyone agrees that virtue is *something*, but its identity is itself something that is under dispute, and we thus cannot confidently anchor our investigation in the practice of any particular person or

group.[4]

So perhaps we should imagine the Snark-hunters have rather found some ancient inscription that mysteriously mentions "the Snark", but now there is no one around to tell them what was meant by the word. In this case, the Butcher has no reason to prefer the advice of any person who claims to be able to identify Snarks to anyone else's advice. Without an authoritative community to refer to, the ignorant Snark-hunter has no more idea how to recognize a Snark-expert than to recognize the Snark itself. Imagine that the Butcher is accompanied by a self-proclaimed Snark-expert, say the captain of the expedition, the Bellman who describes the Snark in the Second Fit, and the Bellman claims he will point the Butcher to the genuine Snarks and keep him from the Boojums. What reason does the ignorant hunter have to be any more confident about the advice of the Bellman than about his own guesses concerning Snarks? He only has reason to trust the Bellman's advice if the Bellman himself knows what Snarks are and the Butcher knows that he does. But of course the Butcher will only know whether the Bellman knows what Snarks are if the Butcher knows what Snarks are so as to test the Bellman, in which case he would not need secondhand information anyway. Hence an "expert's" advice without a pedigree which one can recognize as a reliable guide to the object of inquiry is as good as no advice at all; one can have no confidence that, following secondhand advice which one cannot verify, one will zero in on Snarks and only Snarks. This is even more obvious if,

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[4] On this point see White (1974) p. 159 and (1976) p. 43.

like Meno where virtue is concerned, the Butcher is confronted by numerous would-be guides all claiming to be Snark-experts but giving contradictory advice. How would the Butcher know whom to listen to without already knowing something about Snarks by which to test his advisers? And finally, the Bellman may claim that even if *he* does not know Snarks, the source of *his* advice does, but that only pushes the problem of verifying the criteria back a step, setting up a regress. Thus, if there is no clearly genuine authority available to identify the object of the investigation, unanchored investigations about an object's identity fall prey to Meno's two problems.[5]

Now consider Socrates' version of the paradox. Gail Fine, following other interpreters, helpfully reconstructs Socrates' version in the form of a dilemma:

1. For any x, one either knows, or does not know, x.
2. If one knows x, one cannot inquire into x.
3. If one does not know x, one cannot inquire into x.
4. Therefore, whether or not one knows x, one cannot inquire into x.[6]

The important question for our purposes is then whether or not this dilemma poses the

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[5] Other dialogues confirm this result. The *Charmides*, for instance, lays out very similar objections to a non-expert's reliance on those claiming expertise (170a ff), and in the *Cratylus* Socrates suggests that we cannot trust the correctness of the names that the first name-giver gave because he might have made a mistake which would then corrupt our own account (436c-e). Plato may also be hinting at a similar lesson in the *Meno* itself, both by the fact that Meno claims to know something about virtue because of what he has heard from Gorgias (71c ff.) and later in the Road to Larissa passage (97a ff.).

[6] Fine (1992) pp. 205-6.

same problems as Meno's version of the paradox. Socrates proceeds as though he has just restated Meno's version of the paradox. Should he?

There seem to be at least three possible ways in which the two statements of the paradox differ.[7] First, Socrates supplies a premise that appears nowhere in Meno's account, i.e. premise (2), to the effect that one who knows something need not inquire into it. I will not have anything in particular to say about this difference, since it does not seem to be anything that Meno would ever challenge. Second, Socrates drops the qualifier that the inquirer knows *nothing at all* about the object of investigation, suggesting the possibility that Socrates considers the paradox valid in cases where the inquirer's ignorance of the object of investigation is not absolute. Finally, Socrates frames the paradox in a way that clearly preserves one of the problems Meno brings up but does not clearly preserve the other. On the one hand, Socrates' formulation clearly includes a version of the Starting Line Problem: a person who did not already know the object of inquiry would not know how to proceed with the investigation, and this is what justifies premise (3). On the other hand, Socrates does not explicitly include the Finish Line Problem of recognizing the successful conclusion of the inquiry. Two questions then arise: Does the nature of the still-attested Starting Line Problem change because of the inclusion of investigations that do not begin from total ignorance? And does the Finish Line Problem still apply in any form at all?

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[7] See Moravcsik (1971) p. 57; and Fine (1992) n.21.

Let us first consider the nature of the Starting Line Problem in Socrates' version. It was clear in Meno's version that if we are totally ignorant of the investigation's object and there is no clear authority that can identify the object for us, then we have no principled way of choosing one direction or method of investigation over another. Is the same true in cases where we have a partial description or specification of the investigation's object?

Perhaps now we should add to our Snark-hunt the description of the Snark which the Bellman gives his hunters in the Second Fit. According to the Bellman, there are five distinguishing marks of Snarks: their taste ("meagre and hollow, but crisp"), their habit of getting up late, their slowness in taking a jest, their fondness for bathing-machines, and their ambition. So when the Butcher lands on an island to hunt the Snark, he now has some information to guide his search. He may yet have no clear idea of precisely what a Snark is, but if the Bellman's information is reliable, now at least he has some sense of what a Snark is not. He knows he need not bother looking for things that cannot be tasted, are early-risers, have a ready wit, show distaste for bathing-machines, or have no ambition. And presumably this list will rule out a great many things. Thus he can avoid a great many false starts as he begins his quest, and presumably avoid a great many Boojums.

Although we may wonder whether the Butcher should be any more confident about the Bellman's account now than he was about the Bellman's advice before, let us nevertheless pretend for the moment that the Bellman's partial account of Snarks is

reliable, and even that somehow the Butcher can demonstrate that. The Starting Line Problem may yet remain. For what would a reliable partial account accomplish? It is true that it would allow the Butcher to avoid some wrong turns in his search for the Snark, but it cannot guarantee us a right one. So long as for all he knows it is possible that there is more than one object out there which meets the partial specification he has, avoiding some wrong turns brings him no closer to success. Just as the runner of a race is not helped toward the finish line if some roads are ruled out but plenty of other equally viable possible roads remain, the Butcher has no more secure a grasp on the Snark if, for all he knows, even one Boojum may be out there which fits the partial specification. The only way that a specification can help the Butcher conclude his investigation is if it allows him to identify the investigation's object. But since the identity of the object is the very thing that the investigation is meant to establish, such a specification would not be partial after all, and no further investigation would be needed.

Thus it turns out that we are really as badly off without Meno's *nothing at all* clause as we were with it. Nothing short of a full specification of the object will allow us to avoid the Starting Line Problem, and of course the possession of such a specification makes the investigation pointless. Therefore a partial specification is no better than no specification at all for the purpose of defeating the Starting Line Problem, and there is no reason to think that the omission of the *nothing at all* clause fundamentally changes the problem the inquirer faces.

Next let us consider whether Socrates' version of the paradox lacks the Finish Line

Problem. Since the Starting Line Problem still applies, avoiding the Finish Line Problem requires that the investigator have the information necessary to know when the inquiry has been successfully concluded even though he lacks the information necessary to identify securely the object of the investigation. In other words, our Snark-hunters must be unsure how to begin looking for Snarks, but be able to know that they have a Snark once they have found one. Is this a possible scenario?

We have already examined investigations where something like this phenomenon does seem to occur. For instance, if I decide that the object of my investigation will be the first thing I see, then I have no idea before I begin the search what I will end up with. But once I open my eyes, see something, grab hold of it, and investigate its nature, I know I have investigated what I set out to investigate. Likewise, if I go looking for whatever will make me feel better right now, as soon as I pick up something that makes me feel better, I have successfully completed my search, even though I may have had no idea before I went looking what I would end up with. In these cases the Finish Line Problem does not seem to pose much of a threat.

Again, however, it is clear that these kinds of investigation are not the kind which interests Socrates. He is always interested in searches whose criteria for success are focussed on learning something about the nature of some object which is characterized independently of the investigator and his search. When he sets out with Meno to learn about virtue, he assumes that there is some thing, virtue, existing independently of what I or others may choose to call "virtue", which has an objective nature of some kind. To

learn successfully about virtue is in this case to learn about this objective nature of virtue and to recognize that which one is learning to be the nature *of virtue*, i.e. to recognize the object as the appropriate object of the unanchored investigation.

Once we see that Socratic investigations always involve such an independently specified object, we find that the Finish Line Problem persists in Socrates' version of the paradox, even though it does not appear explicitly. Take again the case of the Butcher with his partial specification of Snarks. The Snark he seeks to discover is an independently specified object; to complete his investigation of Snarks successfully he has to grasp the nature of Snarks, but deliberately and consciously, not in any accidental way. Unless the Butcher can be certain that what he has laid hold of is a Snark and not something else, the threat always persists that he grabbed the wrong thing and so never got the account *of Snarks* that he was after.[8]

Hence we seem to get the result that, if our investigation has certain properties, then where we have a Starting Line Problem, we must have a Finish Line Problem as well.

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[8] Cf. Nicholas White (1974): "You are told that if you do not already 'know' the object of your search, you will not be able to recognize it. Why not? Because...you must begin your search with a specification of what you are trying to find, in order to recognize it. But how do you know that the specification accurately describes the object in question? Only, the account continues, by examining the object to see that it does....But to do this you must find the object. But for this you need the specification. And so on. (Nor will it help to suppose that you might begin without a complete specification, but with some information constituting part of one; for again the argument says that you must examine the object to check whether the information is correct.) So either you must already have examined the object and can describe it, or you will never be able to do either" (p. 154).

So long as we undertake an unanchored investigation of an object without a reliable authority to help us fix the identity of the object, the confusion that accompanies the uncertainty of where to begin the search leads inexorably to confusion as to when the search is completed.

So where do we end up? Upon examination, it turns out that both Meno's and Socrates' versions of the Meno Paradox amount effectively to the same problem: so long as our investigation is an unanchored one aimed at an object concerning whose identity there is no reliable authority, it is impossible to bring the investigation to a successful conclusion. In other words, if the Meno Paradox is correct, it is not possible to move from a state near the ignorance end of the epistemological spectrum to a state closer to the perfect knowledge end of that spectrum by means of an investigation of the sort that Socrates typically takes up with regard to controversial philosophical topics like virtue, happiness, knowledge, or being. Bad news, of course, for Socrates (and for us, if we want to engage in that sort of investigation.)

Since this is the problem that really drives both versions of the paradox, we can see what is wrong with some of the solutions which commentators have offered. T.H. Irwin and Gail Fine, for instance, argue[9] that successful investigation into a thing's identity is possible because we have *true beliefs* from which we can derive knowledge. In other words, true belief is the epistemic state between perfect knowledge and total ignorance

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[9] See, for example, Irwin (1995) p. 133, and Fine (1992) p. 209.

which fixes the object of the investigation *as* the object of the investigation without being a total grasp of that object is. But if we stick to unanchored investigations into an object's identity, we find this view cannot solve the Meno Paradox, for true beliefs are only helpful in the pursuit of such investigations if we can *recognize* them to be true.[10] Even if we have true beliefs about Snarks, we cannot rely on those true beliefs to guide our investigation about Snarks unless we know the beliefs to be true, and that will only be possible if we already know what Snarks are so as to verify the truth of our beliefs.

Fine attempts to avoid this attack by claiming that we do not have to recognize the truth of true beliefs to employ them as the basis for investigation:

> Plato's claim is that one can inquire, even if one lacks knowledge, so long as one *in fact* relies on one's true beliefs; he does not claim that one can inquire, even if one lacks knowledge, only if one *knows* that one is relying on true beliefs. Of course, from a first-person perspective, I will be subjectively justified in inquiring only if I believe that I am relying on true beliefs. But I do not need to be able to identify my true beliefs as such in order to be able to inquire. We need to distinguish the question of what makes inquiry possible from the question of what subjectively justifies one in thinking one is in a position to inquire. In neither case, however, do I need to know (or even have true beliefs about) which of my beliefs are true, which are false. In the first case, I need to rely on some beliefs that are in fact true; in the second case, I need to believe I have some true beliefs. Neither of these ways of appealing to true beliefs requires one to know (or have true beliefs about) which of one's beliefs are in fact true. ((1992) p. 212)

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[10] Thus Nehamas: "It is quite true that Plato writes that before the inquiry begins the slave has true beliefs concerning the geometrical problem discussed. But these beliefs were in no way available to him as such at the time. They were mixed in together with all sorts of false beliefs, some of which were both elicited and eliminated by Socrates during his questioning. These true beliefs are recovered by the slave at the end of his examination by Socrates; they could not therefore play the identificatory role Irwin asks of them, and which requires them to be there consciously at its very beginning" ((1985) p. 234). See also Morgan (1989) p. 175.

In effect, Fine is claiming that if we have true beliefs about Snarks and we employ those beliefs as the foundation for our search, whether we know we are using false beliefs or not we can treat any further true beliefs we derive from our prior beliefs as an epistemic advance, perhaps even as knowledge. Does this seem a valid position?

The answer must be that it does not, for Fine's position seems to assume that the situation in which the inquirer inquires demands only that the inquirer get the right answer, not that the inquirer knows the answer to be right. Such an assumption is unacceptable, however, because it basically fails to take the Finish Line Problem seriously. For consider how a successful investigation would proceed on Fine's account: I start out with both true and false beliefs about Snarks, and I have no way of telling which beliefs are true with any certainty. (If I had such a criterion, I would not need to conduct an investigation in the first place.) But I make a guess that some set of beliefs is true and go from there, eventually arriving at some new set of beliefs derived from the first set. Let us even imagine that these beliefs are true. Do I now have knowledge about Snarks? Surely not, because I am actually now in the situation that Meno describes in his version of the paradox: I have happened upon what I was looking for, but I have no way of recognizing that fact unless I am already equipped with an understanding of the object which is so complete that it makes my investigation pointless. Fine wants to understand the paradox to be a problem about getting the right object in hand, but as we have seen, the problem is not just getting the right thing in hand, it is *recognizing it as the right thing*, and true

beliefs that are not recognizably true cannot solve the latter problem.[11]

This is not, of course, the end of the story, and hopefully the reader is not ready to give in to Meno's argument and give up the possibility of successful inquiry. Indeed, it is clear that Plato himself is not ready to give in; the *Meno* moves on to offer an attack on the paradox in the shape of the Theory of Recollection, and even if that attack should fall short (as I think it does), the very fact that Plato went on to write so many other dialogues shows that he did not think continued philosophical inquiry had lost its point. Everyone will agree, then, that the paradox can and must be rejected; we surely cannot surrender the possibility of making epistemic progress through investigation.

Before, however, we consider Plato's own attempt to explain with the Theory of Recollection how this progress is possible, I wish first to explore how the problems that drive the Meno Paradox play a role in the context of another Platonic problem, the problem of false belief in the *Theaetetus*. This detour through the *Theaetetus* will play the double role of, first, showing that the problems that generate the Meno Paradox are not confined to that dialogue, thereby making my interpretation of the paradox more plausible; and second, by adding a degree of depth to our understanding of those problems and of

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[11] Irwin and Fine tend to connect their account of the theory of recollection to the method of Socratic *elenchos*, and in a sense my objections to their reading of the theory of recollection bear a similarity to the objections that are commonly made to the *elenchos* as a constructive method of reaching the truth. Just as beliefs which survive elenctic scrutiny cannot be trusted because it is possible we have not yet met the brilliant dialectician who could show us the error of our ways, we cannot trust the results of our inquiry if we do not have some independent way of showing our foundations were sound. This might be the case even if the results of our *elenchos* are internally consistent; see *Crat.* 436c-d.

what we must demand of their solution. So at this point, let us slow down for a moment to take stock. Upon examination, it turns out that both Meno's and Socrates' versions of the Meno Paradox afflict all manner of investigations so long as we take the investigation to be an unanchored one into the nature of some determinate object that must be grasped deliberately and non-accidentally in order for the investigation to be completed. The upshot of this is that successful investigation about such objects is impossible; it is not possible to move from a state near the ignorance end of the epistemological spectrum to a state closer to the perfect knowledge end of that spectrum. For as we have seen, such progress requires that one know what object one is making progress about, but since, in cases of investigations nto a thing's identity, such recognition requires knowledge of the very thing that is sought, further investigation concerning that object is pointless if one actually has the resources to carry it out. Now let us move on to see both that and how these ideas continued to play a role in one of Plato's other great epistemological dialogue, the *Theaetetus*.

CHAPTER 2

The Meno Paradox via the *Theaetetus*

At first glance, the *Theaetetus* does not seem a very promising place to look for insight into issues concerning learning, especially the Meno Paradox. That paradox is a problem concerning how we improve our epistemological position, i.e. how we move from a weaker epistemic state to a stronger one, while the *Theaetetus* discusses instead just what knowledge *is*, not how we come to have it. Indeed, at one point Socrates even says explicitly that he is intentionally omitting any discussion of learning.[1] Nevertheless, the second part of the *Theaetetus*, in which Socrates and Theaetetus discuss the definition of knowledge as true belief, contains a long inquiry into the nature of false belief which brings into focus some of the problems that we discovered were underlying the Meno Paradox, especially the problem of identifying and proving the existence of some epistemic state intermediate between total ignorance and perfect knowledge.[2] In particular, the celebrated metaphors of the Wax Block and the Aviary supply new models for understanding the difficulty in finding such an intermediate state and offer possible ways

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[1] 188a, though note that he says he is ignoring learning and forgetting *for the moment*, leaving open the possibility that he will reintroduce those topics later. The rest of the dialogue, however, lacks any such unambiguously marked return of interest in learning as a topic in itself, although elements of the Wax Block and Aviary metaphors do include material that appears to bear on the nature of learning.

[2] This is noted most clearly by White (1976) pp. 181-182.

past the difficulty which may be of help in solving the Meno Paradox as well.

Before we discuss these metaphors, however, we must first lay out some of the assumptions with which Socrates and Theaetetus are working. Both the Wax Block and the Aviary are introduced only after Socrates has laid out a puzzle about false belief which calls the possibility of its existence into question. That puzzle gets developed as follows: Socrates first claims (188a) that for every object one either knows it or does not know it, and then infers from this claim first that whenever I make a judgment[3] about some *x*, I either know *x* or I do not know *x*, and second that knowing *x* and not knowing *x* are mutually exclusive states. He then begins systematically examining possible cases of false belief, asking whether one can mistake a) an object one knows for another object one knows, b) an object one does not know for another object one does not know, c) an object one knows for an object one does not know, and d) an object one does not know for another object one does know. In each case he and Theaetetus agree that false belief would be impossible.

That is because Socrates seems to be assuming that both of the two epistemic states which they have allowed into the discussion allow no mistakes about their objects, though for different reasons. First, in the case of knowledge, one who knows an object cannot mistake that object for something else — neither something else he knows nor something else he does not know — because Socrates apparently assumes that knowing

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[3] I use the words "judgement" and "belief" and their verbal cognates interchangably as both translating the Greek word *doxa*.

an object entails unerringly recognizing examples of that object *as* examples of that object and recognizing anything else as being something else, even if one is not sure what. (To return to the language of Snarks, to know Snarks is to be able unerringly to separate out everything that is a Snark from everything else.) Second, in the case of not knowing, Socrates seems to assume that one has *no ideas at all* about an object that is not known and so cannot have any beliefs about it being anything at all, neither of it being something that he knows nor being something else he has no ideas about.[4] In other words, these two states look respectively a great deal like the two extremes on the epistemic scale we discussed above, perfect knowledge and total ignorance. Hence, if we are confined to only these two epistemic states, it seems false belief is impossible; you cannot have an epistemic state directed at some object that is not knowledge of that object.[5]

Notice as well that the only kind of judgment Socrates discusses here is the kind the Meno Paradox focusses on, i.e. judgments of identification. All of the examples of judgment which Socrates gives throughout this section of the dialogue involve identifying

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[4] This may seem too strong an interpretation, given that Socrates does not explicitly describe this epistemic state and what it entails. Nevertheless, I do not know how else to explain the conclusions which Socrates and Theaetetus both draw from their initial premises about knowing and not knowing, and such an interpretation seems especially called for to explain Socrates' description of the impossibility of *allodoxia* at 190d, where "having something before one's mind" is analogous to knowing that thing and "something *not being present to one at all* [my italics]" is analogous to not knowing that thing. See McDowell (1973) pp. 194-198 and White (1976) pp. 165 and 169-172.

[5] For a consideration of some possible interpretations of this fact see Burnyeat (1990) pp. 71-73.

one distinct object, concept, or kind with another distinct object, concept, or kind; descriptive judgments, such as the claims "Meno is rich" and "Virtue is teachable" which we discussed above, do not appear in this discussion at all. Thus we find two of the elements that generate the Meno Paradox already present in the *Theaetetus*' puzzle about false belief: an interest in correct identification[6] and a problem involving the possibility of an epistemic state intermediate between total ignorance and knowledge.[7]

Let us now consider the Wax Block, one of Plato's most famous attempts to find a solution to the puzzle of false belief. The Wax Block offers a solution to the problem of false belief by introducing two distinct ways of being cognitively related to the object of the false belief, one of which is perception and the other a kind of grasp in thought. This grasp in thought corresponds to the kind of perfect knowledge which makes impossible

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[6] We might imagine Socrates asking, "How is it possible to believe that a Snark is a Boojum? If you don't know Snarks, then you have no beliefs that identify Snarks with anything at all. But if you do know Snarks, then you could confuse them neither with Boojums that you know — for how could you confuse two things you know? — nor with Boojums you do not know — for you have no ideas that identify Boojums with anything. Hence it is impossible to confuse Snarks with Boojums whether you know Snarks or not."

[7] McDowell suggests that "Plato regards the difficulty of [the problem with false belief] as being due not...to the assumption that knowing and not knowing are exhaustive alternatives with no middle ground, but rather to the assumption that they are mutually exclusive" ((1973) p. 198). It seems to me, however, that the two amount to the same thing, for if there is to be a middle ground between total ignorance and perfect knowledge which can solve the Meno Paradox and the *Theaetetus*' problem with false belief it must be such that it explains how we can both know the object of our cognition in one sense, i.e. *as* the object of our cognition, and not know the object in another sense, i.e. not have perfect knowledge of it. In other words, a solution of either difficulty should be a solution of the other.

the confusion in thought of its object with anything else. But the introduction of perception provides a crucial new element which explains how one could misidentify something that one grasps thoroughly, thereby generating a false belief. The story runs as follows: Our souls are like blocks of wax, and on this wax we make imprints of things. There are two ways to take an imprint: 1) to hold the wax under a perception, and 2) to hold the wax under a thought.[8] Once we have an imprint, "Whatever is impressed upon the wax we remember and know so long as the image remains in the wax; whatever is obliterated or cannot be impressed, we forget and do not know" (191de). Hence for every object we either know it (i.e. have an imprint of it) or we do not know it (i.e. do not have an imprint of it), but whether we know a thing or not we may still perceive it.[9] From this account Socrates then extrapolates the possibility of a number of cases of false belief. It is still impossible on this model to confuse in thought something you have an imprint of with anything else — one cannot possibly confuse one imprint with another or something that is imprinted with something that is neither imprinted nor perceived — but one can believe

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[8] Above I mentioned the possible reappearance of an interest in learning in the *Theaetetus*; this is one of the spots I had in mind. The other is the discussion of how we get birds into our mental aviary at 197e.

[9] Presumably perceiving an object is not enough by itself to make an imprint of the object; if it were, then to perceive something would be to know it, and the following explanation of false belief would not go forward. Hence taking an impression of something must require something more than *merely* perceiving it; it requires some kind of focussed and perhaps deliberate intention to remember the object.

that something one has an imprint of is something else that is perceived[10] if one perceives some object or objects and misaligns the perception with the wrong imprint(s).

This model of the soul and its cognition introduces a new way in which an epistemic agent can be related to an object via a state that seems to lie somewhere between having perfect knowledge of the thing and having no ideas about the object at all. On the one hand, one can know the object, i.e. have it fixed by its impression as that particular object, but believe that it is some other object which is fixed in a different way by perception. On the other hand, one can fix through perception an object of which one has no impression and then misidentify it as something else of which one does have an impression. (These two misidentifications really amount to the same thing; in both cases one misidentifies a thing perceived (whether it itself is known or not) with a thing known.) Therefore the model would seem to give us a way of having epistemic contact with an object which is neither perfect knowledge nor total ignorance, both of which rely essentially on perception. Could perception of an object be the middle epistemic state we have been seeking to solve the Meno Paradox, a way of fixing an object as an object of cognition without knowing it completely?

There seem to be a couple of reasons to answer no. First, this model of false belief is obviously no help if the object of the belief is imperceptible, and indeed this is precisely the reason why Socrates goes on to introduce the Aviary, i.e. to explain false beliefs about

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[10] Or vice versa, though one must both a) have an imprint of at least one of the objects and b) perceive the other object or both.

imperceptible objects (*Theaet.* 195d ff.). Hence even if perception turns out to be helpful in solving *some* cases of the Meno Paradox, it can certainly not help in any case where the object of inquiry is something imperceptible.

Second, and more fundamentally, perception seems unable to help solve the Meno Paradox in any case at all because it can offer no help in solving either the Starting Line or the Finish Line Problem. If the Butcher is to complete his investigation of Snarks, he needs to get hold of a Snark and recognize it *as a Snark*. And as we have seen, the Meno Paradox claims this is impossible because without a complete specification of Snarks the Butcher will not know how to start looking for Snarks. It is clear that merely perceiving Snarks could not bring the Butcher closer to his goal. Why? Because merely perceiving a Snark does not make the Butcher any better able to recognize the object of his perception *as a Snark*. In fact, the very aspect of perception which lets it play the role Plato assigns it in the Wax Block analogy, i.e. its ability to fix an object as an object of cognition without identifying that object as the unique thing it is, rules perception out as an aid toward solving the Meno Paradox. The only way perception could help solve the paradox is if perceiving an object brought along with it recognition of what the thing's objective essence is, for then the Butcher would, by seeing a Snark, come to know what Snarkness was; just by looking he could go instantly from total ignorance to perfect knowledge. But then perception would no longer be able to provide a mechanism to explain false belief, for if to perceive Socrates were to be able to recognize Socrates *as Socrates*, confusion of Socrates with anyone else would be impossible. Therefore, if perception is to do the work

Plato requires of it to explain the possibility of (a certain kind of) false belief, it cannot play the role of middle epistemic state we need to solve the Meno Paradox. What we really need to solve the paradox is a state between total ignorance of Snarks and perfect knowledge of Snarks which is not only *about Snarks* — for perception of Snarks achieves that much — but also *about Snarks as Snarks*, i.e. about Snarks in such a way that the agent *knows* that the state is about Snarks, and perception fails signally to accomplish that.

So the Wax Block cannot dissolve the Meno Paradox, but does the Aviary which follows it offer more assistance? Like the Wax Block analogy, the Aviary is meant to explain how false belief is possible by introducing a different way of fixing the object of cognition other than perfect knowledge. Unlike the Wax Block analogy, the Aviary is specifically crafted to account for instances of false belief about objects of thought, i.e. instances of false belief in which the agent misidentifies one thing as another not merely by believing something that he perceives is something it is not, but by believing that the *thing itself* is some other thing. Socrates' preferred example throughout the passage is mathematical: sometimes people try to think about the number twelve but mistakenly think of the number eleven instead (*Theaet.* 196ab). The question is then how this kind of misidentification is possible.

Notice first that the kind of misidentification Socrates has in mind here is impossible on the earlier Wax Block model of the soul. If an agent has an impression of something in the soul, it is impossible for him to mistake the impression of that object for the impression of something else. So whatever the Aviary amounts to, it has to introduce

some new element into the story of human cognition which explains where the Wax Block went wrong. It will accomplish this by drawing a new distinction between ways of having cognitive access to some object, and this in turn will result in a new way of introducing an intermediate epistemic state between total ignorance and perfect knowledge.

Now let us see how the account of the Aviary proceeds. Socrates begins (*Theaet.* 197a) by making a distinction between two ways that someone can be said to know something: she can be said to *have* the knowledge of an object, in which case she has an immediate, conscious, complete grasp of the object, or she can be said merely to *possess* the knowledge of an object, in which case she has the object ready to hand as an object of cognition, so to speak, but is not at that moment consciously contemplating that object of knowledge. Socrates explains this distinction via the metaphor of the aviary; if we imagine the human soul to be an aviary which each of us stocks with birds that are bits of knowledge[11], one merely *possesses* a knowledge-bird if it is held captive in the aviary but is not actually in one's hand, while one *has* a knowledge-bird, and thus knows it in the fullest sense, if one has searched through the aviary and grabbed hold of it. (On this model, then, total ignorance of an object would seem to be a matter of not having the bird for that object in one's aviary at all.) The misidentification of one object of thought for

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[11] This mention of stocking the aviary with birds (*Theaet.* 197e) as a metaphor for learning is another example of a reappearance of an interest in learning in the *Theaetetus*, though as with the Wax Block learning does not become a focus of attention in itself, and the mechanism of learning is left very vague. It is, though, interesting to note that we start life with empty cages, suggesting that here Plato endorses an empiricism which conflicts directly with his theory of recollection.

another is then explained as a result of reaching for a particular bird that one possesses — say the twelve bird if one has been asked what seven plus five is — and grabbing the wrong bird by accident — say the eleven bird. Hence possession of an object of knowledge provides a middle ground between total ignorance of an object — not having the bird in the aviary at all — and a complete grasp of the object — having the bird in one's hands — and this middle ground makes an explanation of false belief possible.

In a moment we will look more closely at the coherence of this account of false belief, but let us pause now to consider whether the possession of an object of knowledge, as a middle state between total ignorance of the object and "having the object in hand", or completely knowing it, can fill the epistemic gap that creates the Meno Paradox. It seems clear that it cannot, for no matter what we understand the epistemic state of possessing an object to be like, it cannot solve the Paradox. There seem to be two possible ways we could understand the possession of an object: On the one hand, possession might allow the agent to mistake the object possessed for another object. (This would seem to be the nature of possession required for the Aviary account of false belief to go forward.) On the other hand, possession might not allow the agent to make such a mistake. Take the latter case first; if possession did not allow misidentification with anything else, then on Socrates' own assumptions about knowledge the agent would already know the thing possessed completely, and possession of an object would collapse into having the object, i.e. knowing it in the fullest sense. But that would make the point of an investigation of the thing disappear. Now take the former case; if possession of the object is compatible

with mistaking it for something else, then mere possession could not be securely converted into having the object because the agent could never rest assured that the thing he reached out and grabbed is really the thing he was after. If possession of a Snark-bird is compatible with grabbing a Boojum-bird by accident and mistakenly believing it nonetheless to be a Snark-bird, then one can never be sure that one has a Snark-bird and not something else.[12]

Famously, however, Socrates presses on in the discussion to find fault with this account of having and possessing in such a way that he draws into question the possibility of making such a misidentification. The central difficulty that Socrates focusses on is that, once an agent has actually grabbed hold of a bird in the aviary and hence knows it in the fullest sense, that complete grasp should forbid his carrying on as though he has the correct bird. Socrates puts the objection thus:

> ...[I]t follows [from the Aviary account of false belief] that a man who has knowledge of something is ignorant of this very thing not through want of knowledge but actually in virtue of his knowledge. Secondly, he judges that this is something else and that the other thing is it. Now surely this is utterly unreasonable; it means that the soul, when knowledge becomes present to it, knows nothing and is wholly ignorant. According to this argument, there is no reason why an accession of ignorance should not make one know something, or of blindness make one see something, if knowledge is ever going to make a man ignorant. (*Theaet.* 199d)

If *having* a bird is compatible with mistaking that bird for another bird — as, in the

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[12] Hence Morgan's ((1989) pp.177 and 180) and Brown's ((1991) p. 615) apparent enthusiasm about the Aviary as a model for a solution to the Meno Problem seems unwarranted.

example above, having the eleven-bird is compatible with believing one has the twelve-bird — then we might reasonably wonder whether *having* a bird counts as knowledge at all. Let us grant that the hunter in the aviary who grabs the eleven-bird does not at that moment know the twelve-bird in the fullest sense; even so, he would have a very dubious grasp of the eleven-bird if he should know it in the fullest sense (after all, he has it in his hands), and yet think it is the twelve-bird. We thus see in this objection that Socrates is firmly committed to the claim that knowledge of some object is absolutely incompatible with making any misidentifications in thought (as opposed to misidentifications via perception) about the object known. Without that claim the objection will not go through.

Interestingly, however, it is just this claim, that the complete grasp of an object makes misidentification in thought of that object impossible, that would seem to offer some purchase on at least a part of the Meno Paradox, namely the Finish Line Problem. To see this, let us return to the Butcher and imagine his investigation of Snarks as a quest to get a Snark-bird in hand. The Finish Line Problem was always the problem that the Butcher would not recognize a Snark as a Snark even if he stumbled on to one, and so would never know that the search was over. But if Socrates' objection to the Aviary holds true, then it would seem he thinks that the Butcher *would* in principle recognize a Snark as a Snark if he ever stumbled on to it, i.e. that somehow coming to know a thing is instantly recognizing that thing for what it is. And since the Aviary seems to permit one first to get knowledge-birds into one's aviary and then grab them in one's hands and know them completely, it also seems to open the possibility that the Butcher could wander

around and fortuitously happen upon a Snark, study it thoroughly, and by that study not only understand a Snarkness but understand it *as a Snark*. It would be as though the right bird happened to fly into the Butcher's aviary, and he then grabbed it. The Butcher would then seem no longer to need to know Snarks already in order to recognize the thing he had learned as a Snark; he would just need to keep grabbing birds that he encountered until he grabbed the right one, and he could further rest assured that even if he grabbed some wrong birds first he would, by virtue of knowing them, know that they were not the birds he was looking for.

Still, we might well wonder whether Socrates has provided enough of a story to justify this kind of move. For everything Socrates says here, his account of the Aviary seems merely a flat denial of the Meno Paradox, not a solution to it. All that Socrates really claims is that once a person grabs a bird, he cannot mistake that bird for any other bird, and further that both getting a bird into the aviary and actually grabbing hold of it are instances of learning.[13] But this is merely to claim that one can learn, not to explain how the actual process of learning takes place. And as we have seen above, whether one starts from total ignorance of an object or mere possession of an object, it is unclear *how* one progresses to the final having of the object. Therefore, the Aviary, like the Wax Block, turns out to be unhelpful in solving the Meno Paradox; at best it offers the promise of a solution without providing the means to make the promise good.

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[13] See *Theaet.* 198d-e.

Of course, part of the reason there is a problem with finding a middle epistemic state to solve the Meno Paradox in this section of the *Theaetetus* is the simple fact that this section assumes that knowledge is true belief. If true belief really is knowledge, then it is hard to imagine what could lie between knowledge and ignorance except for false belief. Once we distinguish knowledge and true belief, true belief itself becomes a candidate for that intermediate state, although we saw in the last chapter that it could not solve the paradox. Hence one of our chief tasks in the coming chapters will be to find new candidates for the intermediate position betweeen ignorance and perfect knowledge, one which hopefully can resolve the difficulties of both the Meno Paradox and the problem of false belief.

What, then, was the point of taking a detour through this section of the *Theaetetus* if it turns out to offer no help on our central problem? The answer is that, even though we do not find solutions to the Meno Paradox in the *Theaetetus*, we at least find confirmation that the key assumptions about the nature of ignorance and knowledge which generate the Meno Paradox as we have described it above are not unique to the *Meno*, but show up in Plato's other great epistemological dialogue as well, where they generate another problem — the problem of false belief — which bears some resemblance to the Meno Paradox. And this confirmation allows us to move more confidently into a discussion of what a solution of the Meno Paradox would require and whether Plato's own answer to the paradox, the Theory of Recollection, meets those requirements.

CHAPTER 3

The Theory of Recollection

What would it take to solve the Meno Paradox satisfactorily? As we have seen, it is essentially a problem about how we can move from a weaker epistemic state to a stronger one, and its paradoxical force hinges on our difficulty in finding an epistemic state strong enough to fix the right object non-accidentally as the object of investigation but weak enough to leave something for us to discover about the object. Hence what we really need to solve the paradox is an account of an epistemic state that meets both these requirements: It must both fix the correct object as the object to be investigated — it must let the Butcher point to a Snark as the object of his investigation and recognize it *as* a Snark — and yet be weak enough a grasp to give investigation a point — the Butcher must still have important things to learn about Snarks. In other words, the Butcher must know Snarks in a sense weak enough to allow him consciously to answer the question "What are you looking for?" correctly and yet not know Snarks in the strong Platonic sense that makes further investigation of Snarks a waste of time.

The big question, of course, is then whether or not Plato can provide us with a satisfactory account of such an epistemic state, especially in the dialogue where the paradox gets its statement. Let us now turn to the critical passage in the *Meno* (81a-86c) where Socrates ostensibly lays out such an account in the form of the Theory of Recollection and see how it holds up.

In a report of the teachings of certain priests and of the poet Pindar, Socrates introduces the essential claims of the Theory of Recollection: 1) the human soul is immortal (81b3-4), but 2) goes through a cycle of death and rebirth (81b4-6); 3) through its many cycles the soul has seen everything that exists and thus learned about everything (81c5-7), and 4) this previous cognition of things allows the soul to recall those things, a process which we call learning (81c7-d5). This report does not, however, offer any argument for these claims, and so Meno quite reasonably asks (81e3-82a6) for some further evidence that the priests' story is true. Socrates responds to the request with a geometry lesson for Meno's slave; he claims that he will stimulate the slave to recollect the answer to a geometry puzzle, namely the length of the line that gives a square double the area of a square of four square feet.[1] It is in the course of this lesson that we must find Plato's solution to the paradox.

As Socrates conducts the lesson, the process of recollection falls into a series of stages:

Stage 1 (Slave is ignorant of his ignorance): Having presented the slave with the problem and made certain that the slave understands that problem, Socrates first draws out the slave's false belief about the length of the line — that a line of double the length yields a square of double the area — and shows

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[1] For the sake of readability, I will call the square with an area of four square feet simply the four-foot square, and similarly for the square of eight square feet (the eight-foot square) and so on.

Meno that the slave believes this answer to be the correct one (82b9-e11).

Stage 2 (Slave realizes he is ignorant): Socrates then forces the slave to admit that his original answer was incorrect because it results in a square four times the size of the four-foot square (82e12-83d5) and gets him to try again; the boy then produces another answer which in its turn he admits must be false, and is at a loss how to proceed (83e1-84a2).

Stage 3 (Slave gets the right answer and realizes it is right): Socrates helps the boy locate the right line, and the slave recognizes that it is the right line by computing the area of the square that it yields and verifying that it produces a square of the right size, the eight-foot square (84c10-85b7).

It does not seem, however, that this sequence of stages completes the process of recollection, for Socrates indicates to Meno that the slave has some way to go yet before he achieves complete knowledge of the solution to the puzzle. This suggests that the slave's epistemic state at the end of the lesson yet permits further strengthening, and thus that there is a fourth stage to recollection which is only described, not illustrated, in the text:

Stage 4 (Slave gets complete knowledge of the subject matter): Socrates says that the slave's present true belief "has been aroused in him just as a dream; but if someone should ask him the same things many times in many ways, you know that finally he would understand these things no less accurately than anyone" (85c9-d1).

Perhaps this conversion of true belief to knowledge is the conversion described later in the dialogue (98a1-4) in terms of tying the cognitive object down with an "account of the reason why", a position which surely has a good Platonic pedigree drawn from other dialogues. Nevertheless, Socrates does not here describe what distinguishes the slave's true belief of the moment from the knowledge he would gain from continued investigation. And without pressing on to this fourth stage Socrates claims that he has demonstrated that it is possible for a person to get a previously unknown right answer to a question while relying purely on his own resources, resources which he could only have accumulated in a previous existence. His conclusion is then that we have reason to be optimistic about our prospects for successful investigation (85d3-86c3).

These are the essential data about the Theory of Recollection in the *Meno* from which we must tease out Plato's solution to the Meno Paradox. Before we try to uncover that solution, however, there are a number of questions which Plato's presentation of the lesson generates which we should pause to consider. Two questions in particular seem pressing: First, what sort of investigation is it that the slave engages in, and second, at what stage or stages of the process Socrates and the slave undertake does recollection occur?

In answer to the first question, we can specify where the slave's investigation lies in a couple of the divisions of investigations fairly easily, but two aspects of the slave's investigation are harder to pin down. Let's take the easy divisions first. On the one hand, it seems clear that the slave's investigation is unanchored. Although Socrates bases his

lesson upon a diagram drawn in the sand, and although the boy is assumed to be competent in Greek (82b), nevertheless it is always clear that the investigation is about squares and lines generally, and furthermore about squares and lines as they really are, independently of how Socrates or anyone else describes them.

It is also clear that the slave is not beginning from total ignorance of the investigation's object, but rather is working with a partial specification. This is true in a couple of ways: First, the slave starts the investigation with some grasp already of the nature of lines and squares; indeed, Socrates is careful to ascertain that the slave has this background knowledge (82b9-c5), and it is hard to imagine how the lesson could have gotten off the ground if the slave had not had at least this foundation to build upon. Second, the slave has a way of describing the object of his investigation even before he has found the exact line which he is after — he knows that the line he seeks will yield an eight-foot square. And this allows him to recognize both false answers as he adopts them and the true answer once he has found it.

On the other hand, the object of the slave's investigation is a bit harder to isolate. This difficulty is not a matter of the broad kind of object the slave is investigating; whatever he is seeking seems clearly to be an abstract geometrical object, not a concrete particular. Though Socrates is conducting the lesson with the help of a visual aid, a drawing in the sand, surely it makes more sense to understand the slave to be seeking for

the abstract object the drawing represents rather than the drawing of the object itself.[2] Nevertheless, there is some ambiguity about how exactly we should say *which* abstract geometrical object the slave is seeking for. The most obvious answer is of course the line which produces the eight-foot square, but I think it is also possible to take the slave to be investigating the eight-foot square itself. Socrates' initial question for the slave is, "Come now, try to tell me how long each side [of the eight-foot square] will be. For the side of [the four-foot square] is two feet; what about the side of the one which is its double" (82d9-e3)? And this question is as much about the square as it is about the square's side.[3]

This ambiguity also generates an ambiguity about the kind of question Socrates is asking the slave to answer. Depending on how we resolve the ambiguity about the object of the slave's investigation, we will end up with a different position on the question whether the slave is seeking the definition or essence of the investigation's object or rather some non-essential quality of the thing. If the object of the investigation is the line which

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[2] See Vlastos (1965) pp.148-58. Also, the other dialogues where the Theory of Recollection plays a prominent role, the *Phaedo* and the *Phaedrus*, both suggest that it is abstract objects, and Forms in particular, that we recollect; indeed, they seem to limit recollection to Forms alone. In this respect it is possible they pull apart from the *Meno*, though I will not explore this issue for reasons of space.

[3] Of course, it might be a mistake to take the object of the slave's investigation to be a specific object at all; the goal might instead be a proposition, the right answer to the question "How long is the side of the eight-foot square?" Nevertheless, in the *Meno*, the *Theaetetus*, and in dialogues we have not discussed like the *Cratylus*, Plato seems always to have objects like individual people and abstract objects like numbers in mind as the objects of our cognition, and indeed it is only in the *Sophist* that we begin to see any interest in something like propositions *per se*.

generates the eight-foot square, then arguably Socrates is asking the boy to answer a question about the line's essence, assuming that a line's length is what identifies it as that line and not another. On the other hand, if the object of the investigation is the square, then Socrates' question may be asking merely about some quality of the square which has its essence defined in some way other than the length of the side, for instance by having the area of eight feet and sides of equal length (things about the square which the slave already knows). As we will shortly see, this issue is actually quite important, since by Socrates' own account we cannot answer questions about the qualities a thing possesses until we have determined what that thing is (71b3-8). Therefore, if the object of the investigation is the square rather than the line, it appears that by Socrates' own theory the slave must already know the eight-foot square's essence in order to be able to answer Socrates' question about the length of its side.

Let us now turn to the other question we asked above: When does recollection take place in the slave's lesson? We isolated four stages of the lesson: 1) unrecognized false belief, 2) recognized false belief, 3) true belief, and 4) knowledge, which is based, presumably, on an account of its object. When does the slave recollect, if he recollects at all?

A number of positions seem possible. One extreme position is that we only recollect when we attain knowledge, in which case the slave has not actually recollected anything by the end of the lesson, but could recollect if he kept on studying. Alternatively, we could say that the slave recollects at stage 3 when he gets a true belief about the side

of the square, or even that he recollects as early as stage 2, when he recognizes his ignorance, the idea being that even recognizing a false answer as false requires recollection of the object. Finally, we could take another extreme view and argue that the slave recollects even when he offers false answers as though they were true. (I take it as obvious that total ignorance of an object, understood as having no ideas about the object at all, could not possibly count as recollection, and so false belief must be the earliest possible stage at which recollection might begin.) What can be said for each of these positions?

It is certain that, wherever recollection may start, it ends at knowledge, so we must at least grant that the slave would be recollecting if he reached stage 4; the question then becomes whether there is any reason to restrict recollection to that stage alone. There seems to be only slim textual evidence in the *Meno* itself to suggest so strong a restriction: At 85d6-7, for instance, Socrates asks Meno whether "finding *knowledge* [my italics] within oneself is not recollection" and this comes in a context that could be taken to suggest that the slave will not have recollected until he has achieved knowledge. There are, however, some powerful reasons to think that recollection must start at some earlier stage. For one thing, in the passage immediately following 85d6-7 Socrates goes on to argue that, whatever geometrical knowledge the slave has, he must have either possessed it always or else acquired it at some point. Meno then vouches that the slave has not acquired the knowledge in this lifetime, which would lead one to conclude that the slave has known geometry always. But this is not what Socrates concludes; he instead has

Meno confirm that the slave's *beliefs* could not have been acquired in this lifetime (85e7), and then draws the conclusion that the slave's *true beliefs* must have been in him for all time (86a6-10). This claim does not rule out the possibility that the slave's soul has also always contained knowledge — in fact, if the slave is to be genuinely capable of eventually attaining knowledge then it would seem knowledge must have always been in his soul as well — but it seems to insist that the slave's attainment of mere true belief could not be explained without reference to the soul's pre-carnate existence and so counts as evidence of recollection. This is strong evidence that the process of recollection begins at least at stage 3 with the achievement of true belief.[4]

There also seems to be some textual evidence which suggests that the process of recollection starts as early as stage 2 with the recognition of false beliefs as false. At 82e12-13, Socrates has just drawn a false belief from the slave and is about to show the slave that his belief is false; i.e., this is the moment between the end of stage 1 and the beginning of stage 2. It is here, however, that Socrates says, "Watch [the slave] now recollecting things in order, as one must recollect." This seems to imply that everything which follows counts as recollection, in which case recollection would begin with stage 2. Furthermore, since we will not feel the need to undertake an investigation of an object so long as we believe we know something about that object, there is an important sense in which we might say that investigation begins with the recognition of our own ignorance.

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[4] Cf. Nehamas (1985) pp. 238-39.

So long as one believes that he can make many good speeches on a subject many times before many people (see 80b2-3 and 84b11-c2) he will not realize the need for recollection of the object and so not undertake the process in the first place.

Of course, 82e12-13 might not refer to the material immediately following it, but to some later part of the lesson, perhaps even to the slave's attainment of true belief in stage 3, so by itself this passage is not unambiguous evidence for recollection at stage 2. Nevertheless, the case for starting recollection at stage 2 may also be strengthened if we consider what a solution to the Meno Paradox requires. One of the chief problems facing the investigator is the Starting Line Problem, the problem that if you do not already know the object of your investigation then you cannot tell which of all the things you do not know is actually the thing you are looking for. (Remember as well that this was the one of the two problems which Socrates explicitly maintained in his own version of the paradox.) Hence a solution to the paradox ought to explain how it is possible for us not only to recognize the right object as the thing we need to investigate but also to rule out the other possible objects that confront us. Perhaps this ability to avoid wrong turns does not always require recollection; presumably one could avoid some false turns by detecting contradictions that they commit one to, as Socrates often does by employing the *elenchos*. Nonetheless, in so far as one has managed to come to a true belief and recognize it as such, to that extent one will also be able to recognize false beliefs as false beliefs. Furthermore, it is not clear that one could always detect contradictions in an account without any grasp of the account's subject matter; perhaps some contradictions require

only an understanding of basic logical principles for their detection, but there may be some contradictions which are not straightforward logical contradictions so much as they are conceptual contradictions which one could not detect without some grasp of the relevant concepts. (Arguably, the slave's investigation may be of the latter kind, requiring a grasp of basic geometrical concepts as well as fundamental logical principles.) It is therefore at least possible that the resources which allow the slave to recognize the falseness of his false beliefs also make him more able to recognize the true belief as true, and therefore may count as a part of recollection.

Finally, dare we be so bold as to push the process of recollection all the way back to the first stage of the slave's lesson? To do so would be to say that the slave had begun recollecting even before Socrates said a word to him. This position has seemed absurd to many interpreters; Nehamas, for instance, dismisses the possibility that false beliefs could be recollected in any sense (though he does not offer an argument to that effect)[5], and Dominic Scott has argued against the possibility of recollecting falsehoods at some length. In *Recollection and Experience*, for instance, he argues as follows:

> Now try saying that when Socrates extracts the false answer from the slave boy he is making him recollect; try saying this while at the same time remembering that Socrates is using the examination to prove to Meno that learning is recollection, as part of his programme to show that discovery is possible....If Socrates can convince Meno that he is not teaching the boy but merely questioning him, and if

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[5] "...[I]t would be very strange of [Plato] to consider that both the recovery of knowledge and the recovery of false belief are equally cases of recollection" ((1985) n. 37). Nehamas offers no further elucidation of what he takes the problem with false recollection to be, but on the surface it seems close to Scott's objection.

> Meno himself knows the answers, then he may be persuaded that when the slave boy gets it right, he is deriving knowledge from within. But if Meno sees the boy "recollecting" false judgments, Socrates' programme is completely ruined. If we can derive from within ourselves false as well as true judgments, we shall need to decide which are which. But how are we to make this decision? Is there to be another process of recollection to help us find out? If so, we have an infinite regress on our hands. If we can spare recollection from falling into these problems, so much the better; and we can — so long as we reject any interpretation that is not content to limit Plato's interests to the problem of how the slave boy got the right answers, but how he got the wrong ones as well.[6]

So if Scott is right, extending the process of recollection all the way back to stage 1 is intolerable because it makes false beliefs a product of recollection on a par with the true beliefs we see the slave produce. It will not do to have us recollecting Boojums as well as Snarks.

Is this, however, a fair objection to recollection at stage 1? It would certainly seem to be reasonable to object to the claim that recollection could *end* in both knowledge and false belief, since as Scott points out such a claim renders the Theory of Recollection unable to solve the Meno Paradox by introducing a new problem of how we sort out recollection of falsehoods from recollection of truths. But Scott's objection invites the question, does extending the process of recollection to include stage 1 require us to place the slave's false beliefs on a par with the true belief he recollects at the end of the lesson? Surely the answer must be that it does not, for we can say that, though having a false belief about something is not the successful completion of recollection, it is an important step along the path to complete recollection. Indeed, we can make the stronger claim that

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[6] Pp. 37-8; he offers virtually the same passage in (1987) pp. 352-3.

even though false belief does not count as the end of recollection, it would be impossible to attain even false belief without recollection. For again, if we look to what the Meno Paradox requires of a solution, there is good reason to think that the solution to the paradox must not only explain how we finally move from a weaker epistemic state to knowledge, it must also explain how we can get to a state short of knowledge but stronger than total ignorance. I.e., as we saw when we examined the paradox itself, *any* movement from a weaker epistemic state to a stronger one is problematic because it would seem to require a confidence that one knows what one's epistemic state is about which is not warranted by any state short of knowledge. Hence the Theory of Recollection may well need to explain not only how we attain knowledge about an object, but also how we fix the object *as the object of any epistemic state at all*, including false belief. If this is true, then the Theory of Recollection is necessary to explain how the slave's false belief can be *about* the line he is after to begin with; it explains not only how the slave can give the right answer to Socrates' question, but how the slave can recognize what Socrates is asking him about and give an *apposite* answer, true or false.[7]

Thus there is less to say against, and more to say for, the extension of recollection all the way to stage 1 of the slave's lesson than critics like Scott may have recognized.

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[7] It is interesting to note that the view that false belief required recollection was held by an ancient Platonist, Bion. Damascius reports: "Bion asked the question whether falsehood too is a result of recollection, as its opposite is, or not, pointing out the absurdity of this. The solution is that falsehood, too, owes its origins to a semblance of truth and that this semblance is something one would not take for the truth, if one did not know the truth somehow" (Westerink (1976-77) II p.170).

This is not to say that we can draw the line of recollection's beginning with any certainty; I tend to agree with Scott[8] that Plato's presentation of the Theory of Recollection in the *Meno* itself is not sufficiently precise to give us a clear picture of Plato's view on the matter. Nevertheless, I think that we cannot restrict the range of viable starting points for recollection as tightly as Scott and Nehamas would have it.

Now, finally, let us ask how the Theory of Recollection solves the Meno Paradox, if it solves it at all. Of course, a great many interpreters have offered accounts of how the Theory of Recollection solves the paradox; in fact they are so many that I will not attempt to discuss them all here. Nonetheless, it is perhaps appropriate to discuss some broad commonalities which many of these accounts share and the way in which I think these shared qualities lead the accounts astray.

What is most striking about the crop of accounts of the Theory of Recollection that has arisen in the last fifty years is how almost every account minimizes or eliminates the role of recollection itself — the recovery of information accrued somehow in a pre-carnate existence. Instead, a strong trend has developed toward focussing attention on the way in which we make use of epistemic resources we already possess, however we got them, to extend our epistemic grasp to new, previously unknown things and new facts about familiar things. Hence Vlastos and Moravcsik understand the Theory of Recollection to be an account of how we extend our knowledge by drawing a priori

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[8] (1995) p. 36.

logical inferences from propositions we already know[9] or exploring basic concepts that we possess.[10] Crombie explains the Theory of Recollection in terms of our innate ability to classify things into kinds which reflect the kinds that exist in nature and then to explore the nature of the things our natural classification separates out.[11] Irwin and Fine see in the Theory of Recollection the process of the Socratic elenchos and claim that the slave's lesson shows how we extend our knowledge by building on true beliefs which already exist in us;[12] Wilkes seems to follow them in this reading.[13] Though these philosophers differ on many points of detail, all seem to share the belief that the way the Theory of Recollection solves the paradox is essentially through postulation of some kind of epistemic resources, already available to the investigator before he begins his investigation, which enable him to arrive at a successful conclusion to the investigation. The question of where those resources come from is, for the most part, politely left an open question.

It is not difficult to see why this sort of move is an attractive one. If we look at the geometry lesson itself, the chief moral that it leaves us with is that the slave had in him the resources to move from a weaker epistemic state to a stronger one, and so there is a point to the slave's investigation, i.e. there is some legitimate hope of success. The slave begins

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[9] Vlastos (1965).

[10] Moravcsik (1971).

[11] Crombie, "Socratic Definition" and (1962-63).

[12] Irwin (1977) and (1995); Fine (1992).

[13] Wilkes (1979).

the lesson with some grasp of what squares, lines, numbers, and the like are, and by the end of the lesson he has a better grasp. The recollection part of the Theory of Recollection only comes in because Socrates argues that the resources on which the slave relies could not have been installed there during his present lifetime, but this limited role for recollection does nothing to explain how the slave did get the resources or, most importantly, *how those resources constitute the intermediate epistemic state we need to avoid the paradox*. Given this absence of a fuller explanatory role for recollection and the obvious unattractiveness to a present-day reader of locating the epistemic resources' origin in a pre-carnate existence, the tendency to focus simply on the way already existing epistemic resources make learning possible is entirely understandable. The main question of interpretation then is just where most interpreters today put it, on what kind of epistemic resources make the slave's learning possible.[14]

I wish to suggest, however, that it is futile to seek the answer to this question in Plato's presentation of the geometry lesson, for the simple reason that the inquiry that

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[14] White makes the point eloquently: "...[W]hat is crucial about recollection, as an answer to the paradox of inquiry, is not that it is recollection, nor that it concerns what one already knows, but that it provides one with a way of beginning one's cognitive efforts short of their goal, while nevertheless being able to specify what the goal is and to recognize it when it is reached. This would be the crucial move in answering the paradox, even if...the supposition that we recollect were the only possible device for removing the difficulty the paradox poses....[The general problem] is a problem of clarifying what the starting point of investigation is to be, how it attains its ends, and how the attainment of its ends is to be recognized. Directed investigation... does not begin *in vacuo*; it begins with an understanding of its aims. The appeal to recollection as such tends to obscure this fact, and to turn attention away from what needs attention most" ((1976) p. 53).

Socrates there assigns to the slave *is the wrong kind of inquiry*. As we established some way back, through the Priority of Definition Principle Socrates himself makes questions about the attributes of an object of investigation posterior to questions about that object's essence; we cannot say what a thing is like until we know what that thing is (*Meno* 71b3-4). The question that the slave answers, however, seems to be a question about a quality of squares, not about the essence of the square itself, and indeed it is hard to imagine how the slave would have been able to accomplish the inquiry if he had not already possessed this information about the square's essence. For consider how the slave actually solves the Starting Line and Finish Line Problems in his investigation: the slave can rule out wrong answers, i.e. recognize Boojums as Boojums, because he has a method for testing any possible answer for its correctness — he sees whether a given line when squared produces an eight-foot square. This constitutes a solution to the Starting Line Problem. And the very same method of testing answers lets him recognize the right answer when confronted with it — he sees whether the diagonal when squared produces an eight-foot square, and when he finds that it does he realizes that he has attained the goal of his inquiry. And this constitutes a solution to the Finish Line Problem. But a solution to either problem would be impossible without this pre-existing identification of the thing he is seeking for, and so the geometry lesson turns out to be something of a cheat; what we really want to know is how it is possible to successfully complete an investigation into an object the identity of which is in question, but the investigation the slave completes is only possible because the important kind of investigation has already successfully been

completed before the dramatic action of the lesson ever takes place. The lesson that would really show us how to escape the paradox is the lesson in which the slave learns what squares, lines, and the like are to begin with, but of course that is not what we get. And the uselessness of the lesson we do get as a solution to the Meno Paradox is especially clear if we ask how we could generalize the details of learning in the geometry lesson to explain how Meno, for instance, could learn what virtue is; because Socrates and Meno do not begin their inquiry with anything like a specification of virtue that gives a decision procedure of the kind that the slave employed, it is not clear how their investigation could proceed to a successful conclusion.[15]

If this interpretation is correct, then even if we can specify the nature of the resources the slave employs in the lesson itself — i.e. determine whether to characterize the resources he brings to the lesson as true beliefs, or a grasp of basic concepts, or the ability to make deductive inferences, or whatnot — we will not have thereby solved the Meno Paradox unless we can go on to demonstrate how those same resources would make possible the kind of inquiry which the paradox is about.[16]

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[15] Gail Fine ((1992) p. 211) argues that the successful completion of an ethical inquiry is no more problematic than the successful completion of a geometrical inquiry like the one in the *Meno* because both proceed not by deductive inference so much as by trial and error. Even if that is so, ethical inquirers can only take solace from the geometry lesson in the *Meno* if there is some way such as the slave possesses of reliably recognizing errors as errors.

[16] Dominic Scott (1991) claims that the Theory of Recollection in the *Meno* is not intended to solve the Meno Paradox, at least not on the paradox's own terms, but rather only to show Meno that we have reason to think inquiries can be successful. I certainly

This is not to say, it must be noted, that the Theory of Recollection cannot turn out actually to be Plato's intended answer to the Meno Paradox. The reappearance of recollection in other dialogues like the *Phaedo* and *Phaedrus*, and perhaps the *Republic*, suggest that it was an idea that Plato thought deserved serious consideration, and Nicholas White has suggested that something very like recollection appears as the ultimate solution to the Meno Paradox in the *Seventh Letter*.[17] I am claiming, however, that if Plato ever thought that he had adequately explained the details of human epistemic development in such a way that he successfully characterized the specific error of the epistemological theory underlying the Meno Paradox and made the mechanism of human learning clear, he was wrong. We are accordingly justified in looking elsewhere for a more helpful treatment of the problem.

The legacy of the Meno Paradox turns out to be a burdensome one; it seems in the final analysis that Plato may have set up a problem for which he could supply no adequate solution. Or, to be more precise, Plato may have set up *two* problems that he could not solve: one, the Starting Line Problem, involving how we determine the goal of an inquiry; the other, the Finish Line Problem, involving how we know when we have reached our

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agree that, whether Plato intended the Theory of Recollection to solve the Meno Paradox or not, it actually fails to meet the paradox on its own terms, but since I believe that the assumptions which generate the Meno Paradox also underlie problems which he certainly does take seriously in other dialogues (I have discussed the *Theaetetus* in that light above, but I also believe similar stories can be told about the *Charmides* and *Cratylus*), I am hesitant to agree with Scott that Plato thinks the Meno Paradox is a mere sophist's puzzle.

[17] White (1976) Ch. 8.

goal. In any case, most of the philosophers who inherited these problems certainly did not accept Plato's solution, the Theory of Recollection; at the very least, the empiricist and materialist commitments which characterize Aristotle's position would not permit a solution which relied heavily on an incorporeal pre-existence of the human soul. But as we have seen, it is not entirely clear that the part of the Theory of Recollection which involves recollection proper is really the part that did the heavy work in solving the paradox in the first place; what a proper solution really requires is an account of an epistemic state between total ignorance and perfect knowledge which, as White puts it, "provides one with a way of beginning one's cognitive efforts short of their goal, while nevertheless being able to specify what the goal is and to recognize it when it is reached" ((1976) p. 53). Therefore, as we move on to examine Plato's most important and direct heir, Aristotle, we will want to focus on two main questions: first, how Aristotle understands the paradox to work in the first place; and second, how he tries to fill in the epistemic gap which the paradox creates.

PART II

Aristotle on the Meno Paradox

A few things are clear: Aristotle was familiar with Plato's *Meno*, and he had recognized and given some thought to (in some form) both the Meno Paradox and the Theory of Recollection. He explicitly refers to the *Meno* in two places: In *Post. An.* I.1.71a29-30 he mentions the Meno Paradox by name (*to en tôi Menôni aporêma*), while in *Pr. An.* II.21.67a22-3 he refers to the Theory of Recollection (*ho en tôi Menôni logos hoti hê mathêsis anamnêsis*). Furthermore, it is hard to doubt that the beginning of *Post. An.* II.19 is directed against recollection, since Aristotle there refutes the view that the cognitive states which make it possible for us to grasp the first principles of science could have been there all along without our knowing it (99b25-28). Hence we may confidently assert both that Aristotle was aware of the puzzle the *Meno* raised and Plato's attempt to solve it, and that he thought these interesting and/or important enough to discuss in a number of contexts where he tries to clarify the nature and mechanism of learning. So much shows that it cannot be fruitless to ask how Aristotle understood and ultimately solved the Meno Paradox.

On the other hand, working out the *specific details* of how Aristotle thought the paradox functioned and how it could best be solved is another matter altogether. The two passages where he explicitly discusses the *Meno* are obscure in the great Aristotelian manner, packed with technical language (which is often used in unexpected, even unparalleled ways) and puzzling distinctions and are aimed at a dialectical goal which is not always transparent to the reader. Worse yet, neither passage is particularly revealing either of how the paradox works or how it ought to be solved. In the same vein, the

attack on recollection in *Post. An.* II.19, though not terribly obscure in itself, makes up a small part of one of the most important and difficult passages in Aristotelian epistemology, a passage which has tormented generations of scholars with its ambiguities, its apparent contradictions with other texts in the corpus, and its frustrating gaps in argument. There are thus many challenges facing anyone who would explicate Aristotle's understanding of the Meno Paradox.

I intend to approach these problems in the following way: First, I will discuss the two passages which explicitly mention the *Meno*, largely just to demonstrate that they do not offer the information we need to construct an Aristotelian solution to the Meno Paradox. With this dispiriting conclusion drawn, I will then proceed by developing the last chapter's insight that a solution to the Meno Paradox must explain how it is possible to grasp the object to be learned clearly enough to recognize it *as* the object to be learned while still not grasping the object so clearly that a mistake about it is impossible. In order to supply such an explanation I will discuss the content Aristotle attributes to his different stages of cognitive development and then use this discussion's results to reconstruct Aristotle's positive account of learning — especially as it is presented in *Post. An.* II.19 — and recast this account as a solution to the Meno Paradox. Finally, working from the insight that a genuine solution to the paradox requires a solid error theory, I will consider Aristotle's treatment of false belief. We will find at last that the epistemological account that explains how Aristotle avoids the Meno Paradox provides us with a solution to the Problem of False Belief as well, thus resolving both of the problems with characterizing

the intermediate epistemic state with which we are confronted.

CHAPTER 4

Aristotle's Explicit References to the *Meno*

It would be nice if we could turn to Aristotle's references to the *Meno* to find out how he understood the argument of that dialogue, but sadly they turn out to be of little worth in that regard. To demonstrate this fact we must look at two passages. First, consider this passage from the *Posterior Analytics* in which Aristotle mentions the Meno Paradox:

> It is possible to have cognition[1] when you cognized some items earlier and grasp the cognition of the others at the very same time (e.g. items which in fact fall under a universal of which you possess cognition). For you knew in advance that every triangle has angles equal to two right angles; but you cognized that this figure in the semicircle is a triangle at the same time as you were making an induction. In some cases learning occurs in this way, and the last term is not cognized through

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[1] Traditionally, translators translate *gnôsis* and its verbal cognates with "know" and then offer a footnote to distinguish it from the other "knowing" verbs, especially *epistasthai*. (See, for example, Barnes (1993) p. 82.) I, however, wish to depart from tradition at this point and translate *gnôsis* as "cognition". My reasons for this are as follows: Aristotle describes many epistemic states as *gnôseis* which are far distant from the kind of epistemic end-point that true *epistêmê* represents. For instance, at *De Mem.* I.450a11-12 Aristotle calls the perceptual faculty's grasp of space and time a *gnôsis* (which Hett (1957) actually translates there as "cognition"), and at *Met.* I.1.981b11 he says that perception is the "most authoritative *gnôsis* of particulars" (see also *GA* 731a33). Similarly, at *Met.* I.1.981a15 he says that *empeiria* is the *gnôsis* of particulars (whereas *technê* is the *gnôsis* of the universal). Both *aisthesis* and *empeiria* are, however, still quite distant from the epistemic heights of *nous* and *epistêmê*. So *gnôsis* seems to be best translated by a word that renders a wider range of epistemic states than "knowledge" seems to, and "cognition" seems to be the best bet. One must note, however, that *gnôsis* always seems to be *successful* cognition (I have looked in vain for an Aristotelian instance of false *gnôsis*), and so one should read my renderings of "cognition" as implying successful cognition unless I explicitly say otherwise.

> the middle term, for example when the items are in fact particulars and are not said of any underlying subject.
>
> Before you have made the induction or before you grasp the deduction, you should perhaps in one way be said to understand, but in another way not. For if you did not know there was such-and-such a thing *simpliciter*, how could you have known that it had two right angles *simpliciter*? Yet it is plain that you do understand it in *this* sense: you understand it universally — but you do not understand it *simpliciter*. (Otherwise the puzzle in the *Meno* will arise; you will learn either nothing or what you already know.) (*Post. An.* I.1.71a17-30)[2]

This passage suggests a number of interpretive problems,[3] but the one which must exercise us is the proper interpretation of the reference to the paradox itself.

Let us first put the reference to the Meno Paradox in its context. Aristotle devotes this first chapter of the *Posterior Analytics* to the defense of his claim that all learning and all teaching arise from pre-existing cognition, and in the course of that defense he introduces a case of learning in which two things are learned simultaneously on the basis

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[2] My translation of this passage is controversial (but then, so is every other translation). Especially disputed are the proper translation of *ê* at 71a25 (is it starightforwardly disjunctive, or epexegetical?) and of the appearances of *epagôgê* 71a21 and 24. For my full defense of the translation, see my (1999).

[3] Here is just a brief sampling of difficult issues that call for resolution: How does the passage above and its sequel fit into the project of the chapter as a whole, which is ostensibly to show that all learning and teaching proceeds from pre-existing *gnôsis*? What is it specifically that we learn simultaneously, and how is this possible? What is the role of *epagôgê* in the passage, and how does it relate to the grasping of a syllogism (*labein sullogismon*)? How can knowledge of particulars ever be properly described by Aristotle as *epistêmê haplôs*?

I cannot here spare the attention to these interesting questions which they deserve, but for my full discussion of them see my (1999).

of a single piece of pre-existing knowledge.[4] He characterizes such cases as ones in which the objects of cognition are particulars, and so are not grasped through a middle term (though the reason why this is so is left a bit vague); in such cases one may know in advance a universal truth about a class of things — his example is the knowledge that "All triangles have interior angles equivalent to two right angles" (an unwieldy predicate I will render as "has 2R") — and proceed on the basis of this knowledge to learn at the same time both that a particular instance falls under the universal and that that particular possesses some property of the universal class — e.g. both that "This figure in the semicircle is a triangle" and "This triangle has 2R". Aristotle then goes on to say that there is a sense (though it is not knowledge *simpliciter*) in which we can be said to know that all instances of a known universal have the properties of the universal even before we recognize the particulars as instances of the universal. And finally, he argues that if we do not make such a distinction between senses in which we know the particular "the puzzle from the *Meno* will arise: you will learn either nothing or what you already know". So the Meno Paradox appears here in the context of an explanation of simultaneous learning which involves the classification of particulars under a universal, and the paradox itself is introduced to motivate a distinction between senses of knowing, for if we do not make the

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[4] Presumably his discussion of this case is meant to disarm a potential objection which would point to the two items learned simultaneously as an instance of learning that does not proceed from pre-existing knowledge. Aristotle, however, takes care to point out that *both* items are derived from a single item that was previously known, defusing the objection.

relevant distinction we will end up in the paradox's grip.

Clearly the most important question for our present purposes is precisely what the paradox is that confronts us when we fail to make the distinction between the implicit knowledge of all particulars which knowledge of a universal entails — what Aristotle calls "universal knowledge" — and explicit knowledge of a given particular. But when we ask this question, a problem quickly confronts us, for were we not directed by the explicit reference to the *Meno* to look in the passage for the Meno Paradox as we know it, we would most likely describe the problem Aristotle tackles here as a different one entirely. The paradox that the passage seems to address most directly is one that Mark Gifford calls the Paradox of Knowing Universals (PKU), a puzzle that turns on an ambiguity in the quantification of "*S* knows that all *F*'s are *G*'s."[5] In Barnes' construction, the paradox runs as follows:

(1) **b** knows that everything G is F.

(2) **a** is G.

(3) **b** does not know that there is such a thing as **a**.

(4) Therefore (from (3)) **b** does not know that **a** is F.

(5) But (from (1) and (2)) **b** knows that **a** is F.

(6) Therefore, at the same time **b** both knows and does not know that **a** is F.

It is clear how the distinction Aristotle draws between different kinds of knowledge solves

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[5] See Barnes (1993) pp.87-9; Ferejohn (1988) pp. 101-3; and Gifford (1999) pp.3-4.

this paradox; it defuses the apparent contradiction between one's knowledge and ignorance of the same thing by showing that the contradiction depends on an ambiguity in the word "to know". Still, this paradox, however interesting it may be, does not have an immediately obvious and direct relationship to the Meno Paradox. The trick, then, is to see how we might derive the Meno Paradox from PKU; without the distinction between universal and particular knowledge we clearly end up stuck with PKU, but what could Aristotle mean when he says that without this distinction we get the Meno Paradox, the dilemma that we learn either nothing or what we already know?

It is relatively easy to see why Aristotle would say that without the distinction we learn what we already know. If there is no difference between knowing a universal and having explicit knowledge of every particular which falls under the universal, then we indeed learn nothing that we did not already know when we bring a new particular under the universal. If one's knowledge that all triangles have 2R entails that one explicitly knows of every particular triangle individually that it has 2R, then when one learns that such-and-such a particular is a triangle, the information that that triangle has 2R does not come as news.

By contrast, the first horn of the dilemma (to the effect that without the distinction between senses of knowledge one learns nothing) is more difficult to generate on the basis of this passage alone, although much depends on just what Aristotle means by saying that without the distinction between senses of knowledge one learns nothing. Two interpretations seem possible for this phrase. First, we could take the phrase "one learns

nothing" to mean basically the same thing as the other phrase, "one learns what one already knows". That is, if we have universal knowledge, we cannot learn anything about the instances falling under the universal which we do not already know: we can learn *nothing new*, and if we learn nothing new, then we do not really learn at all.[6] In this case, the statement of the paradox would be only an apparent dilemma. The two horns would then represent not genuinely different threats to the possibility of learning, but rather would both describe the same breakdown of the learning process by playing on an ambiguity in our requirements for claiming that someone has learned something.

Alternatively, we can take the claim that one learns nothing to mean that one cannot grasp some proposition at all unless one already has the sort of grasp (of that proposition or another that entails it) that makes learning the proposition pointless. Hence we may take him to mean, in the present case, that if you do not already know that all triangles have 2R in the universal sense that entails *explicit* knowledge of all particulars as well, you cannot come to know the fact that this particular triangle has 2R. In other words, Aristotle may mean that knowledge of any particular triangle is impossible without universal knowledge of triangles which *explicitly* covers all triangles. Now, it is perhaps possible to construct an argument for this position. For instance, something along the line of Plato's Priority of Definition Principle (*Meno* 71b3-4) might do the work Aristotle requires, but it is hard to imagine that such an argument can rely only on what Aristotle

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[6] Cf. *Metaph.* I.9.992b24-33.

says about this point in this chapter. In it he does nothing at all to justify the claim that we cannot know particulars unless we know the universal under which they fall. At most, his argument justifies an entailment from universal knowledge to implicit knowledge of the particulars; it does not justify the entailment from explicit knowledge of a particular to knowledge of the universal. Moreover, on a more skeptical note, the claim that the possession of universal knowledge is a necessary condition for the possession of explicit knowledge of particulars seems to fly in the face of both common sense and Aristotelian epistemology. As Gifford puts it:

> ...[W]e would have to know that all frogs have hearts before we could know that Kermit, say, has a heart.
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> But this is an exceedingly awkward position to adopt. For if not on the basis of explicit knowledge of at least one singular statement, how could one come to know the universal truth under which such a statement falls? It is not easy to imagine how Aristotle might have thought we could come to know that all frogs have hearts, say, without knowing of at least one frog that it has a heart....
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> Not only that, but with [premise (2)] Aristotle would also be flatly contradicting his standard, empiricist view of how we come to know universal statements through induction. In fact, this view can be found only a few lines earlier within I.1 itself, at 71a6-9, where, in support of his opening thesis that all inferential knowledge-acquisition proceeds from prior knowledge, Aristotle appeals to inductive arguments, since these arguments "establish a universal on the evidence of the particulars." Thus, insofar as we must know the premises of an inductive argument in order to come to know the universal statement inferred on their evidence, this passage clearly reveals what is obvious anyway, namely, that for Aristotle, at least paradigmatically, one cannot come to know a universal statement without first knowing at least one of the statements that exemplify that universal truth.[7]

Hence the safest construal of the paradox in this case is the one that casts it as only an

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[7] Gifford (unpublished) pp. 7-8.

apparent dilemma in which the two horns are really just different descriptions of a single problem.

Even if Aristotle actually does want us to construe the paradox as a genuine dilemma, and even if there is an argument with solid Aristotelian credentials to justify that construal, the resulting paradox still does not look much like the paradox as Plato develops it in the *Meno*. As we saw in Chapter 1, the paradox is an especially dangerous threat, and is meant by Plato to be an especially dangerous threat, to inquiries about universals themselves — essences, definitions, and the like. Where Plato's version of the paradox threatens our learning about particulars, it does so *through* its undermining of our grasp of the definitions and essences by which we classify the particulars we encounter. If we do not know *what* a thing is, i.e. know its essence, we cannot know what it is like, and the difficulty afflicting learning about particulars is to that extent parasitic upon the difficulty about learning universals. Hence if Aristotle really were concerned here with the Meno Paradox as we find it developed by Plato, we would expect him to focus on different kinds of learning than he actually does, i.e. on the learning involved in definition, classification, and identification, and not merely to take for granted the possibility of learning the universal truth that all triangles have 2R. We need, primarily, an explanation of how we learn the universal in the first place; only then will an explanation of how we apply that universal to particulars help us much.[8]

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[8] Some readers might be troubled by an interpretation of Aristotle which describes him as misunderstanding Plato's argument in this way. But we should only be

Thus, whichever version of "the puzzle in the Meno" Aristotle actually had in mind, it bears at most a family resemblance to the Meno Paradox as Plato developed it in the *Meno*. If Aristotle's paradox is a dilemma only apparently, then one whole horn (and indeed the more interesting horn) of Plato's dilemma vanishes. But if Aristotle really did want something approximating the other horn of Plato's dilemma, he does not direct that horn at the same kind of learning as Plato does, and he leaves a conspicuous paucity of argument for the assumptions necessary to give the horn much point.[9]

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shocked to find Aristotle neglecting Plato's version of the Meno Paradox if that neglect is incompatible with Aristotle's usual practice with regard to his predecessors. For most scholars, this particular Aristotelian shortcoming tends rather to confirm their image of Aristotle than to challenge it. No one questions Aristotle's standing as a philosopher, but it would be disingenuous to deny that he had weaknesses, and one of the weaknesses most often ascribed to him involves his presentation and employment of other philosophers' views. Moreover, this weakness extends to Aristotle's treatment of Plato's work as much as to anyone's. When we also recall that Aristotle here produces an argument which shares the conclusion of Plato's Meno Paradox, we may well feel more comfortable thinking that Aristotle was willing to call an appearance of the Meno Paradox's conclusion an appearance of the Paradox, even though it does not play the same role in *Post. An.* I.1 that it does in the *Meno* itself.

[9] There has, however, been a recent attempt to find in this passage a version of the paradox which comes closer to Plato's paradox in the *Meno*. In his unpublished "Aristotle's Response to the Meno Paradox: *Posterior Analytics* A.1", Mark Gifford notes the shortcomings of the traditional interpretation of the *Post. An.* I.1 passage and offers a radical revision of the wording and order of the chapter's materials in order to bring the passage in to line with the Meno Paradox as we find it in Plato. Regrettably, I cannot here devote the space to Gifford's arguments which they deserve; at this point is important to point out only that even if Gifford is right and the Meno Paradox as given here by Aristotle is really about definitions, the passage still does little to help solve the paradox. At most, Gifford's version of the passage tells us that there is a kind of epistemic grasp of universals which is not *epistêmê haplôs* but which is a genuine kind of *epistêmê* that allows us to achieve *epistêmê haplôs*. Even so, what we really require is an explanation of *what such an intermediate epistemic grasp is like* and *how* it makes achievement of

So much for the explicit reference to the paradox itself. When we turn to Aristotle's other explicit reference to the *Meno* we find material that is a little more helpful with regards to the Meno Paradox, but not a lot. The passage itself (which I quote at length to give the relevant context) reads as follows:

> And so it is not possible to suppose [two premises in a contradictory way], but nothing prevents supposing only one premise with reference to each middle term, or both premises with reference to <only> one middle term, for example, believing that A belongs to every B and B to every D and that A in turn belongs to no C. For this sort of error is similar to the way we err in the case of particulars. For example, if A belongs to every B and B to every C, then A will belong to every C. Therefore, if someone knows that A belongs to every B, then he also knows that it belongs to C. But nothing prevents him being ignorant that C exists, as, for example, if A is two right angles, B stands for triangle, and C stands for a perceptible triangle: for someone could suppose C not to exist although knowing that every triangle has 2R, so that he will at the same time know and be ignorant of the same thing. For to know of every triangle that it has 2R is not a simple matter, but rather on the one hand he may have universal knowledge, and on the other hand he may have particular knowledge. In this way, then, i.e. by means of the universal knowledge, he knows of C that it has 2R; but he does not know it as by means of particular knowledge; consequently, he will not possess contrary states of knowledge.
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> And the argument in the *Meno* that learning is recollection is also similar: for it never results that people know the particular in advance, but rather they grasp the knowledge of the particulars simultaneously with the induction, like those who recognize [or recollect] something. For there are some things we know right away (for example, we know that something has 2R if we see that it is a triangle, and similarly also in the other cases). Thus we contemplate the particulars by universal knowledge, but we do not know them in virtue of their appropriate knowledge. Therefore it is also possible to err concerning these, but not contrarily: instead it is possible to have the universal knowledge and to err about the particular. (*Pr. An.* II.21.67a5-30)

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epistêmê haplôs possible.

For the interested reader, my full discussion of Gifford's arguments can be found in my (1999).

As with the previous passage, there is a lot going on here, and there are many questions a full interpretation of the passage would require us to consider.[10] Again, however, we must focus specifically on the issue of the role the reference to the *Meno* plays in the passage. Unlike the reference in *Post. An.* I.1, Aristotle's reference here is to the Theory of Recollection developed in the *Meno* — not to Plato's problem but to his solution. The pressing questions are then what Aristotle thinks the Theory of Recollection entails and what he thinks of this theory, both as a solution to the Meno Paradox and generally.

So that we might answer these questions, let us first consider what Aristotle is up to in this passage. The whole of the chapter is an attempt to explain how certain cognitive errors are possible — namely cases where someone has beliefs which imply some conclusion and yet believes something else contradictory to that conclusion — and similarly how certain other errors are impossible. The cases that particularly interest Aristotle here are ones familiar from *Post. An.* I.1, cases involving the classification of particulars under universals. For it turns out that, just as we would expect from reading the earlier passage, Aristotle believes it is possible for us to know a universal truth — and again the example is that all triangles have 2R — while believing that some particular

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[10] The interpretive problems this passage poses are in many respects much the same as in the *Post. An.* passage (see n. 3 above); both passages discuss cases of learning in which we learn two things simultaneously, and both consider in particular cases that involve applying a universal to individuals. Hence an explanation of what simultaneous learning is and how it works (including especially an account of the roles of *epagôgê* and syllogisms) would probably clarify both passages. As before, find my full discussion of these issues in my (1999).

which actually falls under the universal does not exist. In such a case, we find the re-appearance of PKU: we seem to contradict ourselves since we seem simultaneously to know that this particular triangle has 2R because of our universal knowledge and not to know it because of our mistaken belief about the particular. But the contradiction turns out to be merely apparent; we would only contradict ourselves if we claimed that we know and do not know the same thing *in the same way*. Just as in *Post. An.* I.1, the distinction between universal knowledge (which carries with it implicit knowledge of all the particulars) and explicit knowledge of the particulars themselves helps us resolve an apparent paradox. It is in this context that Aristotle makes his passing reference to the Theory of Recollection, drawing a parallel between that theory and his own present account of our cognition of particulars as instances of a universal. The ultimate issue here is then whether Aristotle draws the parallel in order to distance himself from a view he rejects or to use that view as supportive or clarificatory of his own view.

On this issue, however, the commentators offer different answers. Ross, for instance, argues that Aristotle introduces recollection only to show the reader what his view is not; it is clear from other texts in the Aristotelian corpus (above all from *Post. An.* II.19) that Aristotle ultimately rejects the Theory of Recollection as the true account of our epistemic capacities, and hence Ross is disinclined to interpret Aristotle as friendly to the theory here. Thus, putting special weight on Aristotle's statement that "it never results that people know the particular in advance" he claims that, "[In] the argument in the *Meno* (81b-86b)...Plato concludes that learning is merely remembering something known

in a previous existence. Aristotle does not draw Plato's conclusion; no previous actual knowledge, he says, but only implicit knowledge, is required; that being given, mere confrontation with a particular case enables us to draw the particular conclusion" ((1949) p. 474).

More recently, however Gifford has challenged this view, arguing that such an interpretation has Aristotle introducing the Theory of Recollection in a way that does not further at all his own project of explaining how the cognitions of universals and particulars are related. Instead, Gifford interprets Aristotle as here emphasizing the thing that the Theory of Recollection gets right — namely that the explicit cognition of a particular as falling under a known universal is akin to recollection. For when we recognize a particular as an instance of a universal and then draw the conclusion that a property that belongs to the universal belongs to the particular, in a sense we are just thinking something we have already thought before; when we think that this particular triangle which we have just encountered has 2R, in a sense we are just re-cognizing the previously known universal fact that all triangles have 2R. And even though Aristotle does ultimately reject Plato's theory as an account of the complete truth, nevertheless this friendly reference to that theory does further Aristotle's project by suggesting *the way in which* universal knowledge gives us implicit knowledge of particulars. Thus Gifford:

> The earlier and later [student of frogs] exhibited different cognitive behavior with respect to frog hearts [before and after she learned a universal truth about the heartedness of frogs] because in the interim she had inductively acquired explicit knowledge of a universal truth that permits and disposes her to gain knowledge about the heartedness of particular frogs by means of simple syllogistic inferences;

> this is what accounts for her subsequent ability to know facts about previously unknown frogs *euthus*, immediately after she identifies them as frogs. Were the human mind limited to transcribing the singular facts of experience, as the radical empiricist maintains, this type of knowledge-acquisition would remain a mystery; for on that hypothesis, which denies [human grasping of universal knowledge] and thus confines cognition to the level of *empeiria*, [the student's] knowledge that [the undissected frog] has a heart could have come about only through the untimely demise of yet another hapless amphibian. ((1999) p. 21)

Had Aristotle not drawn such a friendly connection to the Theory of Recollection on this point, Gifford then concludes, he would have left an explanatory gap in his account, leaving unclear why we can be confident that universal knowledge in some sense gives us a grasp of as-yet-unknown particulars. And hence we would do well to consider this reference to the *Meno* a friendly one.

What are we to make of this disagreement between Gifford and Ross? Unfortunately, we have not yet laid the foundations necessary to explore this question fully; we must first consider what sort of information different kinds of cognition give us, which is the task of Chapters 6 and 7. Hence we must wait until then to return to the question of Aristotle's attitude toward recollection. But let us at least explore for a moment what turns on the question's resolution. If Ross is right and the passage is hostile to the Theory of Recollection, then we have no more information about Aristotle's ultimate views about the argument of the *Meno* (and the Theory of Recollection in particular) than what we get from his explicit dismissal of recollection in *Post. An.* II.19. On the other hand, if Gifford is right and Aristotle here looks upon the Theory of Recollection as a view that contains an important insight about the nature of our cognition

of universals and particulars, then we would find ourselves with an important element to look for in the full Aristotelian account of cognition: there should be a sense in which bringing a new particular under a universal should be like recollection or re-cognition of that thing. Hence, if we are looking for help in erecting an Aristotelian response to the Meno Paradox, Gifford's interpretation seems to hold out greater benefits (if it is correct).

Thus, when we take all our results from the consideration of these two passages in hand, we end up with the following:

— Whatever Aristotle understood the Meno Paradox to entail (and it is a real possibility that he understood it very differently than I have suggested we ought to understand it), he does not give us any theory in *Post. An.* I.1 which allows us to construct an Aristotelian solution to the Meno Paradox as we are taking it, i.e. as a problem about how we recognize the object of our search *as* the object of our search before we have obtained it, especially when the object of our search is an abstract object like an essence or a definition.

— Aristotle's reference to the Theory of Recollection in *Pr. An.* II.21 may be helpful (despite the fact that the problem he explicitly discusses is PKU and not the Meno Paradox) provided that Aristotle's reference to the recollection is friendly. Whatever the nature of Aristotle's reference, his comments here do not give us a solution to the Meno Paradox. But if the reference should turn out to be friendly, we could set the claim that a full account of cognition must capture what is right in Plato's Theory of Recollection as a parameter for the Aristotelian solution of the Meno Paradox. The resolution of this issue

must, however, await a later chapter

These results are not exactly earth-shattering, and one might reasonably wish that Aristotle's explicit references to the *Meno* were more illuminating about Aristotle's understanding of the most interesting stretches of that dialogue. We must, however, work with the materials we are given, and happily there are other places in the Aristotelian corpus to which we can turn for the outlines of an Aristotelian account of learning which can confront the Meno Paradox as we have described it. I now accordingly propose to lay out in general terms the constraints that such an Aristotelian account of learning must meet, and then go about the business of constructing such an account.

CHAPTER 5

Constraints on an Aristotelian Solution to the Meno Paradox

Aristotle may not have told us much about how to solve the Meno Paradox in his explicit references to that dialogue, but he does nonetheless leave signposts elsewhere which suggest the general direction his eventual solution must take. Furthermore, in *Post. An.* II.19 we also possess the broad description of a solution to the paradox as it was laid out in Part I. Thus we can put together a list of criteria which any account of learning must meet to be a solution to the Meno Paradox on the one hand and a genuinely Aristotelian account on the other, and these criteria can then guide our evaluation of possible Aristotelian accounts of learning.

Let us first recount the elements required for any successful solution of the paradox, Aristotelian or no. As we saw in the last chapter, the paradox threatens the feasibility of a great many kinds of inquiry, but this threat depends ultimately in all cases on the challenge to the possibility of making accurate identifications of objects of inquiry without already knowing the object of inquiry thoroughly, in a manner so strong that a mistake about the object's identity then becomes impossible. Moreover, this problem holds for the identification of both concrete particulars and abstract objects like definitions and universals, but the more philosophically interesting and troubling version of the paradox is the one directed at abstract objects. In both kinds of inquiry, however, the challenge that confronts the would-be dissolver of the paradox is to characterize an

epistemic state that is (a) of the right object of inquiry and (b) furthermore directed at that object *as* that object, i.e. the object is grasped under the right description and *because* it is that object, and yet (c) this state must not constitute total knowledge, because if it did there would be nothing left to learn. And finally, as we saw when we connected the problem in the *Theaetetus* with explaining false belief to the Meno Paradox, (d) this epistemic state ought also to be characterized in such a way that it explains how a false belief about the identity of an object (concrete or abstract, but especially abstract) can still be held in some sense to be about the right object. For, like the Meno Paradox, the arguments about false belief in the *Theaetetus* suggest that in order for an epistemic state to be about anything *qua* that sort of thing, the object has to be identified so thoroughly that no errors are possible, in which case the only epistemic state which is about anything in that sense is perfect knowledge. Hence we get four parameters for any solution to the Meno Paradox: It should characterize the middle epistemic state that is (1) about the right object (2) as the right object and because it is the right object, and it ought to explain (3) what we still have left to learn about the object and (4) how a state short of perfect knowledge is really about its object at all.

We are not, however, presently seeking just any answer to the Meno Paradox; we are seeking an answer that is peculiarly Aristotelian. What would characterize such an answer? Let us look now at some of the passages where Aristotle offers clearly marked views about the nature of learning and knowledge. We can then use these views as fixed points by which to judge how Aristotelian a solution to the paradox is. I will proceed on

the assumption that any solution which fits the parameters set by these passages has a good claim to be called Aristotelian.

It is important to note first of all that Aristotle commits himself to some epistemic principles which look quite Platonic and which provide much of the background the Meno Paradox needs to get up and running. Take, for instance, Aristotle's characterization of *epistêmê* at *Post. An.* I.2.71b9-16: "We think we know[1] (*epistasthai*) something simpliciter (*haplôs*) (and not in the sophistical way, [i.e.] incidentally) when we think we know of the explanation because of which the object holds that it is its explanation, and also that it is not possible for it to be otherwise. It is plain, then, that to know is something of this sort....Hence if there is understanding simpliciter of something, it is impossible for it to be otherwise." Here Aristotle clearly enunciates something like Plato's principle that knowledge is unerring, and elsewhere Aristotle even uses this characterization of knowledge to rule out many of the same things as objects of knowledge that Plato is famous for ruling out in, for instance, the *Republic*. Furthermore, they also are very close in associating the possession of knowledge with the ability to offer an explanation of what one knows, a principle familiar from, for instance, the wandering-

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[1] The translation is for the most part Barnes', but I translate *epistasthai* as "to know" where he translates it "to understand". I respect his reasons for doing so; as we saw earlier, the word "knowledge" carries modern baggage which can obscure the holistic character of the Greek concept and hide its connection to expertise. Nevertheless, I choose to translate it "know" simply because I wish to remain as consistent as possible with my practice in the other chapter. When anything turns on the translation of a "knowing" verb, I will be sure to note it.

statue passage at *Meno* 97e-98a. Hence the two share quite similar positions on the nature of the ultimate epistemic goal at which we aim.

On a similar note, Aristotle also seems to characterize the weakest epistemic state, total ignorance, much as Plato does, for he too believes this to be a state in which one totally fails to recognize the existence or character of the relevant object.[2] This is clear from a number of passages: for instance, *Post. An.* I.18 argues that without the right kind of perception one cannot achieve the cognitions that develop from the relevant perceptual foundations; surely this is one kind of total ignorance about some objects, and if that perceptual faculty is lost for good, the position is inescapable for the person stuck in it. Likewise, at *Post. An.* I.12.77b17-27 Aristotle characterizes the difference between what we might call scientific and unscientific errors: the former require at least a partial grasp of the subject matter (the very thing, of course, which the *Meno* and *Theaetetus* deny is possible) while the latter fail to be genuinely about the subject matter at all. The unscientific kind of mistake surely springs from something like total ignorance,[3] and thus

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[2] Or, at the very least, total ignorance is a failure to grasp the existence of the object *as* that object; at *Post. An.* II.8.93a21-28, Aristotle distinguishes between the person who knows that something is (or is the case) "accidentally" and the person who knows that something is because he grasps "something of the thing itself". In a sense the person who is merely accidentally aware of a thing's existence (or factuality) is in contact with the thing or fact, but Aristotle clearly denies that this person knows in any genuine sense that the thing exists at all and asserts that such a person is certainly in no position to conduct an inquiry about the object. To conduct an inquiry one must have at least a partial grasp of the object of inquiry *as* that object.

[3] Fine's example ((1978) p.131) of a person who thinks that "justice is a vegetable" comes to mind; anyone who really believed such a thing does not seem truly to

also suggests that total ignorance is an utter failure to grasp the object under discussion. Some passages in the *Metaphysics* also suggest this position; *Met.* IX.1051b17 ff. describes the failure to grasp what an essence is as a failure to come into contact with that thing at all and makes cognition of such things an all or nothing affair (a passage we will no doubt want to return to), while a little further on Aristotle describes a kind of ignorance which is "like blindness; for blindness is akin to a total absence of the faculty of thinking" (1052a3-4), although, interestingly, this is not the kind of ignorance we suffer from when we think something false. And finally, at the beginning of *Met.* II (993a30 ff.) Aristotle claims that "the investigation of truth is hard in one sense and easy in another" — hard because it is very difficult to get the *whole* truth, easy because the truth "seems to be like the proverbial door, which no one can fail to hit". This would seem to imply that total ignorance would be the total failure to hit the door, even though this is a rare failure indeed. Thus Aristotle also draws close to Plato in his characterization of total ignorance as a complete failure to grasp an object as an object of cognition at all.

Aristotle makes one of his clearest statements about the general nature of learning in a number of spots, but most clearly in a couple of passages to which we have already devoted some time. For at *Post. An.* I.1.71b6-8 he says that: "But surely nothing prevents us from in one sense understanding and in another being ignorant of what we are learning. What is absurd is not that you should know in *some* sense what you are learning, but that

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have a belief about justice (or perhaps vegetables?) at all.

you should know it in *this* way, i.e. in the way and in the sense in which you are learning it." He makes much the same point at *Pr. An.* II.21.67b6-12, and at *Met.*I.9.992b24-29 he elaborates a bit: "And how could we *learn* the elements of all things? Evidently we cannot start by knowing something before. For as he who is learning geometry, though he may know other things before, knows none of the things with which the science deals and about which he is to learn, so it is in all the other cases." The import of all these passages is that learning can only take place if the learner comes to know the thing learned in a way that is different from the way in which he previously knew it; i.e. genuine learning involves a genuine change in the epistemic relation between the learner and the thing learned.

When we combine Aristotle's characterization of total ignorance with his claim that all learning involves a genuine change of epistemic state, we get another Aristotelian claim about learning: as he puts it at the very beginning of the *Posterior Analytics*, "All teaching and all intellectual learning arises out of pre-existing cognition" (I.1.71a1-2). For if total ignorance is described as a total failure to have cognitive contact with a thing, then one cannot learn anything about that thing unless one first has some kind of epistemic contact with it from which one can build.[4] In other words, Aristotle's claim that learning involves a change in epistemic state does not imply merely that one cannot already know what one learns in the same way that one learns it; it implies as well that, in some meaningful sense, one must already know the thing about which one is learning, i.e. that

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[4] Aristotle confirms this at *Post. An.* II.19.99b32-33.

one cannot be in total ignorance about it. And hence we find the passage from the *Metaphysics* which we considered above continued in the following vein: "....Yet all learning is by means of premises which are (either all or some of them) known before — whether the learning be by demonstration or by definitions; for the elements of the definition must be known before and be familiar; and learning by induction proceeds similarly" (I.1.992b29-33). The person learning geometry cannot already know geometry in the same way in which he is learning it, but similarly he must have some genuine contact with the objects of geometry before he can be said to be learning geometry at all. And so Aristotle ends up claiming that we already have to have some successful cognition of an object in order to learn more about that object at all.

We have not yet touched, however, on the most important passage of all for the reconstruction of an Aristotelian theory of learning — *Post. An.* II.19. Although other passages also describe the stages of Aristotelian epistemic development (for instance, *Met.* I.1), no other passage describes the stages in as much detail as does this chapter. We are not ready at this point to discuss this chapter in detail; we need to discuss the nature of the various stages of Aristotelian cognition separately and in depth before we will be ready to tackle the complexities and ambiguities of the frightful II.19. But we should at least lay out briefly the most uncontroversial elements of the chapter in order to provide a skeleton for Aristotle's theory of learning which we can flesh out as we proceed. For any account of learning and corresponding solution to the Meno Paradox will have to cohere with and explain the content of II.19 if it is to count as genuinely Aristotelian.

The first thing we may note about this chapter is that it clearly states one thing that Aristotle's solution to the Meno Paradox is not. Aristotle is very clear that he does not endorse a version of Plato's Theory of Recollection. He first asks whether the knowledge of immediates, i.e. definitions, is innate or acquired, and then answers the question unambiguously: "It is absurd to suppose that we possess such states [i.e. knowledge of immediates]; for then we should possess cognitions more exact than demonstration without its being noticed" (99b27-29).[5] This simple statement is not entirely uncontroversial in its details,[6] but the essence of the passage is clear: Aristotle does not think we can explain human capacities for learning by postulating pre-existing cognition of the ultimate objects of knowledge (especially definitions). So we must be sure not to ascribe to Aristotle a view which commits him to any such position.

In this chapter Aristotle also tells us a lot about what his view actually is, not just what it is not. In quick succession he offers us three different accounts of the stages epistemic agents go through on their way to the cognition of universals and definitions, and much of the task for the rest of this work will be to elucidate the nature of these stages and the ways in which they are related. That task will take a lot of consideration, but for now let us at least lay the stages out and give a thumbnail sketch of Aristotle's

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[5] See also *Met.* I.9.993a1.

[6] For instance, there is some controversy concerning whether the possession of innate definitional knowledge is absurd because it is absurd that the possessor of the knowledge should be unaware of it or that other people should be unaware of the possessor's possessing it. See Barnes (1993) p. 261, but cf. Scott (1995) pp. 97-98.

account of them.

The first account of learning, at 99b35-100a3, proceeds by drawing comparisons between different classes of animals according to the kinds of cognition in which the classes can engage. Every animal, it turns out, has at least one critical faculty (*kritikê dunamis*) by which it cognitively grasps the world around it — perception. In some animals, however, an individual perception comes and then passes away without leaving a trace, while in other animals individual perceptions are preserved as memories, persistent perceptions which continue to exist after the actual act of perception has ceased. Aristotle then further distinguishes between those animals for whom cognition stops at memory and those who derive an account (*logos*) from the "lingering of the memories" (*ek tês tôn toioutôn monês*). Hence we start out in this account with three cognitive stages, the latter two arising out of the first: perception, memory, and the derivation of an account.[7]

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[7] The possession of a *logos* does not reappear as a stage of learning in *Post. An.* II.19, and its ultimate place in that story is thus left very unclear. The fact that an account of experience immediately follows the mention of *logos* and that they are both described very similarly as states derived from the persistence of memories suggests that they represent the same stage, but at *De An.* III.3.428a23-4 Aristotle says that no animal (aside from humans) partakes in reason, while at *Met.* I.1.980b26-7 he says that animals do partake of experience at least a little, suggesting that one who has experience does not thereby possess a *logos*. Also, *Met.* I.1.981a24-30 tells us that experience grasps that something is (*to hoti*) but not the explanation for why it is (*tên aitian*), and *Post. An.* II.8.93a3-7 says that knowledge of the explanation is the same thing as a *logos* of the fact that something is (*ei estin*). This does not entail that experience is not the possession of *any* kind of *logos*, but it cannot be the kind of *logos* that most interests Aristotle in the context of *Post. An.* II.19, i.e. a *logos* of a thing's essence. Also, Frede ((1998) p. 169) claims that *logos* refers in this passage to *nous*, but he offers no justification for this assertion, and I see nothing in the passage which proves this. I thus prefer to follow Barnes ((1993) pp. 264-5) in allowing the possession of *logos* its own place in the

The next account of learning, at 100a4-14, goes beyond the first account by tracing our further cognitive development beyond memory. We learn that the stage that follows immediately upon memory is the epistemic state of "experience" (*empeiria*), which is characterized as the cognitive unity that springs from a multitude of similar memories, many memories being one experience. But we then press on beyond experience to higher forms of cognition; as Aristotle puts it, "from experience, or from the whole universal present in the soul, the one apart from the many, which is the same one thing present in all those things, a principle of skill (*technê*) and knowledge (*epistêmê*) arises — if concerning [the world of] becoming, of skill, if concerning [the world of] being, of knowledge" (100a6-9). Skill and knowledge are not further characterized here, but they must represent some cognitive state beyond experience which is "more cognitive" (*gnôstikôteron*) than experience. He then gives an analogy meant to clarify how perception leads to these higher forms of cognition: "For example, in battle, a rout having occurred, one having taken a stand another does, and then another, until they come to a new beginning (*archê*). And the soul is the sort of thing that can undergo this" (100a12-14). Let us merely note for now that already an important interpretive problem arises, a problem that will persist in the third account: it is not entirely clear whether the analogy describes the process of developing a cognitive unity from the individual perceptions that eventually generate experience, or whether it describes the process of developing the

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developmental account, though that place is left too vague to be adequately characterized or relied upon to fill in any important gaps left in the rest of the account.

principle of skill and knowledge on the basis of the cognitive unities provided by experience.

Finally, Aristotle makes an explicit attempt to clarify the material of the first two accounts by offering yet another, from 100a14-b4, which in typically frustrating Aristotelian fashion creates as much confusion as it dissolves, if indeed not more. I give this vexing text in full:

> Let us say again what we just said, but unclearly: for when one of the undifferentiated things (*tôn adiaphorôn*) makes a stand, the first [presence (?)] of the universal (*prôton katholou*) in the soul (for indeed one perceives the particular, but perception is of the universal, for example of man but not of Callias the man.) Then again a stand is made among these until the partless (*amerê*) and universal stands, for example "such-and-such an animal" [making a stand] until "animal" [makes a stand]. And in the same way in this case. But it is clear that it is necessary for us to cognize the most primary things (*ta prôta*) by induction. For in fact perception produces the universal in this way.

Again, we find that there are two possible interpretations of this passage. One has Aristotle describing the development of higher stages of cognition from individual perceptions, while the other has him describing the development from a stage in which the universal is already present in the soul to one in which the universal is present in a fuller, "more cognitive" way. Everything depends on what a few key words and phrases refer to: are the "undifferentiated things" individual, unarticulated perceptions, or the *infima species* from which we then derive our understanding of the higher genera? Does the "first presence of the universal" occur in perception, or only in some later stage of cognition like experience? Are the "partless and universal" things which make a stand after the undifferentiated things *infima species* or higher genera? Depending on how we

construe the references of these phrases, we will get a very different reading of Aristotle's purpose and meaning in this text.

At last (100b5-17), to cap his three accounts of learning Aristotle tells us that one further cognitive state remains which tops the pyramid of cognitive development. It turns out that, since knowledge cannot provide its own first principles, there must be another cognitive state which is at least as cognitive as it, and this state Aristotle calls *nous*.[8] It is by *nous*, an infallible epistemic grasp, that we cognize the first principles, and we attain this most exalted state through induction. And again we find a problem, for it is unclear where or indeed whether *nous* makes an appearance in the three accounts of learning offered before this final passage.

Thus we are left with lots of problems to clear up about this chapter — most importantly to determine which of the two possible readings of the second and third accounts of learning we ought to adopt — but we are also left with some important fixed points from which to construct an Aristotelian account of learning. Taken all together, we get the following sign-posts by which we can trace the degree of "Aristotelian-ness" of any account of learning and solution to the Meno Paradox:

— Aristotle characterizes the weakest epistemic state platonically, as a total failure explicitly to grasp the object *as* a distinct object at all.

— All intellectual learning proceeds from some kind of preceding cognition;

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[8] Because there is no English term which quite captures the gist of *nous*, I will not be replacing it with a translation.

epistemically, you cannot get something out of nothing.

— We cannot learn a thing in the same way in which we have already grasped it; learning involves a genuine change in epistemic relation to the object of learning.

— The pinnacle of epistemic development involves, much as it does in Plato, an epistemic grasp of its object which is infallible and which includes the grasp of the explanation or cause of the thing's being as it is.

— Our final account of learning must have a place for and explain the place of (at least) perception, memory, experience, skill, knowledge, and *nous*.

— The ultimate foundations of our learning capacities cannot be higher stages of cognition which are innately possessed; i.e. the Theory of Recollection is not a live option.

This is actually a fair amount to work with; let us now set about pulling the pieces of Aristotle's epistemological puzzle together so that we can leave him with a view that fits these parameters.

CHAPTER 6

The Stages of Aristotelian Cognition — Perception, Memory, and Imagination

As we have seen, a solution to the Meno Paradox requires the characterization of a middle state between total knowledge and total ignorance which can identify the object of inquiry as that object without being a perfect grasp of the object. It is clear what total ignorance and perfect knowledge are like for Aristotle: the former is a total failure to grasp an object as a distinct object of cognition, while the latter is an explicit grasp of a universal as the universal that it is and of that universal's essence, the thing that explains why the thing is as it is. Aristotle also gives us a veritable mob of middle epistemic states that can serve as candidates for the key to the Meno Paradox. We can immediately mention the middle epistemic states that we encountered in *Post. An.* II.19 — perception, memory, and experience[1] — but there are others in Aristotle's epistemic theory which we should also consider — imagination[2] (*phantasia*), belief (*doxa*), and supposition

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[1] One might be tempted to consider skill and knowledge (*technê* and *epistêmê*) as middle states and reserve the claim to perfect knowledge to *nous*. But since skill and knowledge are infallible along with *nous*, I will consider them as instances of perfect knowledge too.

[2] As many commentators have noticed, *phantasia* is a particularly difficult word to translate; in one sense a *phantasia* is an appearance, a way something seems to us, but in another sense *phantasia* in general is our ability to entertain appearances of every sort, whether they are generated by an actual object impinging on our cognitive faculties (e.g. a sensory object) or generated by the mind alone. I will use the translation "imagination" because it seems less evil than the alternatives — "appearance", in particular, seems to fail to capture the sense of an active faculty which *phantasia* includes — but the reader should

(*hupolēpsis*). If we are to find the middle epistemic state we need in Aristotle's epistemology, we must find it among these possibilities.

My proposed method for selecting a candidate from this list is as follows: Each of the epistemic states counts as a certain kind of grasp of its object; to be in one of these states is to have a certain relationship with the object of the state, and this relationship can be characterized in terms of the information about the object that is available to the epistemic agent and the description under which the object appears to the agent. One of the main tasks of this section will be to clarify just what sort of relationship each epistemic state consists in, and how that relationship differs from that offered by the other epistemic states. This is not always an easy task; Aristotle at times says things about particular kinds of cognition which seem at best confusing and unexpected, at worst contradictory, suggesting that, for instance, perception carries information which elsewhere he denies to it and has as its objects things which strictly speaking it should not have. So one of our chief concerns will be the dissolution of these apparent contradictions.

Once each epistemic state has been laid out, our task will then be to explain how progress from one state to the next in the developmental line is possible. Every instance of learning, Aristotle tells us, proceeds from pre-existing cognition, but how does the

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always bear in mind that generally speaking *phantasia* is the ability to entertain an appearance, an ability which can take on a great many forms depending on the nature and causal source of the appearances we entertain, and from time to time I will translate the word or its cognates with some form of "appearance" where that seems to convey context and content better.

information about and description of an object which one state supplies make it possible for us to progress to another, more enlightened state, and why does it not always happen?

That said, let us now begin where Aristotle begins — perception.

Perception

It is perhaps best to begin with the elements of Aristotle's theory of perception that we would expect to be as they are and then press on to deal with the difficult passages once the relatively unsurprising foundation of the theory is in place. And surely the most obvious starting place for an Aristotelian theory of perception is in the cognitive relationship it entails between an epistemic agent and a particular, concrete object. For Aristotle, perception is the faculty that paradigmatically allows agents to cognize particulars; thus at *Met.* I.1.981b11 he says that perception is the "most authoritative cognition of particulars", and he frequently makes the point that our knowledge of the status of particulars depends on our ability to see them at the present moment. Once a specific particular leaves our perceptual ken, we can no longer know what the present status of that particular is.[3] However else we characterize perception, then, it must be first and foremost very directly tied to our cognition of particulars.

Aristotle complicates this picture, however, by offering us a multitude of ways in

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[3] See *NE* VI.3.1139b21-2, *Pr. An.* II.21.67b1, *Top.* V.3.131b21-2, et al.

which a perceiving agent can be related to the object of his perception. At *DA* II.6.418a8-25, Aristotle tells us that:

> "Object of perception" (*aisthêton*) is said in three ways, two of which we say are perception of the things themselves [or "are perceived *per se*"] and one of which is perceived only incidentally. Of the first two kinds of perception, the one is unique to each sense, and the other is common to all. I mean by unique that which is not possible to perceive by any other sense, and concerning which it is not possible to make an error, for example vision of color, hearing of sound, and taste of flavor, and touch rules over many differences. But each makes distinctions concerning these things and does not err that this is color not that this is sound, but what the colored thing is or where, or what the sounding thing is or where. And so such things are said to be unique to each sense, but movement, rest, number, shape, and size are common; for such things are not unique to any sense, but are common to all. For in fact a certain motion is an object of perception for both touch and sight. And "object of perception" is said incidentally, for example if the white thing should be the son of Diares. For one perceives incidentally when this thing [merely] happens to belong to the white thing which one perceives. And therefore one is not at all affected by the object of perception *qua* that sort of thing. But of the objects of perception perceived *per se*, the unique objects are objects of perception in the governing sense, and it is in relation to these that each sense naturally has its essence.

This passage is important for many reasons, two of which I want to emphasize here. First, it indicates that an act of perception can be described in a number of ways; through perception we can come to have a cognitive relationship with a number of different objects, or better, the same object under different descriptions. If I see my friend walking down the street, in one sense I see an object that is colored in a certain way, in another sense I see an object of a certain shape and size moving in a certain way, and in another sense I see a guy who happens to be my friend; if someone wanted to describe what I am doing when I look at my friend, any of these descriptions might do. Thus we find that Aristotle has a theory complicated enough to allow us to characterize perceptual acts in

different ways depending on the aspect of the cognitive relationship which we want to emphasize.

The second important thing this passage reveals is that these different descriptions of perception and the kind of relationship it entails with its objects are not on an equal footing, i.e. they are not equally appropriate or informative ways of characterizing a perceptual act.[4] This is true in a number of respects: for instance, perception of common objects is not, if you will, as genuine or absolute an act of perception as perception of a unique object because (a) perception of unique objects is unerring while perception of common objects is not and (b) the essence of a given sense is defined with respect to the unique objects of the sense, not the common objects. Still, when we perceive a moving object, the content of that perception can accurately be described in straightforward terms — "I see the moving thing", "I am touching three things", etc. — and still report information that the perceptual act genuinely provides.

The same cannot, however, be said for perception of incidental objects; an object of perception that is perceived only incidentally is not really perceived in the genuine sense at all because a description of a perceptual act in incidental terms does not accurately

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[4] This fact is closely tied to Aristotle's causal explanation of perception in terms of the sensory forms which the sensory organs register. The individual senses register forms like color and smell, and many senses register forms like number and size, but no sense *per se* registers forms of incidental objects like "Coriscus" or "the son of Diares". See Everson (1997) Chapter 1 for a thorough account of the causal theory of perception, and Denyer (1991) pp. 185-203 for an account of how that theory explains the comparative reliability of different forms of perception.

characterize the content of the perception itself and the information that the perception reports.[5] The black object I see may well be my cat, and so in a sense I may be said to see my cat — if this were not true, sophisms like the Veiled Man argument or the sort of "evening star/morning star" cases Frege famously considered would never have the cognitive oomph to puzzle us for an instant — but if I were to accurately render the information which I receive from the act of perception alone, I should say not that "I see my cat" but rather that "I see a black thing" (or maybe, in some cases, "I see a moving thing, or a big thing", or the like, though I presumably must see a colored thing in order to see a moving thing.) It is certainly possible for us to get the information "This is my cat", but it is not through perception *per se* that we get it, and I take it that this is the crucial message of Aristotle's claim that we are not affected by incidental objects of perception *qua* incidental objects; the information the perception gives us is not the information characterized by the object's incidental characteristics. This message seems to be reiterated at, for instance, *On Dreams* 458b10-13, where Aristotle indicates that in a dream we can think "That's a horse approaching" because of our ability to entertain beliefs (*doxa*), but we can think "That's a white thing" because of our ability to perceive. Even

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[5] Cashdollar ((1973) pp.161-7) is right to claim that an act of incidental perception is really an act of perception, but he is wrong to claim (as it seems) that it is an act of perception in the same way that proper or common perception is. The quality of the perceived object which is perceived in incidental perception does not have a causal relationship with the senses *per se*, and so is not perceived *per se* at all. See Wedin (1988) p. 94, and, even more helpfully, Everson (1997) pp. 188-93. Kahn is thus right to claim ((1966) p. 46) that incidental sensation "is not an act of the sense faculty as such".

though the perception is of the same object as the belief, the information conveyed by the two cognitive faculties and the description under which they render the selfsame object are quite different.

These foundational facts about Aristotelian perception — (1) that the proper objects of perceptual acts are particulars, though (2) nonetheless the object of a single perceptual act can be construed in a number of ways, (3) not all of which are equally proper characterizations of the perceptual act *per se* — can now help us see our way through a passage in which Aristotle makes an unexpected, even apparently contradictory claim about perception. The passage is one we have already encountered, *Post. An.* II.19.100a15-b4, the presently relevant parts of which are these: "when one of the undifferentiated things (*tôn adiaphorôn*) makes a stand, the first [presence (?)] of the universal (*prôton katholou*) in the soul (for indeed one perceives the particular, but perception is of the universal, for example of man but not of Callias the man.)... But it is clear that it is necessary for us to cognize the most primary things (*ta prôta*) by induction. For in fact perception produces the universal in this way." As many a frustrated interpreter has noted, this is a baffling thing for Aristotle to say; if perception is truly first and foremost our proper cognitive faculty for cognizing particulars, it is hard to justify Aristotle's claim here that the object of perception is universals. Nor is that the end of this passage's troubles, for in saying that perception *is* of "man" but is *not* of "Callias", it seems to suggest that perception is not only of universals but that it is *not* of particulars, a truly astounding statement for Aristotle. This is not, however, a passage that can be

merely dismissed as a fluke, for there are similar statements elsewhere in the corpus. At *Post. An.* I.31.87b28-30 Aristotle suggests that perception may be "of such-and-such a sort of thing and not [merely] of this thing", and at *Phys.* I.1.184a23-26 he says that "Thus we must advance from universals to particulars; for it is a whole that is more knowable to perception, and a universal is a kind of whole, comprehending many things within it, like parts." Given Aristotle's repetition of the connection between perception and universals, we cannot merely dismiss it but must rather find a place for it in our account of his epistemology. How might we do that?

One popular answer is offered by Barnes. On his account, Aristotle claims that perception is of universals as a way of bridging the epistemic gap between cognition of particulars and cognition of universals, thus: "...[P]erception in fact gives us universals from the start....He means that we perceive things *as As*; and that this, so to speak, lodges the universal, *A*, in our minds from the start — although we shall not, of course, have an explicit or articulated understanding of *A* until we have advanced to [the attainment of *epistêmê*]" ((1993) p. 266). In other words, Aristotle wants to claim that in some way perception itself gives us a weak grasp of the universal represented in particulars in order to explain how our eventual full grasp of that universal is possible.

As Barnes himself notes, however, this answer is problematic, for it does not seem to square with Aristotle's characterization of the objects of perception in *D.A.* II.6. You will recall that perception can have as its object either a unique object, a common object, or an incidental object, and it seems clear that the only sense in which one could be said to

perceive "man" is as an incidental object (see *DA* III.6.430b29). But as we have seen, perception of incidental objects does not carry with it any explicit information at all about those objects *qua* incidental. Hence it is unclear how Aristotle can justifiably claim that perception is of the universal in a way that furthers his goal of deriving a grasp of universals from perceptual foundations.[6] Also, as Dominic Scott points out,[7] Barnes' answer fails to explain why Aristotle would say that perception is *not* of the particular man, e.g. Callias, and surely a satisfactory interpretation of this passage must deal with that befuddling negative claim as well as the preceding positive one. So this answer to the problem seems shaky at best.

Scott goes on to offer an alternative solution.[8] He claims that Aristotle is here distinguishing perception as a general faculty — in the language of *De Anima* (II.5), a second potential or first actuality — from the use of that faculty in specific acts of perception. Specific perceptual acts will always be of a specific thing, but the unapplied faculty itself has as its object not specific particulars but rather classes of particulars; as he puts it in *Met.* XIII.10.1087a19-20, "Sight sees the universal "color" incidentally because this color which it sees is color." Hence just as sight is in a sense of the universal "color" although specific instances of sight are always of specific colors, perception might be of

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[6] This point is driven home forcefully by Kahn (1992) pp. 368-9; see also his (1981) pp. 401-9.

[7] (1995) pp. 152-3.

[8] Ibid., pp. 153-6.

kinds of object — "man", "horse", etc. — even though any actual perception will be of a specific object, for instance the man Callias. And perception as a general faculty is not, properly speaking, of Callias because Callias is not a broad enough kind; to say that perception, the general faculty, is of Callias would be like saying that the general faculty of sight is of chartreuse, which, though true in one sense, is not really the clearest statement of the scope of the faculty as a whole.

I think that this solution is the right one, but Scott's use of this solution seems to me a bit less adequate, for he seems to want to hold on to the notion that in some sense perception allows us to grasp the universals in the particulars we see *as* universals. Quite reasonably, he judges Aristotle's purpose in saying that the general perceptual faculty is of universals to be an attack on Plato's separated forms; Aristotle argues that forms, if separated from particulars, would be epistemically inaccessible to humans, and so for Aristotle intelligible universals must be in the sensible forms of particulars, or else we would not be able to cognize them at all. Witness for this claim *De An.* III.8.432a3-8: "Since there is nothing separate from perceptible magnitudes, intelligible objects are present in the perceptible forms, both the things known as abstract objects and the sorts of states and affections of the objects of perception. And because of this one who does not perceive neither learns not understands anything...." Scott draws the following lesson from this passage:

> Here the argument is that since forms must be in perceptible forms there can be no learning without perception. The point contained in the parenthesis of *Post. An.* II.19 is not quite the same but similar. Since particulars exist as such and suches,

> i.e. since the form does not exist separately, perception can instil the universal in us. *De An.* III.8.432a3-8 says at this point not that the perception can instil the universal but that we need perception if we are to learn the universal.
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> So the background to the parenthesis of *Post. An.* II.19 [i.e. the claim that perception is of the universal] is that of an argument between Plato and Aristotle over the separateness or inherence of forms and of the epistemological consequences. As long as forms are not seen as separated, the idea of perception becomes much less problematic.[9]

Now, it is possible that Scott's comments here are really quite benign, but much depends on what he thinks the claim that perception "instils the universal" in us amounts to. If he should intend by the phrase only the content he ascribes to *De An.* III.8.432a3-8, i.e. that learning and understanding are impossible without perception, then he would not be claiming anything objectionable; it is clear that Aristotle does believe that. But it also seems clear that Scott does not take *Post. An.* II.19 merely to reiterate *De An.* III.8.432a3-8, for in the passage above he explicitly distinguishes the claim that perception instils the universal as a different claim from the one that learning and understanding are impossible without perception, and he accordingly must take the phrase to mean something different. The only obvious candidate for the phrase's true meaning is that in some sense perception is an epistemic grasp of the universal because the proper objects of perception all happen to be such and suches.

If, however, this is indeed Scott's conclusion, it runs into the very problems that plagued Barnes' interpretation of 100a16-18, for it seems clear that even if perception does in some sense put us in contact with universals, it never does so *qua* universals, and

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[9] Ibid., p. 156.

so it is very hard to see how perception instils the universal in us in any way meaningful enough to count as cognizing the universal as an epistemic object in its own right. This is evident in one of the very passages Scott draws on, for even when Aristotle says in *Met.* XIII.10.1087a19-20 that perception is of the universal "color" he says that it is only of the universal incidentally, and that must mean that though perception is of color in general because all perceived colors are members of the universal "color", perception itself never informs us that "This is a color"; it tells us only that "This is white", and it is up to some other faculty to cognize the various particular colors *as* representatives of a broader universal. And if this is so, how much more must we hesitate to say that perception gives us anything like a positive grasp of universals like "man" simply because the white, noisy, soft, moving things of a certain shape which we perceive happen to be men. The trouble which Barnes foresaw for his own interpretation of 100a16-18 thus envelops Scott's account as well: "...[I]t is...hard to see how ***man*** could be either a proper or a common sensible. *Man*, then, is not directly implanted in our minds by the senses, as Aristotle's words in II.19 suggest; but in that case we need an account, which Aristotle nowhere gives, of how such concepts as ***man*** are derived from the data of perception."[10]

Barnes puts his finger on exactly the problem facing interpreters of Aristotle's empiricist theory of learning: though perception in one way is of abstract, universal objects, more strictly it gives us no information whatsoever about universals *qua*

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[10] Barnes (1993) p. 266.

universals, and so what we really need is an account of how we move beyond the explicit information which perception does give us to cognize information of such a different kind. Barnes claims that Aristotle nowhere gives such an account, and if giving an account requires a single monolithic treatment of the subject, that is certainly true. But I hope to show nonetheless that such an account can be reconstructed from the hints he leaves in his discussion of related epistemic issues.

Such an account cannot, however, hope to glean much more from a further investigation of perception; it seems clear that perception really is in the proper sense a faculty that gives us information only about the strictly perceptual qualities of particulars. Hence, if we want to find cognition of the universals that reside in particulars *as* universals, we must look to other epistemic faculties. As a next step in that direction, I turn now to memory.

Memory

In Aristotle's first account of epistemic development in *Post. An.* II.19, the next stage of cognition after perception is memory:

> All animals have [perception], but in some a lingering of the object of perception arises, and in some it does not. For those animals for whom the lingering does not arise, there is no cognition beyond perception, either generally or concerning the things about which there is no lingering. But in some animals, having perceived, it is possible for them still to hold [the object of perception] in the soul, and when such things have happened many times a certain difference arises, so that for some an account arises from the lingering of such things, but for some it does not.

(99b36-100a3)

The crucial questions for us are what memory's contribution to our epistemological development is, i.e. how it represents an advance on perception, how its objects do or do not differ from perception's, and what it tells us about its objects that perception does not.

Let us begin to answer these questions as Aristotle does in his work on memory, by discussing the objects of memory. Aristotle is very clear that the objects of memory are always objects in the past (*De Mem*. 449b10-15), but that alone is neither very surprising nor very helpful. More interesting, however, is the reason he gives for denying that there is memory of present things:

> No one would say that he remembers the present while it is present, for example this white thing that he sees, nor does he remember the object of his contemplation when he happens to be contemplating and considering it. Rather in the one case we say he is perceiving, in the other that he only knows. But whenever one has knowledge or perception without the actualization [of these faculties], then he remembers, in the former case that he has learned or contemplated, in the latter that he heard or saw or some such thing. For always when one activates one's memory he says in his mind that he has heard or perceived or considered this before. (449b15-23)

And more interesting still is the conclusion he draws from this argument: "Thus memory is neither perception nor supposition (*hupolêpsis*), but is rather a state or affection of these, whenever time has passed....Therefore every memory involves time (*meta chronou*). Thus only those animals which perceive time remember, and with that thing by which they perceive [time]" (449b24-30).

These passages are interesting for a couple of reasons. First, they indicate that the objects of memory are, in a sense, the objects of both perception and knowledge or

thought; we can remember individual objects we have previously perceived, but likewise we can remember objects we have previously thought. The trigonometry I learned long ago in high school is as much an object of memory as the color of the apple I ate this morning. Second, memory is possible only when one is not presently cognizing the objects of memory with the faculty that cognized them in the first place, and this forces on us the important conclusion that it is possible for us to be cognitively related to the same object in more that one way. When I remember the color of the apple I ate this morning, I am remembering the very same color that I previously saw, but Aristotle is quite clear that I do not, as it were, re-perceive that color when I remember it; the perceptive faculty must not be actualized if I am to remember. Thus it is possible for me to cognize the color of the apple that I previously cognized through perception in a new way, and the same applies with objects of knowledge.

These results raise the question, however, of how memory's cognition of its objects differs from the cognition of what we might call the objects' proper faculties, and also the question of how it is possible for us to have this other kind of cognition that is neither simple perception nor simple knowledge but partakes of the worlds of both. We must turn again to *De Mem.* for answers to these questions. In a long but crucial passage, Aristotle tells us what memory really is and how it is related to other faculties:

> It is not possible to think (*noein*) without a mental image (*phantasma*); for it so happens that the same affection is involved in thinking which is involved in drawing diagrams. For in this case we make no further use of the finite magnitude of the triangle , but nevertheless we draw it as finite with respect to magnitude. And in this manner a person who is thinking, even if he is not thinking [explicitly]

> of a magnitude, he places a magnitude before his eyes, though he does not think of it [explicitly] in terms of magnitude. Even if the nature of the thing is that of a thing with magnitude, but no particular magnitude, he lays out a finite magnitude, though he thinks of it only as any old magnitude....It is necessary to cognize quantity and motion with that by which we cognize time, and the mental image is an affection of common perception. Thus it is clear that the cognition of these things is by the primary sense-faculty. But memory, even of objects of thought, is not without a mental image. Memory would belong incidentally to the faculty of thought (*to dianooumenon*) but to the primary sense-faculty *per se*....
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> And so it is clear that memory belongs to the same part of the soul as imagination (*phantasia*), and the objects of memory are *per se* the same as the objects of imagination, but are incidentally those which are not [cognized?] without imagination. (*De Mem.* 449b32-450a25)

This passage gives us a wealth of information about memory, but it also gives us a first hint at the way in which Aristotle bridges the gap between perception and higher forms of cognition by introducing imagination and mental images into his story of cognitive development. (In particular, we will eventually want to look again at the claim that mental images of objects of thought always include information that is not, strictly speaking, necessary for the cognition of the objects as objects of thought (rather than, say, objects of perception.)) Aristotle here draws memory very close to imagination, making the objects of memory out to be the same as objects of imagination and making mental images the vehicle of acts of remembering. Further, and ultimately more importantly, he connects memory and imagination to the faculties of both perception and thought and tells us that in some sense memory and imagination are both about the objects of perception and thought. These are revelations that we will shortly consider in depth and in the context of many other cognitive faculties, but let us first single out memory and ask what it properly tells us when it speaks.

It is clear from the earlier passages on memory that, whatever memory tells us, it cannot be merely what other faculties already tell us in their own right. For instance, if memory were to tell us that "This thing is white", it would not tell us anything above and beyond what perception tells us, and so would really only be perception. Similarly, if remembering that we learned that all triangles have 2R involves nothing more than thinking "All triangles have 2R", the memory is really just knowing that mathematical fact all over again and is not really a distinct cognitive faculty. But Aristotle clearly thinks that memory does tell us something above and beyond the information yielded by the faculties whose individual applications memory recalls, and it is also clear that this something above and beyond is entirely a matter of the cognition of time. When I remember the color of the apple I ate this morning, I do not merely think "This is red" all over again, I think "This[11] is the red thing that I saw some time ago", and this cognition essentially involves my awareness of the time that has passed since I first received that mental image through perception. Hence the cognitive contribution of memory is ultimately the contribution of

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[11] As Aristotle notes (450a26 ff.), there is perhaps an ambiguity in the reference of "this" in "This is the red thing I saw some time ago", for by "this" we could mean the thing itself, i.e. the apple, or the mental image of the apple which has persisted through time in the mind. In cases where one is merely remembering the apple without actually seeing it again (certainly what we would expect if I ate the apple), then the reference would seem to have to be to the mental image. But it turns out that that should also be true even if I am presently perceiving again an apple which I saw earlier; though I have a present mental image of the apple thanks to my present perception, my memory that this is the apple I saw earlier has to be understood in reference to the retained mental image from the earlier perception; if there were no such image still around memory would be impossible..

our faculty of temporal awareness, and since on Aristotle's account the awareness of time is a function of the perceptual awareness of the common sensibles of change and magnitude (as in "Wow, things have changed, and they changed quite a while ago"), memory is in the final analysis an aspect of the perceptive faculty. If we then interpret memory on the same lines as we interpreted perception earlier, we have to say that what memory really tells us explicitly is simply "This happened then". There is still an extended sense in which we can say memory is of things like the fact that this is the color of the apple I ate then, since the object of the memory is indeed the perceived color of the apple, but such objects, i.e. the proper objects of perception and thought, are really only incidentally objects of memory which are not cognized by memory *qua* objects of perception or thought and under the descriptions appropriate to the content of those faculties. An act of memory calls up an old image generated by an act of cognition, and the information conveyed by the original act is made available again in the remembered image, but the faculty that reports *that* information is not memory but whatever faculty generated the image in the first place. (And I take it that this is what Aristotle means when he says that "the objects of memory are incidentally those which are not cognized without imagination"; we cannot cognize objects of perception or thought without simultaneously cognizing (at least potentially) an object of imagination or memory, but the information which the different faculties tell us about their common referents is different enough to justify Aristotle in giving imagination and memory objects separate from those of the other faculties.)

This is not the whole story on memory, though, because we also need to emphasize the dependence of memory on other cognitive faculties like perception and thought. Even though memory has its own objects distinct from those of perception and thought, its ability to cognize these objects and indeed the existence of these objects is entirely dependent on the prior operation of the other cognitive faculties. We do not simply remember in a cognitive vacuum; we remember things we have perceived and thought. In that sense, memory is parasitic on the other cognitive faculties; if we neither perceived nor thought, we would not remember either, since these faculties provide the raw materials of memory which memory goes on to describe in its own special (temporal) way. Thus we get the following complicated story about memory: it is a kind of perception, and so in one sense its objects are just (common) objects of perception. But in another sense, memory is distinct from perception because the things it perceives (incidentally) are not the concrete objects of which perception gives us mental images nor the abstract objects of which thought gives us mental images; rather memory perceives the temporal character of these very acts of producing mental images: it is a way of producing images about the producing of images, although the content of its images has a very specific, temporal content — "This instance of cognition took place some time ago".[12]

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[12] Expectation, the faculty by which we entertain images about the future, is presumably also like this, a faculty for producing present images of future acts of producing images.

Memories are (perceptual[13]) mental images about other mental images.[14]

This all leaves unanswered, of course, the question of how memory makes a contribution to our development toward the higher forms of cognition; in particular we still need to explain the sense in which memory represents an advance over mere perception. It now turns out that in one way memory makes no advance over perception at all; after all it *is* perception, of a sort, and reports only what perception reports: "This perceived thing has this perceived quality", in this case the quality being the length of time passed since the first creation of the object. Hence we cannot find in memory any contact with the abstract objects of higher cognition as such any more than we could find it in perception proper. Memory does not help us develop toward knowledge and *nous* by putting us in direct contact with the universal.

What memory does do, on the other hand, is put us in epistemic contact with our very acts of cognition themselves, and this really is an important advance over mere perception of concrete objects. When we remember, we do not merely perceive just

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[13] There does seem to be something weird about Aristotle making memory a form of perception. Change and magnitude may well be common sensibles since they are perceived through a number of senses, but nevertheless it seems impossible to fix any specific sense by which we perceive the length of time that has passed since we first saw some object. Memory would seem, then, to be the perception of a common sensible which we perceive by no specific sense in particular, i.e. a sensible that is supposedly shared by the senses but which none of the senses actually perceives. *De An.* III.2 may, however, be relevant.

[14] I thus agree with Annas (1992) that the kind of memory which Aristotle discusses as *mnêmê* is what she calls "personal memory", memory which involves explicit recall of one's prior cognitive activity.

another concrete particular; we perceive something about another cognitive act, be it an act of thought or perception. And though this ability does not give us direct contact with the abstract objects of higher thought, it does make possible the juxtaposition of mental images and the comparisons and contrasts which such juxtapositions allow. Animals that do not possess memory can only hold on to one mental image at a time, that which their immediate perception gives them, and so can never put two images side by side to get anything like general concepts; a bug senses now light, now dark, now pleasure, now pain, and responds mechanically, never coming to grasp what is common to its various acts of cognition because no individual image sticks around long enough to be sized up against another. But humans and some other creatures can hold on to images and index them temporally, and for at least some of these animals this ability to retain images makes it possible to hold up one image against another in such a way that something snaps and the content of the images takes on a new character. Memory does not make the comparisons itself, but it allows us to manipulate the images it indexes so as to bring to bear on the images other faculties which can make such comparisons and eventually render up the elements which many images have in common.

So much for memory. But our discussion of memory has introduced another faculty, imagination, which, though it does not receive mention in Aristotle's accounts of cognitive development in *Post. An.* II.19, seems to play a pivotal role in the commerce between perception and thought, and hence warrants a closer look. As we will see, some of our discoveries about memory will apply to imagination as well, but imagination has

special qualities which deserve their own treatment.

Imagination

Imagination plays an exceedingly important role in Aristotle's epistemology as the meeting ground between perception and the higher faculties, but you would not know it from the amount of attention he gives it in the surviving corpus of his works. Although imagination pops up in all sorts of contexts, there is only one place, *De An.* III.3, where Aristotle discusses it as a topic in itself, and even there he says a lot more about what imagination is not than he says about what it is. So once again we are in the position — by now familiar to the reader — of having to piece together as coherent a story as possible from a range of comments drawn from many different texts.

This task is especially difficult in the case of imagination simply because of the wide range of contexts to which imagination is relevant; it plays a critical role in many aspects of Aristotle's epistemological, psychological, and ethical theories, and we will accordingly face the constant temptation to digress which these many interesting topics provide. In this section I intend, however, to stay as focussed as possible on a fairly narrow range of issues: (1) It will be my contention that imagination is critically involved in our ability to cognize particulars as instances of universals and to cognize universals as objects in themselves. But how, specifically, do we come to cognize particulars as instances of a universal, and what is the role that imagination plays? (2) Aristotle

describes our basic cognitive grasp of classes and universals in many ways — as imagination, as belief, as supposition, as well as higher forms of cognition like knowledge, *nous*, and practical wisdom (*phronêsis*); why does Aristotle use so many different epistemic terms to describe our grasp of universals as universals? There are lots of other issues involving imagination we could pursue, but let these suffice for now.

As a first pass at imagination, it might be helpful to explore its relationship with perception. It is clear that Aristotle thinks this relationship is quite a close one; at *De An.* III.3.427b16 and 428b13-14 he says that imagination cannot arise without perception and arises for perceptive creatures about the objects of perception, and at *On Dreams* I.459a16-23 he says that, "the imaginative faculty (*to phantastikon*) is the same as the perceptive faculty (*to aisthêtikon*), but the imaginative faculty is different from the perceptive faculty in essence, but imagination is a motion (*kinêsis*) arising from perception in activation....It is clear that dreaming belongs to the perceptive faculty, but *qua* imaginative faculty." Furthermore, at *De An.* III.3.428b20-30 Aristotle draws a parallel between his three descriptions of perception — i.e. of unique, common, and incidental objects — and corresponding kinds of imagination (though he is careful to point out that, strictly speaking, the *phantasia* produced by an act of perception under any description is not the same as the perception itself.) Hence in some sense imagination must be an outgrowth of perception.

Nevertheless, however close imagination and perception may be, they are certainly not identical. This is made most evident in *De An.* III.3.428a5-16:

> That imagination is not perception is clear from the following. Perception is either potential or actual, e.g. sight or seeing, but something is apparent when neither of these applies, for example the things in dreams.[15] Next, perception is always present [i.e. all animals have it], but imagination is not. But if they were the same in actuality it would be possible for imagination to belong to all the animals. But it does not seem to, e.g. it does not to the ant or bee or grub.[16] Next, perceptions are always true[17], but most appearances are false. Then neither do we say that "this thing *appears* to us to be a man" when we function correctly with respect to an object of perception, but rather when we do not perceive accurately. And...things appear to those with their eyes shut.

The main points of difference here can be summed up by the claim that imagination, however dependent it may be on perception for its existence, cannot simply be perception because it can exist where perception does not (e.g. in cases where we entertain images in dreams that our senses did not produce[18]) and perception can exist where it does not (e.g. in the simpler animals). The real question then becomes how we should understand the relationship between these faculties which Aristotle can call now the same and now different.

Some commentators have focussed on the passages where Aristotle seems to separate out perception and imagination most clearly to argue that the two faculties are fundamentally distinct, and that agents thus use one or the other in a particular act of

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[15] See also *On Dreams* I.458b4-9.

[16] The text may be corrupt here; see Hamlyn (1968), p. 54.

[17] For a discussion of this claim with which I largely agree, see Block (1961). I discuss both this claim about perception and Block's paper at greater length in Chapter 9.

[18] Or at least they did not produce them in the straightforward sense; see *On Dreams* I.459a1-6.

cognition, but not both. Thus, for instance, Schofield[19] and Modrak[20] both point to *De An.* III.3.438a12-15 (quoted above) as evidence that when imagination is at work perception is not. They conclude that imagination is at work only in cases of "non-paradigmatic" or "non-veridical" instances of sensory representation, and hence that an act of perception is not an act of imagination, and vice versa. In further support of this view, they could also point to evidence that perception can happen without imagination (as in the case of animals that enjoy the former but not the latter) and that imagination can happen without perception (as when we dream or entertain images with our eyes closed).

Nevertheless, I think these bits of evidence do not prove what these commentators think they do. It is clear that imagination can take place without an act of perception, but the reverse is not likewise obvious. Even if *some* animals can have perception without imagination, it does not mean that all animals similarly do not employ imagination when they perceive. Moreover, the claim that we say that something *appears* to a person only when we are not sure of the truth of the appearance does not prove that the person who entertains the appearance does not entertain it *through* an act of perception; it need only mean that the specific act of perception involved does not occur in circumstances that make the resulting appearance a reliable guide to the reality thereby represented.[21] For all

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[19] (1975) pp. 108-110.

[20] (1986) p. 51, (1987) p. 85.

[21] See Everson (1997) pp. 182-3.

that Schofield and Modrak say, it still seems entirely possible that every act of (human) perception may generate a corresponding appearance.[22]

The key to this problem would seem to lie in the similarities between imagination and memory which we have already mentioned in passing. As we saw in our treatment of memory, Aristotle links our ability to entertain appearances very closely to our ability to remember; at 450a23-25 he says that *phantasia* and memory belong to the same part of the soul and share the same proper objects. And as we saw in the case of memory, these objects can include all acts of cognition of all sorts, both acts of perception and acts of thought. This should not be surprising given the way we actually experience our ability to entertain appearances; sometimes the things that appear to us are sensory in origin, as when it appears to us that a pinprick is painful or that (a favorite Aristotelian example) the sun is a short distance across, but at other times it appears to us that all triangles have 2R or that all humans are mortal. Anything which we can cognize, whether as a conviction which we hold or a possibility or image we are merely considering, we can also report as an appearance, and any act of cognition, be it perceptual or intellectual, generates a corresponding appearance. In this vein Aristotle claims at *De An.* III.10.433b29 that all imagination is either perceptual (*aisthêtikê*) or calculating (*logistikê*), thereby encompassing the two broad kinds of mental activity of which we are capable.

What, then, is it that distinguishes imagination from the faculties whose contents

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[22] See Everson (1997) p. 181.

imagination reports? If all that imagination tells us is how things seem to the various cognitive faculties, why say that there is something distinct which imagination picks out that is not already covered by some other faculty? What is the special function of imagination that other faculties do not fill? And why is that function most especially linked to perception rather than to the intellect?

Unfortunately, we cannot give the answer for imagination which we gave for memory. We found in memory's case that it did indeed report something that was unique, namely information about the duration of time that has passed since a remembered cognitive event, and that this cognition of time was essentially an action of perception of a common object. But the appearances which imagination entertains can explicitly involve every kind of predicate, sensory or otherwise, and so imagination cannot be said to report properly only some particular kind of sensory information as memory does.

This would seem to render memory's connection to perception useless as a model for an account of imagination's content. Still, memory is our best bet as an aid to explaining the special role of imagination. As we have seen in a couple of passages — e.g. *De An.* III.3.428a8-11 and *Post. An.* II.19.99b36-100a3 — Aristotle attributes different cognitive abilities to different animals, and though he attributes perception to all animals, he denies memory and imagination to some. In the case of memory, this meant that some animals lack the ability to retain images of the things they perceive which they can then recall at a later date. And arguably, it is these very animals that lack memory that lack imagination as well, since it seems quite plausible to think that the failure to produce

persistent appearances that retain the content of individual acts of perception just is the failure to entertain appearances in the manner that imagination makes possible.[23] If so, imagination and memory are really just different aspects of the same basic cognitive ability to store the content generated by other cognitive activities; imagination is the vehicle of storage itself, while memory is one way of gaining access to the stored cognition by reporting the interval since the cognition was first generated. (Indeed, memory is itself a kind of imagination since it itself is a perceptual act which can be stored and rendered as an appearance, as in "It seems to me that I remember seeing him last Tuesday.") It is this role as the preserver of the content of other cognitive acts which allows us to explain the many other contexts in which imagination plays a role. Because our minds store cognitions in the form of appearances we can, for instance, entertain thoughts which we do not really believe (*De An.* III.3.428a21-24) and cognize images in dreams which we do not actually perceive (*On Dreams* I.459a21-23). This means that, once we have generated an appearance by accomplishing some cognitive act, that appearance takes on, as it were, a life of its own, and we can sometimes re-activate the part of the soul which produced the

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[23] It does seem troubling, however, that Aristotle should deny imagination entirely to any animal possessed of perception, since to perceive something is to have it appear to one in a certain way. What Aristotle must really, then, be denying when he denies that some animals have imagination is not that these animals entertain *phantasiai* in any sense whatsoever but rather that they entertain them in any sense which goes beyond the instantaneous and fleeting cognition that an individual act of perception supplies. So the bird's beak does appear painful to the grub, but not in such a way that the grub can reflect on this appearance or gain any cognitive distance from the appearance at all. See further Caston (1996) p. 23 n. 9.

appearance in the first place to reproduce either that same earlier appearance or a new appearance formed by combining elements of old ones. Sometimes, as in the case of dreams, the re-activation of the cognitive faculty that yields the appearance is involuntary, and other times it is voluntary, as when we choose to contemplate mental images without committing ourselves to the images' actual representation of anything about the world.

All this says nothing, however, about imagination's contribution to learning, especially to the achievement of cognition of universals. The key passage that reveals this is one we have already encountered in connection with memory — *De Mem.* 449b32-450a25. There we learn that when we entertain an image as an object of thought, the image retains information that betrays its origins in perception. Even when we imagine, for instance, some particular square so that we can make inferences about squares in general, the image we consider betrays its perceptual history through the fact that it retains information that pertains only to the particular square we happen to be imagining. We may perhaps make no use of this information in our investigation of squares in general, but nonetheless the information is there. And indeed, we could not get rid of that information even if we wished to; all thoughts about the universal "square" which we can entertain must proceed through our consideration of an image of a particular square.[24] In other

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[24] This would also seem to explain how, at *NE* VI.11.1143a35-b6, Aristotle can claim that *nous* is a kind of perception of particulars: "*Nous* is of the ultimate things in both directions [i.e. the particulars and the primary universals]; for *nous*, and not reason [understood as a calculative faculty working through middle terms], is of the primary definitions and the ultimate things. And in the case of proofs it is of the unchanging and primary definitions, but in practical affairs it is of the ultimate and contingent thing and of

words, thought's dependence on imagination as a supplier of its cognitive contents imports a connection to the information about particulars provided by perception into even our highest and most refined cognitions of universals. Moreover, should the image which one contemplates with a higher faculty be one which perception of a particular presently before one generates, there is a real sense in which the higher faculty cognizes the particulars indirectly in cognizing directly the universal which the particular instantiates.[25]

There seems no reason to think the same is not true in some sense of our perceptual cognitions as well. An act of perception which generates an image surely does not always generate a higher cognition of the universal the perceived particular instantiates, but, as we have already seen, there is a sense in which the intelligible universal is always there waiting to be cognized by the epistemic agents with the appropriate

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the minor premise, for these are the principles of purposeful behavior. For the universal is derived from the particulars. Thus it is necessary to have perception of these things, and this is *nous*." As we will see later, *nous* is properly characterized as a grasp of a universal essence, but because even cognition of an essence must proceed through an appearance containing the representation of a particular with the appropriate essence, there is an extended sense in which *nous* could be said to be a cognition of the particular. And if, moreover, the appearance which *nous* contemplates happens to be an appearance generated by a present act of perception, then *nous* could be said to be of a particular right in front of one. All of this seems to give the lie to Modrak's claim that "there is no textual support for the claim that *nous* apprehends sensible particulars..." (1987, p. 118 n. 18).

[25] See D. Frede (1992) p. 288: "Aristotle later concedes (432a3 ff.) that we only get to know the intelligible forms of all material entities...through knowledge of the sensibles.... As we can conclude from Aristotle's own example, the intellect's activity includes discursive thinking about concrete sensible items (430a31 ff. 'E.g. Cleon is pale or was or will be', cf. 426b22, 31; 427a9). And this is the point where imagination comes in. It establishes the connection between the intellect and its sensible objects."

cognitive equipment. And presumably imagination plays the same "middle-man" role here that it does in the case of higher cognition; just as the information about the particular instance is always there in the cognition of the universal, whether or not it gets used in the cognition, similarly the information about the universal is always there in the cognition of the particular, if only the agent will apply the right faculty to recognize it.[26]

This ability of imagination to link the cognitions of universals and particulars together is essential to Aristotle's theory of learning. It explains how, having cognized a particular through perception and cognized the universal which the particular instantiates through some higher kind of cognition, we can finally cognize the particular *as* an instance of that universal as well, effectively drawing the different epistemic faculties into a unity. As we will see, it is this role of imagination which will make it possible for us to explain how, as we articulate our grasp of an object more and more clearly, we remain in epistemic contact with *the same cognitive object* throughout the learning process, and how, once the learning process is complete, we can look back on the process itself and recognize that, in some sense, it was always about the same thing. And this, of course, is an essential ingredient in a successful solution to the Meno Paradox.[27]

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[26] I thus agree with Lowe ((1983) p.120) that imagination plays a role in thought both of sensible particulars and of abstract objects like universals, but I also think he goes too far in claiming that imagination *by itself* is the faculty that makes it possible for us to think about abstract objects. Aristotle clearly thinks that it is the higher faculties that cognize the abstract objects, even though they require a *phantasma* to do so.

[27] For a similar assertion see D. Frede (1992) p. 292 and Caston (1996) pp. 51-2.

CHAPTER 7

The Stages of Aristotelian Cognition — The Intellectual Faculties

Although there is an incidental sense in which the perceptual faculties — memory, imagination, and of course perception itself — can put us in touch with a universal, universals never appear at these cognitive stages explicitly as cognitive objects in their own right. But we now turn to other forms of cognition in which universals do make an explicit appearance — experience, supposition, belief, skill, knowledge, and *nous*.

Experience

As we have already seen, in *Post. An.* II.19 the stage of learning that follows the lingering image of memory is experience. This stage is important in that it represents the first point at which anything like a universal seems to be present in the soul as something more than a potentiality latent in the images generated by perception. Aristotle seems to draw a strong connection between experience and the universal in II.19:

> Thus memory arises from perception...and from frequent remembering of the same thing arises experience; for memories which are many in number are a single experience. And from experience, or from the whole universal that is present in the soul — the one as opposed to the many, which is the same in all those things in which it exists — is a beginning (*archê*) of skill and knowledge (100a4-8).

Most interpreters (e.g. Ross and Barnes) take the "or" at 100a6 to be epexegetical, which would indicate that experience does somehow grasp a universal.

This interpretation of 100a6 is not, however, unanimous. McKirahan, for instance, reads it progressively as a way of introducing a new epistemic state that is later than experience but which can also serve as the stepping stone to *nous*.[1] The resolution of this issue depends on the nature of experience. Is it the kind of epistemic state which could be accurately characterized as the possession of a whole universal? If not, then we must grant that experience and the whole universal present in the soul represent different developmental stages. And indeed, there is some reason to think that experience is not the possession of a whole universal, for at *Met.* I.1.980a15-16 experience is differentiated from skill by the fact that the former is a cognition of particulars while the latter is a cognition of the universal. A straightforward reading of this claim suggests that experience therefore cannot be a grasp of a universal.

Nevertheless, the evidence for depicting experience as a sort of grasp of the universal is greater than the evidence to the contrary, and we should accordingly treat experience as a kind of possession of a universal. For example, one must note all the times experience is described as a unity that draws together many other items: experience is a single thing that is derived from many memories (*Post. An.* II.19.100a5-6, *Met.* I.1.980b29-981a1), and if (as I will argue in Chapter 8) *Post. An.* II.19.100a12-14 is about the derivation of experience from previous perceptions, there too it is characterized as the creation of a unity from a range of particulars. And more to the point, if indeed

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[1] McKirahan (1992) p. 243. Though he prefers the epexegetical reading, Scott ((1995) p. 113n7) is also sympathetic to McKirahan's interpretation.

"memories which are numerically many are a single experience" (100a4-5), since the thing that makes the memories many is the many different remembered particulars, then what is left to make the experience one if not that it connects somehow with the universal which is the same in all the particular cases, "the one apart from the many" (100a7)?

Along the same lines, we find that in *Pr. An.* I.30 Aristotle explains how experience makes further epistemic progress possible in the following way:

> ...[I]t is the task of experience to provide the principles special to each branch of knowledge. I mean, e.g. that astrological experience provides the special principles for astronomical knowledge; for when the appearances had been sufficiently grasped in this way the astrological proofs were discovered. And the same holds true concerning any other skill or knowledge whatsoever. Thus if one has grasped the attributes concerning the relevant thing, we may readily bring the proofs to light. For if none of the true attributes of the objects have been left out of the account (*historia*), we will be able to discover and prove everything of which proof is possible, while everything of which proof is not possible [i.e. first principles cognized by *nous*] we will be able to make clear. (46a17-27)

This passage indicates that experience, in order to fulfill its appointed role in our development toward the final epistemic states of *nous* and knowledge, must grasp *all* the attributes of the relevant kind — or at least all the ones relevant to knowing the thing's essence — so that these attributes can then be cognized by *nous* or knowledge in some different, as-yet-undetermined way.[2]

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[2] This passage also suggests that Everson ((1997) p.227) is right to claim that, "...*[E]mpeiria* is much closer to 'concept' than 'experience', by which it is standardly translated. Whereas concepts are individuated items, experience is not — to talk of a single experience would be to talk of, say, a perceptual experience. One can have more or fewer concepts but more or less experience. *Empeiriai*, like concepts, are to be individuated by reference to what they enable the subject to think of."

Unfortunately, however, the precise sense in which experience can be said to supply a grasp of a universal is not entirely clear. The text in which Aristotle tells us the most about experience, *Met.* I.1.980b28-981a24, suggests that, though there is a sense in which a universal is present in the soul of the experienced man, it is not present in such a way that it is cognized explicitly as a universal:

> And it seems that experience is very like skill and knowledge, but skill and knowledge arise for men through experience. For experience makes for skill, as Polus says, but inexperience makes for luck. Skill arises whenever from many notions (*ennoêmatôn*) derived from experience a single universal supposition arises concerning similar things. For on the one hand experience is the possession of the supposition that such-and-such benefitted Callias when suffering such-and-such disease, and likewise for Socrates and for many other particular individuals. But on the other hand that such-and-such has benefitted all those people of such-and-such a kind marked off as a unity in respect of form, for example the phlegmatic or the bilious when burning with fever, this is a matter of skill.
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> With respect to action, experience does not seem to differ from skill, but the experienced even succeed more than those who have an account without experience[3] — and the reason for this is that experience is the cognition of particulars while skill is cognition of the universal, and actions and comings-to-be all concern the particular. For the one who makes the cure does not heal 'man' except accidentally, but rather heals Callias or Socrates or some other of those named in this way who happen to be a man. And so if someone should have the account without experience, and cognizes (*gnôrizêi*) the universal but does not know the particular that falls under it, he will often fail to cure, for a particular

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[3] This statement gives rise to a problem. Aristotle has just said that skill and knowledge come to be through experience, which would seem to imply that these cognitive states cannot exist without experience existing as well. I follow McKirahan ((1992) p. 242) in taking the case he has in mind to involve a person who has experience and skill, say the originator of an expertise, who then teaches students what he knows, but only as a set of theorems which they have not yet connected up to specific individuals through experience. (Something like this seems to be allowed by Aristotle in *NE* VII.3.1147a18-24, a passage about which I will have more to say below.) In such a case skill and knowledge do come to be for the student through experience, just not *their own* experience.

person is to be cured.

We may well wonder how Aristotle is asking us to characterize the different ways in which the experienced man and the skillful man grasp the universal. *Post. An.* II.19 makes it clear that there is a sense in which experience constitutes the grasp of the universal, but *Met.* I.1 explicitly contrasts experience with skill on the grounds that experience is appropriately characterized as a cognition of particulars, not universals.

Ross offers a helpful suggestion on this passage:

> In principle [experience] seems not to differ from memory. If you have many memories of the same object you will have *empeiria*; those animals, then, which have good memories will occasionally have it, and men will constantly have it. After having described it, however, as produced by many memories of the *same* object, Aristotle proceeds to describe it as embracing a memory about Callias and a memory about Socrates. These are not the same object, but only instances of the same universal; say, 'phlegmatic persons suffering from fever'. An animal, or a man possessing only *empeiria*, acts on such memories, and is unconsciously affected by the identical element in the different objects. But in man a new activity sometimes occurs, which never occurs in the lower animals. A man may grasp a universal of which Callias and Socrates are instances, and may give to a third patient the remedy which helped them, knowing that he is doing so because the third patient shares their general character. This is art or science....
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> What is revived by memory has previously been experienced as a unit. Experience, on the other hand, is a coagulation of memories; what is active in present consciousness in virtue of experience has not been experienced together. Therefore (a) as embodying the data of unconsciously selected awarenesses it foreshadows a universal; but (b) as not conscious of what in the past is relevant, and why, it is not aware of it as universal. I.e. experience is a stage in which there has appeared ability to interpret the present in the light of the past, but an ability which cannot account for itself; when it accounts for itself it becomes art.[4]

This account of Aristotle's meaning does not seem to be completely accurate. For

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[4] Ross (1924) Vol. 1, pp. 116-17.

instance, Ross is surely wrong to say that experience is not different in principle from memory. Experience is parasitic on memory, but there does not seem to be any sense (except perhaps what Aristotle would call an accidental sense) in which the whole universal could be said to be present in the soul of a person who is merely remembering.[5] If the *whole universal* is present in some way for the person with experience, then there is a sense in which everything which will eventually be present in the fullest sense when one has *nous*, the final cognitive stage, is already there in experience, even if the agent cannot see it as such. And this sort of grasp of a universal, though it is still largely latent, is not the sort of thing that any of the basically perceptual faculties (perception, memory, and imagination) could give us entirely on their own.[6]

Ross also, however, makes some helpful points, most importantly that experience is a kind of *unconscious* grasp of what is grasped consciously by the skilled or knowledgeable person. The merely experienced medic cures the patient with great success; something in him allows him to latch on to the right qualities of his patient in order to arrive at the right therapy because in some sense he grasps all the attributes which

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[5] For similar reasons, Modrak is also wrong to say ((1987) p. 167) that, "The warrant for a judgment made through experience is simply the past and present observations on which it is based, and such judgments can always in principle be reduced to lengthy conjunctions, where each conjunct describes a particular case." Experience, because it is a kind of possession of a whole universal, is more than just a conglomeration of particulars, even though the (merely) experienced agent cannot explicitly convey his experience in anything but particular terms.

[6] See Kahn (1992) pp. 368-9.

characterize this particular case as the sort of medical case it is, and he does this because he responds to the universal conveyed in the appearance he entertains of the patient's condition. But he cannot explain what he is doing or how he knows what cure to give. He can say, perhaps, "I've seen this sort of thing before", but if you press him to explain just what "this sort of thing is", he cannot say, or at most he can only give specific examples — Socrates or Callias, for instance. Where a skilled doctor cognizes the patient's appearance explicitly via the relevant universals, the experienced medic still responds to the universal in the appearance, though he explicitly cognizes only the particulars represented in that appearance. Nonetheless, it will turn out to be this unconscious grasp of the universal that will eventually allow him to go on to make articulate and explicit what he already knew, in a sense, about medicine.

Much thus remains mysterious about experience. Aristotle tells us that somehow repeated encounters with the same thing generate a kind of cognition that grasps the universal, but not *as* a universal. Yet how exactly this is possible remains unclear; the most we seem to be able to say is that some creatures never grasp the universal no matter how often they encounter the same sort of thing, while other creatures, humans in particular, sometimes begin to respond to the universals in the particulars they encounter even before they recognize that that is what they are doing. It is also yet mysterious how we move from this unconscious grasp of the universal to something more explicit, but let us now see if that transition can be made more transparent.

Belief, Supposition, and Nous

It may seem surprising that I would group belief, supposition, and *nous* together as objects of discussion. Linking belief and supposition is not a great stretch, but belief and *nous* are clearly very different stages of cognition — *nous*, after all, is the final stage in our cognitive development, and belief surely falls far short of that kind of completion. Thus one might quite reasonably hesitate to discuss them together. Moreover, belief itself does not appear as a distinct stage in the account of cognitive development which we find in *Post. An.* II.19, so we might be tempted to leave it out of this developmental narrative altogether. And *nous* does not appear explicitly in that chapter's three accounts of learning, while knowledge and skill do, so one might think it better to discuss knowledge and skill rather than *nous*. Nevertheless, I proceed in this way because, first, I believe that one cannot fully understand the nature of these cognitive states in isolation from one another. These are two of the most important varieties of cognition that involve the explicit cognition of universals, and the special sort of grasp of the universal which each involves is best characterized in opposition to the other. And second, even though *nous* is not mentioned explicitly in the *Post.* An. II.19 accounts of learning while knowledge and skill are, Aristotle makes it clear in other parts of that chapter and elsewhere that *nous* provides the starting point for knowledge and skill,[7] and this implies that we must attain

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[7] See, e.g. *Post. An.* II.19.100b15 and I.33.88b35-37.

nous before we can press on to these other cognitive states. Hence it makes sense to talk about *nous* before these other states in our developmental story.

So what distinguishes belief, supposition, and *nous* from the earlier stages of cognition and from each other? Take supposition first. I will not consider at length how supposition differs from experience[8], but how does it differ from imagination? Aristotle gives the following answer:

> For imagination is different from both perception and thinking (*dianoia*); it does not arise without perception, and supposition does not arise without imagination. But it is clear that it is not the same kind of thought (*noêsis*) as supposition. For imagination is an affection which is up to us whenever we wish (for it is possible to be generated before our eyes, just as in the case of those who set up mnemonic systems and craft images in their minds), but believing (*doxazein*) is not up to us; for it is necessary that it be either true or false. But further, whenever we believe that something is terrifying or frightful, we feel an emotion right away, and the same holds in the case of courage. But we act with respect to imagination just like those who contemplate terrifying or encouraging things in a picture. (*De An.* III.3.427b14-24)

This passage makes it clear that supposition differs from imagination in a couple of important ways. On the one hand, we can distance ourselves from the one in a way we

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[8] I wish to avoid this discussion as much as possible because I do not think that a great deal turns on it, and it also seems to me that Aristotle is very unclear on the matter. *Met.* I.1.981a7-9, for instance, unambiguously says that experience is a kind of supposition, but experience does not appear in any of the lists of kinds of supposition, and there seem to be reasons why it should be excluded. For instance, at *Met.* I.1.980b25-27 Aristotle says that animals partake of experience at least a little bit, but since supposition is inextricably tied up with explicit cognition via universals and with linguistic, rational thought, it is troubling that any kind of cognition available to animals would be characterized as supposition at all, and passages like *NE* VII.3.1147b4-6 intensify this concern. (On this problem see Sorabji (1993), pp. 30-35.) If I can get away with it, I would just as soon leave these difficulties be.

cannot from the other. If you suppose that something is frightening, you immediately respond actively, as though there were truly a threat present. But if you merely entertain an image of a frightening thing, for instance by conjuring up an image of a charging lion in your mind, you have no immediate reaction, no more than if you were standing in front of a painting of a charging lion. In other words, we can entertain images with the same cognitive content as some supposition, but the latter carries with it a conviction about the actual state of affairs which the former lacks. On the other hand, we can control our imagination in a way we cannot control our suppositions, for we can choose how and when to entertain an image[9], but we cannot choose what suppositions to make and when to make them. Presumably what he means is that, perhaps because we can keep a cognitive distance from what we merely imagine, we can imagine whatever we like, even if we know that the images we entertain are false, while we do not have a similar freedom with respect to our convictions about the states of affairs that actually obtain; we cannot

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[9] Wedin (1988), because he wishes to deny that imagination is an independent cognitive faculty and that one can ever entertain images that are not generated by some other faculty argues that imagination here is really just memory, and that what we call up at will is images of things we remember (p. 74). No doubt sometimes those are the images we voluntarily call up, but Aristotle says nothing here that demands such a construal, and it is easy to come up with examples of images I entertain of things I have never encountered before, say exotic alien species. No doubt memory plays a role in allowing me to generate these images, but I think it is just this kind of familiar cognition which shows that Wedin goes too far in denying imagination any role at all as an independent faculty. I therefore side with Schofield ((1975) pp.102-3) against Wedin on the question of imagination's independence from other cognitive faculties, although I accept Wedin's arguments (pp. 65-7, 70-1) that Schofield is wrong to confine imagination to "non-paradigmatic sensory experiences" involving only cognitions with a shaky claim to veridity. (See my comments on this topic in Chapter 6's section on imagination.)

merely decide to suppose things to be the case when we are convinced they are not.

The ways in which supposition and imagination are similar may, however, be more important than the ways in which they differ. In particular, it is interesting that Aristotle does not distinguish them with respect to their objects, and indeed, when he says that supposition does not arise without imagination, we may plausibly take him to mean that every supposition is parasitic on an appearance. If that is so, then one could not suppose *p* without it simultaneously appearing to one that *p*. When we combine this result with the differences listed above, it seems then that a supposition is a commitment that the state of affairs represented in an appearance obtains.

Interestingly, in the passage above we also see supposition linked quite closely with belief — indeed, closely enough that we might wonder whether the two differ at all. In that passage Aristotle began by talking about how *supposition* differs from imagination, but then pressed on to twice compare what we *believe* with what we imagine (427b20 and 21). Furthermore, Aristotle often uses "supposition" and its cognates to characterize the usually mistaken philosophical commitments of his predecessors, a kind of cognition which is might well be characterized as *mere* belief, in contrast to knowledge. And as Wedin points out, these considerations have led some commentators to consider supposition as something very near belief.[10] But Wedin also draws our attention to passages like *De An.* III.3.427b24-26: "There are varieties of supposition itself:

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[10] Wedin (1988) pp. 102-103.

knowledge, belief, practical wisdom (*phronêsis*), and the opposites of these[11]...", and goes on to conclude — rightly, I think — that "supposition" covers any cognitive act that involves holding that something is the case, with different kinds of supposition differentiated by *how* they hold something to be the case: "As a rule "*hupolêpsis*" and "*hupolambanein*" are employed when what matters is not how but simply that something is taken to be the case."[12] Thus we would be wrong to assimilate supposition and belief together; "belief" turns out to be a species of the genus "supposition".

De An. III.3.427b24-26 shows that, along with belief, knowledge and practical wisdom are also species of supposition, but *nous* does not appear on this list. This fact invites the question whether that is a simple oversight, or whether there is some reason that *nous* is absent from the list of kinds of supposition. So is *nous* a kind of supposition, or is it not?

To my knowledge, Aristotle does not anywhere explicitly say that *nous* is a kind of supposition, but in a couple of places he seems to imply just that. At *De An.* III.4.429a23, for instance, Aristotle says that, "I call *nous* that by which the mind thinks (*dianoeitai*) and makes suppositions (*hupolambanei*)", and though this may mean only that the possession of *nous* is a precondition for making a supposition without being itself a kind of supposition, it is possible that it means that the operation of *nous* itself can be

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[11] To my knowledge, no commentator has any account of what might be the opposites of knowledge, belief, and practical wisdom. I confess myself at a loss.

[12] Wedin (1988) p. 105.

characterized at least sometimes as making suppositions. Moreover, *nous* is tied very closely to the epistemic state of knowledge, and knowledge is explicitly called a kind of supposition many times.[13] But perhaps the best evidence that *nous* is a kind of supposition is *Post. An.* I.33.88b35-37: "But indeed neither does *nous* (I call *nous* the origin of knowledge) [take things that could be otherwise as an object], nor indemonstrable knowledge; and this is a supposition of the immediate premise." Here "indemonstrable knowledge", which is clearly called a kind of supposition, is almost certainly not distinct from *nous* (as both Ross[14] and Barnes[15] agree, reading *oude* epexegetically). And at 89a16-19, Aristotle likens the supposition of things that cannot be otherwise, i.e. knowledge, to the supposition of definitions, i.e. *nous*. This evidence seems to clinch the claim that *nous* is indeed a species of supposition.

Now that we have ascertained that all the kinds of higher cognition we are concerned with are species of supposition, and that supposition itself is therefore not a distinct species of cognition that must be reckoned with separately, the important issue becomes the distinguishing of the species of supposition themselves. How, for instance, does belief differ from *nous*?

Aristotle does not say much about how to distinguish these two kinds of

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[13] See *NE* VI.6.1140b31, VII.2.1145b37-1146a1, et al.

[14] (1949) p. 606-7.

[15] (1994) p. 199.

supposition, but he says quite a lot about how we should distinguish knowledge and belief, and it seems clear that this distinction can be used as a guide for distinguishing *nous* and belief as well. We have an entire chapter devoted entirely to the question of what makes belief and knowledge different, *Post. An.* I.33. It is clear enough what separates knowledge from belief for Aristotle: "knowledge is [of the (?)] universal[16] and comes to be through necessary things, and that which is necessary cannot be otherwise. But there are some things which, though true and real, can possibly be otherwise....[B]elief is concerned with what is true or false and can possibly be otherwise. It is a supposition of an unmediated[17] premise that is not necessary" (88b31-33, 89a2-4). So the central

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[16] Does Aristotle mean to imply that there is no belief of the universal? Given that later in the chapter he argues that there is a sense in which knowledge and belief can be of the same thing, that would be surprising. Moreover, it also seems possible that one might have knowledge of a particular, e.g. that a particular triangle has three sides (*Post. An.* I.1.71a17-30, *Pr. An.* II.21.67a12-26). I confess I find the inclusion of this criterion baffling in this context. Perhaps it should be excised?

[17] Ross and Barnes disagree concerning how to take the claim that belief is of an unmediated premise, a troubling statement given that Aristotle also describes knowledge in this passage as being of an unmediated premise (88b37). Barnes argues that there is no reason for Aristotle to deny that belief could be of mediated premises and so believes the text should be corrected ((1993) p. 199). Ross, on the other hand, thinks that the text is genuine, but that knowledge and belief are of unmediated premises in different ways — knowledge knows that "a predicate belongs directly and necessarily to its subject" while belief is of a premise "that has not been mediated, i.e. derived by correct reasoning from necessary premises" ((1949) p. 607). I tend to think Barnes is correct, but the issue is ultimately uncertain; in this context, if, as Barnes suggests, we allowed (mere) belief to be of a mediated premise, then the belief would be the result of a syllogistic process, and so [provided it is the right kind of syllogistic process] be knowledge rather than belief. Nevertheless, syllogistic mistakes are possible, so one could perhaps believe a mediated premise which is false, and so not knowledge. Moreover, at 89a13-15 Aristotle claims that both the knower and the believer "proceed through the middle terms", and this would

difference between knowledge and belief is modal; knowledge is concerned only with certainties, belief only with contingencies. Thus, in a move that recalls the stark distinction between knowledge and belief in Plato's *Republic*,[18] Aristotle claims that knowledge and belief have distinctive, mutually exclusive domains.

More interesting for our purposes, however, is Aristotle's discussion of how knowledge and belief can, in a sense, be of the same thing even though they have different domains, for it is here that we discover what changes when a person starts by merely believing some proposition and then goes on to *know* that same proposition. Better yet, this passage also discusses the difference between people who hold true and false beliefs about the same thing, adding information about yet another stage of our developmental story. I quote this important chapter at length:

> And so how is it possible that one may believe and know the same thing, and if someone should posit that it is possible to believe everything which one knows, for what reason is it not possible for belief to be knowledge? For the knower and the believer both proceed through the middle terms until they arrive at the immediates, so that if this one knows, the believer knows also. For in this way it is possible to believe both the fact and the reason why, and this is the middle term. Or if one should suppose things that cannot possibly be otherwise in the same way that he supposes the definitions through which proofs arise, will he not believe, but know? But if [the belief] is true, but [is not the belief that] these things belong to those things essentially, will you believe, but not truly know? And if you will believe through the immediates, will you believe the fact and the reason why, and if not through the immediates, will you believe the fact alone?
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> Belief and knowledge are not of the same thing in every way, but just as true and false belief are of the same thing in a certain way, in the same way

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seem to rule against Ross' claim that belief here is not derived from mediated premises.

[18] See *Rep.* 476c ff.

> knowledge and belief are of the same thing. In fact, the way in which some say that true and false belief are of the same thing turns out to commit one to absurdities, e.g. that one who believes falsely does not believe at all. But since "the same thing" is said in many ways, in one way it is possible, while in another, not. For it is absurd to believe truly that the diagonal is commensurate; but because it is the same diagonal which both beliefs involve, in this way they are of the same thing, though the essence with respect to the account is not the same for each. In the same way, knowledge and belief are of the same thing. For knowledge is of the animal in such a way that it is not possible for it not to be animal, but belief is of animal in such a way that it could possibly not be animal, e.g. the former is of man itself, while the latter is of man, but not of man itself. For they are the same because man is the same, but they are not same in the way they are of man. (*Post. An.* I.33.89a11-37)

The passage raises a couple of questions: (1) How should we characterize the sense in which true belief and false belief are of the same thing, and how the sense in which they are not? (2) How is the difference between true and false belief like the difference between knowledge and belief?

Consider question (1) first. Aristotle's example of the diagonal invites a reference to the geometry lesson in the *Meno*, so let us imagine that we are further pestering the slave after he has finished his conversation with Socrates. He has just been introduced to the technical term, "diagonal", and shown its reference (*Meno* 85b). Imagine that we ask him whether the diagonal of a square is commensurate to the square's side, and he answers that it is. We can all agree that the slave is now entertaining a false belief about the diagonal. But now imagine that we correct him and, without giving him a proof (for a proof might vault him straight from false belief over true belief to knowledge), bring him to assert confidently that the diagonal is incommensurate with the side, a true belief. In what sense are the slave's two beliefs about the same thing?

First, let us consider what Aristotle's answer is not. He clearly will not countenance any answer to this question which generates the result that the slave does not really entertain a false belief about the diagonal because "one who believes falsely does not believe at all" (89a27-8). What sort of answer is he rejecting here? Barnes offers an interpretation of this position that is probably incorrect. His interpretation hinges on the assumption that the object of true and false belief that is the same for Aristotle is a proposition, and thus that Aristotle is considering a case in which at some time one person believes truly that *P* while another person believes falseiy that *P*. He then derives the "absurd" conclusion that the person who believes falsely does not really believe as follows: "Suppose that **a** truly opines that *P* and that **b** falsely opines that *P*; then what **b** opines cannot be *P* — for *P*, as **a**'s case shows, is true, and what **b** opines is false. Thus a false opiner does not opine what he falsely opines" ((1993) p. 200). The entire passage makes better sense, however, if we take the object that is the same for true and false belief to be just that, an object, and not a proposition about the object — the diagonal, not the proposition that "the diagonal is commensurate with the side". If this is right, then what Aristotle has in mind here is a case where one person believes *of the diagonal* that it is commensurate, while another believes *of the same diagonal* that it is incommensurate, and a straightforward interpretation of Aristotle's claim that "because it is the same diagonal which both beliefs involve, in this way they are of the same thing" (89a31-2) seems to give just this result.

Ross' interpretation of the view Aristotle rejects is that Aristotle has in mind the

people who deny the Law of Non-Contradiction that he argues against in *Metaphysics* IV,[19] and there may well be something to that. I think it more likely still, though, that Aristotle has in mind a specific figure, Antisthenes. Elsewhere in the *Metaphysics*, Aristotle brings up Antisthenes' views about false belief in another context:

> In one sense there is one account of each thing, the one of what a thing is essentially, but in another sense there are many accounts, since in a way the thing and the thing qualified are the same, e.g. Socrates and musical Socrates. (And a false account is not an account of anything in the unqualified sense.) Therefore Antisthenes held a simple-minded belief when he said that nothing is spoken of except by its proper account, one to one. From these things it turns out that there is no contradiction, and almost that there is no speaking falsely. But it is possible to speak of each thing not only by its own account, but also by the account of something else, and this may indeed be done entirely falsely, but it also may be done truly, as when eight is said to be a double number through the account of two. (*Metaph.* V.29.1024b29-1025a1)

I do not mean to go into the details of this passage's interpretation here,[20] but the basic idea behind Antisthenes' argument seems to be this.[21] Aristotle and Antisthenes agree that each object has, in the fullest sense, only one account, and this will be the account of the thing's essence, e.g. Socrates' proper account is "Socrates is a bipedal animal". But where Aristotle goes on to say that, in another sense, there can be lots of accounts of this same object Socrates because many true things can be said of an object apart from what its essence is, Antisthenes claims that all objects have only the single, proper account. Thus,

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[19] Ross (1949) p. 607.

[20] I will have more to say about it below when I discuss Aristotle's theory of false belief.

[21] This interpretation follows that of Denyer (1991), pp. 28-29.

if two people say two different things about Socrates, e.g. "Socrates is a bipedal animal" and "Socrates is musical", because they are uttering different *logoi* Antisthenes claims they are not talking about the same thing at all. This is true *a fortiori* of two people who utter seemingly contradictory statements, e.g. "Socrates is musical" and "Socrates is not musical"; because these are different accounts, they must refer to different things, and so are not about the same thing at all.[22]

When we add to this story an argument of Antisthenes recorded by Proclus, we also get a denial of false belief. Proclus says, "Antisthenes said that it is impossible to contradict; for every account, he says, is true. For a person who speaks says something, but a person who says something says something that is. But saying something that is, is saying something true" (*Comm. on Plato's Cratylus* 37). In a move familiar from Plato's

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[22] This interpretation finds solid support in Alexander of Aphrodisias' characterization of Antisthenes' argument against contradiction: "Antisthenes thinks that each existent thing is spoken of by its proper account alone, and that there is a single account of each thing, for that is the proper one....From these things he attempted to infer that it is not possible to contradict. For those who contradict ought to say different things concerning something, but because there is a single account of each thing it is not possible to produce different accounts concerning the same thing. For there is one account of one thing and only one saying is said concerning a thing, so that if they should say the same things to one another concerning the same object (for there is a single account concerning one thing), in saying the same things they would not contradict each other. But if they should say different things, they would no longer say things concerning the same object because there is one account concerning an object, and those who contradict ought to speak concerning the same thing. And in this way he inferred that it is impossible to contradict. And almost that there is not falsehood because it is not possible to talk about a thing in a way other than by the special and proper account" (*Comm. on Aristotle's Metaphysics*, pp. 434.25-435.20). See also Alexander's *Comm. on Aristotle's Topics*, p. 79.7-20.

Theaetetus (188d-189b), Antisthenes claims that false belief is impossible because one cannot talk about something that does not exist; As Aristotle says above, "A false account is not an account of anything in the unqualified sense" (1024b31-2). Thus, since there is no foolish Socrates, there is nothing for the account "Socrates is foolish" to correspond to, and so there is not really such an account at all.

If this theory of Antisthenes is indeed what Aristotle is attacking in *Post. An.* I.33, then the sort of account of the difference between true and false belief which he is rejecting is one which fallaciously collapses all the kinds of claims one could make about a thing into the kind of claim one makes when one defines a thing's essence. And this interpretation fits well with the distinction Aristotle actually does make between true and false belief, saying that "because it is the same diagonal which both beliefs involve, in this way they are of the same thing, *though the "what-it-is" with respect to the account is not the same for each*" (89a31-32). In other words, true and false belief must be of the same object, but they each cognize that object under descriptions which assign different qualities, or even different essences, to the thing.[23] While the slave believes that the diagonal is commensurate, he cognizes the diagonal under a description which is compatible with the claim that the diagonal is commensurate, though this account turns

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[23] Barnes (1993) interprets this line differently, claiming that it is the two beliefs which have a different essence, not that the object of the beliefs is ascribed a different essence in the beliefs. His construal fits the grammar, but it seems to me that my construal is the more natural reading. And besides, *could* a person who believes that the diagonal is commensurate ascribe the same essence to the diagonal as the person who believes it is incommensurate?

out not to be compatible with the *true*, *definitional* account of the diagonal at all. And when the slave changes his mind and starts believing that the diagonal is incommensurate, he is looking at the same line in the diagram, but he is now thinking of the diagonal as being a different kind of thing than what he thought before; he identifies and/or characterizes the diagonal via different predicates.[24]

Given this answer to question (1), how then should we answer question (2) about the difference between knowledge and belief? Imagine that Socrates and the slave begin a regimen of geometry lessons, and that under Socrates' goading the slave works through geometrical proofs "many times and in many ways" (*Meno* 85c10-11). Eventually the slave will come to know, in the fullest sense, what he merely believed before; i.e. he will know that the diagonal is incommensurate where previously he merely believed it truly. When questioned about the diagonal, he still gives precisely the same answer as before. So what has changed, and what has stayed the same?

Clearly knowledge and belief are of the same thing in the same sense that true and false belief are of the same thing: they both are of the same object as ostensively fixed. The diagonal itself stays the same through all of the slave's epistemic changes. The difference between knowledge and true belief, however, does not seem to be quite the

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[24] Perhaps the sort of grasp of its object which true (and even false?) belief has is characterized by Aristotle at *Post.* An. II.8.93a21-24: "Sometimes we grasp that something exists [merely] incidentally, but other times we grasp something of the thing itself, e.g. of thunder, that it is a sort of noise among the clouds; of an eclipse, that it is a sort of privation of light; of man, that he is a sort of animal; and of soul, that it is self-moving."

same difference as exists between true belief and false belief, because true and false belief ascribe different predicates to their object, while true belief and knowledge ascribe exactly the same predicates to their object. The difference here is rather the *way* in which the two epistemic states ascribe the same qualities to the object. The knower and the true believer can both make all the same claims about the qualities of, for instance, animals, but the knower binds certain qualities — the ones involved in a thing's essence and the ones syllogistically derivable from these[25] — to their subject in a way that makes them inextricable from one another, while the believer binds them much more loosely, in such a way that he could just as well ascribe qualities to the thing which are incompatible with the qualities the thing possesses essentially. To use a loose analogy, the believer ascribes qualities like a child pins tails on a donkey; the connection is, in a fundamental way, haphazard and unreliable. The ascriptions of the knower, however, are as immovable as the donkey's real tail, making an unbudgeable unity out of the parts. Thus knowledge and true belief turn out to be of the same thing in the sense both that they are of the same object and that they endorse the same proposition about the object, but they are different in the kind of grasp they have of that proposition.

As I mentioned above, *Post. An.* I.33 is explicitly only about the distinction between knowledge and true belief, but it seems clear that belief would not be

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[25] Strictly speaking, *nous* will be the cognition by which we grasp the essential qualities, and knowledge the cognition by which we grasp the syllogistically derivable qualities.

distinguished from *nous* differently than it is distinguished from knowledge. Two different people could, respectively, have belief and *nous* of the same proposition, e.g. that "The triangle is a three-sided closed plane figure". But while the believer would be merely glomming predicates on to the subject "triangle" in a way that would not differentiate, for instance, the way in which a triangle might be green from the way it is three-sided, the person with *nous* of the triangle would think of the triangle and its essential qualities as inextricably linked, such that the one could not be thought without the others.[26]

This interpretation of the difference between belief and *nous* also seems to make excellent sense of some difficult parts of *De An.* III.6 which discuss the way in which the objects of certain kinds of thought are and are not divisible (or divided in fact[27]). The first important part of the text is this:

> Thus thought (*noêsis*) is of indivisible things in cases where falsehood is impossible, but in cases where both falsehood and truth are possible there is a certain combination (*sunthêsis*) of thoughts (*noêmatôn*) as though they were a unity — just as Empedocles said, "Where without necks many heads grew", and

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[26] This construal of *nous* also goes some distance towards resolving the much-disputed issue (see e.g. Kahn (1981) pp. 385-97) whether Aristotle's account of cognitive development in *Post. An.* II.19 discusses concept-formation or something more propositional. *Nous* cognizes propositions like "Man is a bipedal animal", but because it cognizes the elements of this proposition in such a way that it draws them into a unity, the object of cognition is a single thing in just the way we expect a cognition of a concept to be. Cf. Taylor (1990) pp. 127-8 and Modrak (1987) pp. 161-5.

[27] The key terms throughout the chapter are *diaireton* and *adiaireton*, which can mean either divided/undivided or divisible/indivisible, depending on context. As Hamlyn notes ((1968) p. 142), there are spots in the text at which the word clearly should be translated divided/ undivided (430b8), and there do not seem to be any where that translation would not serve.

> then were combined by Love — in this way separated things are combined, e.g. "incommensurate" and "diagonal"....For falsehood always is in combination, and should someone say that the white [thing] is not-white, he combines the "not-white"[28]....That which makes things a unity is in each case *nous*. (430a26-b6)

I take it that here Aristotle is drawing much the same distinction he drew in *Post. An.* I.33: belief and *nous* are alike in that they both explicitly apply predicates to subjects, but they are different in two related respects. First, *nous* is infallible while belief is not, and second, their respective degrees of fallibility derive from the nature of the predication in which they engage. Belief predicates through a process of combination which is so loose that one can even attribute a quality like "non-white" to a white thing, merely glomming qualities on to the object of thought. But where belief combines things *as though* (*hôsper*) they were a unity, *nous* really does produce a unity, and thus does not make mistakes.[29]

In the following passage, Aristotle further considers the nature of *nous*' cognition

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[28] The text itself could be taken to refer to a case where a person thinks whiteness itself is not white, but such a reading is problematic, for at *Pr. An.* II.21.67b12-26 Aristotle seems to doubt that it is possible for a person to think that a quality is its opposite (e.g. to think that the essences of good and evil are the same,) though he leaves it an open question.

[29] Some commentators (e.g. Hamlyn and Ross) have thought that Aristotle is here discussing the difference between the cognition of judgments and concepts. Because, they say, judgments are complex in a way that concepts are not, it is possible to make mistaken combinations leading to false judgments, but one cannot think a concept falsely; either you think the concept or you do not. There is something to this interpretation, but I think the situation is more complex than this. *Nous* is of concepts, but not merely of concepts; it reports its cognitions in the form of complex judgments just as belief does. Similarly, belief can be wrong, but that does not mean that some kind of grasp of a concept is not lurking in the background. What needs explanation, then, is what it is about *nous*' grasp of a concept that makes the corresponding judgments about that concept infallible and what it is about belief's grasp of a concept that gives us different, fallible results.

of undivided (indivisible?) unities:

> Since "undivided" is said in two ways, either potentially or actually, nothing prevents one from thinking of an undivided thing, as when one thinks of length (for it is actually undivided), and in an undivided time. For time is divided and undivided in the same way as length. It is not possible to say what one thinks in each half [of the time], for these [halves] do not exist, except potentially, unless [the whole] is divided. But, thinking each of the halves separately, one divides the time simultaneously, just as though the times were then lengths. But if one thinks of the length as from both halves, then one thinks these in the time from both halves.[30]
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> But what one thinks is divided incidentally and in time, and not as those things are divided, though it is undivided as those things are. For there is something undivided present in these, but that thing is perhaps not possible to separate, and this makes the time and the length into unities. And this is likewise the case with every continuous thing, both time and length. But in an undivided time and with an undivided part of the soul, one thinks something that is undivided not quantitatively, but with respect to form. (430b6-20)

This is about as nasty a stretch of prose as Aristotle can muster, and we can well sympathize with Ross when he says that, "The chapter appears to be a first sketch, which Aristotle would undoubtedly have much improved if he had revised it" ((1961) p. 300). The text is clearly corrupt in some places and exceedingly difficult to interpret in others, and I am correspondingly wary of claiming more certainty for my interpretation than the state of the text allows. Nevertheless, I think that there is a plausible interpretation of the text which contains important insights for one willing to dig them up.

There are three kinds of division under discussion here, division of length, of time, and of a thought, and the object of the discussion is to clarify how these three kinds of division relate to one another. The first part of the passage, from 430b6-20, has been

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[30] Following Bywater, Ross, and Hamlyn, I transpose 430b14-15 after b20.

admirably explained by Hamlyn:

> When one thinks of an actually undivided length (which is of course potentially divided, i.e. divisible in principle) one does so in a single undivided thought and in a single unit of time, since the object is one single thing. In that case one cannot divide the thought or its object into halves and ask what one was thinking of in half the time of the whole thought; for there are no actual half-thoughts involved and hence no half-objects or half times, except potentially in the sense that the whole *could* be divided and so thought of. This latter possibility is then taken up by Aristotle.
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> In sum, the thought of the whole is said to be one thought, so that we cannot divide it into thoughts of the halves. When there is no actual division the halves do not exist except potentially. Conversely, if one makes a division by thinking of the halves separately there must be two thoughts in two units of time, just as with two quite separate objects or lengths. So, if a whole is compounded out of two halves, the time involved is similarly composite. ((1968), pp. 143-4)

The upshot of this passage is thus that the three kinds of division keep step with each other to a certain degree. We individuate thoughts by their objects, a single object per thought, and each thought then occurs in a single unit of time. Hence, if one actually divides an object of thought into multiple objects — as when one divides a line into its halves — one simultaneously multiplies thoughts and moments of thinking accordingly.

Hamlyn also explains 430b16-20 well, further developing the correspondence among the three kinds of division:

> ...["What one thinks"] refers to the length referred to again at b19. By "those things" [*ekeina*] is meant the half-lengths, etc., of the previous passage, i.e. the divided lengths and times. The object and time of any single thought is not divided except incidentally (i.e. except in a way that has no relevance to the thought — extensionally not intensionally). The wholes and halves are then, of course, properly speaking, undivided objects of thought and undivided times. Aristotle then adds that there is something in these undivided objects and times which makes them unities; they have a principle of unity which is provided by the object's being what it is — by its form or essence. (Ibid. p. 144.)

What matters most here is how the whole and its halves are undivided in the same way, but not divided in the same way. The whole line is undivided in the same way as its derivative halves, i.e. the whole and the halves are each unities which can serve as individual objects for individual thoughts in individual moments. But the whole is not divided as the halves are. The halves are actually divided; they are products of an actual division of the whole.[31] The whole, on the other hand, could not be actually divided and still remain a whole, so, insofar as it remains a distinct object of thought, it remains actually undivided and a unity itself; it is divided only "incidentally and in time", not actually.[32] Thus the whole retains its integrity *as* a whole even when it is divided to produce new lines of different lengths.

So far we have left unanswered the question why Aristotle pursued this obscure line of thought in the first place. The closing section of the chapter seems to provide the answer to this question, for Aristotle tells us at 430b14-15 (transposed to follow b20) that the undividedness of objects of thought is not quantitative undividedness, but rather undividedness of form. I.e., when one thinks a single thought, the object of that thought is thought of as a unity unified by its form. And what this seems to mean is that, when we divide an object of thought, the division does not involve the cutting of a continuous

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[31] Normally, one would think that calling a half "divided" would entail that the half itself had been further divided. But that more natural reading of *diaireton* does not give the text any recognizable sense, so I follow Hamlyn (as I understand him) in reading *diaireton* here as referring to the halves' origin in an actual division.

[32] Cf. *Met.* VII.10.1035a17-22.

whole into quantitative parts.[33] Rather, the division involves the teasing apart of the components of the form. Take, for instance, the definitional thought that a human is a bipedal animal. When a person thinks this thought, she thinks about a single object, humanity, which is a single universal, and thinks this thought in an undivided moment. Nevertheless, there is a sense in which this thought is divisible; she could think two separate thoughts that are, in a sense, contained in the first thought, i.e. that a human is bipedal and that a human is an animal.[34] But just as thinking two halves one after the other is not the same as thinking the whole lines of which the halves are a part, so thinking the two elements of the essential form separately is not thinking the essential form itself.[35]

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[33] If Aristotle is first and foremost concerned with *nous*' cognition of essences in this passage, as I think he is, then *Met.* VII.4.1030b7-10 shows that thought of a continuous whole would not be thought of the relevant kind. Hence he brought up such thought only to serve as an analogy to the definitional thought that truly interests him here.

[34] I thus disagree with Berti (1975) p. 145, where he claims that objects of thought are divisible not into their separate predicates, but into the many particulars which fall under the universal that is thought of. If nothing else, I think this interpretation does a poor job of explaining what is special about things that are undivided in the way that points and divisions are at 430b20-4; the universal "point" is divisible into individual points just like any other universal, but the concept "point" cannot be entertained without one simultaneously entertaining the concept "line", since a point is a limit of a line. This way of being undivided seems better captured by division in terms of potential objects of thought rather than in terms of individuals under the universal.

I am in accord, however, with his conclusions about *De An.* III.6 to the effect that Aristotle does not there describe any kind of immediate Platonic intuition which one achieves without a drawn-out process of epistemic development.

[35] See *Met.* VII.12 and *Met.* VIII.6, which consider how a substance and its definition can be unities and yet have parts. 1045a12-14 seems especially relevant: "The definition is a single account not because of binding together, like the *Iliad*, but because it

Finally, Aristotle then links this insight into the relation between thought and its objects back to the distinction between fallible cognitions like belief and infallible cognitions like *nous*: "Every assertion says one thing of another, just as denial does, and is true or false. But *nous* is not always like this, but that which concerns what something is essentially is true, and does not say one thing of another. But just as sight of a special object is true, yet that the white thing is a man or not is not always true, the same thing holds for things without matter" (430b26-30). This passage does not mention belief explicitly, but in light of *Post. An.* I.33 one must imagine that the form of cognition which produces these assertions and denials which can be either true or false must be belief. Given this assumption, we find that, just as in *Post. An.* I.33, belief and *nous* are distinguished here not only by their degree of fallibility, but by the kind of predication in which they engage. Belief predicates a quality of a subject in such a way that it "says one thing of another"; it joins two objects of thought together, but not in such a way that it forms a unity, any more than putting the two halves side by side creates a continuous whole. Accordingly, belief involves not one thought, but two, one for each of the unities that is joined through combination. *Nous*, however, does not say one thing of another; when one thinks via *nous* that a human is a bipedal animal, he is not thinking of two things, a human and a bipedal animal. He is thinking of one thing which gets picked out in two different ways, via both a name and a definition.

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is of a unified thing."

Knowledge and Skill

Because the specific goal of this undertaking is an Aristotelian answer to the Meno Paradox and not a complete account of Aristotelian epistemology, not much needs be said here about knowledge and skill that has not already been said about *nous*. I take it that once we have explained what *nous* is and how we come to have it, we have effectively solved the Meno Paradox and need not go on to explain how the definitions cognized by *nous* underwrite the syllogistic activities of knowledge and skill. Suffice it to say that, as cognitions that have necessary truths as their objects, presumably both knowledge and skill, like *nous*, cognize their objects as unities (though perhaps as mediated unities, if there is such a thing), and this unity is no doubt parasitic on the cognition of an essence's unity provided by *nous*.

Recollection Reconsidered

Now that we have characterized the different stages of Aristotelian cognition, we can return to Chapter 4's question about Aristotle's attitude toward Plato's Theory of Recollection. Ross urged us to read Aristotle's comments about recollection in *Pr. An.* II.21 as a hostile attack on the theory, while Gifford claimed that in that passage Aristotle is acknowledging that the Theory of Recollection gets something right, namely that humans are capable of a kind of cognition of universals which cannot be totally reduced to

empirical cognition of individual particulars. Which interpretation should we adopt?

We can now answer this question by explaining what happens when we undertake the kind of cognition which Aristotle describes in *Pr. An.* II.21, i.e. grasping that a universal truth ("All triangles have 2R) applies to a specific instance of the universal ("this perceptible triangle"). Such cognition really involves at least two different kinds of cognitive activity: an explicit cognition of a particular, which must involve perception; and an explicit cognition of a universal, which, as we have seen, cannot be provided by perception alone but must utilize one of our higher functions: belief, skill, knowledge, or *nous*. We have also seen that these higher states differ from one another in important ways, but the differences are not our chief interest now. What most concerns us is the way in which all of these cognitive states are similar.

Apart from the fact that they all explicitly cognize universals in some fashion, the most important similarity between these states would seem to be the mechanism by which we grasp the universal. In all the different kinds of cognition of universals we engage in, the grasp of the universal is always mediated by an appearance generated by the faculty of imagination. One of the many interesting things about such appearances, however, is that each one offers the person entertaining it a compound of cognitive content; an appearance bears the mark of its origin in perception in that it carries information about a perceived particular, but it also carries information about the universal in which the particular participates. Because of its sensory roots, an individual appearance about triangles will be about an individual triangle. But because each individual triangle is representative of the

class of triangles in general, each appearance of a particular triangle is also an appearance of the universal "triangle". The agent does not, however, necessarily cognize explicitly all the information which the individual appearance is capable of conveying; the agent has various cognitive capacities, and, depending on which faculties the agent actually employs, she will explicitly cognize different elements of the appearance. We have already discussed one example of a case (*Metaph.* I.1.980b28ff) where different faculties pick out different information from the same evidence: two people examining a sick individual might entertain the same appearance, but the person who possesses mere medical experience will explicitly cognize only information about particular individuals ("Socrates was like this once, and such-and-such treatment helped him, so maybe the same treatment will help this guy who is like Socrates") while the person with medical skill will draw on the same appearance to cognize a universal truth explicitly ("All people of such-and-such a constitution benefit from such-and-such a treatment when suffering from such-and-such symptoms"). All of the higher cognitive faculties mentioned above are thus special in that they explicitly cognize the universal in the appearance.

Because, however, these cognitions of the universal *are* primarily cognitions of the universal, all they require of the appearance which renders up the universal is that the particular it represents be an instance of the relevant universal. *De Mem.* 449b32-450a6, which we considered in the section on memory above, tells us that the cognition of the

universal will proceed through an appearance of a specific individual,[36] but the specific identity of the actual individual represented is not important; if one employs, for instance, one's geometrical knowledge to cognize the universal fact that "All triangles have 2R", one must entertain an image of *some* individual triangle at that moment, but from the perspective of one's geometrical knowledge an appearance of *any* triangle will do. Thus one could apply one's geometrical knowledge to a given appearance, say one provided by memory or imagination itself, thinking through one's representation of that triangle that "All triangles have 2R". But then one could replace that appearance with another appearance, one generated by, say, one's present perception of a previously unknown triangle. In a sense, this is a new cognition; after all, this individual triangle has not been cognized before. But in another sense, one merely cognizes what she has already cognized before; she cognizes the same information about the same universal.

This result decides the controversy about recollection between Ross and Gifford. Because the geometer is here in a sense cognizing the same thing as before but via a second image, Gifford's construal of Aristotle's reference to the Theory of Recollection as an indication of Aristotle's common ground with Plato seems plausible. It turns out that

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[36] This interpretation must assume that the thought (*noêsis*) which Aristotle is discussing in this passage extends beyond memory to higher cognition generally, but that does not seem an unreasonable assumption to make. It is especially difficult to imagine faculties like skill and practical wisdom, which essentially involve seeing particulars as instances of universals, not cognizing the particulars conveyed in the appearances they consider, and *Metaph.* XIII.10.1087a15-18 shows that specific acts of *epistêmê* are always of a particular, a "this".

in a very real sense the learner is "re-cognizing" (*anagnôrizontas*) what she had already cognized earlier when entertaining the first appearance. There is therefore at least one sense in which Aristotle can hang on to Platonic recollection; he certainly rejects the aspect of recollection involving the possession of the most complete knowledge of a universal at birth, but Plato was not crazy to think that human learning *feels* like remembering at times, e.g. when we think familiar thoughts about newly discovered particulars.

The last two chapters have covered a lot of ground, from the beginning of our cognitive development in perception to the end of that development in the achievement of *nous*. The results we have produced for each kind of cognition are the following:

— *Perception* — Though perception puts us in contact with the universal in an extended, incidental sense, it explicitly cognizes only its proper objects, i.e. sensible forms. But it does give us our first awareness of the existence of certain objects as distinct objects, even if it classifies them only by sensible form and not intelligible form (i.e. though the senses give us our first contact with, say, a cat, the cognition they produce is only of a thing which is colored, shaped, etc. in a certain way, not a cognition of a cat *per se*.)

— *Memory* — Memory is really a species of perception, in particular a kind of perception which takes intervals of time as its object. To remember is to perceive the time that has passed since one first cognized the thing which

one now remembers, whether this original cognition was sensory or on a higher level. The thing that makes such an act of memory possible is the ability to retain a record of what one cognizes in the form of an image, and thus memory is quite directly dependent on *phantasia.*

— *Imagination* — Imagination turns out to be the true workhorse of human cognition, since every form of human cognition results in or begins from an appearance, and these appearances are the raw material of all the higher cognitive functions. It has no special object of its own, and is in that sense parasitic on all the other human faculties for its content; we entertain appearances by virtue of considering the information which the other faculties report. But that same lack of a unique cognitive content makes it possible for imagination to play a critical role as middleman between our sensory and our intellectual faculties. Appearances begin in perception, and bear the marks of that origin in the sense that an appearance is always of a particular. But each appearance, though of a particular, also represents the universal under which the particular falls, and the higher faculties are then able to latch on to that universal aspect of the appearance to give us a grasp of the universal *as* a universal. Likewise, the same process works in the other direction; *nous*, knowledge, skill, and the like are all of the universal, but because the universals they cognize are always conveyed in appearances which are also of particulars falling under those universals, in

an extended sense these faculties can be of particulars as well, and so hook us up with the practical world of coming-to-be and passing away.

— *Experience* — Imagination is crucial because of its role as mediator between the senses and the intellect, but experience is the crucial stage in which the universal first truly arrives in the soul. Indeed, the universal is present for the experienced person so fully that, for practical purposes, experience may even be preferable to skill, since the experienced person, guided by her grasp of the universal, will always respond correctly in any particular situation covered by her experience. Problematically, however, experience's grasp of the universal, though in a sense complete, is in another sense lacking, for experience does not explicitly cognize the universal *as* a universal. Instead, it explicitly cognizes only particulars, though unconsciously the experienced person responds in some way to the universal present in the particular.

— *Belief* — The universal finally makes an appearance *as* a universal at the stage of belief, but this grasp of the universal is a weak one in the sense that it does not grasp the universal as an integral unity, but rather as a collection of predicates which are joined together by simple combination. Even when one holds a true belief about a thing's definition, belief's failure to grasp the necessary connection between the subject and its essential predicates makes it fall short of the ultimate cognition of the universal obtained

through *nous*, even though *nous* and belief will report the content of their cognitions in exactly the same words.

— *Nous* — At last, we reach the ultimate stage in our epistemic development, where we grasp in the truest sense what it is that we cognize. *Nous* explicitly cognizes a thing as just the thing it is, contemplating its object and the predicates that make up the object's essence as a unified whole in a single undivided cognitive act of the soul. This ultimate grasp then makes possible the extension of our understanding of things and their relationships through the syllogistic activities of knowledge and skill.

These, then, are the stages of Aristotelian cognition relevant to the learning process. Now that the foundations have been laid, all that remains is to connect the dots, explaining how progress through these stages is possible in a way that explains how the Meno Paradox goes wrong.

CHAPTER 8

Post. An. II.19 and Aristotle's Solution to the Meno Paradox

We found the Meno Paradox to be, in Plato's hands, a problem about how it is possible to conduct an investigation into what a thing's identity or essence is on the assumption that a person who conducts such an investigation does not already have the results which the investigation will produce. For if one has not already identified the object of one's investigation, it is not clear how the investigation will proceed (the Starting Line Problem), nor how the successful conclusion of the investigation will be recognized (the Finish Line Problem). One must be able somehow to fix the identity of the investigation's object in order to be able to investigate it at all, but in this case the object's identity is exactly what we must assume is in question. How, then, does Aristotle dismantle the paradox?

As we said in an earlier chapter, the passage that best informs us about the Aristotelian account of learning is *Post. An.* II.19, and, now that we have separately considered the nature of the various forms of cognition which play a role in that passage, the foundations are laid for its full interpretation. Let us begin this interpretation with the first account of learning at 99b35-100a3:

> [All living things] have an innate critical faculty, which they call perception; and when perception is present; for some animals there arises a lingering of the thing perceived, while for other animals this does not arise. And so for the animals for whom this does not arise, either generally or concerning the things which do not linger, there is no cognition beyond perception. But some, having perceived, yet hold [what they perceive] in the soul. And when many such things have already

> come to be a certain difference comes to be, so that for some animals an account arises from the lingering of such things, but for animals this does not happen.

As we have seen, this passage gives us three stages of cognitive development: perception, memory, and the possession of an account. In what sense do these epistemic states identify their objects and so make an investigation possible?

We found in Chapter 5 that there is not much to be said about the third stage, since Aristotle says nothing in this passage to characterize the possession of a *logos* or give it a precise place in the account at all. But there is something to be said about the first two stages. Perception is unable to identify its object explicitly in any but purely sensory terms. If someone sees a man, her perception reports that she sees a thing of a certain color, shape, size, etc., but it does not report that that thing is a man. There may be an extended, incidental sense in which her perception can be described as a perception of a man, since the object she perceives turns out to be a man. And furthermore, there may be a sense in which the appearance generated by her perception carries in it information about the intelligible form of the perceived man. Nevertheless, perception itself does not sort its objects in any way other than by sensory qualities.

Much the same can be said of memory. Indeed, when our test subject remembers the man she earlier perceives, the proper object of memory is not even the man himself but rather the original act of perception and the time that has passed since that act. It is only because the original act of perception was a perception of this man and the appearance which memory reclaims is an appearance of this man that the memory can be said by

extension to be of the man. Thus memory, too, does not sort its objects by intelligible kind.

How, then, do these two stages give us the epistemic foothold we need in order to begin our epistemic ascent? Perception does so by generating appearances of individuals which the intellectual faculties will later be able to latch on to and parse by the universals present in them, and memory does so by preserving the appearances generated by perception so that the intellectual faculties are not forced to work with single, unconnected appearances alone. Human beings are the sort of creatures that need frequent exposure, effort, and time if they are to grasp the universals which link their individual perceptions.[1] And in this aspect of Aristotle's theory we see his empiricist side; for Aristotle, all investigations are anchored investigations, beginning in the individual's sensory experience and first identifying their objects via the simple sensory discriminations which perception provides.

Let us continue on, then, to the second account of learning at 100a4-14:

> Thus memory arises from perception..., and from memory of the same thing arising frequently there arises experience; for memories which are numerically many are a single experience. And from experience, or from the whole universal present in the soul, the one apart from the many, which is the same one thing present in all those things, a principle of skill and knowledge arises....And indeed, these states are not in us in a determinate way, nor did they arise from other, more cognitive states, but from perception. For example, in battle, a rout having occurred, one having taken a stand another does, and then another, until they come to a new beginning. And the soul is the sort of thing that can undergo this.

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[1] *Post. An.* I.34 suggests that some people may need less time and effort to make the journey to *nous* than others, but such quick people are probably not the norm.

In this passage Aristotle introduces experience to the story, but he also introduces "the whole of the universal present in the soul" and the "principle of skill and knowledge". Given *nous*' role as the provider of first principles to skill and knowledge, the principle of skill and knowledge here is probably *nous*, and we found in the last chapter that experience can quite properly be described as the possession of a "whole universal", if only in an unconscious and inarticulate way.

Consider now the analogy at 100a12-13 of the routed soldiers coming together in a new formation. The key aspect of this analogy is the unification of distinct individuals into some kind of new whole. But is this a depiction of the transition from perception to experience, or from experience to the higher forms of cognition — *nous*, knowledge, and skill? On the first reading, the individual soldiers are individual perceptions or memories, and the new unity they create when they restore their formation is the presence of the whole universal in the soul, the single experience from many memories. On the second reading, the soldiers could well be experience's separate grasp of the distinct attributes which belong to the object essentially, and the process of coming together in a new formation could be *nous*' unification of the object and its attributes into a new unity, i.e. the sort of process described in *Pr. An.* I.30. Do we have a reason to prefer one of these readings to the other?

I tend to think not. Rather, both readings make sense of the analogy and fit into Aristotle's overall developmental story, for both experience and *nous* represent stages that

unify the various cognitions of earlier stages.[2] His preoccupation in this passage (as 100a10-11 makes clear) is explaining how we can get to higher cognitions like *nous* from humbler beginnings without postulating the existence of these cognitions in the soul from birth. As we find out at 100b3-4, the process by which we do this is induction, which is, broadly speaking, the process of coming to see particulars as instances of universals.[3] And *Post. An.* I.18 seems to indicate that *both* the derivation of a universal from individual perceptions via experience[4] *and* the unification of the attributes of the universal by *nous* are inductive processes:

> It is clear that, if some perception is left out, it is necessary that some knowledge be left out as well — knowledge which it is impossible to grasp if we learn either through induction or through proof, but proof is derived from universals and induction from particulars, and it is impossible to contemplate the universals except through induction..., but it is impossible to make an induction without having perception. For perception is of the particulars. For it is not possible to grasp the knowledge of these things, neither from the universals without induction, nor through induction without particulars. (81a38-b9)

It seems to me that this chapter should be coupled with *Pr. An.* I.30 and *Post. An.* II.19 to give the following story: we start from perception of particulars, but there is something

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[2] Modrak (1987) pp. 169-70 offers a similar reading.

[3] In this interpretation of induction I follow a well-established tradition including Ross ((1949) p. 481ff.), Lesher ((1973) esp. p. 68), Hamlyn (1976), and McKirahan ((1983) and (1992) pp.250-7).

[4] Anyone who, like McKirahan, thinks that, "*Epagôgê* is the way we come to spot individuals as individuals of a kind [as well as]...the way we become aware of universals in particulars" ((1992) p.256) should be sympathetic with my characterization of experience as a product of induction since the experienced person clearly is "spotting an individual as an individual of a certain kind", even if he cannot explain how he is doing it.

about us that allows us to respond inductively to the universal in the perceived particulars, and once we have had perceptions that involve all the attributes involved in a thing's essence, we sometimes[5] develop a new grasp of this essence characterized as experience. Then, once we have this experience of the universal, there is again something in the human soul which permits us to move beyond the unarticulated, unconscious grasp of the universal that experience gives us to the explicit, unified grasp of the universal that is *nous*. The process by which this happens is inductive at both stages, both when we first lay hold of the universal through experience by unconsciously grasping what unites the many perceived particulars,[6] and later when we articulate this unconscious grasp into the

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[5] "*Epagôgê* is not simply habituation that occurs automatically as cases are piled up, but the development of a kind of insight into individual cases, an ability to grasp the universals present in them. It occurs in humans as a measure of their rationality, but is by no means a mechanical or inevitable result; it may happen quickly or slowly or not at all, depending on the person and the nature of the cases" (McKirahan (1992) p. 256).

[6] I wish to digress for a moment to take issue with an argument offered by Scott ((1996) pp. 109-117 to the effect that the whole of the developmental account in *Post. An.* II.19 is meant to characterize not the ordinary learning in which all humans engage but rather higher learning of the sort that only professional students and master craftsmen engage in. This argument turns pivotally on the claim that the way in which Aristotle depicts experience, especially in *Met.* I.1.981a7-9 and *Pr. An.* I.30, suggests that he takes experience to be a kind of cognition enjoyed only by the specialist, the professional doctor or astrologer who systematically sets about organizing a body of information. He also points to the systematic methodology for attaining knowledge which Aristotle describes at *Post. An.* II.13.97b7-15 as an example of how professional experience is to put to work in the service of higher learning. I do not wish to challenge the claim that experience *sometimes* plays this role in higher learning, but that experience is *always* a matter of higher learning seems to me too strong a claim. I will offer only the following brief points in rebuttal: (1) At *Met.* I.1.980b25-27, Aristotle grants some degree of experience to animals (though admittedly grudgingly), and animals certainly do not engage in higher learning. (2) At *Met.* I.1.981a30-b6, Aristotle seems to use manual labourers as examples

explicit grasp of *nous*. Hence the analogy of the routed soldiers makes good sense of both stages of unification in the soul.

Let us return to the Meno Paradox. The first account of learning left us stalled at memory with merely a set of preserved appearances that, though they may be of particulars that fall under the same universal, have not yet been grasped as things unified by the universal at all. That is exactly, however, what experience does; it somehow latches on to that which is the same in all the different appearances and fixes on that as a single object of cognition. At *Post. An.* II.8.93a16-20, Aristotle says that: "For just as we seek a thing's explanation (*to dioti*) when we have grasped that the thing is (*to hoti*), and these sometimes become clear at the same time, but it is never possible to cognize the explanation before the fact, it is clear that in the same way one cannot grasp a thing's essence without grasping that it exists. For it is impossible to know what something is if one is ignorant of its existence." It is clear that experience does not give us a grasp of its object's essence and the explanation of why it is the thing it is — that is the task of *nous* — and *Met.* I.1.981a24-30 puts this beyond doubt:

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of people with mere experience, and these people do not seem to be engaging in what we would normally call higher learning. (3) At *NE* VI.11.1043b12-14, Aristotle groups the experienced together with the old and the *phronimoi* as people who should be given heed even if they cannot prove that their advice is right, and nothing about this context suggests that higher learning (beyond what one gets simply from living a long life) must be involved. All these facts suggest that experience need not be as exalted an epistemic stage as Scott lets on, and indeed, if there is nothing that outright prevents our casting experience in such a way that it explains how Aristotle understood ordinary learning as well as higher learning, Scott must forgive me for wishing to retain the theory which has broader explanatory force.

> But nevertheless we believe that knowing and understanding belong rather to skill than to experience, and we suppose that the skilled are wiser than the experienced....And this is because the skilled know the reason why a thing is (*tên aitian*), but the experienced do not. For the experienced know that it is (*to hoti*), but they do not know the explanation why it is (*to dioti*). But the skilled cognize the explanation (*to dioti*) and the reason why (*tên aitian*).

Yet this passage also puts it beyond doubt that experience *does* make us aware in some way of the fact that something is there to be explained, because it is a grasp of the fact that the thing exists as a unique thing waiting to be further understood.[7] Experience still explicitly cognizes only the many particulars in the many perceptions or memories it unites, and in that sense it still only identifies the object of an investigation as a set of particulars. But it is, nonetheless, a *set* of particulars that it cognizes, and though it cannot explain what it is about the members of the set that leads it to draw them together, it is aware there must be some such explanation to be had; i.e. "We seek a thing's explanation (*to dioti*) when we have grasped that the thing is (*to hoti*)" (93a17).

There does seem, however, to be something of a gap remaining between the acquisition of experience's vague awareness that a universal lurks somewhere nearby and *nous*' achievement of dragging that universal into the clear light of day. How exactly is it that we get from the cognition that tells us "such-and-such benefitted Callias when

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[7] Experience is not, however, a bare cognition of the existence of a universal that does not characterize that universal in any way at all; one must imagine that the person who has experience of the universal can, if asked, describe the universal in some way. For example, he might say that thunder is a sort of noise in the clouds (*Post. An.* II.8.93a22-3). Although Taylor does not describe this partial grasp of the universal as experience, see his (1990) p. 122.

suffering such-and-such disease, and likewise for Socrates and for many other particular individuals" to the cognition that "such-and-such has benefitted all those people of such-and-such a kind marked off as a unity in respect of form, for example the phlegmatic or the bilious when burning with fever" (*Met.* I.1.981a8-12)? Presumably experience does not just magically transform into *nous*.

Even though Aristotle leaves it out of his account of learning, it is here that we need to bring in belief. Experience provides the agent with unarticulated cognition of a set of qualities[8] which unite a class of particulars into a whole, but it does not yet explicitly grasp the particulars themselves as a whole. This is exactly, however, what belief does, at least in a certain sense. One does not grasp the universal as a whole in the fullest sense until she achieves *nous*, but belief does genuinely and explicitly cognize the universal as a whole in a weaker sense, since the predicates which belief assigns to that whole are assigned in a looser way than they are by *nous*. The process of moving from experience to *nous* is then a process of trying out belief after belief, explicitly ascribing one quality after another to the universal — sometimes truly, sometimes falsely, sometimes methodically, sometimes haphazardly — until one happens upon the set of qualities which uniquely picks out the class of particulars which experience first mysteriously cognized as a unity. And then, once one has explicitly cognized the universal's essence via belief, it becomes possible for *nous* to kick in and grasp that definition fully — not as a loose amalgam of

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[8] Perhaps these qualities are what Aristotle is referring to as the *pollôn ennoêmatôn* which skill unites into a single supposition at *Met.* I.1.981a6.

subject and predicates, but as an inextricable unity which could not be otherwise.

Experience thus performs the function of creating an awareness of the problem which we then struggle with in the realm of belief and finally resolve through *nous*. But experience does more than merely make us feel the presence of a problem in search of a solution. It also gives us the kind of grasp of its object's nature that makes it possible for us to move forward to a more articulate and explicit grasp. As we have already seen, *Pr. An.* I.30 makes this clear when it says of experience that, "[I]f one has [via experience] grasped the attributes concerning the relevant thing, we may readily bring the proofs to light. For if none of the true attributes of the objects have been left out of the account (*historia*), we will be able to discover and prove everything of which proof is possible, while everything of which proof is not possible [i.e. first principles cognized by *nous*] we will be able to make clear" (46a22-27). The account (*historia*[9]) of its object which experience provides gives us the partial grasp of the universal which we then strengthen into *nous* through induction.[10] And this seems to be exactly the process we see described

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[9] It is perhaps significant that Aristotle describes the information which experience provides about its subject as an *historia* rather than as a *logos*; this may be further evidence that the possession of a *logos* which Aristotle offers as a stage of learning in *Post. An.* II.19 is not experience.

[10] There is a problem here. I have just claimed that Aristotle thinks we move from experience to *nous* through a dialectical process of trying out beliefs about the relevant universal's qualities until one strikes on the right one that captures the thing's essence, and then this belief gets converted into *nous* when the subject and its predicates are grasped in the right way, as a unity. This seems to be the process that Aristotle describes at length in, for example, *Post. An.* II.8 and 13 and *Top.* VII.3. But Aristotle undeniably also says that we achieve *nous* through induction. How can he say both?

in *Post. An.* II.13, beginning from a collection of attributes and then finding the unity that is the essence from among them:

> Looking to the similar and undifferentiated things, one must seek first that which they all have in common, and then again for the other things which are in the same genus as the first things and are in the same species as each other but in a different species from the first group. When one has grasped what is the same for all of these, one must do the same with the other groups, considering again whether the things grasped are the same, until one arrives at a single account (*logos*). For this will be the definition of the thing. (97b7-13)

It is experience that guides our choice of beliefs about what makes different things similar, whether these things are individuals that fall under the same universal or species which fall under the same genus. And when *nous* finally grasps the attributes provided by experience as tied together in a unified essence, we can see that our investigation was of the same thing all along because, in a sense, *nous* is just cognizing again what has already been grasped by experience, although *nous*' unified cognition is in another sense genuinely

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This is an old problem, and I am not going to try to resolve it once and for all here. I will merely say for now (with a promise for more later!) that I think we must take as Aristotle's final word what he says at *Post. An.* II.6.92a27-33: "With respect to both kinds of deduction, both the kind demonstrating through division and the kind [demonstrating through supposition], the same problem arises. Why will "man" be "bipedal animal", and not "animal" and "bipedal"? For on the basis of the things grasped [presumably "man is an animal" and "man is bipedal"] it is not necessary that the thing predicated become a unity, but [they could be predicated] just as the same man might be musical and literate." What Aristotle calls "demonstration of a definition" ultimately can yield only beliefs, not *nous*, even though the content of the two states will be rendered by exactly the same proposition. Having the belief makes it easier to attain *nous*, but induction from the particulars grasped by experience still must supply the final step.

something new.[11]

This account of our epistemic progress also makes good sense of the third account of learning in *Post. An.* II.19:

> Let us say again what we just said, but unclearly: for when one of the undifferentiated things (*tôn adiaphorôn*) makes a stand, the first [presence (?)] of the universal (*prôton katholou*) in the soul (for indeed one perceives the particular, but perception is of the universal, for example of man but not of Callias the man.) Then again a stand is made among these until the partless (*amerê*) and universal stands, for example "such-and-such an animal" [making a stand] until "animal" [makes a stand]. And in the same way in this case. But it is clear that it is necessary for us to cognize the most primary things (*ta prôta*) by induction. For in fact perception produces the universal in this way. (100a14-b4)

It is tempting to read this account of learning as covering the full course of epistemic stages from perception to *nous* just as the second account did. If we could plausibly take "the undifferentiated things" to refer to perceived particulars[12], then we could interpret the "first universal in the soul" as the state of experience produced when the agent finally encountered the particular that made the universal gel, and then the "partless and universal things" that "make a stand" when the first universal "makes a stand" could be the universal

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[11] Although this is not an example of the same kind of cognition Aristotle likens to recollection in *Pr. An.* II.21 (see above and the last section of Chapter 7), it too seems to be, in a sense, a re-cognizing of something one has cognized previously. Aristotle is certainly not countenancing anything like Plato's recollection of precarnate knowledge, but nevertheless one could characterize what one finally grasps with *nous* as an explicit recovery of what one in a sense already knew. (See also Denyer (1991) pp. 206-9, esp. 209.)

[12] Barnes argues ((1993) p. 248) that *ta adiaphora* refers to particulars at *Post. An.* II.13.97b7, even though elsewhere in that chapter he thinks the same word refers to *infimae species*.

explicitly cognized as a unity by *nous*, taking "partless" to refer to the kind of unity of essence discussed in *De An.* III.6. Such an interpretation of the passage would also have the added benefit of explaining Aristotle's insertion of the parenthetical remark about the nature of perception (100a16-18), which seems out of place if the passage does not cover the earliest stages of cognition. But the example that Aristotle uses to demonstrate what he is talking about at this stage — moving from a grasp of "such-and-such an animal" to the grasp of "animal" itself — seems to show that the *adiaphora* are the *infimae species*, and the development described here is one from an explicit grasp of species via *nous* to an explicit grasp of genera, again via *nous*, and so on until we reach the highest, "partless" genera which are not themselves species in a higher division. In other words, the learning described here is the same as the learning we saw described at *Post. An.* II.13.97b10-13.

Putting all these results together, we find that Aristotle has, in fact, supplied answers to both the Starting Line and Finish Line Problems. Take the Starting Line Problem first. Meno asks Socrates, "How will you look for [something], Socrates, when you do not know at all what it is? How will you aim to search for something you do not know at all?", and Socrates restates the question as an assertion: "[One] cannot search...for what he does not know, for he does not know what to look for" (*Meno* 80d-e). Aristotle responds: If a person really is completely ignorant of what a thing is, i.e. has had no cognitive contact with it of a kind that isolates the thing *as* a unique object of cognition, then Meno is right — that person cannot investigate and learn about that thing, at least not yet. All intellectual learning must proceed from pre-existing cognition (*Post.*

An. I.1.71a1-2). But human beings are the kind of creatures that can get non-intellectual cognition of an object through perception, store up appearances generated by perception of a number of similar particulars, and then somehow respond to the universal that is present in them all and unites them into a class. A person who has made this epistemic leap, i.e. the experienced person, does not, in the fullest sense of the word, know what it is that she is investigating, for she does not explicitly grasp the object's essence as a unity — that is reserved for *nous*. But her sensory appearances' origin in her contact with particulars allows her to point to examples of the sort of thing she is looking into, and her experience's inarticulate grasp of the qualities uniting the perceived particulars tells her that there is something, though she does not yet explicitly know what, which unites these particulars. The task of her investigation is then to make explicit what is already there implicitly in experience. Experience thus fixes the object of her investigation ostensively — she may not know what unites these particulars, but it is indeed *these* particulars she shall study — and gives her some sense of what she is looking for — i.e. whatever it is about these things that leads her to group them into a class.

Now consider the Finish Line Problem. Meno asks, "If you should meet with [what you are seeking], how will you know that this is the thing that you did not know" (*Meno* 80d7-8)? Aristotle replies: A person will know that she has found what she was looking for when, first, she finds an explicit answer to the question of what unites the particulars grouped by her experience — an answer which picks out the right class of particulars and explains why they are in that class — and second, when she grasps this

explicit answer in such a way that she realizes that the answer could not be otherwise — i.e. she welds the subject and its account into an inextricable unity through *nous*. She can do this because her experience includes an unconscious grasp of all the predicates which make the particulars in the experienced class into a unity, so as she works more or less slowly through the process of testing various beliefs for their ability to explain what her experience is responding to in the particulars, she can recognize the answer when she finds it because it makes clear what, in a sense, she already knew, just in an inarticulate way.

There are still a couple of objections which someone might offer to Aristotle's solution. First, one of our objections to Plato's Theory of Recollection was that it did not earn its response to the Meno Paradox, but it looks a little as though Aristotle is open to the same attack. Plato claims that the slave can solve Socrates' geometrical puzzle because his precarnate existence had given him the relevant knowledge already, but he says very little to explain in detail what sort of epistemic development the slave had to undertake before that knowledge could be recovered. In other words, he leaves the mechanism of recollection entirely vague. But the same might be said of Aristotle's inductive solution to the paradox. Aristotle says that many memories of the same thing give rise to experience, and experience, especially coupled with the right beliefs, can finally give rise to *nous*. It must be admitted, however, that he does not explain how the transitions to these two crucial stages of learning come about; he does not explain *how* we unite the perceptions of particulars into experience of a universal, or beliefs about a subject's essence into *nous*' unified grasp — we just do. So one might wonder whether

Aristotle has earned his solution any more than Plato has.

There is at least one commentator, Michael Frede, who thinks this objection utterly misses the mark. He says:

> ...[T]here seems to be a strong temptation to assume that Aristotle appeals to a mysterious quasi-mystical power of the mind to intuit universals....But if we look at [*Post. An.* II.19], it turns out that, though Aristotle's account in places may be highly obscure and questionable, it does not seem to rely on the postulation of some mysterious faculty, but on abilities we all commonly rely on, though our theoretical understanding of them may be faint and dim.
>
> Put in a nutshell, just having reason turns out to be in itself a matter of having developed the right notions of the features relevant to a domain, and — ideally — of the features which characterize reality quite generally. And having the right notions, there is nothing mysterious about reason's ability to recognize things for what they really are, to grasp their relevant universal features. (1998, p. 167)

But this response does not, I think, fairly represent what genuinely is mysterious about the cognition in which Aristotle thinks we engage. Frede seems to me too sanguine when he says there is nothing mysterious about *how* we "develop the right notions of the features relevant to a domain" and about *how* we unite separate predicates into an inextricable, definitional whole through *nous*.[13] After all, the first principles that *nous* grasps are special because, even though a dialectical process may make it possible to grasp them, our

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[13] This latter transformation may seem unmysterious to Frede in part because he does not seem to mark sufficiently the difference between belief's and *nous*' grasp of the same proposition. Kahn, in characterizing Aristotle's alternative to Platonic recollection not as empiricist but as "super-rationalist" ((1981) p. 411) and emphasizing *nous*' grasp of essences in a unified cognitive act, does better justice to the mystery that remains in Aristotle's account.

commitment to them is not ultimately explained or justified by that dialectical process.[14] We grasp them without being able to offer any further explanation of why they are true — we just *see* that they are true and *must* be true. And it simply is mysterious, and probably deeply mysterious, why we should be the kind of beings who can do this sort of thing.

Nevertheless, it is not fair to deny Aristotle's genuine advances over Plato either. One must grant, for instance, that nothing about Aristotle's account of learning is mysterious in anything like the way that Plato's theory about souls recovering knowledge from a previous existence is mysterious. But more than this, Aristotle's account of learning provides us with a much richer level of detail than anything Plato offers us, and this account also proceeds through stages of cognition which are, individually, fairly familiar to any epistemic agent. Aristotle might have given us only something like the account of epistemic development in *De An.* II.5:

> One way in which someone might be knowing is in the way we might say that man is knowing because a man is the sort of thing that knows and has knowledge. But we say in another way that a person is knowing who has knowledge of grammar. Each of these does not have a capacity in the same way, but the one because he is of such-and-such a kind and material, the other because whenever he likes he can exercise his knowledge, so long as nothing external prevents him. But a person who actually exercises his knowledge and who knows in the fullest sense this particular *A* is also knowing. Both the first two are potentially knowing, but the one becomes knowing by being altered through teaching and often changing from an opposite condition, while the other becomes knowing in another way, from having arithmetical or grammatical knowledge, but not actively, to having it actively. (417a22-b2)

This account asserts that we can learn and that our learning has stages, but if he had given

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[14] M. Frede sees this very clearly ((1999) p. 172).

us only this account, we would be justified in claiming that he had not really explained how learning takes place. Aristotle's full account of learning, though, characterizes in detail both the many stages we pass through between total ignorance and perfect knowledge and the sorts of things we as agents can do to move ourselves along from one stage to the next. The actual shifting of the gears might still be a bit obscure, but Aristotle could not be said to have us moving epistemically from zero to sixty in nothing flat, and to that extent his theory represents a real improvement over Plato's.

The other objection one might raise against Aristotle's solution of the Meno Paradox returns to the Finish Line Problem. One of the chief reasons that the Finish Line Problem is so threatening is that the kind of investigation we often want to conduct is what we characterized as an unanchored investigation; we want to know not only what people *call* virtue, but what virtue *really is* apart from what anyone may believe it to be. It turns out, though, that Aristotle's investigations are always anchored; they are founded upon one's perception of particulars and shaped by the experience one develops from that perception. We can see this in Aristotle's characterization of how we learn about a particular virtue, magnanimity:

> I mean, for example, that if we should investigate what magnanimity is, we ought to consider, in the case of magnanimous men whom we know (*ismen*), what one thing they all have *as* magnanimous men. For example, if Alcibiades and Achilles and Ajax are magnanimous, what one thing do they all share? Not putting up with an insult. For one made war, one grew wrathful, and the last killed himself. And again, consider other cases, for example Lysander and Socrates. If [the thing these two share] is indifference to good and bad fortune, taking these two items I consider what indifference to fortune and not enduring insults have that is the same. If there is nothing held in common, there are two forms of magnanimity.

(*Post. An.* II.13.15-25)

Aristotle assumes that the results we come to through such a search involve what magnanimity really is (in both its forms). But these results were attainable only because we presumably had experience of magnanimous men by which we could group them as a class to be defined and pick out individual cases to serve as exemplars. The question arises, though, how Aristotle can be so confident that a human agent, allowed to develop naturally, will grasp the way things really are apart from his experience. He cannot merely assert that, once we have grasped a definition's necessity through *nous*, we can be sure that we know what we think we know, for he clearly thinks it possible for us to believe we have such a grasp when we actually do not.[15] The sense of recognition that we get when we articulate our experience and that seems to be a recognition of the inquiry's end arises when we make our experience explicit, but if what we are after is magnanimity itself, our recognition of our experience's full articulation only signals an end to the search if our "magnanimous experience" is recognizably about magnanimity itself. How, then, can we be sure that our experience guides us to what are really, objectively magnanimous men? How can one start from an anchored investigation and end up with an unanchored result?

One possible response for Aristotle would be, in effect, to bite the bullet and admit that one can never know that at the end of her epistemic development she has cognized the objective reality of things. What she grasps in *nous*, he could say, is the full and

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[15] See *Post. An.* I.2.71b13-15 and, more interestingly, I.9.76a26-30.

explicit characterization of her experience's cataloging of the world into kinds and categories, and we cannot further ground experience's way of carving things up on a deeper, more direct and objective grasp of the way the world is. He might then claim that it would be nice if experience's catalog matched the catalog one would have from a God's-eye perspective of objective reality, but he could just as well rest content with a kind of cognition which explains the world of human experience satisfactorily, leaving the world of objective reality apart from human experience to itself, much as Kant does not think we give up much that is practically significant when we give up the hope of grasping noumenal reality. But however viable a reply to the objection this might be, nevertheless it does not strike a very Aristotelian tone; I challenge anyone to find a place in Aristotle's corpus where he seems to endorse anything like this view, or seriously to consider the possibility that human experience might be detached from the underlying reality of the universe in such a dramatic way. Whether Aristotle is ultimately entitled to a more direct reply to the objection or not, we surely must try to provide him with such a reply.

There are a couple of ways that such a direct reply might go. First, there is the easy but somewhat unsatisfying answer: Aristotle is an optimist who thinks it would be perverse if humans were designed in such a way that we naturally developed concepts and beliefs which were fundamentally misleading as to the nature of the reality they are supposed to represent.[16] Without a doubt, Aristotle is optimistic in this way; witness *Rhet.*

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[16] See Taylor (1990) 116-7.

I.1.1355a15-17 — "...[M]en have a sufficient natural disposition for the truth, and for the most part they happen upon the truth" — and *Met.* II.1.993b4-5 — "The truth is like the proverbial door one cannot miss" — and seems never to take seriously the kind of global skepticism which questions the reliability of human cognition at such a basic level.[17] But this alone does not distinguish Aristotle's optimism from that of an unreflective optimist without an argument to justify his claims, and one would like to see Aristotle bring something more to the fray.

The second answer is more satisfying, but more difficult to explain. Aristotle could draw on his metaphysics to ground the objectivity of our investigation's results by linking human thought and cognition to the eternal, infallible thoughts of what he calls "active *nous*"[18] and the mind of God (however the two may be related). Active *nous* exists eternally and separately from corporeal minds, and it makes the thought of all corporeal minds possible.[19] Hence, if Aristotle can make a convincing case that active *nous* always grasps the objects of its cognition as they really, objectively are, and moreover that active *nous* in some way guides or underwrites the objectivity of the thoughts of corporeal minds, he would have an argument against the skeptic who, like Meno, doubted the objectivity of the results of human experience. I think there is almost

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[17] See Burnyeat (1981) pp. 131-3.

[18] The classic discussion of active *nous* is in *De An.* III.5.

[19] See *De An.* III.5.430a25.

certainly such an account to be drawn from Aristotle's works,[20] but here, pressed for time, I can merely point out that direction without exploring it further.

Finally, then, we arrive at an Aristotelian solution to the Meno Paradox which meets the criteria we laid out in Chapter 5:

— Human agents begin their epistemic development from total ignorance, with no cognitive contact with anything at all.

— All intellectual learning proceeds from perception, a non-intellectual form of cognition; all other forms of cognition use the appearances generated by perception to supply their cognitive objects.

— At each stage of epistemic development, in one sense we grasp something we have already grasped before, but always it is grasped in a new way. Thus experience grasps the particulars grasped by perception, but grasps them as an unarticulated unity, and *nous* grasps the unity provided by experience, but does so explicitly *as* a unity.

— The pinnacle of epistemic development involves, much as it does in Plato, an epistemic grasp of its object which is infallible and which includes the grasp of the explanation or cause of the thing's being as it is. This pinnacle is

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[20] See Kosman (1973) pp. 390-1: "For Aristotle..., the capacity of *nous* to understand is rooted in the intelligibility of the world, in the fact that the prime mover is *nous*. But it should come as no surprise to us...that the world is intelligible, that we are able to understand its structure. For *nous* is a faculty designed precisely for the purpose of apprehending that structure." See also Kahn (1981) p. 413.

nous.

— Aristotle's final account of learning has a place for and explains the place of perception, memory, experience, skill, knowledge, and *nous* — as well as, it turns out imagination, supposition, and belief.

— Aristotle rejects Plato's Theory of Recollection on the grounds that we can explain human learning without building the highest forms of cognition into human agents from birth. (There is, though, a sense in which Plato got things right, for *nous*' ultimate grasp of its object makes explicit something which was already grasped inarticulately before through experience, and this event may well *feel* like recollection.)

One task, however, remains: we must still examine whether Aristotle, like Plato, is beset by the flipside of the Meno Paradox — the problem of false belief. For Aristotle's theory of learning to be totally satisfying, he also needs to explain how we may make mistakes concerning the thing we are learning about and still be learning about that thing. That will be the topic of our final chapter.

CHAPTER 9

Aristotelian Error Theory

In the chapters on Plato, we saw that for him the Meno Paradox and the problems surrounding false belief in the *Theaetetus* are closely linked, for both spring from the assumption that one cannot grasp a thing *as* the thing it is without grasping the thing completely, i.e. so thoroughly that one could not then go on to misidentify that thing as something else. This assumption generated the Meno Paradox because it entails that, in the central case of inquiry into identity or essence, one cannot grasp what one is learning about without already grasping that which one has set out to learn. And it generated the problem of false belief because, at least in the case of the identification of objects of thought, the very act of fixing an object *as* the object to be identified gives one such a complete grasp of that object that one could not then misidentify it. We have already seen how Aristotle can solve the first problem: he posits the existence of experience, an epistemic grasp which fixes the object *as* a unique object of cognition without supplying an explicit and articulated cognition of the nature of the thing grasped. The question now is whether this same theory can see us through Plato's problem of false belief as well.

One might wonder, now that we have a solution to the Meno Paradox, what further purpose is served by returning to the issue of false belief. Insofar as a solution to the Meno Paradox has been our chief concern, we might reasonably rest content with that achievement. There is always the simple interest in better understanding an important

element of Aristotle's epistemology to motivate this additional investigation, but there are also a couple of more immediate reasons to deem Aristotle's treatment of false belief worthy of consideration in itself.

First, an account of false belief adds detail to the account of learning. Even if Aristotle's theory of learning as we have described it is accurate, his account concentrates on successful rather than frustrated epistemic development. But while it is perhaps possible for a person to progress through Aristotle's stages of cognition without ever making any mistakes, most of our learning experiences are not like this. Most of us see most things through a glass darkly, and our progress toward understanding is accordingly beset with much fumbling and false starts. Thus we might wish better to understand what false belief is and how it is possible so that we may better understand the learning process as most of us actually experience it.

Second, if Aristotle's solution to the Meno Paradox is a genuine success, then, because the Meno Paradox and the problem of false belief are so closely related, the solution to the Meno Paradox should be, *mutatis mutandis*, a solution to the problem of false belief as well. Hence we can look to a treatment of Aristotle's theory of false belief as a test case for his solution to the Meno Paradox; if the same material which provided an Aristotelian account of learning is not able to provide a satisfactory account of false belief, then there is quite possibly something wrong with the account of learning too. Thus the stakes involving an adequate account of false belief are actually quite high.

It is important to be clear about precisely what we should expect from an adequate

account of false belief, so let us be specific about what we need explained. Aristotle needs to show in what false belief consists in all the cases where we typically think it can arise, or, if he thinks false belief is not possible in some of the cases where we typically do think it arises, he needs to explain both why false belief is not truly possible in those cases, and why we could be deceived into thinking that it is possible. We can classify some (loosely defined[1]) kinds of false beliefs which we typically think arise as we engage in our central kind of learning, i.e. learning what a thing is. At least the following types of false belief seem relevant:

— Type I — False belief that describes a concrete particular by some predicate.

But we can also further break this type of belief into sub-types:

— Type Ia — False belief that ascribes a proper sensible to a concrete particular, e.g. "This thing is white", "Socrates is white".

— Type Ib — False belief that ascribes a common sensible to a concrete particular, e.g. "This thing is a foot across".

— Type Ic — False belief that ascribes an incidental sensible to a concrete particular, e.g. "This thing is the son of Diares", "This thing is a horse".

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[1] I'd like this to be clearer and smoother. I make the distinctions at all because, although we clearly think false beliefs of all four types are possible, Aristotle does not, because he thinks importantly different kinds of cognition are required to have the different types of commitment at all, and sometimes the required cognition does not allow a mistake.

It is also important to note that Aristotle allows for different ways of cognizing concrete particulars. The primary means of cognizing them is through perception, and in Type Ia and Type Ib cases, perception is the only kind of cognition in which one needs to engage in order to make such errors. Indeed, this means that at times Type Ia and Type Ib errors may not always be properly called false *beliefs*, since the agent making such errors on the basis of perception alone need not be entertaining a supposition at all. (Type Ic errors must involve belief, since perception cannot explicitly yield the terms by which the cognition is grasped, and Type Ia and Ib errors will be false beliefs when the object of cognition is not fixed by perception's direct access but rather by something which a higher faculty like belief latches on to in the image generated by the perception of the object.) For this reason it is really more appropriate to describe our present project as an Aristotelian error theory generally rather than as an Aristotelian solution to the problem of false belief alone.

— Type II — False belief that describes a universal class by some predicate(s), whether the predicate(s) hold essentially or no.

If a student decides to learn what, for instance, Alexander is, she can be wrong about what Alexander is like (Is he pale? Is he tall? Is he rich?), or about who he is (Is he the man on the corner? Is he a pupil of Aristotle?), or even about what sort of thing he is (Is he a man, a god, or what?). Likewise, once Alexander has been classified as a man, she can be wrong about what men are like, either by employing an incorrect definition of men, or, more generally, by mistakenly thinking that all men are such-and-such, where such-and-

such is not intended to pick out an essential characteristic of men. So we will want to see, where Aristotle thinks these errors are possible, how they are possible, and where they are not, why they are not.

Let us proceed just as we did in rooting out Aristotle's solution to the Meno Paradox, i.e. by setting fixed points for Aristotle's position on false belief. One such point is provided by a chapter we already have encountered, *De An.* III.6, where Aristotle claims that "falsehood is always in combination" (430b1-2), and this seems to be confirmed at *Met.* VI.4.1027b18-19 (which suggests that truth also consists in combination). In order to believe something false, one must assert that one thing is linked to another (*phasis ti kata tinos* (430b26)), joining the two things together in thought, and the falsity then arises because the two things are not joined in reality as they are in thought. In the same passage, Aristotle gives us examples of such false combinations, e.g. believing that some white thing is non-white (430b2-3, a Type Ia belief) or that some white thing is a man (430b29-30, Type Ic), and presumably we can also include other examples from elsewhere in the corpus: believing that the square's diagonal is commensurate with its side (*Post. An.* I.33.89a29-30, Type Ib or II, depending on whether "diagonal" refers to an individual diagonal or the class, "diagonal"), that a mule is pregnant (*Pr. An.* II.21.67a35ff., Type Ic), that all heavy water is foul (*NE* VI.8.1142a23, Type II), that this particular thing is heavy water (ibid., Type Ic), and no doubt many others. Aristotle would also most likely bring under this rubric the kinds of errors which Plato discusses in the Wax Block analogy, e.g. that the approaching man is Theodorus

(Type Ic), for in these cases one combines a concept which one has imprinted on one's mind with a subject that is cognized by perception in order to produce a judgment. All false belief for Aristotle ought to admit a similar treatment.

We may find another fixed interpretive point in a couple of passages where Aristotle distinguishes between different kinds of ignorance and asserts that only one kind is genuine ignorance. At *Top.* VI.9.148a3-9, he says that:

> One must see whether [a term] is defined in terms of privation (*sterêsis*) when it is not meant in terms of privation, e.g. the sort of mistake that seems to exist in the case of ignorance for those who do not mean "ignorance" in terms of denial (*apophasis*). For something that does not have knowledge does not seem to be ignorant, but rather that which is deceived [seems to be ignorant], and therefore we do not say that either inanimate things or children are ignorant, so that "ignorance" does not mean "privation of knowledge".

Here we clearly see that there is a difference between being ignorant in the sense of being in error about something, and being ignorant in a looser sense by virtue of (whether essentially, like inanimate objects, or temporarily, like children) not possessing cognition at all. Furthermore, only the first kind of ignorance, which involves an actual cognitive act, is true ignorance. In the same vein, *Post. An.* I.12.77b16-27 distinguishes two different sorts of mistakes one can make:

> Since there are geometrical questions, are there also ungeometrical ones? Concerning each branch of knowledge, what sort of ignorance is it that is [for example] geometrical? Is an ignorant demonstration one that is derived from assumptions that are opposed [viz. to the truth], or is it an invalid demonstration, but one which is yet geometrical? Or is it a demonstration from another expertise, as a musical question is ungeometrical where geometry is concerned, but to believe that parallel lines meet is geometrical in one way and ungeometrical in another? For "ungeometrical" is meant in two ways, just as "unrhythmical": one may be ungeometrical by virtue of not grasping, or by virtue of grasping, but in a flawed

> way. And ignorance is this latter thing, and proceeds from such-and-such principles, though it is opposed to them.

Presumably the two kinds of error, geometrical and ungeometrical, correspond to the two kinds of ignorance. An error is ungeometrical if the erring person does not seem to be cognizing the objects of geometry at all, for instance because he is really talking about music. Such a person is not truly ignorant of geometry; he is rather not thinking of geometry at all. But an error is geometrical if the erring person has a flawed grasp of geometry's proper objects, for instance by thinking that parallel lines meet. This person does not truly understand what parallel lines are, or else he would not believe they meet. But nonetheless he seems to be thinking about parallel lines, and so is engaging in geometrical thought, however much he may make a mess of it.

These two passages clearly indicate that a person who has a false belief suffers from ignorance of the genuine kind, which requires an actual act of cognition. But this result has important consequences, for it effectively asserts that, in order to have a false belief about a thing, one must grasp the subject of the belief at least partially, and moreover grasp it *as* a distinct object of cognition, and not just incidentally.[2] This also seems to be the message of a number of other passages. At *On Dreams* I.458b32, Aristotle says that: "Whether the imaginative faculty of the soul and the perceptive faculty

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[2] This is related to Aristotle's dictum that all learning must proceed from pre-existing cognition; though the generation of a false belief is not an instance of learning, it relies on some preceding successful cognition just as much as learning does, and for the same reason, i.e. to fix the identity of the object of cognition.

are the same or different, [imagination] does not arise at all without seeing and perceiving something; for mis-seeing and mis-hearing require seeing or hearing something real, but not what one thinks it is", and this entails that one cannot misperceive without some actual act of perception combined with some mis-description of the thing perceived. Similarly, when *Post. An.* I.33 tells us that false belief and true belief concerning a diagonal are about the same object, but that they do not describe what the object is with the same *logos*, we must take him to mean that the false belief *is* a false belief because it is a cognition (though flawed) of the thing which it mis-describes, i.e. the sort of thing Aristotle describes above as a geometrical error. Moreover, *Phys.* I.1.184b3-5 suggests that the children who call all men father must nonetheless be in cognitive contact with the men that they are mis-describing (though whether their error should be construed as an error about the men they call father or about the father that they misidentify is perhaps difficult to say.) And this is also the message of *Met.* II.1.993a30-b7:

> The contemplation of the truth is in one way difficult and in another way easy. An indication of this is that no one is able to make contact (*thigein*) with truth sufficiently, but no one misses it altogether; rather each person says something concerning its nature, and though each one individually contributes nothing, or very little, to the truth, from all of them organized together something substantial arises. Thus the truth is like the proverbial door one cannot miss, and in this sense it is easy, but [insofar as one] has a sort of whole and is not able to make the part clear[3], it is difficult.

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[3] *Phys.* I.1.184a26-b3 also describes an agent who starts out grasping a whole by applying a name and then dividing the whole into "the particulars" by ariving at a definition of the thing named. Perhaps the whole in both cases is the unity cognized inarticulately by experience, and definition, or "making clear the part", is grasping the truth about the thing by explicitly cognizing the distinct predicates, i.e. "the parts" and or

Most of the time we fail to grasp things as they really are, but we grasp them at all only because we have some cognitive contact with them.

Finally, as we have already seen, Aristotle also tells us that falsity is confined to certain kinds of cognition. One may have false perception or a false belief, but one may not have *nous* of a falsehood.[4] And insofar as knowledge, skill, and practical wisdom are founded upon *nous*, presumably they must be free from falsehoods as well.[5] Moreover, perception of proper objects is (almost) always true, though perception of common or incidental objects can be false.[6] So we may take these assertions as fixed points of Aristotle's position on false cognition, and accordingly expect some explanation of *why* infallible cognitions do not admit falsehood while fallible ones do, and what falsehood consists in when it does occur.

Consider now the varieties of error that take concrete particulars as objects (Types

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"the particulars", which constitute the unity. See Scott (1995) 120-25, who develops this line of thought.

[4] That belief can be false is indicated by more passages than one could reasonably list, but *Post. An.* I.33 is as clear evidence as any. The infallibility of *nous* and knowledge are asserted at *Post. An.* II.19.100b7-8 and (along with skill, practical wisdom, and wisdom) at *NE* VI.3.1139b15-17, and of *nous* alone at *De An.* III.6.430a26-7 and b28-9.

[5] Because both *nous* and knowledge are confined to the unchanging realm of the universal, it is safer to extend *nous*' infallibility to knowledge than to skill and practical wisdom, which both, at least in part, involve cognition of the changing world of particulars. In fact, one of Aristotle's chief problems will involve the question of the fallibility of *nous*-derived cognitions which explicitly involve the world of particulars.

[6] See *De An.* II.5.418a12-3, III.3.428b18-26, III.6.430b29-30, *De Sensu* IV.442b8-10, and *Met.* IV.5.1010b2-26, though cf. *Met.* XI.6.1062b33-1063a5.

Ia-c), focussing first on cases where perception fixes the object of cognition. It is clear that Aristotle will not allow that all of these perceptual errors are equally likely, or even possible. He will allow, for instance, that we commonly mis-ascribe common sensibles or incidental sensibles to a perceived particular, but he denies that it is likewise possible (normally) to mis-ascribe a proper sensible. Take infallible perception first; it certainly seems to most of us that when a perceived object seems, for instance, white, sometimes we can turn out to be wrong. Put aside for the moment the passages[7] where Aristotle seems to admit that such error is possible; however he may qualify his claim that perception of proper sensibles is unerring, why would he make such a claim in the first place?

To answer this question, we must take our cue from Aristotle's assertion that all falsehood arises in combination. If false perception of proper sensibles is impossible, it must be because perception of proper sensibles is not a combination; i.e. it does not say one thing of another. We have already considered in a previous chapter how *nous* can provide this sort of cognition; although *nous*' cognition can be rendered as a proposition divisible into a subject and predicate (e.g. "Man is a bipedal animal"), *nous* does not cognize two separate objects of thought. Rather, it cognizes a single thing characterized in two different ways, first by the name of the class that is held together by a single definitional account, and then by the definitional account itself. How can perception of a

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[7] *De An.* III.3.428b18-9, *Met.* XI.6.1062b33-1063a5.

proper sensible be like this?

The answer must be that, when one perceives that "This thing is white", one does not perceive or otherwise cognize two distinct objects which one then links via predication; "this thing" and its whiteness must be the same object of cognition and hence form a unity. This is not, however, an implausible way to understand what perception does, at least where its special objects are concerned. To see that a thing is white is to discriminate an object by a sensory quality, but it is important to note as well that, so long as one's vision of the object is one's only explicit cognitive contact with the thing, one has no way of grasping that thing *as* a distinct object of cognition apart from that act of perception. One may think to oneself, "I am cognizing a specific thing" without explicitly mentioning its perceptible character to oneself, but if the thing one is thinking about is grasped by perception alone, one cannot cognize that thing in any way other than as "this white thing". To cognize the thing apart from its whiteness, we would have to be able to entertain an appearance of the thing as a distinct object of cognition in some way other than via its whiteness, but that would require cognitive access to the object via something other than vision. It is in this sense, then, that perception of a proper sensible is not "saying one thing of another": the "this thing" part of "This thing is white" reflects the fact that perception is of some single particular, and "white" reflects the character by which that particular is represented to the mind.

How are perceptions of common and incidental sensibles unlike the perception of proper sensibles? If common and incidental perception allow the introduction of

falsehood, they must do so by introducing a composition of cognitive objects which "says one thing of another". We can characterize perception of a common sensible in that way as follows. Take one of Aristotle's favorite examples of a false belief, "The sun is a foot across." Why is perception's report that its object is a foot across not like its report that its object is white? Presumably the answer must be that when perception reports that "This thing is a foot across", "this thing" is already cognized under a different, more fundamental description, in this case "this bright thing" or "this yellow thing".[8] Thus what the perception of this common sensible really reports is that "This yellow thing is a foot across", and where "This thing is yellow" identifies its object at the same time that it characterizes it, "This yellow thing is a foot across" describes a further quality of a thing which has already[9] been identified as the object that it is in a separate cognitive act, i.e. the perception of a proper sensible.

The same sort of account works for incidental perception (Type Ic), with the important difference that this kind of cognition requires the operation of one of the suppositional faculties of the intellect along with perception, for perception does not directly cognize incidental sensibles at all. Proper perception fixes a concrete particular as

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[8] Presumably perception alone cannot identify the object of the cognition as "the sun"; such cognition requires one of the suppositional faculties.

[9] The priority described here need not be temporal; presumably we can perceive an object's color and shape at the same time, but the perception of the object's color is *logically* prior to the cognition of the object's shape. Properly speaking, we see a color which is shaped in a certain way, not a shape which is colored in a certain way.

an object of cognition, but reports nothing about, for instance, its intelligible form. But higher faculties like belief can lay hold of the appearance generated by the perception of a particular and describe the particular as possessing certain properties that are not directly perceived at all — being a man, being the son of Diares, being the person you saw yesterday, and so on. And this report surely involves a process of combination, saying one thing — that it possesses some property cognized by the intellect — of another — the concrete particular fixed by perception.

Happily, this account of false beliefs involving incidental perception is able to explain the success of the Wax Block analogy. The analogy allows epistemic agents two ways of cognizing a concrete object: by perception, which does not tell the agent what sort of thing he is looking at; and by thought, which does tell the agent what sort of thing he is thinking of. An agent can then believe falsely when he links an object fixed by perception with something held in his thought, believing them to be the same. Aristotle explains such an error much as Plato does. Perception fixes a particular individual as a cognitive object, and gives us (usually) reliable information about that object's directly perceivable qualities. But perception does not categorize its object by kind or identity; it does not tell us that this white thing is a horse, or a man, or whatever.[10] So when the

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[10] See *De An.* III.6.430b29-30 and *On Dreams* I.458b10-15. The latter passage clearly says that one could not think the approaching man is white or handsome without perceiving the thing, but it also seems to imply that one could not think the approaching white thing is a man or a horse without belief. I.e., perception does not, by itself, classify its objects by anything but perceptual kind.

agent brings his other cognitive faculties to bear on the image generated by the act of perception, it is possible for her to classify the perceived particular under the wrong kind or otherwise misidentify the particular (e.g. mistake Theodorus for Theaetetus).

A problem for Aristotle's account, though, is that even if his characterization of the difference between proper and common perception is correct, it does not by itself explain why the former is (almost) infallible while the latter is not. There is hope to be found, however, in a line of thought developed by Block. He argues (I think quite convincingly) that proper perception's infallibility does not lie in its accurate reports of how one's perceptual experience[11] feels — what he calls the "sense-datum" explanation of perception's infallibility — because that account does not explain (a) how mistakes about proper sensibles are possible, however rare they may be, or (b) why our experience of common sensibles and the appearances entertained by imagination are not similarly infallible.[12] He is also probably right to say that what underwrites proper perception's infallibility is the fact that each of our perceptual faculties was designed first and foremost

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[11] In this paragraph I am using "experience" in its normal, non-technical sense, not in its sense as Aristotle's special stage of cognition.

[12] Block (1961) pp. 2-5. He does not, however, note one passage that seems to suggest that Aristotle did indeed think that we could not be wrong about how things appear to us, *Met.* IV.5.1010b21-26: "I mean, for example, that the same wine seems to be sweet at one time and not sweet at another because either it changes or one's body changes; but the sweetness itself, such as it is whenever it is, never changes, but always one grasps it truly, and of necessity that which will be sweet is of that sort." Block could, though, admit that Aristotle thought we could not be wrong about how our perception feels and still maintain that Aristotle is committed to proper perception's (nearly) infallible representation of its external, material objects.

to cognize its proper objects, and Nature would not have built us so poorly that our most basic mechanism for grasping the world around us was fundamentally flawed, while common and incidental perception are fallible because the various senses are not designed specifically to cognize common and (especially) incidental sensibles.[13]

I want to extend his argument, claiming that the unique teleological relationship between a sense and its proper objects that explains proper perception's infallibility is also closely tied up with the different kinds of predication in which proper, common, and incidental perception engage. Because the senses are naturally directed at their proper objects it results *both* that the cognition of those objects is extremely reliable *and* that concrete particulars are cognized first and foremost *as* individual instances of proper sensibles, and as possessors of a quality grasped by common or incidental perception in only a secondary way. Thus it turns out that the infallibility of proper perception is not explained merely by the unified nature of its cognition, but rather both these aspects of proper perception are to be explained by the critical foundational role it plays in all human cognition. Likewise both the fallibility of common and incidental perception and the combinational nature of their reports are reflections of the secondary role that they play in fixing and identifying the objects of human cognition generally.

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[13] Ibid. pp. 5-9. Note *De An.* II.6.418a24-5: "Of the things perceived in themselves [i.e. not incidental sensibles] the proper sensibles are most perceptible, and the essence of each sense is naturally directed to these." Block (1961) and Hett (1936) both translate *pros ha hê ousia pephuken hekastês aisthêseôs* to the effect that the senses are "adapted to" their proper sensibles, but that seems to overtranslate a bit.

There is another problem concerning proper perception that also needs considering. One of the examples Aristotle gives of a cognitive error is that "The white thing is non-white" (*De An.* III.6.430b2-3), which seems clearly to be a Type Ia false belief. But Aristotle's position on non-contradiction seems clearly to indicate that this is not a thing a person could believe, at least certainly not on the basis of perception alone. Perception cannot challenge its own report of a proper sensible, for as Aristotle says, "Each [of the senses] never reports concerning the same thing at the same time that the thing is simultaneously in such-and-such condition and not in such-and-such condition" (*Met.* IV.5.1010b18-9); at a given moment, perception can tell us that a thing is white or is not-white, but it cannot tell us both at once. Hence it is impossible for us to think that "The white thing is non-white" on the basis of perception alone. Of course, we are not limited to perception as our means of grasping the white (or non-white?) thing; once we form an image of the object, we can remember it, imagine it, and thereby use other faculties to speculate about its present condition long after we are no longer actually perceiving it. For instance, we could use our imagination to wonder whether the white thing we perceived a while ago is still white now. Indeed, if we could not get this sort of cognitive distance from perception's presentation of proper sensibles, it would be impossible to doubt that proper perception was accurate at all, for without such another way of cognizing the object one could not grasp the object by any description other than the one proper perception gives; grubs cannot think, "I wonder whether that white thing is really white." But even given this cognitive distance, it is hard to see how one could truly

believe that "This white thing is non-white", for to do so would be to deny that the object possesses the very quality by which it has been grasped *as that object* in the first place. This seems to be exactly the sort of belief which Aristotle rules out with his Principle of Non-Contradiction: "For it is impossible for anyone to suppose that the same thing both is and is not, just as some think Heracleitus said. For it is not necessary that someone actually suppose what he says" (*Met.* IV.3.100523-26). If thinking of "the white thing" requires that one actually believe that the thing is white, then one cannot simultaneously believe that the white thing is non-white.

It is possible that Aristotle does not mean us to take the statement he gives of the belief that "The white thing is non-white" as the actual explicit content of the cognition he is considering. Perhaps Aristotle has in mind a case like this: John encounters a non-white thing, say a tanned beach-comber, and perceives that she is non-white. Months later, John thinks again of the beach-comber and for some reason says to himself, "I think that beach-comber is non-white now." Unbeknownst to him, however, the beach-comber secluded herself indoors in the months after their first encounter, and now she is quite pale. So, John believes that the white thing, the pale beach-comber, is non-white, even though he is not explicitly thinking "The white thing is non-white". From his perspective, the actual whiteness of the beach-comber is an incidental fact about the beach-comber that does not enter his cognition explicitly at all. This would explain how a white thing can be thought to be non-white, but there is nothing in the text itself at that point to indicate that this is what Aristotle had in mind. Indeed, the situation here is uncomfortable enough that I am

tempted to suggest an emendation to the text. Perhaps, picking up on the appearance of *leukos Kleôn* at 430b5, the text should read not *leukon mê leukon*, but *Kleôn mê leukon*, which would make the example entirely unremarkable.

How will Aristotle explain Type I errors that involve faculties other than perception? We have already discussed Type Ic errors that employ higher faculties to ascribe incidental sensibles to a concrete particular, but there are also Type Ia and Ib errors that involve higher faculties like belief even though they involve the ascription of straightforwardly perceptual qualities. For instance, any Type Ia and Ib cognitions that explicitly name their objects (e.g. "Socrates is pale") or that grasp their objects as members of a class (e.g. "The horse is white") must involve a higher faculty even if perception is immediately involved in the ascription of the perceptual quality. What happens in these cases?

Their treatment turns on whether or not the concrete particular is present to perception while the belief is entertained. If one believes that "Socrates is pale" or "Socrates is near" when Socrates stands before one, then we must treat this case just as we treated Type Ia beliefs that involved perception alone; the object of the cognition and its perceptual quality are cognized primarily by perception, and belief steps in only to recharacterize the information given in the appearance generated by the perception — i.e. the object of the cognition is fixed in another way besides perceptually, for instance as the member of a universal class or by a definite description. Such cognition is neither more

nor less liable to error than Type Ia or Ib beliefs involving perception alone.[14]

When the object of the cognition is not present to perception, then the object of cognition must be fixed purely by some cognitive faculty besides perception, and similarly the ascription of the perceptual quality must spring from a non-perceptual cognition. Cases such as these should presumably be handled like the "John and the beach-comber" example above. When a particular is first perceived, the perception generates an image of the particular which creatures like ourselves can recover in the form of memory. We can then make suppositions about the present state of that particular through mental operations on its remembered image, and even though the particular is not directly fixed as the object of such suppositions by being directly cognized by the supposition or memory

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[14] This may be a bit overstated, since there is one possibility for error in cases involving named particulars that does not exist for purely perceptual errors. One might, for instance, see a man whom one mistakenly believes to be Socrates, and see that this man is pale. In such a case one would correctly cognize the man's paleness, but because the man is mis-identified, the belief is, strictly speaking false. I think, however, that Aristotle could deal with such cases much as Donnellan does in his famous "Reference and Definite Descriptions" (1966). For instance, Aristotle might well point to the case at *Phys.* I.1.184b3-5 of a child who calls all men "father"; if the child, on seeing a pale man nearby, says that "Father is pale", what ultimately determines the truth or falsity of his statement is the causal source of the appearance the child entertains, not the correctness of his use of the term "father". Since the appearance the child entertains is of the man nearby, he should be understood to ascribe paleness to the nearby man, not to his father, and so to entertain a false belief. It is a bit harder to handle cases where the child, who has a history of using "father" incorrectly, says that "Father is pale" when there is no one present to his perception. In such a case, the reference of his statement should be fixed by the causal history of the appearance he assents to in stating it; if the child generates the appearance by remembering a past encounter with some man, then that is the man to whom he refers. In such a case it will, however, be much more difficult than in the case where the child perceives a man who is present for a bystander to tell whom the child is talking about.

itself —only perception has direct access to concrete particulars — the particular is still the object of cognition indirectly because it is the causal source of the original image which memory recovers. False beliefs will arise when one ascribes perceptual qualities to the object, fixed by memory as "the object I perceived on such-and-such an occasion", which the object does not truly have, generating a combination of cognitive contents which does not reflect reality.

There is one other Type I case which we must discuss. It is possible that one could perceive an object with one sense, and then go on to ascribe a perceptual quality to that object which is the provenance of another sense, and do so falsely. This would be a Type Ia error which involved perception alone, but the matter is complicated by the presence of two kinds of perception. Aristotle gives an example of such a belief at *De An.* III.1.425a30-b3: "The senses perceive the proper sensibles of one another, but incidentally, not as themselves but as one thing, whenever perception arises together concerning the same thing, for example that bile is bitter and yellow (for it is not the role of either sense to report that both are one). Therefore one may be deceived, and believe something is bile if it is yellow." Imagine that a person, thinking that some yellow thing is bile and that bile is bitter, goes on to infer that the yellow thing is bitter. We should treat this case just like the Type Ia cases involving belief or memory, since vision is in no way competent to report on the taste of a thing it perceives.

So much for Type I cases. When we turn to Type II cases, we leave perception behind and enter the world of rational thought. Even though the images of universals

which we entertain have their origin in the perception of particulars, the cognitive elements which persist in the images pertaining to the particulars *qua* particulars play no direct role in fixing the universals as objects of thought; that is the role instead of rational faculties like belief, knowledge, and *nous*. It is among the Type II errors that we will find the sort of case that gave Plato the most trouble in the Aviary, i.e. cases like "5+7=11" in which the agent seems to confuse two (or more?) objects of thought. Plato has a hard time explaining how this false belief is possible because he thinks that in order to grasp any of the concepts that make up the judgment "5+7=11" the agent has to know each of the concepts in such a way that he could not go on to mis-describe any of them. In the Aviary, Plato allows an agent to be in three states with respect to a possible object of thought: one can be in total ignorance of the object of thought (i.e. neither possess nor have the corresponding bird), in which case one cannot think of that object at all; one can have an unactualized potential to think of the object (i.e. possess the bird), in which case one *can* think about the object but is not thinking of it yet; or one can be actively thinking the object of thought (i.e. have the bird in hand), in which case one knows the object of thought in the full sense of the word.

Even before we proceed to Aristotle's positive account of Type II errors, he can already diagnose what has gone wrong in Plato's Aviary. Plato describes two different ways of grasping an object of thought with the hope that he can thereby explain mistakes about objects of thought in the same way that, in the Wax Block analogy, perception explained mistakes about concrete particulars. These two different grasps, possessing a

knowledge-bird and having a knowledge bird, also appear in Aristotle as his distinction between merely potential knowledge that is not actualized in a present act of contemplation and knowledge that is actualized in that way.[15] Aristotle would not, however, be tempted to use this distinction to explain how one can misidentify an object of thought, because he recognizes that the two kinds of grasp are not different kinds of grasp *in the right way*. What one needs in order to explain false belief is a kind of grasp that is partial, as perception provides a merely partial grasp of concrete particulars in that it fixes them as distinct objects without specifying what kind of objects they are. But the distinction between potential knowledge, i.e "possessing knowledge", and actual knowledge, i.e. "having knowledge", is not a distinction between a partial grasp and a complete grasp. Rather, it is a distinction between a complete grasp that does not exist yet as an actual cognitive act but could, and a complete grasp that does presently exist in that way.[16] Moreover, this means that the merely potential grasp is not really a grasp in the fullest sense at all, because it is a *disposition* to act in a certain way and not an actual act of cognition. So potential knowledge fails to play a perception-like role in the Aviary

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[15] *De An.* II.5.417a22-b2. There is a difference in Plato's and Aristotle's terminology here that could be misleading to the unwary: Plato and Aristotle both speak of a person who "has knowledge", using the verb *echô*, but where Plato uses this verb just for the person who has actually grabbed hold of a bird, Aristotle uses it as well for a person who has knowledge, but only potentially — the kind of state which Plato characterizes as "possessing knowledge", using the verb *ktaomai*.

[16] Aristotle seems to recognize this clearly when he says that the transformation of a person from potentially to actively knowing should not be characterized as teaching (*De An.* II.5.417b9-12).

for two reasons: because it is potentially not a partial grasp but a complete one, and because as a potential grasp it is not yet really a grasp at all. Hence the only actual cognitive act described in Plato's Aviary is having knowledge, and that must include a complete grasp of its object. It is accordingly no surprise that this account fails to make sense of false belief about objects of thought.

But can Aristotle do better? As our diagnosis of Plato's mistake makes clear, what Aristotle needs to supply is some kind of genuine, actual act of cognition, and moreover an act of cognition which is of the right object, but which grasps that object in such a way that it ascribes the wrong predicates to it. How might Aristotle do this?

At this point we must return to a couple of passages we encountered in an earlier chapter, the discussion of the difference between true and false belief in *Post. An.* I.33, and Aristotle's treatment of Antisthenes' argument against false belief in *Met.* V.29. For convenience I reprint both texts here:

> Belief and knowledge are not of the same thing in every way, but just as true and false belief are of the same thing in a certain way, in the same way knowledge and belief are of the same thing. In fact, the way in which some say that true and false belief are of the same thing turns out to commit one to absurdities, e.g. that one who believes falsely does not believe at all. But since "the same thing" is said in many ways, in one way it is possible, while in another, not. For it is absurd to believe truly that the diagonal is commensurate; but because it is the same diameter which both beliefs involve, in this way they are of the same thing, though the essence with respect to the account is not the same for each. (*Post. An.* I.33.89a23-32)

> In one sense there is one account of each thing, the one of what a thing is essentially, but in another sense there are many accounts, since in a way the thing and the thing qualified are the same, e.g. Socrates and musical Socrates. (And a false account is not an account of anything in the unqualified sense.) Therefore

> Antisthenes held a simple-minded belief when he said that nothing is spoken of except by its proper account, one to one. From these things it turns out that there is no contradiction, and almost that there is no speaking falsely. But it is possible to speak of each thing not only by its own account, but also by the account of something else, and this may indeed be done entirely falsely, but it also may be done truly, as when eight is said to be a double number through the account of two. (*Metaph.* V.29.1024b29-1025a1)

In contradiction to Antisthenes, Aristotle claims that the person who believes that "All diagonals are incommensurate" and the person who believes that "All diagonals are commensurate" are both entertaining beliefs *about the same diagonals*, although one of the beliefs characterizes diagonals as they truly are, while the other does not. As we have seen, Antisthenes claims this is impossible because he thinks that two different statements must be about two different things; the statement "All diagonals are incommensurate" (and this statement alone) is about incommensurate diagonals, and likewise "All diagonals are commensurate" is about commensurate diagonals. Since they are about different objects, the two statements do not contradict one another. Moreover, since there are no commensurate diagonals, the second statement is not really about anything at all. And Plato will also join the attack on Aristotle's position here, though for a different reason. He will worry that, just as the person who thinks "5+7=11" is not really thinking of either 5, 7, or 11, the person who thinks "All diagonals are commensurate" is not really thinking of either diagonals or commensurability, for if he were he would not think diagonals are commensurate. The question is then how Aristotle can withstand these two criticisms: that false belief does not share its object with true belief, or indeed possess any object at all; and that one who ascribes predicates falsely to an object of thought is not really

thinking of that object at all.

Aristotle can begin by admitting that there is something to the criticisms, though that cannot be his full story. He says at 1024b29 that "In one sense there is one account of each thing, the one of what a thing is essentially", and thus there is something to what Antisthenes says; each thing really has only one *logos* by which one can talk about that thing in the fullest sense. If one wishes to talk about the universal "man", for instance, the only *logos* which is about "man" in the fullest sense is its definition, "bipedal animal". Aristotle says as well at 1024b31-2 that "a false account is not an account of anything in the unqualified sense", and this seems clearly to grant that there is a sense in which Antisthenes and Plato are right to be worried that false belief is belief about nothing at all. If a belief is false, there is nothing in reality which the false belief describes, nothing for the account to be definitional of.

But this is not all that Aristotle says. He also claims that "in another sense there are many accounts, since in a way the thing and the thing qualified are the same, e.g. Socrates and musical Socrates" (1024b29-31), and that "it is possible to speak of each thing not only by its own account, but also by the account of something else, and this may indeed be done entirely falsely, but it also may be done truly, as when eight is said to be a double number through the account of two" (1024b34-1025a1). Hence Antisthenes makes a mistake when he first considers two true beliefs, "Socrates is a bipedal animal" and "Socrates is pale", then assumes that in order for a belief to be distinct from other beliefs it must correspond to a unique object, and finally concludes that the two beliefs are

about two completely different things. Rather, both are about the same thing, Socrates, but one talks about Socrates by using his own proper account, while the other talks about him by using an account that is proper to something else — in this case, the account that is proper to "the pale". It happens to turn out this time that the predicates which make up the essence of "the pale" happen to be true of Socrates (though they are merely accidentally true of Socrates, while they are essentially true of "the pale"). Similarly, one may truly speak of "eight" as being "double", and so employ a predicate which is properly part of the definitional account not of "eight" but of "two" (1025a1).

The same can be said of false beliefs. We will never find an eight that is not a double, but it might well have turned out that "musical" was not true of Socrates. And just before the *Metaphysics* passage given above, Aristotle gives an example of a belief which can never be true: "A false account is an account of things that are not, insofar as it is false; therefore every account is false of anything besides that of which it is true, e.g. the account of "circle" is false concerning the triangle" (1024b26-8). The belief that "Triangles are figures whose constitutive points are equidistant from their centers" is false, but it is nonetheless a belief about triangles, and a false belief because the predicates which it ascribes to triangles are not predicates the triangles possess (or could possess); rather they are predicates which properly belong to circles, and make up "circle"'s proper account.

This theory supplies the ammunition needed to begin explaining what Aristotle thinks happens when someone believes "Diagonals are commensurate" or "5+7=11".

Aristotle says that the false belief of the person who mischaracterizes diagonals and the true belief of the person who characterizes them correctly are of the same thing, but "the essence with respect to the account is not the same for each" (89a32). Now we can understand him to be saying that both are thinking in some sense of the same object, diagonals, but *neither* of the two is thinking of the diagonal by its proper, definitional account (i.e. "a line drawn from corner to corner [of a rectilinear figure]"[17]); instead, each thinks of the diagonal by the proper account of something else, "the commensurate" or "the incommensurate". Because the predicates which define "incommensurate" really do apply (though not definitionally) to the diagonal — and those which define "commensurate" really do not apply — the belief that "Diagonals are incommensurate" is true, while the belief that "Diagonals are commensurate" is false. Similarly, a person who thinks that "5+7=11" thinks of "5+7", but does so by the proper account of 11, and so thinks something false.

So much for Antisthenes. Plato, however, is still waiting for Aristotle's response to his worry. So long as a person thinks something *true*, Plato will not have a problem with saying that that person can think of one thing by another thing's proper account. That seems to be just what one does when he grabs two birds in the Aviary, the "5+7" bird and the "12" bird. But he will demand a further explanation of the claim that someone who thinks something *false* thinks of a thing by another thing's proper account, for he will

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[17] *Prob.* XV.1.910b11.

question whether the person is really thinking of *either* thing. Aristotle must explain how a person who mischaracterizes the objects of his thought can still be thinking about those things.

He accomplishes this by showing that Plato has effectively made the same mistake that Antisthenes made. Antisthenes claimed that one cannot speak of a thing except by its proper, definitional account, and Plato makes the same claim about thought.[18] Because the only kind of active grasp of a cognitive object which Plato allows in his Aviary is total knowledge, whatever else one thinks about the object of thought that is grasped, one must think about it as well in the terms by which knowledge grasps it, i.e. by its essence. But then, if one cannot think anything about an object of thought at all without simultaneously thinking about the object's true essence, *of course* one could never think that that thing possesses some quality which is incompatible with the object's essence. But Plato is no more correct when he says that one can only think of a thing by its own proper account than Antisthenes is when he makes the analogous argument about speaking of a thing.

Still, Aristotle must explain how it is that one can think of an object of thought without thinking of that thing's proper account. Plato's birdkeeper could know what he was thinking about because he could not think about the thing without thinking of what made it that thing, its essence. What will identify an object of thought as the object it is, if its ultimate distinguishing characteristic, its essence, is absence from the thinking agent's

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[18] And thought, for Plato, just is a kind of internal speech; see *Theaet.* 189e-90a.

cognition?

It is here that experience, the intermediate cognitive state which Aristotle employed to dissolve the Meno Paradox, must make a reappearance. Just as experience makes learning possible by fixing the universal which unites a set of particulars as an object of cognition without explicitly cognizing the essential character that explains why those particulars are united, it makes error possible by fixing the universal as an object of thought without explicitly grasping it in such a way that the agent could not ascribe predicates to it which it could not possibly have. Take the case of happiness. An individual might meet a number of people whose lives are going well, and might eventually realize that there is something which all these people have in common, though he cannot yet say just what that common thing is. At this point he has only experience of happiness; he has an inarticulate grasp of the universal under which all the relevant particulars fall, and because of this he is aware of the existence of a problem to be solved, i.e. the universal to be articulated and the unity of the particulars to be explained. At this stage he can then give a name to the universal character he is trying to define — in this case, "happiness" — and begin seeking to make explicit what it is that unites the particulars that are joined in his experience under this name. But there is no guarantee that he will not make some wrong turns in the process. He might, for instance, notice that a lot of the people whose lives are going well are wealthy, and so come to believe that "Happiness is having a lot of valuable things". In such a case he would be thinking of one thing by the proper account of another, i.e. of happiness by the proper account of wealth. If he is not

too complacent with this definition, and looks around to see if this belief adequately captures the character that unites the particulars joined by his experience, he will probably find that there have been wealthy people whose lives did not go well (e.g. King Croesus of Lydia) and so give up his belief. But while he believed that happiness is wealth, his belief was still a belief about happiness, for, whether his cognition was false or true, it was always his experience of *this set of particulars* joined by *this (unarticulated) universal* that fixed the cognition's object.

Although it is difficult to know how to characterize the mathematical experience which makes it possible for one to ask how much 5+7 is,[19] it seems Aristotle can offer a similar treatment of Plato's "5+7=11". A person might have experience of the objects of arithmetic, i.e. units, and hence be able to grasp the nature of mathematical questions without having a grasp of the units so explicit and articulate that he could not make mistakes about them and their relationships. Thus he could, without internal contradiction, think of the combination of 5 and 7 by the proper account of 11, and so entertain a false belief about them.

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[19] Given how little Aristotle says about arithmetic (he seems to have preferred geometry and to have thought that arithmetic did not demand a strikingly different treatment) and the obscurity of what he does say, it is difficult to know how Aristotle would construct, for instance, the definition of "unit" or "indivisible" from which all familiar aithmetical truths like 5+7=11 are then to be derived. I cannot improve upon the treatment offered in Barnes (1985), which suggests that Aristotle would understand numbers as sets of ordinary, concrete individuals and addition as the union of these (disjoint) sets. The belief that 5+7=11 would then be equivalent to the belief that a set of individuals of such-and-such a size, when combined with a set of individuals of so-and-so a size, results in a set of individuals of yet another size.

This explanation of Type II errors also explains why Aristotle is committed to the infallibility of *nous* and the cognitive states derived from it. Both *nous* and false belief grasp the unity of particulars presented by experience, but they do so in different ways. False belief combines two objects of thought by using the proper account of one thing to describe something else. In other words, a false believer "says one thing of another", and if, when he believes *y* of *x*, the predicates which are included in the proper account of *y* are not truly possessed by *x*, he believes falsely. Thus, in the case of a person learning about happiness, one might think "Happiness is having a lot of financial resources", which is really just to think "This set of particulars which is united in my experience is united by the possession of a lot of financial resources". But whether this person realizes it or not, he has failed to talk about this set of particulars in the terms that truly unite it as that set. When *nous*, however, cognizes this same set, it does not cognize the set by any account but its own proper one, and grasps the set and its account as a unity. The person who achieves *nous* of happiness thinks, "This set of particulars which is united in my experience is unified by the fact that they have all achieved complete virtue and are adequately supplied with the external goods",[20] and in so doing characterizes the unity of particulars in a completely different way than belief does. Moreover, this kind of cognition is

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[20] See *NE* I.10.1101a14-16. Note that, since Aristotle believes that happiness does require some measure of wealth, the person who believes that "Happiness is wealth" errs not in ascribing riches to the happy, but in thinking that the riches by themselves constitute their happiness. This is clearly what we might think of as an "ethical" — as opposed to a "non-ethical" — mistake.

infallible for the same reasons that the bird-catcher's knowledge of the birds he grabs in Plato's Aviary is infallible. Both *nous* and the bird-catcher's knowledge cognize their object explicitly by its essence. And just as the bird-catcher already knows something when he grabs a single bird, similarly *nous* understands a single thing when it grasps that thing's essence, even though that grasp can be rendered as a proposition with a distinct subject and predicate. But since it is only when we combine our cognitions of two separate things that we can err, the person who grasps a single bird or cognizes a thing and its essence as a unity through *nous* cannot make an error.

We thus arrive at a theory of Type II errors which meets all of the criteria we laid out above. False belief is a kind of ignorance, but it is the right kind of ignorance, i.e. it is not a total failure to grasp anything at all. It possesses a partial grasp of a universal because of its connection to experience of that universal, but it does not explicitly possess a grasp of the universal through the universal's proper account. Hence it can ascribe predicates to the universal which it does not (or cannot) actually possess. Moreover, because in false belief one speaks of one thing by the proper account of another, thinking a false belief requires that one "say one thing of another", and accordingly produce a false combination of thoughts. And finally, we also have an explanation why *nous* is infallible while belief is not: *nous* does grasp its object by its proper account, and so does not, as false belief, say one thing of another; it grasps the universal class and its proper account in a single cognitive act which leaves no room for falsehood to creep in.

The introduction of *nous* to the picture also, however, raises a new problem, which

arises from Aristotle's characterization of our cognition of essences at *Met.* IX.10.1051b17-33):

> What, concerning incomposites, is being and non-being, and truth and falsehood? For such a thing is not composite, so that it is whenever it is compounded, but is not if it should be divided, as with the white wood and the incommensurate diagonal; nor do truth and falsehood apply in the same way in these cases. But just as truth is not the same in these cases, neither is being the same, but truth or falsehood is this: truth is being in contact and assertion (for assertion and affirmation are not the same[21]), and ignorance is not being in contact. (For it is not possible to be deceived concerning essence except in an incidental way; and similarly it is impossible to be deceived concerning incomposite substances. And they all exist in actuality, not potentially, for they would then come to be and pass away, but being itself does not come to be or pass away, for it would have to come to be from something. Concerning the things that are essences and actualities, it is not possible to be deceived, but rather one thinks them or not. But concerning these things, one inquires into the essence by seeking whether they are such-and-such or not.

Here we find reasserted the infallibility of *nous*, which is the cognition of essences which are indivisible or incomposite unities, but we get a new piece of information as well; not only is *nous* of an essence infallible, but there is no cognition of a thing's essence short of *nous*. In the case of an incomposite object, one either has direct contact with it, or one does not think about it at all. In other words, the only kind of ignorance which Aristotle allows for essences is the kind we described above as total ignorance, the utter failure to be cognitively connected to a thing at all. The kind of ignorance (indeed, for Aristotle, the

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[21] The best guide to Aristotle's meaning here is probably *De Int.* IV. 16b27 ff., where one can express *phasis* of terms but *kataphasis* of sentences. I suspect that the prefix *kata* is significant here, for as we have seen, Aristotle thinks that, unlike supposition generally, *nous* does not "say one thing of another" (*phasis ti kata tinos*). But, contra Ross, this does not mean that the non-compositional grasp of a term cannot be rendered as a proposition; one always grasps a term under a description.

genuine kind of ignorance) which involves a partial grasp of its object is thus ruled out for essences.

Some interpreters have not seen much to worry about in this position. Denyer, for instance, seems quite impressed with it:

> *Metaphysics* 1051b24-5 contributes a suggestive metaphor: getting a thing's essence right is getting in contact with the thing; and ignorance of its essence is just a failure to get into contact. The beauty of this is twofold. First, this metaphor allows for an objective difference between wisdom and ignorance about essences, even without allowing for false belief: the superiority of the wise over the ignorant will consist simply in the fact that the wise are in contact with more things. And second, this metaphor neatly combines the idea that ignorance is ignorance is ignorance, with the idea that not all ignorance is on a level: different people, none of whom is in contact with a thing, might not be equally distant from it; yet a miss is as good as a mile. (1991, p. 205)

And indeed, the metaphor does have these helpful features. But it also seems to bring the sort of difficulties which vexed Plato's Aviary back into Aristotle's theory, for it seems to suggest that, in the case of essences, one either grasps the thing so completely that there is no getting it wrong, or one does not grasp it at all. This does not, however, seem to reflect our experience of learning, for we can point to cases where we seem to grope our way slowly towards a final grasp of a thing's essence, and it does not seem true to say that we are not grasping anything at all until we achieve the final grasp. Indeed, Aristotle himself thinks that people can be wrong about what, for instance, happiness is, but surely they do not utterly fail to think about happiness at all.

How, then, are we to explain Aristotle's claim here that cognition of an essence is an all-or-nothing affair with his seeming commitment to gradual learning about essences?

Much depends upon the cognitive stage at which we say that contact with an essence occurs. If *nous* were the only form of cognition that gave the agent direct contact with an essence, then there would be no way around the problem; either one would have complete knowledge of the essence, or no grasp of it at all. Happily, though, we once again find that experience can play the all-important role of intermediate grasp. As we have seen, experience is the first grasp of the universal as such, and hence puts the agent in (unconscious) contact with the essence; otherwise, the experienced person would not be able to respond as successfully as she does in a practical setting (*Met.* I.1.981a12 ff.). The experienced person does not understand *why* the action that she takes in a given situation is the right one, but nevertheless her clear cognition *that* this is the right thing to do requires contact with the relevant universal (*Met.* I.1.981a24-b6, *Post. An.* II.8.93a21 ff.). Indeed, if experience did not supply a sort of contact with the essence, one would have no corrective by which to detect false accounts of the given universal as false; this is the very aspect of experience which fitted it to solve the Finish Line Problem. Admittedly, experience's contact with the essence does not yield *nous*' explicit grasp of the proper account, but it does fix the universal as the object of cognition, and make it possible for us to move toward that explicit grasp. (And again, if one did not have experience's implicit grasp, one would not be able to entertain false beliefs about the relevant universal at all.) Moreover, the process by which we undertake that movement from mere experience to explicit *nous* is just what we have already described above, i.e. the process of trying out various accounts of what unifies the particulars united by a universal essence until one

arrives at the proper account and grasps it as a unity through *nous* — the very process which Aristotle describes in this passage as "inquir[ing] into the essence by seeking whether they are such-and-such or not."

With this problem laid to rest, we thus arrive at an Aristotelian error theory which meets the criteria we laid out above:

— Both Type I and Type II errors consist in a kind of combination of objects of thought, and this false combination is possible because

— the partial grasp we have of an object when we err concerning that object fixes the object as an object of thought without explicitly characterizing it in ways contradictory to the characterization given in the errant cognition. In the most important case of Type II errors, it is experience that provides this partial grasp.

— Both the fallibility of fallible cognitive faculties and the infallibility of infallible ones make good sense given the way the error theory characterizes them, for the infallible faculties grasp their objects as a unity in a way that the fallible faculties do not.

— This account has the dual benefits of explaining both the senses in which Plato got things right in the *Theaetetus* and the ways in which he went astray.

— Finally, this account fits very nicely with the account of learning which we produced in the last chapter; both turn crucially on the cognitive role of

experience in fixing universals as objects of cognition without making their essences explicit.

And with this achievement, the project of the dissertation is complete.

CONCLUSION

Looking back over the whole of this project, the most salient results seem to be these:

There is a marked tendency in interpreters of Plato to treat the Meno Paradox as though it were merely a problem concerning how we manage to reach the right answers with respect to certain questions, most particularly those involving some object's essence or identity. (Other kinds of investigation are threatened too, but only because they depend crucially on the primary sort involving essence or identity.) It turns out that the Meno Paradox actually consists of two problems working in tandem and sharing a set of basic assumptions as a source. On the one hand we are threatened by the Starting Line Problem: if we have not already identified the object of our investigation *as* the appropriate object, we will not know how to begin the investigation. On the other hand we are threatened by the Finish Line Problem: if we have not already identified the object of our investigation *as* the appropriate object, we will not recognize that we have identified the object correctly if we should happen to find it. Both problems derive their force from Plato's basic assumptions about what recognition of an object *as* the object it is requires. A person who is totally ignorant of an object's identity is in no position to inquire into it, but a person who already knows an object's identity has no need to ask himself what the identity of that object is. But Plato does not adequately characterize some other way of grasping an object's identity which simultaneously fixes the object

unmistakably *as* the right object while still leaving room for the investigator to inquire into the nature of the object's identity or essence in any meaningful way. This inadequacy of Plato's account then generates the two problems described above; because it is difficult to see how one who does not already know the identity of his investigation's object may successfully complete two separate acts of recognition — (1) recognizing the appropriate object at the outset of the investigation on the basis of anything other than a complete specification of the object which makes the investigation pointless, and (2) recognizing the final achievement of the investigation's goal — we get both the Starting Line and Finish Line Problems. Furthermore, many contemporary accounts of the paradox are flawed by their tendency to deny the importance of the second act of recognition, i.e. the recognition that one now knows what one set out to know. In particular, the account offered by Fine and Irwin falls prey to this weakness; they employ true belief as the intermediate cognition of an object's identity in a way which solves the first problem, but not the second.

We find further evidence of Plato's commitment to his assumptions in the *Meno* about the cognition of objects' identities/essences when we turn to the passages concerning false belief in the *Theaetetus*. His difficulties in explaining how false belief (especially about the identity or nature of objects of thought) is possible spring, like the Meno Paradox, from his problematic assumption that one cannot think of an object at all without being able to identify that object in such a way that one could not possibly think of it as anything else than what it is. The Problem of False Belief thus turns out to be the reverse of the Meno Paradox's coin; both problems stand or fall on our ability to

characterize an intermediate epistemic grasp of a thing's identity/essence which is strong enough to fix the object as the right object while not so strong that it does not allow mistakes about the object or room for epistemic improvement.

The natural place to look for a solution to these problems, and most especially to the Meno Paradox, is, of course, the answer Plato himself gives in the *Meno* itself — the Theory of Recollection. On examination, however, it turns out that the example of recollection which Plato offers us there, i.e. the slave's geometry lesson, does not actually tell us how it is possible to successfully engage in the kind of investigation which most concerns us — investigations into identities or essences. Instead Plato shows us an investigation which begins with the object of the investigation already identified and at least partially grasped by the agent. If Plato then did something to explain the nature of this grasp we might be able to rest content, but at most the example shows *that* it is possible to conduct investigations successfully, not *how* such success is possible. The Theory of Recollection is therefore not a satisfactory reply to the Meno Paradox. Recollection may nevertheless be Plato's best shot at an answer to the paradox — after all, recollection appears in many other dialogues — but at most it denies the paradox's force; it does not earn a solution.

Plato's inadequate treatment of the paradox thus motivates a look at his successor, Aristotle, to see if he can do better. The obvious first place to look for an Aristotelian solution to the Meno Paradox is in his two explicit references to the *Meno* — the reference to the paradox itself in *Post. An.* I.1 and the reference to the Theory of

Recollection in *Pr. An.* II.21. Unfortunately, however, these direct references to the *Meno* are not much help in constructing an Aristotelian answer to the paradox. His target in these chapters is not the Meno Paradox but the Paradox of Knowing Universals, and thus his comments about the Meno Paradox itself are entirely unreliable as a guide to his true understanding of it. Likewise his mention of recollection is not so transparent on its own that we can safely mine it for evidence of Aristotle's true attitude toward recollection; the passage can only be adequately interpreted in light of a deeper understanding of Aristotle's epistemology and philosophy of mind garnered from consideration of many other passages.

This further examination can, however, be guided by the clear signposts which Aristotle erects to frame his theory of learning. Of particular interest in this respect is the fact that Aristotle shares much common ground with Plato, characterizing the endpoints of the spectrum of epistemic states — total ignorance and complete knowledge — very much as Plato does. Moreover, he accepts principles which give the Meno Paradox much of its force; he thinks that (intellectual) learning must proceed from earlier cognition, and that genuine learning must involve a genuine change of epistemic relationship between the agent and the object of cognition — i.e. one cannot learn about something one knows in the very same respect in which one knows it. He departs from Plato, though, in clearly rejecting the aspect of the Theory of Recollection that postulates the presence of the ultimate stages of human cognition from birth, and he also gives us in *Post. An.* II.19 a more detailed picture of the stages of cognition through which humans progress than

anything we find in Plato.

The accurate characterization of these stages provides the tools necessary to give Aristotle's ultimate response to the Meno Paradox and the Problem of False Belief. The first kind of human cognition, and the kind that provides the causal stimulus for all the rest, is perception. This faculty informs us explicitly only of the sensible characteristics of objects — proper sensibles like color and smell, and common sensibles like shape, magnitude, and duration — and as such does not classify its objects by anything but sensory kind, but it does give us our first contact with the particulars we will later cognize as instances of universals. As humans, however, we are able to store the information provided by the senses and use it in new ways via the closely related faculties of memory and imagination. Although these forms of cognition, like perception, do not cognize universals in any but an incidental sense, they nonetheless provide essential foundations for the proper cognition of universals in their own right, first by making it possible for us to compare our perceptions of individual instances of a universal in such a way that we can begin to recognize the similarities that unite the diverse particulars, and second by providing a mental representation of particulars which carries latent within it the intelligible form of the relevant universal which other, higher faculties may later cognize in itself.

The first sort of higher cognition which puts us in direct contact with the universal conveyed by imagination is experience. This form of cognition permits us to respond to particulars *as* instances of a universal, though we may not yet consciously realize just what

it is that we respond to as such. Experience cognizes explicitly only particulars, but nevertheless the experienced agent collects the appropriate particulars together and responds to them just as a knowledgeable person with a conscious grasp of the universal would. We may go on to explicitly grasp the universal by many forms of cognition, but belief and *nous* are uniquely important to Aristotle's developmental story. Both grasp the universal explicitly and *per se*, but they do not grasp it in the same way. Belief grasps the universal as a loose collection of separate predicates joined in thought, not distinguishing between the different ways in which essential and non-essential predicates hold of the universal. But *nous* grasps the properties which make up a universal's essence as a unity in a single, undivided act of the soul. It is at this stage that the agent finally grasps explicitly and consciously what in a sense he had already grasped unconsciously via experience, i.e. the unifying essence which explains why a given set of particulars are drawn together under a single universal. (And in this sense the achievement of *nous* of a universal can be said to be like recollection of what one already cognized through experience.)

These results make it possible for us to resolve the difficulties raised by the Meno Paradox and the Problem of False Belief. It turns out that the intermediate epistemic stage which fixes the relevant universal as an object of thought and investigation in its own right is experience, the unconscious grasp of a universal which allows us to respond to diverse instances of the universal *as* instances of some common kind. But because experience does not explicitly grasp just what it is about the particulars that makes it respond to them

as instances of a common kind, it still leaves a cognitive gap with respect to the grasp of the universal which can then be bridged by a process of investigation proceeding through the dialectical testing of beliefs and ending in the unified grasp of the universal's essence through *nous*. This developmental story solves the Starting Line Problem by explaining that experience makes us aware of a common character shared by a set of particulars which awaits further elucidation, and it solves the Finish Line Problem because *nous*' ultimate grasp of the universal can be recognized by the experienced agent as the very thing which he had sought as he considered what unified the particulars grouped together by his experience. And finally, experience also solves the Problem of False Belief because, in cognizing a set of particulars *as* a set unified in some as-yet-undeterminesd way, it makes the relevant universal an object of thought which is fixed not by the set of predicates ascribed to it but by the set of particulars whose shared character is under investigation. It is thus possible for the experienced agent to characterize the relevant universal by the wrong predicates and still be thinking about the right universal.

There is, of course, much more that could be said with respect to all of these topics, and I do not pretend to have explored all or indeed any of the essential elements of this story fully. Much work accordingly remains to be done. There are almost certainly other avenues of assault on the Meno Paradox available to Plato (I suspect in particular that the *Cratylus* may offer some resources in that regard) which I have not chosen to consider in this work, and all of the stages of Aristotelian cognition could easily support a

much more detailed analysis than I have afforded here. Moreover, the Meno Paradox's legacy does not end with Aristotle, and there is much of interest to be found in the responses of later philosophers in the Hellenistic tradition to the problems which the paradox poses. I hope to explore all of these areas further as my investigation of these topics continues. But I hope that the reader will have found the present work a useful outline of both the problems at the heart of the Meno Paradox and the ways in which possible solutions to these problems may fail or succeed.

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