Preface

The main line of reasoning in Descartes' *Meditations*[1] seems to fit a pattern familiar from Euclidean geometry: Descartes seems to begin from simple, self-evident propositions and to deduce the conclusions of the *Meditations* from those propositions in the way that Euclid deduces theorems from axioms and postulates. Descartes himself seems to suggest this "geometric" interpretation of his reasoning when, at the end of *Replies II,* he lays out the arguments of the *Meditations* "in the manner of a geometry" [*more geometrico*] (AT 7:160–70).[2]

Yet those who view Descartes as trying to move from self-evident axioms to certain conclusions through straightforward deductive reasoning face at least six problems:

First, there is the riddle of the Cogito. When Descartes tries to establish the certainty of "I am" in *Meditation II,* is he presenting that proposition as an axiom or as a theorem? If as an axiom, why does he frequently describe the movement from "I think" to "I am" as an inference? On the other hand, if he presents "I am" as a theorem, what exactly are the axioms from which he deduces it, why does he deem those axioms more certain than the propositions that he explicitly called into doubt in *Meditation I,* and how can it be that he takes the theorem "I am"—rather than the axioms from which he deduced that theorem—as the single "immovable point" on which he builds his system?

Second, there is Descartes' explicit avowal that his method is not the same as that used in geometry. Near the end of *Replies II* (AT 7:155–59), after carefully distinguishing "analytic method" from "synthetic method" and noting that traditional geometry follows the synthetic method, he states that, in the *Meditations,* his method was analytic. (While he does

go on to present some of the central arguments of the *Meditations* in "geometrical fashion" [AT 7:160–70], he does so reluctantly, cautioning that his synthetic presentation is not an adequate substitute for what happens in the *Meditations* themselves [AT 7:159].)

Third, there is the problem of explaining Descartes' insistence that he makes use of doubt to establish his conclusions. (See, for example, *The Search for Truth* [AT 2:522].) Although geometric proofs might go some way toward settling doubts, it's difficult, if not impossible, to see how doubt might contribute to those proofs.

Fourth, there is the problem of explaining why Descartes believed himself to be justified in taking such propositions as "There is at least as much reality in a cause as in its effect" as axioms when attempting to prove that God exists. Such premises don't seem any more obviously true than propositions like "2 + 3 = 5," but, in *Meditation I,* he insists that these simple propositions are subject to doubt and hence that he ought to treat them as if he knew them to be false. (If he takes himself to apprehend these premises clearly and distinctly, he might be able to justify his accepting them by appeal to the principle, established in *Meditation IV,* that whatever he clearly and distinctly apprehends is true. But, because he derived this principle directly from the claim that God exists, such a justification would apparently be unacceptably circular.)

Fifth, there is a problem of circularity concerning the reasoning in *Meditation V.* Apparently, having established "God exists" as a theorem in *Meditation III*, and having deduced the proposition "Whatever we clearly and distinctly apprehend is true" as a corollary of that theorem, Descartes uses that corollary in *Meditation V* as a premise of an argument to the conclusion that God exists. If the reasoning of the *Meditations* does fit the pattern of a formal geometry, it seems undeniable that he has committed the blunder of having deduced a theorem directly from itself.

Sixth, there is an overarching problem concerning Descartes' views on the certainty of mathematics and geometry. While he does say in *Meditation I* that the propositions of arithmetic and geometry are more certain than other propositions that he believes, he does not there say, or even suggest, that he is perfectly certain of their truth. On the contrary, in *Meditation I,* he explicitly demonstrates that he has grounds

for doubts concerning even these propositions, concluding that "*nothing that* [he] *used to believe is beyond legitimate doubt*" (AT 7:20). In *Meditation III,* he seems to use "2 + 3 = 5" as an example of a proposition of whose truth he is uncertain (AT 7:36), and in *Meditation V,* he says that, under certain circumstances, he can have doubts about the Euclidean theorem "The internal angles of a triangle equal two right angles" (AT 7:69). But, if Descartes views mathematics and geometry as themselves uncertain, why would he think that, by proceeding in a straightforwardly geometric manner, he could establish propositions of "first philosophy" with perfect certainty?

All six of these problems have the same origin: the assumption that Descartes attempts to become perfectly certain of propositions, such as "God exists," by garnering new and better support for those propositions. I will challenge that assumption. Descartes calls his beliefs into doubt in *Meditation I* by producing grounds for doubt concerning those beliefs. Regardless of the quantity or strength of the support that he can produce in favor of those beliefs, he cannot become perfectly certain of their truth until he somehow nullifies those grounds. Accordingly, his strategy in *Meditations I* through *IV* is not to *add* support for his beliefs such as "God exists," but to *subtract* grounds for doubt.

But is the thought that Descartes' method is subtractive incompatible with the view that his reasoning fits the geometric model? His grounds for doubt concerning the beliefs with which he begins the *Meditations* are provided by hypotheses that he considers in *Meditation I*—and apparently his method for refuting these hypotheses is to begin from self-evident axioms, deduce that a veracious God exists, and infer as a corollary that the doubt-producing hypotheses of *Meditation I* are false. Then can't we say both that Descartes proceeds in a geometric manner and that he becomes certain by subtracting grounds for doubt?

I think not. As I will argue, Descartes does not neutralize the doubt-producing hypotheses of *Meditation I* by showing them to be false. Rather, by constructing various arguments in *Meditations II* through *VI,* he tries to work himself into a position from which these hypotheses no longer make sense to him. The strategy seems counterintuitive because we generally expect continued study to expand the range of our understanding rather than to narrow it—but the strategy is, I will suggest,

acceptable. A hypothesis can serve as grounds for doubt only if it seems coherent, and clarification of concepts can sometimes reveal to us that hypotheses that once seemed plausible are in fact nonsense.

That Descartes adopted this strategy is revealed, I will argue, by what he writes in the *Meditations*. In part, however, my case for the subtractive interpretation will be philosophical rather then textual. If we accept the usual interpretation of *Meditations,* we must view the problems that I have sketched as unsolvable—and we must therefore view Descartes' strategy as fundamentally flawed. On the other hand, as I will show, if we take the reasoning of the *Meditations* to be aimed at revealing the incoherence (rather than the falsity) of various doubt-producing hypotheses, the strategic knots that I have outlined—including the problems of circularity—loosen.

To lay the foundation for the explication of Descartes' strategy, I will offer analyses of two notions of doubt and outline Descartes' reasons for saying that he has grounds for doubt concerning each of his beliefs (Chapter 1). Next I will examine the aim that Descartes sets for himself in the *Meditations*: perfect certainty (Chapter 2). Descartes insists that, to attain this end, he must isolate himself from the influence of his previous beliefs, and he therefore begins writing in a fictitious voice—the voice of someone who has the same experiences as he does and regards the same reasoning as valid, but who believes that he is dreaming and that his mind is the product of an evil demon. For convenience, I will view this voice as belonging to someone distinct from Descartes, whom I will call the Demon's Advocate (Chapter 3). Descartes' primary rule of method early in the *Meditations* is, I will argue, to accept a proposition into his system of belief if and only if he can convince the Advocate of its truth.

For purposes of convincing the Demon's Advocate, straightforward argument would be useless. If Descartes were to construct a compelling argument to the conclusion that $2 + 3 = 5$, for example, the Advocate would have an easy reply. "In view of your argument," he might say to Descartes, "it seems undeniably true to me that $2 + 3 = 5$. But my mind is so poorly designed that what seems most obviously true to me is in fact false. So the proposition '$2 + 3 = 5$' must be false." Understandably, faced with the possibility of such a reply, Descartes wonders whether he will be able to convince the Demon's Advocate of anything. But, early in

Meditation II, he does find a way to convince the Advocate of the truth of the proposition "I am" (Chapter 4). As I will show, although this way does involve Descartes' inferring "I am" from the doubt-producing hypotheses of *Meditation I,* he performs this inference to reveal a relation of entailment between propositions, not to prove that "I am" is true in the usual sense of *prove.*

Just as Descartes does not offer the argument of *Meditation II* to provide confirmation for the proposition "I am," he does not construct the theological arguments of *Meditation III* to demonstrate the truth of the proposition "God exists." On the interpretation of these arguments that I will offer (Chapters 5 and 6), their function is to compel our Wills to affirm the proposition "God exists," thereby leaving us unable to entertain various doubt-producing hypotheses. (At the end of Chapter 6, I will reply to the objection that, if I were right about this, the program of the *Meditations* would amount to nothing more than psychological trickery.)

Armed with the reasoning of *Meditation III,* Descartes thinks that he can deprive the Demon's Advocate of one of his foundational beliefs—namely, the belief that his mind is the product of an evil demon. For this reason, after *Meditation IV,* the primary rule of Descartes' method changes from "Accept a proposition into your system of belief if and only if you can convince the Demon's Advocate of its truth" to "Accept a proposition into your system of belief if and only if you clearly and distinctly apprehend it" (Chapter 7). Descartes' first application of this rule, which occurs in *Meditation V,* has to do with the proposition "God exists" (Chapter 8). As I will argue, although Descartes establishes this rule because he believes that God exists, his application of the rule to the proposition "God exists" does not involve him in circular reasoning.

Finally, I will look at the central arguments of *Meditation VI.* An investigation of Descartes' argument for mind-body dualism (Chapter 9) will show that the device of the Demon's Advocate is at work even at this late stage of the project, and an examination of his "proof" of the existence of physical objects (Chapter 10) will reveal how he tries, without entirely abandoning his initial aims, to set the method of the *Meditations* aside and return to commonplace standards of evidence.