



epistemic appraisal" and the terms of "metaphysical epistemic appraisal". In the first group are "practical knowledge", "practical certainty", and "practical doubt". In the second group are "metaphysical knowledge", "metaphysical certainty", and "metaphysical doubt".

Descartes alludes to these distinctions in several places, but rarely states them in explicit form. One passage in which they come out quite clearly is this one from the *Replies to the Fifth Objections*:

But we must note the distinction emphasized by me in various passages, between the practical activities of our life and an enquiry into truth; for when it is a case of regulating our life, it would assuredly be stupid not to trust the senses, and those sceptics were quite ridiculous who so neglected human affairs that they had to be preserved by their friends from tumbling down precipices. It was for this reason that somewhere I announced that no one in his sound mind seriously doubted about such matters; but when we raise an enquiry into what is the surest knowledge which the human mind can obtain, it is clearly unreasonable to refuse to treat them as doubtful, may even to reject them as false, so as to allow us to become aware that certain other things, which cannot be thus rejected, are for this very reason more certain, and in actual truth better known by us.<sup>3</sup>

In this passage, Descartes distinguishes between two sorts of activity. On the one hand there are the practical affairs of life – on the other hand there is something called "enquiry into truth". Descartes points out that some propositions are sufficiently certain to be accepted for activities of the first kind. He suggests, somewhat misleadingly, that these propositions are beyond "serious doubt". I think it is misleading to say that they are beyond serious doubt, since putting it this way suggests that any other sort of doubt to which they may yet be open must be non-serious, or frivolous – and that certainly was not Descartes' view. Thus, I think it might be better to say that if a proposition is sufficiently certain to be accepted for practical purposes, then it is "beyond practical doubt". Another way to put this would be to say that it is "practically certain".

In the second part of the quoted passage, Descartes goes on to say that some propositions, while sufficiently certain for practical affairs, are nevertheless not sufficiently certain for the purposes of "an enquiry into truth". They are open to doubts of a more stringent kind. Thus, when we are raising such an enquiry, we should treat them as doubtful. Let us say that such propositions are open to "metaphysical doubt". They are "metaphysically uncertain". Descartes suggests that when we notice that some propositions are thus open to metaphysical doubt, we may become aware that some others are "more certain" and "better known". These

propositions, I believe, may be described as being "metaphysically certain". They are "beyond metaphysical doubt".

Another helpful passage is the one in the *Replies to the Seventh Objections*, where Descartes responds to the suggestion that no one can doubt everything he formerly believed. The reasons for doubting, it was alleged, are insufficiently persuasive. But Descartes maintains that such doubt is possible:

... because there the question was about only that supreme kind of doubt which, I have insisted, is metaphysical, hyperbolic and not to be transferred to the sphere of the practical needs of life by any means. It was of this doubt also that I said that the very least ground of suspicion was a sufficient reason for causing it.<sup>4</sup>

In this passage, Descartes seems to be acknowledging that he has not shown that all of his former beliefs are open to practical doubt. For all he has said, they may be practically certain. However, he wants to maintain that these propositions are nevertheless open to metaphysical doubt, and hence are not metaphysically certain. Apparently, he is satisfied if he can show that they are all doubtful in this way. Descartes suggests that a proposition is metaphysically uncertain, or doubtful, if there is even the "very least ground of suspicion" against it. This suggests that most ordinary beliefs are metaphysically uncertain.

These distinctions also come out rather clearly in the passages in which Descartes discusses the atheistic geometer. The authors of the *Second Objections* claim that Descartes is committed to the view that an atheist cannot know that the three angles of a triangle are equal to two right angles. Descartes replies, however, that his views do not commit him to that implausible position:

That an atheist can know clearly that the three angles of a triangle are equal to two right angles, I do not deny. I merely affirm that, on the other hand, such knowledge on his part cannot constitute true science because no knowledge that can be rendered doubtful should be called science. Since he is, as supposed, an Atheist, he cannot be sure that he is not deceived in the things that seem most evident to him, as has been sufficiently shown...<sup>5</sup>

We can understand Descartes to be relying here on a distinction between two sorts of knowledge – one of which is the ordinary sort of knowledge that even an atheist can have, and the other of which is "true science". Elsewhere he uses other terminology to mark the distinction, and I have chosen to call the former sort of knowledge "practical" and the latter "metaphysical".

This distinction can be elucidated by relating it to the distinctions between practical and metaphysical certainty and doubt. We can say that if a man has practical knowledge of a proposition, then he must have practical certainty with respect to it, and it must be beyond practical doubt for him. If he has "true science", or metaphysical knowledge of a proposition, then he must have metaphysical certainty with respect to it, and it must be beyond metaphysical doubt for him. However, practical knowledge does not entail metaphysical certainty, and so a man can have practical knowledge of a proposition, even though he does not have metaphysical certainty with respect to it, and it is not beyond metaphysical doubt for him.

Descartes' view about the atheistic geometer seems to be this. The atheistic geometer does have practical knowledge, and hence practical certainty, of the fact that the angles of a triangle are equal to two right angles. Perhaps his certainty derives from the fact that he has intuited this fact about triangles clearly and distinctly. However, the atheistic geometer does not know very much about God's nature. From his point of view, though he doesn't believe it, there might be a deceptive God. If he should gain some reason to believe that there is such a God, then the justification for his belief in the geometrical fact would be undermined. Hence, although his justification is not in fact undermined in this way, it is not as secure as it might be. The atheistic geometer, therefore, does not have metaphysical certainty, or metaphysical knowledge, of the fact that the angles of a triangle are equal to two right angles.

Let us consider these epistemic concepts in greater detail. As I see it, the fundamental concept of practical epistemic appraisal is the concept of practical certainty. Although I will not offer a definition of this term<sup>6</sup>, I can say a few things that may serve to make its meaning clearer. To say that a proposition,  $p$ , is a practical certainty for a person,  $S$ , at a time,  $t$ , is to say, roughly, that  $S$  is justified in believing  $p$  at  $t$ , or that  $S$  has the "epistemic right" to believe  $p$  at  $t$ , or that  $p$  is either self-evident or adequately evidenced for  $S$  at  $t$ .

There are several points to notice about practical certainty. Foremost among these is that this is a purely epistemic concept, and not a psychological one. To say that  $p$  is a practical certainty for  $S$  at  $t$  is not to say anything about how  $S$  feels about  $p$  at  $t$ .  $S$  may feel certain that  $p$  is true, or he may not. Either psychological attitude is compatible with  $p$ 's

being a practical certainty for  $S$  at  $t$ . To say that  $p$  is a practical certainty for  $S$  is to say something strictly about  $p$ 's epistemic status for  $S$ .

In thus making practical certainty a purely epistemic concept, I believe I may be drawing out only one aspect of Descartes' concept of certainty. In his discussions of certainty he sometimes suggests that this concept has a psychological component. For example, he sometimes writes as if a proposition is certain for  $S$  only if  $S$  is unable to doubt it. But surely one may be psychologically able to doubt a proposition even though he has adequate evidence for it. It appears, then, that the psychological ability to doubt a proposition has little bearing on the central question of whether or not one is warranted in believing it. Thus, I think Descartes would have done better if he had more clearly separated the psychological from the epistemic aspects of his concept of certainty.

Secondly, it is quite important to appreciate the fact that practical certainty is certainty of a degree no greater than is required for ordinary knowledge. One does not need any special insight, or rare talent, to gain practical certainty. Anyone who knows anything (in the ordinary sense of 'knows') has practical certainty with respect to whatever it is he knows.

A third point about practical certainty is that there needn't be anything especially "practical" about every practical certainty. If a man has counted the pebbles in a bucket, he may be justified in believing that there are one thousand of them there. Although the proposition that there are one thousand pebbles in the bucket would then be, in my terminology, a practical certainty for him, it may nevertheless have absolutely no practical value for him. It may be an utterly useless bit of knowledge. I use this terminology because Descartes describes this kind of certainty as the kind of certainty that is required for practical affairs.

Assuming, now, that the concept of practical certainty is fairly clear, we can go on to introduce some related concepts of practical epistemic appraisal:

- (1)  $p$  is a practical possibility for  $S$  at  $t =_d \neg p$  is not a practical certainty for  $S$  at  $t$ .
- (2)  $p$  is a practical impossibility for  $S$  at  $t =_d \neg p$  is a practical certainty for  $S$  at  $t$ .
- (3)  $p$  is a practical uncertainty for  $S$  at  $t =_d p$  is not a practical certainty for  $S$  at  $t$ .

These concepts fall into the normal square of opposition, so that practical certainty entails practical possibility; practical impossibility entails practical uncertainty; practical certainty and practical uncertainty are contradictories; practical impossibility and practical possibility are contraries; practical certainty and practical impossibility are contraries; and practical possibility and practical uncertainty are subcontraries.

The concept of practical doubt can be related rather neatly to the concept of practical certainty. To say that a proposition is "practically doubtful" for a person at a time is to say that it is then practically uncertain for him. To say that it is "beyond practical doubt" for him is to say that it is practically certain for him. Understood in this way, practical doubt is not a feeling. Admittedly, to understand practical doubt in this purely epistemic way may be to draw out only one aspect of the Cartesian concept of doubt.

The concept of practical possibility, defined in (1), will play an important role in my argument. I believe that this concept is a fairly familiar one, often called "epistemic possibility". We make use of this concept frequently. We might say, for example, of a suspect in an as yet unsolved murder case, that he might be guilty. This is not to say either that it is logically possible, or that it is causally possible that he is guilty. For the former is utterly uninteresting, and the latter is something that we may be in no position to affirm. Rather, it is to say that "for all we know" he is guilty. We are not certain that he is not guilty. In my terminology, we could say that it is a practical possibility for us that he is guilty.<sup>7</sup>

Under appropriate conditions, practical certainty can be "transferred" from one proposition to another. I do not want to say that entailment by itself is sufficient for this transfer. That is, I reject this principle:

- (4) If  $p$  is a practical certainty for  $S$  at  $t$ , and  $p$  entails  $q$ , then  $q$  is a practical certainty for  $S$  at  $t$ .

One problem with (4) is that it makes a practical certainty of everything entailed by a practical certainty, even if  $S$  fails to see the entailment. From this it follows that every necessary truth is practically certain for anyone who is practically certain of anything. This seems implausible.

Descartes discusses a closely related issue in the *Rules for the Direction of the Mind*, where he suggests that a person knows something "by deduction" when he comes to believe it as a result of a "necessary inference

from other facts that are known with certainty".<sup>8</sup> Descartes apparently means to suggest that a person gains "knowledge by deduction" only if several conditions are fulfilled. For one, he must have "certain knowledge" of the premises. For another, he must make a "necessary inference" from these premises to the conclusion. In this connection, Descartes makes several references to what he calls "a continuous and uninterrupted movement of thought" from the clear and distinct perception of the premises to the clear and distinct perception of the conclusion.<sup>9</sup> In light of this, perhaps we can say that, in a rather strong Cartesian sense,  $S$  infers  $q$  from  $p$  if and only if  $S$  proceeds, by a "continuous and uninterrupted movement of thought" from the clear and distinct perception of  $p$  to the clear and distinct perception of  $q$ . Using 'infers' in this way, I propose the following principle for the transfer of practical certainty:

- (5) If  $p$  is a practical certainty for  $S$  at  $t$ , and the proposition that  $p$  entails  $q$  is a practical certainty for  $S$  at  $t$ , and  $S$  infers  $q$  from  $p$  at  $t$ , then  $q$  is a practical certainty for  $S$  at  $t$ .

Thus we can say that one can enlarge the sphere of his practical certainty by the careful use of suitable deductive arguments. Other methods, of course, are also available, but I shall not attempt to describe them here.

Now let us turn to the concepts of metaphysical epistemic appraisal. The fundamental concept here is " $p$  is a metaphysical certainty for  $S$  at  $t$ ". Roughly, to say that a proposition is a metaphysical certainty for a person is to say that it is absolutely certain for him – beyond even the most hyperbolic doubt. Not even the "very least ground of suspicion" can be found against it. A proposition is a metaphysical certainty for a person at a time only if he is then "maximally justified" in believing it. The requirements for metaphysical certainty are thus of the same kind as, but considerably more stringent than, the requirements for practical certainty.

As in the case of the concept of practical certainty, it should perhaps be mentioned that the concept of metaphysical certainty is an epistemic concept, and not a psychological one. When we say that a proposition is a metaphysical certainty for a person, we are not saying how firmly convinced he is of it. Rather, we are saying, roughly, that he is justified in believing it, and could not be more justified in believing anything than he is in believing it.<sup>10</sup>

For most of us, not many of our beliefs are metaphysical certainties. One's evidence must be extraordinarily good in order for one to have metaphysical certainty of a typical empirical proposition. Furthermore, the evidence must be "untainted" – there can be no unaccounted for bits of conflicting evidence. Thus, metaphysical certainty is rarer, and more difficult to obtain than practical certainty.

Finally, metaphysical certainties need not have any especially "metaphysical" content. Given that one has sufficiently strong evidence for it, one can be metaphysically certain of just about any proposition.

Assuming, now, that the concept of metaphysical certainty is fairly clear, we can introduce some other terms of metaphysical epistemic appraisal:

- (6)  $p$  is a metaphysical possibility for  $S$  at  $t = d_t$  –  $p$  is not a metaphysical certainty for  $S$  at  $t$ .
- (7)  $p$  is a metaphysical impossibility for  $S$  at  $t = d_t$  –  $p$  is a metaphysical certainty for  $S$  at  $t$ .
- (8)  $p$  is a metaphysical uncertainty for  $S$  at  $t = d_t$  –  $p$  is not a metaphysical certainty for  $S$  at  $t$ .

These concepts also fall into a standard square of opposition, and definition (6) also captures a concept of epistemic possibility.

Next we can introduce and define some concepts of metaphysical doubt. To say that  $p$  is metaphysically doubtful for  $S$  at  $t$  is to say that  $p$  is a metaphysical uncertainty for  $S$  at  $t$ . Descartes sometimes says that such propositions are open to "hyperbolic" doubt. On the other hand, a metaphysical certainty is "beyond metaphysical doubt" – there is absolutely no good reason to doubt it.<sup>11</sup>

Now let us consider two important connections between the concepts of practical epistemic appraisal and the concepts of metaphysical epistemic appraisal. In the first place, metaphysical certainty entails practical certainty, but not vice versa. Thus, the set of propositions that are metaphysical certainties for a person at a time is a subset of the set of propositions that are practical certainties for him then. This entails corresponding principles about the relations among the other terms of practical and metaphysical epistemic appraisal. For example, it entails that practical uncertainty entails metaphysical uncertainty, and that practical possibility entails metaphysical possibility.

The second important connection has to do with one of the ways in which one proposition casts doubt on another. Descartes holds that a given proposition does not have to be certain in order to make another uncertain. I take this to mean that even if  $p$  is only a practical possibility, and not at all a practical certainty, it can still suffice to make  $q$  a metaphysical uncertainty. An example of this sort of case is given, once again, by the atheistic geometer. Since he does not have practical certainty that a deceptive God does not exist, it is a practical possibility for him that one does. Furthermore, if he did have practical certainty of the existence of a deceptive God, then his clear and distinct perception that the angles of a triangle are equal to two right angles would be, from an epistemic point of view, worthless. For in that case, the practical certainty of the proposition that God is a deceiver would "defeat" or "neutralize" the evidence for the proposition that the angles of a triangle are equal to two right angles. He would no longer, in that case, have practical certainty of this latter proposition.

Perhaps we can understand this relation better by reflecting on the epistemic effect of adding the proposition that God is a deceiver to the evidence the geometer has for his belief in the proposition,  $r$ , that the angles of a triangle are equal to two right angles. There is a set of propositions,  $E$ , that constitutes the evidence upon which the geometer bases his belief in  $r$ . Every member of  $E$  is a practical certainty for him, and their conjunction is sufficient to justify his belief in  $r$ , thus making  $r$  a practical certainty for him, too. But if  $d$ , the proposition that God is a deceiver, were added to  $E$ , then the conjunction of  $d$  and the members of  $E$  would no longer be sufficient to make  $r$  a practical certainty for the geometer. This is so because  $d$  says, in effect, that God is able and willing to make propositions like  $r$  false even when evidence like  $E$  is true. The more reason one has to believe in  $d$ , the less reason he has to believe in  $r$ .

This is not the place to attempt to analyse the concept of epistemic defeat. Rather, I shall hope that, for present purposes at any rate, this concept is sufficiently clear.<sup>12</sup> The following principle is supposed to explain how a given proposition is made metaphysically uncertain by another proposition that is practically possible:

- (9)  $p$  is a metaphysical uncertainty for  $S$  at  $t$  if and only if there is a proposition,  $q$ , such that (i)  $q$  is a practical possibility for  $S$

at  $t$ ; and (ii) if  $q$  were a practical certainty for  $S$  at  $t$ , that would defeat the practical certainty of  $p$  for  $S$  at  $t$ , thus making  $p$  a practical uncertainty for  $S$  at  $t$ .

Let us say that  $q$  "casts metaphysical doubt" on  $p$  for  $S$  at  $t$  if and only if  $q$  is a practical possibility for  $S$  at  $t$ , and is such that if it were a practical certainty for  $S$  at  $t$ , that would defeat the practical certainty of  $p$  for  $S$  at  $t$ , thereby making  $p$  a practical uncertainty for  $S$  at  $t$ .

Some may feel that (9) doesn't go far enough. Why not allow that a proposition that is merely a *metaphysical* possibility can suffice to put another into doubt? There are several reasons for framing the principle as I have, and requiring that a proposition can cast metaphysical doubt only if it is a practical possibility. In the first place, Descartes says that reasons for doubt must be 'powerful and maturely considered'<sup>13</sup> and that doubt must be based upon 'clear and assured reasonings'<sup>14</sup>. It seems unlikely that something that is practically impossible could count as a powerful and maturely considered reason for doubt, or that one could legitimately call it a clear and assured reason for doubt. Further textual support can be derived from the passage at the end of the *Fifth Meditation* in which Descartes suggests that when a proposition is no longer a practical possibility, it is no longer able to cast metaphysical doubt.<sup>15</sup> Thus, there is textual support for the inclusion of clause (i) in principle (9).

A further reason for framing the principle in this way is that, by so doing, we help to provide a conceptual framework within which a solution to the problem at hand may be found. Now let us turn to a consideration of that problem.

2. Perhaps the clearest way of presenting my view is to contrast Descartes' epistemic state prior to his proofs of the existence and veracity of God with his epistemic state afterward. In a passage of obvious importance, Descartes describes his earlier state as follows:

But when I took anything very simple and easy in the sphere of arithmetic or geometry into consideration, e.g. that two and three together made five, and other things of the sort, were not these present to my mind so clearly as to enable me to affirm that they were true? Certainly if I judged that since such matters could be doubted, this would not have been so for any other reason than that it came into my mind that perhaps a God might have endowed me with such a nature that I may have been deceived even concerning things which seemed to me most manifest. But every time that this precon-

ceived opinion of the sovereign power of a God presents itself to my thought, I am constrained to confess that it is easy to Him, if He wishes it, to cause me to err, even in matters in which I believe myself to have the best evidence.<sup>16</sup>

As I understand him, what Descartes is suggesting is that prior to the time at which he comes to know of God's existence and nature, there is just one main reason to doubt his clear and distinct perceptions.<sup>17</sup> That is the proposition that God is a deceiver. In my terminology, Descartes' point can be put by saying that prior to the time at which he comes to a satisfactory understanding of the arguments given in the *Third* and *Fourth Meditation*, the proposition that there is a deceptive God casts metaphysical doubt for him on the proposition that two plus three equals five, as well as upon other clearly and distinctly perceived propositions.

I believe that Descartes' point is in part well taken. He is right, I believe, to say that the proposition that God is a deceiver casts metaphysical doubt on many of his clear and distinct perceptions. However, it is not so clear that he is right to assume that no other proposition casts similar doubt. Let us consider why the proposition that God is a deceiver casts metaphysical doubt on some of Descartes' clear and distinct perceptions prior to the proofs.

Since Descartes' understanding of God's nature is, at the time in question, still somewhat rudimentary, he is not yet certain that God is not a deceiver. Hence, the proposition that God is a deceiver is then a practical possibility for Descartes. Furthermore, if it were a practical certainty for Descartes that God is a deceiver, then it would not be a practical certainty for him that two plus three is five. For no matter how clearly and distinctly one may see this latter proposition to be true, such evidence is surely worthless if he also has good reason to believe that there is an omnipotent and deceptive God. This is not to suggest that if Descartes were practically certain that God is a deceiver, then he would be practically certain that two plus three is not five. Rather, the evidence that in fact points toward the truth of the proposition that two plus three is five would be defeated, or neutralized. It would no longer point very decisively in any direction.

Thus, prior to the proof of the existence of a veracious God, the proposition that God is a deceiver casts metaphysical doubt on the proposition that two plus three equals five. This follows from principle (9) and the facts that (i) it is a practical possibility for Descartes that God is a deceiver;

and (ii) if it were a practical certainty for Descartes that God is a deceiver, then the practical certainty of this proposition would defeat the practical certainty of the proposition that two plus three equals five, and so this latter proposition would be a practical uncertainty for him. Thus, the proposition that two plus three equals five is a metaphysical uncertainty for Descartes prior to the proofs of the existence and veracity of God.

We can now see why even a simple and obvious truth, such as that two plus three equals five is, in a sense, uncertain. But it is important to notice that it is uncertain only in the sense of being *metaphysically* uncertain. It does not follow from the fact that something casts metaphysical doubt on a proposition that the proposition is a *practical* uncertainty. Thus, Descartes can consistently say that such propositions are 'in some measure doubtful, as I have shown, and at the same time highly probable, so that there is much more reason to believe in than to deny them.'<sup>18</sup> In my terminology, what Descartes means is that such propositions are metaphysically uncertain, but nevertheless still practically certain.

What is true of the proposition that two plus three equals five is also true of a great many other propositions. Many propositions that Descartes sees clearly and distinctly to be true are, prior to the proof of the existence of a veracious God, practically certain but metaphysically uncertain. Among these propositions are, let us assume, the proposition that the cause of an idea must have at least as much formal reality as the idea has of objective reality, and the proposition that there is an idea with infinite objective reality. Descartes makes use of these propositions in what, for our present purposes, we can assume to be a good argument for the existence of God. Since, as we will also assume, Descartes clearly and distinctly sees the argument to be valid, it is a practical certainty for him that if the premises are true, then so is the conclusion.<sup>19</sup>

It follows from the conjunction of all this and principle (5) that, once he has given the *Third Meditation* argument for the existence of God, it becomes a practical certainty for Descartes that God exists. For, we are assuming, the premises of the argument are practical certainties for him, it is a practical certainty for him that they entail the conclusion, and he infers the conclusion from the premises. Hence, according to principle (5), the conclusion is then a practical certainty for him also.

Descartes goes on to argue for the conclusion that God is not a deceiver. The argument is well known:

... I recognise it to be impossible that He should ever deceive me; for in all fraud and deception some imperfection is to be found, and although it may appear that the power of deception is a mark of subtlety or power, yet the desire to deceive without doubt testifies to malice or feebleness, and accordingly cannot be found in God.<sup>20</sup>

The upshot is that the proposition that God is not a deceiver becomes a practical certainty for Descartes.<sup>21</sup> The explanation of this is straightforward. Descartes has correctly inferred this conclusion from premises that are practical certainties for him, via an argument whose validity is also a practical certainty for him. These facts, together with principle (5), imply that it is a practical certainty for Descartes that God is not a deceiver.

Once he has made it the case that the proposition that God is no deceiver is a practical certainty, he has made it no longer the case that the proposition that God is a deceiver is a practical possibility. For '-*p* is a practical certainty' is equivalent to '*p* is not a practical possibility'. Hence, after Descartes has proven that God exists and is no deceiver, the proposition that God is a deceiver is no longer a practical possibility for him.

Since the proposition that God is a deceiver is no longer a practical possibility for Descartes, it no longer casts metaphysical doubt on any of his clear and distinct perceptions. For a proposition, *p*, casts metaphysical doubt on a proposition, *q*, for a person, *S*, at a time, *t*, only if *p* is a practical possibility for *S* at *t*. Thus, one main result of the two arguments is that the proposition that God is a deceiver, which formerly had been, is no longer a source of metaphysical doubt for Descartes.

Now let us consider Descartes' epistemic state after he has come to understand the arguments. Consider, for example, the proposition that two plus three equals five. Its epistemic status has changed. Formerly, it was a practical certainty but a metaphysical uncertainty for Descartes. The only proposition that cast metaphysical doubt on it was the proposition that God is a deceiver.<sup>22</sup> Now, however, since the proposition that God is a deceiver is no longer practically possible for Descartes, it seems that nothing casts metaphysical doubt on the proposition that two plus three equals five for him, and so it apparently has become not only a practical certainty, but also a metaphysical certainty for him.

In general, I believe we can say that every proposition that was formerly put in metaphysical doubt only by the proposition that God is a deceiver is now a metaphysical certainty for Descartes. The class of such propositions

according to Descartes, is very large:

And so I very clearly recognise that the certainty and truth of all knowledge depends alone on the knowledge of the true God, in so much that, before I knew Him, I could not have a perfect knowledge of any other thing. And now that I know Him, I have the means of acquiring a perfect knowledge of an infinity of things ...<sup>23</sup>

Now Descartes is in an epistemic position from which it will be possible to prove that all his clear and distinct perceptions are true. He attempts, on my view, to deduce this conclusion from a set of premises every one of which is now metaphysically certain. If he succeeds, the result is that it becomes metaphysically certain that every clear and distinct perception is true. Thus, Descartes can claim to have proven beyond a shadow of a doubt that what he clearly and distinctly perceives is true.

Unfortunately, the argument Descartes presents for this conclusion is somewhat puzzling:

...every clear and distinct conception is without doubt something, and hence cannot derive its origin from what is nought, but must of necessity have God as its author – God, I say, who being supremely perfect, cannot be the cause of any error; and consequently we must conclude that such a conception is true.<sup>24</sup>

It is not my intention to defend every feature of Descartes' procedure. This argument, crucial though it may be, is one that I find too obscure to be judged. However, I think its role in the overall project can be made clear.

As we have seen, Descartes has attempted to remove what he takes to be the only source of metaphysical uncertainty from many of his clear and distinct perceptions, thus making them metaphysically certain. Among the propositions thus elevated in epistemic status may be the premises of this latest argument. If these premises are now metaphysically certain, and it is also metaphysically certain that they entail the conclusion, and the conclusion is inferred from them, then, it appears to me, the conclusion becomes a metaphysical certainty. Assuming that all this is the case, we can agree with Descartes when he says that 'in the *Fourth (Meditation)* it is shown that all which we clearly and distinctly perceive is true...'<sup>25</sup> And we can also agree that the argument is non-circular.

Perhaps I can put my interpretation into sharper relief, and make it clearer that it is non-circular, by comparing it to the view Arnauld seems to have held. On that view, Descartes made use of two intimately related arguments. In the *Third Meditation*, he argued for God's existence in something like this way:

#### Argument A

- (1) Whatever I clearly and distinctly perceive is true.
- (2) I clearly and distinctly perceive that God exists.
- (3) Therefore, God exists.

In the *Fourth Meditation*, according to this view, Descartes argued for the conclusion that whatever I clearly and distinctly perceive is true. This can be represented as follows:

#### Argument B

- (1) God exists.
- (2) If God exists, then whatever I clearly and distinctly perceive is true.
- (3) Therefore, whatever I clearly and distinctly perceive is true.

On my view, however, Descartes' *Third Meditation* argument for the existence of God makes no appeal to anything like A(1). Rather, that argument, in severely compressed form, looks more like this:

#### Argument C

- (1) There exists an idea with infinite objective reality.
- (2) The cause of an existing idea must exist and must have at least as much formal reality as the idea has of objective reality.
- (3) God is, by definition, the being with infinite formal reality.
- (4) Therefore, God exists.

The premises of *Argument C* were, admittedly, not metaphysically certain at the time of their first use. They were put in metaphysical doubt for Descartes at that time by the proposition that God is a deceiver. But the fact that they were then metaphysically uncertain is not sufficient to show that Descartes was unjustified in using them. For it is consistent with this to assume that they were then practically certain for him. If they were practically certain for him, and if it was practically certain for him that they entail the conclusion, and if he inferred the conclusion from them, then it became practically certain for Descartes, as a result of this argument, that God exists.

The *Fourth Meditation* argument, based on the premise that deception



is a defect, could result, in a corresponding manner, in it becoming practically certain for Descartes that God is no deceiver. This is represented as follows:

*Argument D*

- (1) Whatever deceives is defective.
- (2) God is not defective.
- (3) Therefore, God does not deceive.

Once the proposition that God is no deceiver is practically certain, the proposition that God is a deceiver is no longer practically possible, and hence can no longer cast metaphysical doubt. Every proposition upon which formerly only it cast metaphysical doubt is therefore now metaphysically certain. Among these propositions are the premises of the proof that all clear and distinct perceptions are true. In abbreviated form, this argument can be represented as follows:

*Argument E*

- (1) Every clear and distinct perception is something.
- (2) Whatever is something is caused by God.
- (3) Whatever is caused by God is true.
- (4) Therefore, every clear and distinct perception is true.

This argument is designed to establish the criterion of truth that Descartes toyed with after the *Cogito*. At that time he was unable to formulate an adequate defence for it. Now, however, he can infer it from metaphysical certainties, and hence make it a metaphysical certainty. So far as I can tell, there is no circularity in the argument.

3. Let us turn, by way of conclusion, to some issues that will remain unresolved even if my proposal should be found generally acceptable.

(i) Descartes apparently assumes, prior to the proofs of the existence and veracity of God, that no proposition other than the proposition that God is a deceiver cast metaphysical doubt on his clear and distinct perceptions.

It seems to me that Descartes is not justified in making this rather large assumption. Furthermore, it seems to me that the argument he later employs to support it is inconclusive.<sup>26</sup> Nevertheless, it should be

pointed out, in Descartes' defence, that this assumption may be true after all. And if it is true, then the Cartesian procedure is not too seriously marred by the lack of a proof. For in this case, the proof that God is not a deceiver does remove all sources of metaphysical doubt, and Descartes does gain metaphysical certainty of some of his clear and distinct perceptions. Thus, although he has no adequate proof that he has done so, he has in fact gotten himself into an epistemic state from which it is possible to make it metaphysically certain that all clear and distinct perceptions are true.

(ii) In order to come to a full resolution of the issues surrounding the Cartesian Circle, we must develop adequate accounts of three important arguments. These are the *Third Meditation* proof of the existence of God; the *Fourth Meditation* proof that God is no deceiver; and the *Fourth Meditation* proof that all clear and distinct perceptions are true. Every one of these arguments is obviously problematic.

Since my main aim in this paper has been to present a general proposal about the overall structure of the argumentation, I have not done very much to explain or defend specific internal features of these arguments. Thus it remains to be seen whether they can be interpreted in such a way as to be both plausible and recognizably Cartesian.

If my proposal should be found to be internally coherent and consistent with the texts, then it would be desirable to study these arguments in greater detail to see if they are open to satisfactory interpretations along the lines I have suggested. Furthermore, it would be desirable to consider such larger issues as whether the proposal I have made may shed further light on other Cartesian doctrines. Such considerations, interesting as they may be, do not belong in this paper.

(iii) Finally, I must admit that I have so far not been able to discover any satisfactory argument for the conclusion that an atheist cannot be metaphysically certain that the angles of a triangle are equal to two right angles.

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NOTES

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Virginia. I am grateful to the participants in those discussions for many valuable comments. John Bennett, Jaegwon Kim, Arnold Levison, and Alan Wood were especially helpful. Vere Chappell, Roderick Chisholm, Edmund Gettier, and Gareth Matthews generously criticized earlier drafts.

1 *The Philosophical Works of Descartes*, (transl. by Elizabeth S. Haldane and G. R. T. Ross), Dover Publications, 1931. Volume II, page 92. Henceforth, I shall refer to the two volumes of this work as 'HR I' and 'HR II'.

2 A very helpful bibliography of writings on the Cartesian Circle since 1941 appears at the end of Alan Gewirth's 'The Cartesian Circle Reconsidered', *Journal of Philosophy*, 67 (1970), 668-685. Since the appearance of Gewirth's bibliography, a number of papers on the Cartesian Circle have been published, including: Robert E. Alexander, 'The Problem of Metaphysical Doubt and its Removal', in *Cartesian Studies* (ed. by R. J. Butler, Barnes and Noble, New York, 1972. Willis Doney, 'Descartes' Conception of Perfect Knowledge', *Journal of the History of Philosophy* 8 (1970), 387-43. Fred Feldman and Arnold Levison, 'Anthony Kenny on the Cartesian Circle', *Journal of the History of Philosophy*, 9 (1971), 491-496. Anthony Kenny, 'A Reply (to Feldman and Levison)', *Journal of the History of Philosophy* 9 (1971), 497-498. Anthony Kenny, 'The Cartesian Circle and the Eternal Truths', *Journal of Philosophy*, 67 (1970), 685-700. Stanley Tweyman, 'The Reliability of Reason', in *Cartesian Studies* (ed. by R. J. Butler, Barnes and Noble, New York, 1972.

3 HR II, 206.

4 HR II, 266.

5 HR II, 39; see also HR II, 245.

6 Descartes warns against trying to define certainty at HR I, 222.

7 Quite a lot of what I say here about epistemic possibility and its relation to certainty is based upon views suggested to me by Herbert Heidelberger. See his 'Knowledge, Certainty and Probability', *Inquiry* 6 (1963) 242-250. See also Willis Doney, 'Descartes' Conception of Perfect Knowledge', p. 400.

8 HR I, 8.

9 HR I, 8; 19: 33-35.

10 The concept of metaphysical certainty is thus quite close to the concept of the evident as defined by Roderick Chisholm in *Theory of Knowledge*, p. 22.

11 Gewirth distinguishes among moral, intuitional, and metaphysical certainty in "The Cartesian Circle Reconsidered." However, I believe that his understanding of metaphysical certainty is quite different from mine. It might be instructive to compare these views with Kenny's concept of "Cartesian Certainty", and Doney's account of "Perfect Knowledge".

12 A valuable discussion of defeasibility can be found in Roderick Chisholm's "On the Nature of Empirical Evidence", in *Empirical Knowledge* (ed. by Roderick Chisholm and Robert Swartz Prentice-Hall, Englewood Cliffs, 1973, pp. 233-244.

13 HR I, 147-148; see also HR II, 266.

14 HR I, 99.

15 HR I, 184-185.

16 HR I, 158.

17 In the *Meditations*, the "Evil Demon Hypothesis" seems to play a primarily psychological role. By reflecting on that hypothesis, Descartes enables himself to counteract his natural tendency to believe practical certainties. A full account of the Cartesian procedure would require some further discussion of this point, but I omit it here because it is not directly relevant to my aims.

18 HR I, 148.

19 I do not mean to suggest that I find the *Third Meditation* proof perfectly clear and persuasive. I am more interested in showing its place in Descartes' pattern of reasoning.

20 HR I, 172.

21 I do not mean to give wholehearted endorsement to this argument either.

22 This claim is discussed in greater detail on pp. 52-3.

23 HR I, 185.

24 HR I, 178.

25 HR I, 142.

26 HR I, 184.