range of a priori knowledge extends well beyond mathematics: Plato argues that there is a distinctive kind of a priori philosophical knowledge which takes as its subject matter objects akin to the objects of mathematics. He calls them Forms. Forms are to philosophy what numbers are to mathematics and shapes are to geometry. When we discover the relations between numbers, we discover something necessary and inalterable. So, too, when we learn that the interior angles of a triangle equal 180 degrees, we come to appreciate something which could not be other than it is. It is not a contingent or conventional fact about triangles that they have these sorts of features. In the same way, argues Plato, when we come to learn the nature of Justice or Beauty, we discover something about Justice itself which is not the product of convention, something which is not relative to a time or a place, something which cannot be other than it is. This claim is bound to surprise even Plato's most sympathetic readers. Our goal will be to introduce his motives and arguments for maintaining it. We will also begin, but only begin, the fascinating process of assessing the soundness of these arguments. If we are in the end persuaded that this process has been one well worth engaging, then we will have lent at least that much credence to Whitehead's reverential assessment of Plato's towering accomplishment.

3.1 From Socrates to Plato

Socrates professed analytical ignorance: he did not know the correct answers to the calls for analysis he initiated. Since his interlocutors regularly failed to illuminate him, Plato's Socratic dialogues characteristically end in an admission of failure punctuated by a cheery optimism to the effect that renewed philosophical effort might yet reap rich philosophical rewards. There is, however, no clear record of an agreed-upon success. In this sense, Plato's Socratic dialogues are primarily destructive, rather than constructive, even though nothing about the elenchtic method as such requires that they be so. Moreover, despite his clear and sophisticated criteria for analytical achievement, Socrates did not turn his attention to epistemology or metaphysics as special subjects in their own right. Instead, as Aristotle observes, Socrates concerned himself exclusively with moral qualities, focusing for the first time on their universal and definitional features.³ Plato, by contrast, again according to Aristotle, concerned himself with the whole of nature and with metaphysical matters left untouched by Socrates.

If we rely on Aristotle's judgment, as it seems reasonable to do,⁴ we can begin to differentiate the dialogues of Plato in which an effort is made to present the views of the historical Socrates from those in which Socrates features as a mere character dedicated to the expression of Plato's own positive theories. Although there are scholarly controversies about the relative datings of Plato's dialogues,⁵ it is reasonably easy, and relatively uncontroversial, to separate them thematically into the Socratic dialogues,⁶ which formed the basis of our discussions of Socrates, and the Platonic dialogues,

which themselves seem readily divisible into earlier and later periods. These Platonic dialogues are the sources of our investigation into Platonic philosophy.

Whatever our attitudes toward the relative datings of Plato's dialogues, we must be struck by an important shift in Socrates' self-presentation across the Platonic corpus. The Socrates we have met so far, the historical Socrates, professes his analytical ignorance. He is also agnostic about such important matters as post-mortem existence. Indeed, in his defense speech, Socrates claims directly that he does not know whether there is life after death. Even so, he can see that death is one of two things: nothingness, in which case it is not a harm; or a relocation of the soul from one place to another, in which case it is a positive blessing, since it will afford opportunity for pleasant conversation with such immortal poets as Homer and Hesiod.7 (We are left to imagine the Socratic elenchus with Homer on the topic of aretê!) This contrasts starkly with the Socrates of the Phaedo, who has a perfectly secure belief in post-mortem existence. Indeed, he retails proof after proof of the soul's immortality, each intended to establish beyond a reasonable doubt that earthly death is the separation of the soul from the body, and not the end of our existence. Assuming that the Socrates of the Phaedo now represents Plato's views rather than those of the historical Socrates, we can identify a first major Platonic departure from Socrates. Plato, unlike Socrates, has not only positive convictions, but is prepared to argue for them at length. He is not content to engage others in elenchtic investigation. Instead, he argues directly, in a constructive manner, for positive theses and theories which range widely beyond the moral matters of primary concern to Socrates.

In so doing, Plato also exhibits a willingness to engage the sorts of epistemological issues which invariably accompany metaphysical investigation, including those into the metaphysics of morality. Plato, unlike Socrates, is perfectly willing to offer an analysis of moral qualities, including most centrally the nature of justice, the main topic of his *Republic*, whose ancient subtitle was in fact *On Justice*. When he does, he presents himself as being familiar with the natures of essences or such qualities. Understandably, questions about his epistemic access to these natures never lag far behind. In general, when someone claims to know the nature of justice, or of virtue, or of right and wrong, or that the soul is immortal, or that relativism is false, an interested party will inquire of him *how* he knows what he claims to know. Since he never claimed such knowledge on his own behalf, Socrates did not face such questions. Plato, by contrast, must face them; and he does not shy away from engaging them when it is appropriate for him to do so.

3.2 Meno's paradox of inquiry; Plato's response

One of Plato's earliest and most noteworthy forays into epistemology occurs in a dialogue we have already encountered, the *Meno*. That dialogue begins with a paradigmatic Socratic elenchus. Socrates asks Meno what virtue is.

Under Socratic tutelage, Meno respects the univocity assumption, offers an analysis, and is promptly reduced to contradiction. Socrates, as is his manner, confesses his own ignorance and encourages a fresh start, in hopes of capturing their elusive analytical prey. 9 So much is standard Socratic fare.

Things take an unexpected turn when Meno abruptly refuses to play along. Instead, Meno raises an epistemological question unprecedented in the Socratic dialogues. There comes, all at once, a Platonic moment: Meno calls Socrates on his profession of ignorance by demanding to know how he can make progress toward a goal he cannot even recognize. How is it possible to seek out the analysis of virtue when the correct analysis is unknown to all of the parties of the discussion? Meno's question in one way recalls Xenophanes' complaint that even if we were to happen upon the whole of the truth, we would lack knowledge because even then we would have no way of knowing what it was that we had stumbled upon. 10 But Meno's question moves beyond Xenophanes, inasmuch as Meno is prepared to argue that inquiry as such is impossible by more elaborate means.

Meno's paradox of inquiry (MPI) takes the form of a simple dilemma:

For all x, either you know x or you do not.

If you know x, then inquiry into x is impossible, since you cannot inquire into what you already know.

If you do not know x, then inquiry into x is impossible, since you cannot inquire when you do not even know what to look for.

4 So, for any x, inquiry into x is impossible.

Meno's idea is simple enough. (MPI-1) seems to be a straightforward appeal to the principle of the excluded middle. (MPI-2) suggests sensibly that it is not possible to inquire into what is already known, provided that one knows all there is to know about the topic in question. I cannot, for, example, inquire into whether 2+2 = 4. I know that it does; there is nothing more for me to ascertain. (MPI-3) is a little less straightforward and so requires a bit more amplification. The idea is that it is not possible to inquire into something about which I know nothing. For example, if a completely uneducated person were asked what a cosine was, she would not even be able to choose between three possible answers: (1) a vessel in which bread consecrated for Holy Communion in religious ceremonies is kept; (2) the ratio of the length of a side adjacent to one of the acute angles in a right-angled triangle to the length of the hypotenuse; or (3) a special form of a national flag flown by military ships. In short, if we knew nothing at all, then inquiry would be impossible, since we would never know where to begin or to end.

Plato immediately characterizes (MPI) as an "eristic argument," or a "debater's argument," where the clear purport is that it rests upon some tricky fallacy. Surely he is right about that. As presented, (MPI) employs an equivocal sense of knowledge, since if (MPI-2) is to be true, knowledge must

mean know everything about, whereas if (MPI-3) is to be true, knowledge must mean know anything at all about. If we hold either one or the other of these meanings fixed, then (MPI-2) or (MPI-3) will be false and the argument unsound. If we understand knowledge differently in (MPI-2) and (MPI-3) so that each is true (or has a chance of being true), then (MPI-1) will no longer be an instance of the excluded middle, but will instead be false, since it will now read: for all x, either you know all about x or you do not know anything about x. Clearly, that is false, since there are plenty of things about which we have only partial knowledge. Equally clearly, then, Plato is right when he insists that his argument contains a slippery fallacy, one which will not

seduce anyone who reflects on it even briefly.1

Surprisingly, however, after noting that the argument is fallacious, Plato does not go on to expose the fallacy. Instead, he uses it as a launching pad for one of his most distinctive and notorious theses, the doctrine of recollection. Plato introduces this doctrine initially by citing the authority of poets and holy men and women, but then, in his characteristic fashion, offers an engaging argument in its defense. The doctrine of recollection consists of the following theses: (1) the soul is immortal; (2) there is nothing which the soul has not learned; and (3) what humans call learning is actually recollection. Thus, when we come to "learn" something, such as the nature of virtue, in fact what we are doing is prodding ourselves to dredge up knowledge already available to us, because it is already in our souls. If asked now to reproduce the Gettysburg Address, which I learned as a boy, I may have to struggle to piece it back together. If I am successful, then I have recollected it. I did not learn it all over again, even though, at first, I was unable simply to recite it. By analogy, if Meno wants to "learn" the nature of virtue, he needs only look within, to dig into what he in fact has available to him, and to jog his memory until he meets with success. Consequently, says Plato, we should pay no heed to the debater's argument (MPI). Instead, we should remain keen and energetic in our analytical quest.

Given the impetus for its introduction, it is difficult to know how to respond immediately to the doctrine of recollection. That impetus is an argument which Plato recognizes to be fallacious, (MPI), but whose fallacy he does not deign to display. Moreover, it is a fallacy whose exposure obviates the need for the introduction of a response with anything even vaguely approaching the metaphysical extravagance of the doctrine of recollection. To make matters worse, it is not even clear precisely how the doctrine of recollection, even granted in its entirety, responds to (MPI). It does not bring to light its debater's trick; it does not refute its conclusion directly; and it does not even seem directly to engage its terms. In a certain way, it seems even to grant its conclusion, since it evidently allows that what humans call learning is really something else, namely recollection, which is not the acquisition of new knowledge but the rekindling of the old. If that is right, then inquiry - if that is to be construed in terms of an attempt to discover what one does not know - really is pointless.

Presumably Plato is sensitive to this last point, since it is an open question as to what inquiry itself consists in. One component of Plato's doctrine of recollection, that there is a sense in which what seems to be learning in some cases is really rather an instance of accessing what is already available to us, may not be so extravagant after all. Indeed, one way to understand Plato's responding to (MPI) as he does, with the doctrine of recollection instead of with a curt exposure of Meno's equivocation, is to suppose that he sees a formidable point standing behind Meno's paradox. In any event, he would be right to do so, since Meno's paradox does admit of formulations to which Plato's doctrine of recollection would provide an appropriate response. One might well ask, in the spirit of (MPI), what sort of progress is possible in philosophical analysis. If philosophical analysis merely specifies the deep structure of a quality being analyzed, then, if correct, it merely displays that very property. If correct, that is, someone might contend that it merely tells us what is already known by us at some level, and so can hardly be informative. Yet even Socratic analysis seemed informative, at least in the minimal sense that it revealed to some that they did not know what they thought they knew. By the same token, if they had in fact known what they claimed to know, then they would have made no progress towards knowledge in the process of analysis. They would have learned nothing. To use Plato's metaphor, the best they could have done was to recollect what they already knew. So, maybe Meno has a point after all, that philosophical analysis of the sort practiced by Socrates and Plato is completely pointless and a real waste of time. Each episode of analysis is either unnecessary or incorrect.

In view of these sorts of concerns about analysis, Plato's argument for the doctrine of recollection, as opposed to his initial citation of poetic and religious authorities, has a legitimate claim to be heard. The argument is presented discursively, in the form of a dialogue with an unnamed slave who has never been trained in geometry but seems to contain within himself, in some manner of speaking, the answers to geometrical questions which initially stump him. When asked how to form a square twice the area of an original square ABCD, the slave makes two false starts, but eventually comes out with the correct answer. The square which is twice the area of ABCD is not the one whose sides are twice as long as those of ABCD, nor again is it the one whose sides are half again as long, but is rather the square based on the diagonal of ABCD. The slave thus has some success, although, Plato insists, the success cannot be attributed to what he has learned in this life. For, although he learned Greek, he has never studied geometry. The start of the start of the success cannot be attributed to what he has learned in this life. For, although he learned Greek, he has never studied geometry.

Plato infers on the basis of this presentation that "the truth about reality" is always in our souls and that the soul is immortal, the two most important components of the doctrine of recollection. As for the third, Plato points out that it does not much matter whether we call what we do learning or recollection, since what we want to do is to move toward clear and manifest knowledge in philosophical analysis, the sort of knowledge which can be

taught. ¹⁴ Already, however, one component of the doctrine of recollection, that the soul is immortal and has existed before its current incarnation, seems hardly established by the argument expressed in the slave passage. That argument is simply that since the slave never learned the truths in his soul during this life, he must have acquired them some time before he was born, which would entail that his soul enjoyed some form of pre-natal existence. Fairly clearly, the slave could have had the success he had without any such existence. He could, for example, simply have *a priori* knowledge regarding the truths of geometry; or perhaps such knowledge is simply innate. In either case, for some range of truths, justification is available to any rational creature willing to engage in disciplined reflection, with the result, as Plato says of the slave, that we can move from true belief to knowledge via a process of inquiry. ¹⁵

That result, however deflationary when set aside the full doctrine of recollection, commands considerable interest in its own right. For as Leibniz and some other later philosophers recognized, the slave passage carries within it an interesting and important argument for the existence of a priori knowledge. The argument is suggested in various ways in the passage, beginning with the kind of knowledge Plato selects for illustration. That kind of knowledge is knowledge of necessary truths, such as geometrical knowledge, a kind of knowledge Plato implicitly contrasts with the sort of contingent knowledge the slave manifests by speaking Greek. Although taken this way the slave passage suggests something modest by comparison with the doctrine of recollection, what it does suggest is something significant nonetheless, that knowledge of necessary truths, if we have it, cannot be justified a posteriori. That is, Plato seems to argue that for any proposition p, if p is necessary, then p can be known only a priori. This suggestion is really two-fold. First, if p is necessary, then it can be known a priori; and second, if b is necessary, it cannot be known in any way other than a priori. So, in this sense, if the slave knows the geometrical proposition that the square twice the area of an original square is the square formed on the diagonal of the original square, then he must know that proposition a priori.

Plato's reason for believing this claim is not obscure, however controversial it may since have become. The point is this: not only did the slave not learn geometry in this life, but he *could not* have grasped the necessity of the truths of geometry by appeal to sense perception. No matter how many figures he sees drawn in the sand by Socrates or anyone else, he will never be in a position to appreciate that the proposition he knows *must* be true unless he grasps something about the nature of squares themselves. The fact that p holds true of each representation of a square he has seen thus far does not, and cannot, by itself justify another claim, which the slave is also in a position to know, that p will, because it must, hold true of any square he might ever encounter. Since he does in fact know this, and could not know it a posteriori, the slave must know the geometrical proposition he knows a priori. There seems to be no point in denying that he knows it; so there seems to be

no point, Plato implies, in denying that he knows it *a priori*. If that is correct, then there is no point in denying that there is *a priori* knowledge. As Plato says later in the *Meno*, echoing the analysis of Xenophanes, knowledge is simply a true belief together with a rational account, where a rational account is one which provides the requisite form of justification. ¹⁶ If the slave passage is correct, however, Xenophanes was wrong in his ultimate skeptical conclusions: for some range of propositions, necessary propositions, justification is possible *a priori*.

3.3 Two functions of Plato's theory of Forms

Plato believes that the range of necessary propositions extends well beyond geometry, into moral and metaphysical matters which, as Socrates before him maintained, have immediate consequences for how we should conduct the business of our lives. Many people may be willing to follow Plato when he suggests that the truths of geometry are both necessary and known only a priori. 17 Still, many among them will hesitate when Plato appeals to a priori justification in morality. There are two motivations for such hesitation. The first derives from relativistic intuitions. Because Plato is a realist about value, he denies Protagoreanism and seeks to establish the existence of mind- and language-independent transcendent values which are apprehended by discerning minds but in no sense created or constituted by them. 18 The second motivation for hesitation is not relativism but skepticism, both about the existence of such values and about our epistemic access to them, should they exist. Again in virtue of his realism, Plato seeks to provide good reasons for believing that the values he posits ought to be accepted by anyone capable of appreciating the arguments he offers on their

Plato addresses both skeptical and relativistic concerns with his theory of Forms. He supposes that those who think that we have secure knowledge in such domains as mathematics and geometry are in an unstable position if at the same time they deny that we have such knowledge available to us in morality. For the objects of such knowledge are the same in both cases: they are precise, fixed, necessary, unchanging abstract objects which have all of their intrinsic properties essentially. Just as a genuine, abstract scalene triangle is perfectly scalene in a way in which no physical representation of a scalene triangle could ever be, so justice, taken itself on its own terms, alone and by itself, as Plato frequently says, is an ideal which just institutions and individuals approximate but never equal. If Plato is correct in postulating objects of knowledge in the realm of values corresponding to the sorts of objects many people accept in the domain of geometry, then he has a good reason for believing that relativism about value is indefensible. He will also, however, incur a special debt to skeptics, who will legitimately demand good arguments for the existence of such qualities, as well as some account of the epistemic access we are supposed to have to them. Unsurprisingly, Plato will argue that our knowledge of them is *a priori*.

3.4 Plato's rejection of relativism

If Plato is right, then Protagoras is wrong. ¹⁹ We have seen that Protagoras has a tidy response to skepticism about values: we know which things are good or bad, just or unjust, or beautiful or ugly, because each of these qualities is determined or constituted by our own attitudes. If I believe that the fourth movement of Mahler's Fourth Symphony is beautiful, then it is beautiful for me, and I have no difficulty knowing that; I need only consult my own attitudes. Similarly, if I believe that, all things considered, slavery is a just institution, then it is just for me, and there is no further question as to whether or not I might be mistaken. Here again there is little opening for the skeptic. Since I know how things seem to me, and I am aware that slavery seems just to me, I have no grounds for doubting that it is just for me. So, if Plato has a good reason for rejecting relativism, he loses whatever advantages relativism may offer in terms of its response to skepticism about value.

This is a price Plato is willing to pay, since he thinks that whatever its epistemological advantages, relativism is indefensible. His most developed criticism of relativism occurs in the *Theaetetus*, a dialogue which investigates the nature of knowledge. In a strikingly Socratic fashion, Plato poses a whatis-F-ness question, though not one about a moral quality. Instead, he wants to know: *What is knowledge?* In the course of the *Theaetetus*, Plato considers and rejects three proposed accounts of knowledge (epistêmê). The three definitions he considers are:

- 1 x is an instance of knowledge = $_{df} x$ is an instance of perception. ²⁰
- 2 x is an instance of knowledge = $\frac{1}{df}x$ is (a) a belief; and (b) x is true.²¹ and
 - 3 x is an instance of knowledge = $_{df} x$ is (a) a belief; (b) true; (c) accompanied by an account. 22

Plato finds all three of these analyses defective, with the result that the dialogue ends, again in Socratic fashion, aporetically.

Plato's response to Protagoras occurs in the context of his refutation of the first of these definitions, according to which knowledge just is perception. This definition may seem wholly unpromising; and, in fact, Plato has little trouble refuting it. Along the way, however, Plato rather surprisingly characterizes the suggestion that knowledge is perception as a bit of Protagoreanism, ²³ which in its turn is identified as of a piece with Heracleiteanism. ²⁴ This may seem a far stretch, but within the context of the *Theaetetus*, Plato's transformations seem fair enough. If knowledge is