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RENÉ DESCARTES

Descartes (pronounced *Day Kart*) was born 31 March 1596, in the small town of La Haye, France. At the age of 10, he entered the Jesuit College of La Flèche. He completed his studies there in 1614 and entered law school at the Université de Poitiers, earning his Baccalaureate and License in Canon and Civil Law in 1616. Instead of practicing law, however, he joined the army of the Dutch Prince, Maurice of Nassau (1567–1625). After military service, he lived in Paris, moving to the Netherlands around 1628. He lived most of his adult life in the Netherlands, writing several important philosophical works. He is famous for having made important connections between geometry and algebra, for introducing into physics a new conception of matter, for suggesting that living things were basically fancy machines, and for showing how it was possible to acquire knowledge. He died 11 February 1650, while employed by the Court of Queen Christina of Sweden (1626–1689). 1.1

1.1 Descartes's First Principle

In Part One, Article 7 of the *Principles of Philosophy* (1644),[1] Descartes claimed: 1.2

> . . . [I]t is a contradiction to suppose that what thinks does not, at the very time when it is thinking, exist. Accordingly, this piece of knowledge – *I am*

[1] In this chapter, although I provide links to free online readings, I will be using *The Philosophical Writings of Descartes*, 3 vols., translated by John Cottingham, Robert Stoothoff, and Dugald Murdoch, referred to as CSM (vol 3 includes Anthony Kenny, so CSMK), Cambridge: Cambridge University Press, 1988. I will also use *Oeuvres de Descartes*, 11 vols., edited by Charles Adam and Paul Tannery, referred to as AT, Paris: Librairie Philosophique J. Vrin, 1983. Citations, then, will refer to the AT and CSM volume and page numbers.

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> *thinking, therefore, I exist* – is the first and most certain of all to occur to anyone who philosophizes in an orderly way. (AT VIIIA 7; CSM I 194–195)

1.3 The heading of Article 7 would foreshadow this claim, though it specifically cast the claim in terms of *doubt*: "It is not possible for us to doubt that we exist while we are doubting" (Ibid.). Of course, given that doubting is a species of thinking, the point of both formulations seems to be fundamentally the same. In Part One, Article 49 of the *Principles*, Descartes would go on to classify as an *eternal truth* the proposition "He who thinks cannot but exist while he thinks," which, again, looks to be an alternative formulation of this first and most certain piece of knowledge. The name of the class of propositions speaks for itself – eternally true propositions are *always* true, which is another way of saying that they *cannot ever* be false. If it was not possible for a statement to be false, then it was considered to be *necessarily* true. It is in this category that he would also classify all mathematical propositions.

1.4 Descartes first proposed the above eternal truth several years earlier, though he did not refer to it as such, in Part Four of the *Discourse on Method* (1637), claiming that it was the "first principle" of his philosophy. This no doubt anticipated his later calling it a first and most certain piece of knowledge. In the *Discourse*, he reported that he became aware of the importance of this first principle when engaged in a philosophical exercise, a kind of thought experiment in which he had attempted to think everything false. He recounted:

> But immediately I noticed that while I was trying thus to think everything false, it was necessary that I, who was thinking this, was something. And observing that this truth "*I am thinking, therefore I exist*" was so firm and sure that all the most extravagant suppositions of the skeptics were incapable of shaking it, I decided that I could accept it without scruple as the first principle of the philosophy I was seeking. (*Discourse*, Part Four: AT VI 32; CSM I 127)

It is important from the outset to note that this insight – the insight that if "I am thinking" is true, "I exist" cannot be false – is not solely the insight into each of the individual, simpler claims – "I am thinking," or "I exist" – though clearly they are elements of the insight. No, the insight is ultimately an insight into the *connection* between one's thinking and one's existence; or, in terms of the truth of propositions, between "I am thinking" and "I exist" – where "I am thinking" is understood as guaranteeing the truth of "I exist."

1.5 Even so, some critics expressed concerns over the simpler claims "I am thinking" and "I exist" – namely, that before any connection between them could be understood, one would first have to understand what one meant by "thinking" and "existence." Descartes, they complained, had failed to define these terms. So, how could any connection between *them* be understood? To

these critics, who had authored "objections" to his *Meditations on First Philosophy* (1641), a work that would be published in the interim between the *Discourse* and *Principles*, and a work at which we will look more carefully shortly, Descartes had replied that when one *thinks*, one could not fail to understand that *that* was what one was doing. Likewise, one's own existence was so obvious to oneself that nothing could be clearer. Descartes wrote:

> Thus when anyone notices that he is thinking and that it follows from this that he exists, even though he may never before have asked what thought is or what existence is, he still cannot fail to have sufficient knowledge of them both to satisfy himself in this regard. (Sixth Replies: AT VII 422; CSM II 285)

So, on Descartes's view, one does not require definitions of "thinking" or "existence" in order to understand that one thinks or exists. Such things are self-evident. In his study of Descartes's *Meditations*, Edmund Husserl (1859–1938) had identified the certainty associated with such experience as *apodictic* certainty (Husserl 1960). On Husserl's reading, there was an *unimaginableness* associated with the "object" given to one in one's experience, such that when given, one could not imagine that what was given was not what was given. If one thinks of the number 1, he or she would find it impossible to imagine that perhaps it is not the number 1 but the number 3 or a triangle that was being thought. For, supposing one raised the concern and asked, "perhaps this isn't the number 1 that I'm thinking about," in being able to form that very thought, he or she would have to know what it was that he or she might be mistaken about. One could be mistaken or wrong about a lot of things, but not about something like this (we might cast this particular case in terms of a principle of identity: A = A). In the *Principles*, Descartes again would emphasize that knowing what *thinking* is, or what *existence* is, did not require that one first be given philosophical definitions. He wrote:

> Matters which are very simple and self-evident are only rendered more obscure by logical definitions, and should not be counted as items of knowledge which it takes effort to acquire. (*Principles*, Part One, Article 10: AT VIIIA 8; CSM I 195–196)

He then offered what *thinking* and *existence* are as examples of the very simple and self-evident items he was talking about in this passage. Definitions of such items would only serve to muddy the waters, making obscure that which was already clear.

In two works, unpublished during his lifetime, *Rules for the Direction of the Mind* (c. 1628, though there is evidence that suggests he returned to this work later, sometime after 1634), and a dialogue, *The Search for Truth* (the

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date it was written is unknown), he would make similar claims. For example, in the *Rules*, he wrote:

> By "intuition" I do not mean the fluctuating testimony of the senses or the deceptive judgment of the imagination as it botches things together, but the conception of a clear and attentive mind, which is so easy and distinct that there can be no room for doubt about what we are understanding . . .. Thus everyone can mentally intuit that he exists, that he is thinking, that a triangle is bounded by three lines, and a sphere by a single surface, and the like. (*Rules*, Rule Three: AT X 368; CSM I 14)

And, in the *Search*, the character Eudoxus says:

> . . . [T]here are, in my view, some things which are made more obscure by our attempts to define them: since they are very simple and clear, they are perceived and known just on their own, and there is no better way of knowing and perceiving them . . . doubt, thought and existence can be regarded as belonging to the class of things which have this sort of clarity and which are known just on their own.
>
> I would never have believed that there has ever existed anyone so dull that he had to be told what existence is before being able to conclude and assert that he exists. The same applies to doubt and thought. (*Search*: AT X 523-24; CSM II 417)

To be clear, then, the insight, his first principle, is neither the insight that "I am thinking" nor that "I exist" are true, separately, but instead is the insight into the *connection* that holds between these two simpler claims. This cannot be stressed enough. What is more, as has also been suggested, which will be made clearer in what follows, this connection was also something that one "intuited," to use a term from the *Rules*. That is, one might be said to intuit that one thinks and that one exists, but, according to Descartes, if one philosophizes in the right way, one will *also* intuit the connection between them, such that one would clearly understand that if "I am thinking" is true, "I exist" is also true (cannot be false) – the former guaranteeing the truth of the latter. That's the insight: that's his first principle!

1.7 To several anonymous critics of the *Meditations*, whose objections were compiled by Marin Mersenne (1588–1648), forming the Second Set of Objections, Descartes wrote:

> Now awareness of first principles is not normally called "knowledge" by dialecticians. And when we become aware that we are thinking things, this

> is a primary notion which is not derived by means of a syllogism. When someone says "I am thinking, therefore I am, or I exist", he does not deduce existence from thought by means of a syllogism, but recognizes it as something self-evident by a simple intuition of the mind. This is clear from the fact that if he were deducing it by means of a syllogism, he would have to have had previous knowledge of the major premise "Everything which thinks is, or exists"; yet in fact he learns it from experiencing it in his own case that it is impossible that he should think without existing. (AT VII 140; CSM II 100)

In this passage, Descartes denied that the insight was an *argument*. But, is this a problem? For, his denial would appear to conflict with how the principle was proposed – *I am thinking, therefore, I exist*. That certainly looks like an argument. Let us look closer at this.

In the *Discourse*, as we already know, Descartes had initially proposed 1.8
the principle in its now famous and more familiar form:

> *I am thinking, therefore I exist*
> *Je pense, donc je suis* (the original French formulation)
> *ego cogito ergo sum* (the translated Latin formulation)

His use of the conclusion indicator "therefore" (French: *donc*; Latin: *ergo*) did more than to suggest to early readers, who were reading the *Meditations* in light of having read the *Discourse*, that Descartes's first principle was an argument, and presumably a valid one at that, since the claim seemed to be that if the premise "I am thinking" was true, the conclusion "I exist" could not be false.

If his first principle was an argument, however, a potential problem 1.9
lurked, the trouble being that arguments themselves were not usually understood as being first principles. Descartes himself seemed to agree with this, as seen in the passage just quoted, where he had denied that his first principle was an argument. Typical for the period, arguments were understood as logical instruments employed by philosophers to derive other statements, which, of course, included deriving statements *from* first principles. But a first principle (or generally, a *principle*), like an axiom in geometry, was taken to be self-evidently true; and so, arguments were not employed in securing their truth – the greater point being, they themselves were not understood to be arguments. Although not perfectly clear, perhaps some early readers of the *Meditations* might have been willing to grant Descartes that "I am thinking" and "I exist," taken separately, met the first principle criterion, but, as has been noted, several critics were in fact

unwilling to grant even this, and claimed that definitions were needed. But what is crystal clear is that none of his critics were willing to let the inference that "therefore" suggested count as a first principle – the epistemic status of inferences, as opposed to self-evident statements, were another epistemological kettle of fish.

1.10 Pierre Gassendi (1592–1655), for example, author of the Fifth Set of Objections appended to the *Meditations*, complained that the way Descartes had established the first principle in the Second Meditation was unnecessarily cumbersome for the reader, and suggested that it would have been clearer had it took the more familiar form as offered in the *Discourse*. He suggested that the argument in the Second Meditation should have gone something like this:

1. Whatever thinks acts.
2. Whatever acts exists.
3. Therefore, whatever thinks exists.

The trouble with this, assuming that it was the argument Gassendi was suggesting, is that the argument does not conclude "I exist," but only that "Whatever thinks exists." It also lacks the crucial premise "I am thinking." If we are charitable, however, we might read Gassendi as having instead suggested the following argument, which, it should be kept in mind, would not have taken the then standard form of a Categorical Syllogism, though it would have run close to taking the common form of *Modus Ponens*. Charitably, then, the argument Gassendi may have been suggesting in his criticism was this:

1. Whatever thinks, exists.
2. I am thinking.
3. Therefore, I exist.

This argument at least includes as a premise "I am thinking" and includes the conclusion "I exist." But, as we can see, it requires a premise that is not explicitly introduced by Descartes, namely Premise (1), which in the prior formulation was the argument's *conclusion*, statement (3); but what is more, it is a premise that Descartes had said, in the earlier quoted reply to critics, was not something the reader would have had to rely on in order to have had the insight into his first principle.

1.11 We might rework this second rendering of Gassendi's suggested argument to avoid the problematic Premise (1).

1. If I am thinking, I exist.
2. I am thinking.
3. Therefore, I exist.

Here, Premise (1) makes the argument perfectly conform to *Modus Ponens*. And, it is not the potentially problematic general claim "Whatever thinks, exists." But, notice that Premise (1) seems to express the insight itself – it is Descartes's first principle, minus the "therefore," and formulated as a conditional statement. It expresses the connection between "I am thinking" and "I exist," a connection that he said one could intuit. So, perhaps Descartes was claiming that his philosophical thought experiment had revealed to him that this *conditional statement* was true. Let us consider this interpretation further.

The logic of conditional statements was well known among those who attended school in the seventeenth century. A conditional statement has two parts: the "if" part, which is called the *antecedent*, and the "then" part, which is called the *consequent*. Let ***p*** be the antecedent and ***q*** the consequent, where the conditional is "*if* ***p***, *then* ***q*.**" We can assign truth (T) and falsity (F) to ***p*** and ***q***, which will allow us to make the following table (Table 1.1), which defines the logical connection between ***p*** and ***q***: 1.12

Table 1.1 Truth-table for conditionals.

p	***q***	If ***p***, then ***q***
T	T	T
T	F	F
F	T	T
F	F	T

Here is how to read this table. Start with the first row: The antecedent ***p*** has been assigned true (T) and the consequent ***q*** has been assigned true (T). If both are true (T), then the conditional statement "*If* ***p***, *then* ***q***" is true (T). Now, the second row: Here, the antecedent has been assigned true (T) and the consequent has been assigned false (F). If the antecedent is true (T) and the consequent is false (F), the conditional statement "*If* ***p***, *then* ***q***" is false (F). The third row: The antecedent has been assigned false (F) and the consequent true (T). If the antecedent is false (F) and consequent true (T), the conditional statement "*If* ***p***, *then* ***q***" is true (T). Lastly, the fourth row: If both the antecedent and consequent are false (F), the conditional statement

"*If* ***p****, then* ***q***" is true (T). Notice that there is only one scenario in which a conditional statement is false (F) – when its antecedent is true (T) and its consequent is false (F).

1.13 If we allow Descartes's first principle to take the form of Premise (1) of our third formulation of Gassendi's suggestion, as the conditional statement "If I am thinking, I exist," what Descartes would seem to have been claiming is that his philosophical thought experiment had revealed to him that this statement is true, and necessarily so, which would mean that in every conceivable case in which its antecedent "I am thinking" is true, its consequent "I exist" was not false. For, if "I exist" *could* be false while "I am thinking" is true, the first principle, cast in the form of a conditional statement, would be false! But, since it is a first principle, and so *necessarily* true, it could never turn out that when "I am thinking" is true, "I exist" was false. So, how does Descartes's philosophical thought experiment reveal that this claim, "If I am thinking, I exist," is necessarily true (i.e. always true)? We will turn to answering this question in a moment, but before we do, let us weigh our reading Descartes's principle as an argument against our reading it as a conditional statement. In the end, it may not matter which reading we adopt. But as scholars-in-training, it is important that we make sure that our reading is both faithful to the texts and charitable to their author.

1.14 Is there any textual evidence that might further support our reading Descartes's first principle as the statement, *If I am thinking, I exist*, instead of reading it as one of the arguments considered above?

1.15 Recall an earlier quoted passage from the *Rules*. There, in the passage taken from Rule Three, Descartes had introduced the notion of *intuition*, where he had said that it was the conception of a clear and attentive mind. The thing conceived is so obvious and clear that one cannot doubt what was being conceived. When thinking, Descartes said, everyone can intuit that he or she thinks, and what is more, that he or she exists. Also in Rule Three, Descartes would go on to contrast intuition to what he called *deduction*. In fact, on his view, intuition and deduction are the only two ways by which we can come to have knowledge. Well, we know that intuition is at the very least the immediate and clear cognizing of the truth of a simple proposition. And, as we will see in the passage that follows, deduction is at the very least the making of inferences. But, are they mutually exclusive? If something is an intuition, will that rule out its being an inference, and vice versa? And, if intuition is limited to the cognizing of single, simple propositions, and deduction is limited to inferring one proposition from another, will this put pressure on Descartes's rejecting that his first principle was an argument, something that looked to be best classified as an instance of deduction? Let us see. In Rule Three, Descartes wrote:

> . . . [The] distinction [between intuition and deduction] had to be made, since very many facts which are not self-evident are known with certainty, provided they are inferred from true and known principles through a continuous and uninterrupted movement of thought in which each individual proposition is clearly intuited. This is similar to the way in which we know that the last link in a long chain is connected to the first: even if we cannot take in at one glance all the intermediate links on which the connection depends, we can have knowledge of the connection provided we survey the links one after the other, and keep in mind that each link from first to last is attached to its neighbor. Hence we are distinguishing mental intuition from certain deduction on the grounds that we are aware of a movement of a sort of sequence in the latter but not in the former, and also because immediate self-evidence is not required for deduction, as it is for intuition; deduction in a sense gets its certainty from memory . . . (*Rules*, Rule Three, AT X 369–370; CSM I 15)

So, why is the first principle not an instance of deduction? Recall that Descartes had said that as a result of his philosophical exercise, we *intuit* the connection between "I am thinking" and "I exist." About that, still in Rule Three, Descartes further wrote:

> The self-evidence and certainty of intuition is required not only for apprehending single propositions, but also for any train of reasoning whatever. (*Rules*, Rule Three, AT X 369; CSM I 14)

He appeared to extend intuition to include the clear cognizing of a connection between two claims, which, we will see, was cast as the cognizing of an *inference*. So, *both* intuition and deduction look to be part of Descartes's account of the reliability of inference making. From what he says in the above passage, it would appear that he thought that some instances of intuition could include the relating of simple propositions – such as what occurs when intuiting the connection between "I am thinking" and "I exist" – where this, strictly speaking, would not be an instance of deduction proper. How so? For starters, with respect to deduction, one is aware of a *movement* of the mind, from one proposition to another; whereas, by contrast, with respect to intuition, one is not aware of any movement, but instead the connection and the items connected are immediately perceived or cognized all at a single go. The certainty of intuition arises from immediately given self-evidence, whereas the certainty of deduction in part arises from memory. Apparently, deduction does not require any self-evident elements. What are we to make of this?

1.16 In the Fifth Meditation, Descartes had considered a limitation of deduction, or of argumentation generally, that may help clarify how deduction proper differs from intuition. He wrote:

> . . . [I]t is not necessary for me to think that all quadrilaterals can be inscribed in a circle; but given this supposition, it will be necessary for me to admit that a rhombus can be inscribed in a circle – which is patently false. (AT VII 67; CSM II 46)

A rhombus is a quadrilateral (a four-sided shape), though it is not inscribable in a circle. Even so, *if* one were to assume that "All quadrilaterals can be inscribed in a circle" was true, then from that and the claim "A rhombus is a quadrilateral," it would *necessarily* follow that "A rhombus can be inscribed in a circle." The argument would go like this:

All quadrilaterals can be inscribed in a circle.
A rhombus is a quadrilateral.
Therefore, a rhombus can be inscribed in a circle.

Deduction is strange indeed. The above argument about the rhombus is valid, in that it is not possible for its premises to be true and its conclusion false at the same time. That would seem to be behind Descartes's noting that any argument of this form would *necessarily* yield the conclusion. In this particular case, given this is a valid argument, and its conclusion is false, it would follow that at least one premise is false. Why? A valid argument cannot allow all true premises and a false conclusion. So, if the conclusion is false, given this is a valid argument, it cannot be the case that all of its premises are true – at least one would have to be false. This result was usually the point of making what philosophers of the period referred to as a *reductio ad absurdum*: a valid argument with a false conclusion (usually a contradiction), which required that at least one of the premises be given up as false. We find this form of argument used as far back as Plato, and it was widely taught in seventeenth-century schools. The logical properties of a valid argument with a false conclusion were widely known to Descartes and his contemporaries. So, he would not have been saying anything new in his assessment of the argument about the rhombus. Why might he have introduced it in his discussion?

1.17 As with any valid form of argument, there is no guarantee that any of the premises are true; the only guarantee is that *if* all the premises are true, the conclusion will be true, too. In other words, for a valid form of argument, there is no *conceivable* scenario in which its premises are true and the

conclusion is false. That said, if someone did not know that "All quadrilaterals can be inscribed in a circle" was false, but instead took it to be true, which was Descartes's point, the argument would require that this same someone hold (or tentatively entertain), at least as long as he or she held the premises to be true, that "A rhombus can be inscribed in a circle" is true – despite its being patently false! What this analysis reveals is that deduction, a movement from a premise or premises to a conclusion, guarantees only that *if* the premise or premises were true, the conclusion would be true, too. The thing that deduction proper does not require is that we know that the premise is, or premises are, true. By contrast, intuition, assuming that we apply this notion to inferences, seems to require that we know that all of the premises *are* true. They are self-evidently true. We would be looking at a valid argument with actually (not simply possibly) true premises, which is how logicians define a *sound* argument. But, in denying that his first principle was an argument, it seems that Descartes would also reject its being cast as a sound argument.

1.18 With the above in mind, let us return to our trying our hand at interpreting Descartes's first principle as a conditional statement instead of interpreting it as an argument. In this case, intuition would require that the antecedent statement (analogous to the premise of an argument) would be known to be true (it would be *self-evidently* true), the consequent statement (analogous to the conclusion of an argument) would be known to be true, too, and that the way in which the two are connected is such that in every conceivable case in which the antecedent was true, the consequent was true, too. Every element of the intuition – "I am thinking," "I exist," and the connection between them – is intuited at a single go. There is no "movement" of the mind from "I am thinking" to "I exist," as would happen in the case of deduction proper.

1.19 Let us now turn to the philosophical exercise that Descartes claimed had revealed to him the first principle. As suggested earlier, we find the best account of it in the *Meditations*.

1.20 In the First Meditation, Descartes walked his readers through the intellectual exercise that he had only mentioned in the *Discourse*. Recall, the exercise involved the attempt to think everything false. What Descartes said the reader would discover is that try as he or she might, one thing that could not be thought false was his first principle. As we get into this, it is worth noting that the now famous phrase (*I am thinking, therefore I exist*) did not appear in the *Meditations*. So, what gives? Some scholars have thought that this was not an oversight or a mistake on Descartes's part. Finnish philosopher Jaakko Hintikka (1929–2015), for instance, cast the *Meditations*'

version in terms of its being a kind of *performance*. So, in line with Descartes, he does not take the insight to be an argument, but instead views it as a kind of "aha!" moment had by the reader. The exercise sets the stage, so to speak, and the insight into the first principle is revealed to the reader by way of the performance that he or she undertakes after having immersed him or herself into the First Meditation. Now, the philosophical exercise was a rather radical sort of thought experiment – the challenge of overcoming the possibility of a supremely powerful being who had created Descartes with the aim of deceiving him, getting him to believe something to be true that was in fact false. Let us look at this carefully.

1.21 As Descartes would demonstrate at the opening of the Second Meditation, assuming even this most radical scenario as introduced in the First Meditation, there was one thing that this hypothesized supremely powerful deceiver could not deceive him about. Descartes reasoned:

> But there is a deceiver of supreme power and cunning who is deliberately and constantly deceiving me. In that case I too undoubtedly exist, if he is deceiving me; and let him deceive me as much as he can, he will never bring it about that I am nothing so long as I think that I am something. So, after considering everything very thoroughly, I must finally conclude that this proposition, *I am*, *I exist*, is necessarily true whenever it is put forward by me or conceived in my mind. (AT VII 25; CSM II 17)

As noted above, we do not get the principle as it had been famously proposed in the *Discourse*. In this Second Meditation passage just quoted, we are told that, if one reflected on the matter, one would be struck by the fact that *necessarily* the statement "I exist" is true *on the condition that* one's own existence was being thought about. So, how does the bit about the supremely powerful being who is aiming to deceive us yield the first principle exactly?

1.22 Start by our supposing that since no perfectly benevolent being would ever aim at deceiving anyone, the supremely powerful being in our thought experiment, in being *essentially* a deceiver, must be considered evil. So, we are hypothesizing a supremely powerful *evil* being. Suppose that you were created by this supremely powerful evil being. Its aim is to deceive you at every possible opportunity.

1.23 Next, we should consider how to take "truth" and "falsity" here. Although Descartes did not make explicit what he meant by these in the *Meditations*, his examples offer some hint as to how he thought the reader would have understood such terms. As suggested in his Third Meditation discussion of the difference between his ideas of a goat and a chimera, for example, we can glean that the issue under discussion, namely truth and falsity, and to

what kind of thought they are associated, that he had in mind something like a correspondence view of truth – where one difference between the ideas is that while the idea of a goat is typically taken to correspond to a real thing, a goat, the idea of the chimera is typically taken to not correspond to anything at all, at least not to anything that exists "outside" the mind (AT VII 37; CSM II 26). And, we can glean a similar point from his Third Meditation discussion of the difference between the two ideas of the sun that he possesses, where he judges that one better corresponds to the object it represents, insofar as it better *resembles* it (AT VII 39; CSM II 27).

1.24 Now, a well-known account of truth was an Aristotelian correspondence account. This view tells us that a statement's truth is determined by some corresponding fact. A *fact* is a piece of reality; a *statement* is a piece of language. Truth in this context is understood as a *relation* holding between a statement and a fact (Figure 1.1):

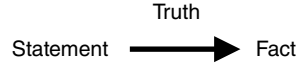

Figure 1.1 Correspondence Theory of Truth.

This view of truth – a correspondence account – was very likely an account Descartes ran across while a student at La Flèche. That he had adopted some view like this is suggested, in addition to the sorts of Third Meditation examples just mentioned, in a letter to his friend Claude Clerselier (1614–1684), dated 1649, where Descartes explained to Clerselier what he meant when discussing truth and falsity: "Truth consists in *being*, and falsehood only in *nonbeing* . . ." (AT V 356; CSMK III 377). In the Fifth Meditation, he wrote: "for it is obvious that whatever is true is something" (AT VII 65; CSM II 45). Such remarks support our thinking that Descartes took a statement to be true if it corresponds to reality (being), and is false if it fails to correspond to reality, which amounts to saying that it corresponds to nothing (nonbeing).

1.25 With the deceiver and a tentative account of truth and falsity on the table, we are ready to better understand the import of Descartes's philosophical exercise. So, start by considering the statement:

Michelle is at her yoga studio.

Given the correspondence notion of truth, this statement is true if, and only if, it is a fact that Michelle is at her yoga studio. Otherwise, this statement (*Michelle is at her yoga studio*) is false. Now, we are assuming that there is a supremely powerful being, which in part means that this being can do anything that is *logically possible* (anything that is *conceivable*). This is a view

that Descartes and his contemporaries would have run across in their having read Aquinas' *Summa Theologica*. So, again, Descartes would not have been introducing anything new to his readers here. Now, imagine that you are wondering whether the statement about Michelle is true. Let us say that you have under the *contacts* menu in your iphone the phone number (a landline) to her studio. You call that number and Michelle answers. "Good," you say to yourself, "she is at her yoga studio; so the statement is true." But, we can imagine that the supremely powerful being, prior to your making the call, say, reprogrammed your iphone so that although you thought that you were calling her yoga studio, you were actually calling her personal cellphone. She was actually standing in the organic food isle at the grocery store when you called. She was not at her studio. So, the statement *Michelle is at her yoga studio* was false. But, since you were (and remain) unaware of the supremely powerful being's activities, you continue to believe that the statement *Michelle is at her yoga studio* is true! The supremely powerful evil being has succeeded at deceiving you.

1.26 Let us say that the supremely powerful evil being will attempt to deceive you whenever possible. That is, if a scenario of deception is conceivable, assume that the supremely powerful evil being will take advantage of this and will succeed at deceiving you, at making this possible scenario an actual one. By the close of the First Meditation, in light of this thought experiment, Descartes admitted that things looked quite grim for anyone who claimed that knowledge was possible. For, according to Descartes, knowledge was possible only if there was at least one thing, no matter how trivial or slight, that one could not be wrong about – that is, it could not be false when held to be true. If nothing met this criterion, then all bets were off with respect to the possibility of our ever having knowledge.

1.27 As seen in the above quote taken from the opening of the Second Meditation, Descartes's own analysis revealed to him that there was at least one thing that this supremely powerful evil being could not deceive him about. At least, Descartes was not able to conceive the conditions necessary for deception in this case.

1.28 Here is how his philosophical exercise revealed this. We understand that "I exist" would be true if I in fact exist. On the flipside, we also understand that "I exist" would be false if I do not exist. Of course, if the latter is the case, I would not be in a position to entertain the statement "I exist." That, in part, is Descartes's point. Let us say that the supremely powerful evil being wished to deceive you about this statement, about "I exist" – it wants to get you to think that it is true when in fact it is false. Well, if the supremely powerful evil being is going to deceive you, clearly you will have to exist; otherwise, *who* is this supremely powerful being deceiving? We have already

determined that "I exist" is false if, and only if, I (well, you in this case) do not in fact exist. So, this statement would be false (where the "I" in the statement refers now to you), if you do not exist. Therefore, in order to make the statement "I exist" (in reference to you) false, the supremely powerful evil being will have to make it such that you do not exist. But, if this is the statement the supremely powerful evil being wishes to deceive *you* about, it will have to be the case that you *do* exist. Otherwise, there is no one there to be deceived. So, in order to pull off the deception, the supremely powerful evil being will have to make it such that you do and do not exist at the same time. Well, that is a contradiction; it is logically *im*possible! Or, in other words, the case (that you do and do not exist at the same time) is *in*conceivable! The stipulation, recall, was that the supremely powerful evil being can *do* anything logically possible (conceivable). Since the case at hand is inconceivable, it is not the sort of thing that *can* be done. It is not among the things that any being, including a supremely powerful one, can *do*. (In fact, the "it" in the previous two statements does not refer to anything!)

To say that the supremely powerful being *cannot do* it makes it sound like 1.29
this being is not supremely powerful after all. But, as Aquinas would make clear, saying it that way would be a mistake. For, we are not actually pointing out something that this being cannot *do* – for the simple reason that there is no *something* there. "I exist and I do not exist at the same time" does not refer to or pick out some possible state of affairs. There is no way for anyone to even think the scenario required for deception here. Since the possibility of your being deceived about "I exist" requires the impossible state of affairs, and the latter cannot ever come about (it cannot even be thought!), your existence (while thinking about your existence) is one thing that the supremely powerful evil being cannot deceive you about. At least, you would have absolutely no grounds for thinking that such a being could deceive you on this matter. And, if you cannot even conceive the possibility of "I exist" being false, so long as you take it to be true, the only alternative is that is must be true and that you cannot ever be wrong about it! Now, this does not guarantee the past or future, so the philosophical exercise does not show that you cannot be deceived about whether you existed in the past or will exist in the future. It is limited to showing that your existence is guaranteed only at the moment you reflect on your existence.

Recall that Descartes had claimed that this insight – *If I am thinking, I* 1.30
exist – is among those found in the category of eternally true propositions, a category that includes the propositions of mathematics. So, in this category we would find claims such as "Two added to three equals five," "A square has four sides," "The interior angles of a Euclidian right triangle equal the sum of two right angles," and so on. What he noticed about such

claims was that when he considered them directly, he was compelled to affirm their truth. That is, when directly before the mind, they were so clear and distinct that they compelled his will to declare that they are true.

1.31 At the opening of the Third Meditation, thinking specifically of his first principle established in the Second Meditation, he wrote:

> In this first item of knowledge there is simply a clear and distinct perception of what I am asserting; this would not be enough to make me certain of the truth of the matter if it could ever turn out that something which I perceived with such clarity and distinctness was false. So, I now seem to be able to lay it down as a general rule that whatever I perceive very clearly and distinctly is true. (AT VII 35; CSM II 24)

And all of this would be great, if it were not for the fact that we have yet to overcome the threat of the supremely powerful evil deceiver. For, even though we may agree that there are certain items that when considered by us *directly* are such that we cannot even conceive their being false, which gives us every confidence in our holding that they are true – items such as *If I am thinking, I exist*; *I am at the very least a thing that thinks*; *Two added to three makes five*; *A square has four sides*; *The nature of mind is to think*; *The nature of body is to be extended* (in length, breadth, and depth), and so on – the story about that supremely powerful evil being is still on the table. We have yet to show that in such matters as those just mentioned that this evil being has not created us so that when we add two and three, for instance, and get five, that their sum is not five but is some other number unknown to us. Perhaps we have been created in such a way that when we add two and three and get five, the evil being gets a big kick out of it, knowing that we cannot even imagine being wrong about the sum, and yet we *are* wrong about it. Perhaps this supremely powerful evil being has made us such that we cannot conceive a case in which we exist and do not exist at the same time, but such a case is nevertheless conceivable (to beings other than ourselves). Descartes was clearly aware of this lingering issue. He wrote:

> But what about when I was considering something very simple and straightforward in arithmetic or geometry, for example that two and three added together make five, and so on? Did I not see at least these things clearly enough to affirm their truth? Indeed, the only reason for my later judgment that they were open to doubt was that it occurred to me that perhaps some God could have given me a nature such that I was deceived even in matters which seemed most evident. And whenever my preconceived belief in the supreme power of God comes to mind, I cannot but admit that it would be easy for him, if he so desired, to bring it about that I go wrong even in those matters which I think

> I see utterly clearly with my mind's eye. Yet when I turn to the things themselves which I think I perceive very clearly, I am so convinced by them that I spontaneously declare: let whoever can do so deceive me, he will never bring it about that I am nothing, so long as I continue to think I am something; or make it true at some future time that I have never existed, since it is now true that I exist; or bring it about that two and three added together are more or less than five, or anything of this kind in which I see a manifest contradiction. (*Meditations*, Third Meditation: AT VII 36; CSM II 25)

So, we still have some important philosophical work to do. Now, we will have to admit that when *directly* considered, the abovementioned items are such that we cannot conceive the conditions that would render them false. Consequently, our grounds for doubting their truth are not found in anything that we think directly in those items. In fact, as just admitted, we cannot conceive the conditions that would render them false. For instance, we cannot conceive the case in which we exist and do not exist at the same time, or that two added to three is not five, or that a triangle does not have three sides. Rather, our grounds for doubting their truth are tied to a story about the possibility of a supremely powerful evil being who created us with the aim of deceiving us and not about what we directly or immediately conceive. We are satisfied that when we add two and three their sum is five. The trouble is that perhaps that satisfaction is a result of the supremely powerful evil being's design. As stories go, that is admittedly a pretty thin thread on which to hang anything. But, it is still something that we must address. Why think that we can trust our being satisfied in such cases, that we can trust our being certain, when it is possible that our rational faculty has been designed to go wrong? About this, Descartes wrote:

> And since I have no cause to think that there is a deceiving God, and I do not yet even know for sure whether there is a God at all, any reason for doubt which depends simply on this supposition is a very slight, and, so to speak, metaphysical one. But in order to remove even this slight reason for doubt, as soon as the opportunity arises I must examine whether there is a God, and, if there is, whether he can be a deceiver. For if I do not know this, it seems that I can never be quite certain about anything else. (Ibid.)

All of this talk about a creator, whether it be a trustworthy creator or not, and so on, can be philosophically distilled into the following concern: If we can settle the issue about the origin of our mind and its capacities to intuit and deduce, we can then settle the issue about whether we can trust those capacities. If we cannot determine this, we will always be able to doubt, though admittedly indirectly, the items that, when directly intuited, compel

us to declare their truth. What is worse, of course, is that if a supremely powerful evil being were our origin, we would be in trouble, epistemologically speaking. We might as well pack it up and go home. So, we want to at the very least debunk that possibility as soon as possible.

1.32 But, why think that anything other than himself was his origin? Perhaps Descartes and not some evil being is the origin of his own mind. In the Third Meditation, Descartes wondered whether he might be the origin of his own mind and its capacities (AT VII 46–47; CSM II 32). He was quick to note, however, that if he were its origin, he would have certainly made it so that he would know that he was his origin. And, he certainly would not have created himself to want or to lack anything. It went without saying, of course, that this very investigation, his searching for answers, demonstrated that he lacked all sorts of things. And, although he does not spell it out, clearly the other issue would be the looming contradiction that in order to be his own origin, he would have to exist before he existed. That is, if he created himself, then he would have had to have existed before he created himself. But, perhaps he is an infinite being and just does not know it. For, since an infinite being never does not exist, the very concept of origin is rendered meaningless. So, if he were an infinite being, the worry over origins could be dispelled, and so the bit about existing before he existed could be set aside. So, is he an infinite being? Well, if he were, which in terms of being an infinite *mind* would at least manifest as his being *omniscient* (all knowing), it would be odd indeed if he knew everything *but* the fact that he was an infinite mind. For, as he honestly (and modestly) admits in the *Meditations*, he certainly does not know everything. But, let us say that his being infinite was manifested in terms of power instead of knowledge. Well, if he was *omnipotent* (all powerful), he certainly would have the power to make himself smart enough to know that he was an infinite being. And, he certainly would not have had any need to work through six meditations to get any answers. So, what is the origin of his mind and its capacities to think? Ruling out that its origin is a supremely powerful evil being would make things less worrisome, perhaps, but the issue about origins would still remain. For, until we can settle that, worries, no matter how slight, are still in play.

1.33 Now, several paragraphs later, still in the Third Meditation, Descartes saw another and equally important philosophical reason for considering whether there exists a God who is not a deceiver, and who is the origin of his mind and its capacities. This reason, as we will see, is also importantly related to what in our Introduction was referred to as the *Problem of the External World*. For, whatever is responsible for creating Descartes's mind and its capacities, if not himself, would, by this very fact, be something that existed prior to, and hence independently of, his mind. That is, the origin of his

mind must be something other than his mind. Such a proof, if one could be made, would demonstrate that there exists at least one thing other than his mind. This would be the first of several proofs Descartes offered in support of the claim that there exists a world "outside" his mind, where by "outside," as noted in this book's Introduction, it was taken to mean at the very least "independent" – so, an external world, a world that existed outside one's mind, would be a world whose existence in no way depended on one's mind.

But how might Descartes go about such an investigation? In a letter to 1.34
Guillaume Gibieuf (1583–1650), dated January 1643, Descartes wrote: "I am certain that I can have no knowledge of what is outside me except by means of the ideas I have within me" (AT III 474; CSMK III 201). This may explain what went into his reasoning that if in examining his ideas he found one that he could not account for

> . . . and hence that I myself cannot be its cause, it will necessarily follow that I am not alone in the world, but that some other thing which is the cause of this idea also exists. But if no such idea is to be found in me, I shall have no argument to convince me of the existence of anything apart from myself. For despite a most careful and comprehensive survey, this is the only argument I have so far been able to find. (AT VII 42; CSM II 29)

So, let us now turn to Descartes's analysis of his ideas, and see how that analysis will result in producing a proof for the existence of an infinite being. This being, as will become clear, is not Descartes, of course, but is what theologians refer to as *God*. This proof, as we will see, is importantly related to Descartes's establishing the origin of his mind (specifically his faculty of reason), which in turn allowed him to secure the trustworthiness of his faculty of reason. To do this, we will want to look first at Descartes's view of ideas, and the role they played in his philosophical system. As part of our examination, we will also want to make clearer Descartes's ontology, which will include two distinct kinds of "reality," *formal* and *objective reality*, and the three "levels" of each: *mode*, *finite substance*, and *infinite substance*.

1.2 Preliminaries on Ideas and the Ontology

As just mentioned in the last section, in a letter to Gibieuf, Descartes had 1.35
told his friend about the importance of *ideas* in his philosophical system: "I am certain that I can have no knowledge of what is outside me except by means of the ideas I have within me" (AT III 474; CSMK III 201). So, if he is going to address the Problem of the External World, he will appeal no doubt to ideas. Let us keep that in mind as we proceed.

1.36 Descartes was in fact among the first philosophers of the period to reintroduce the word "idea" back into philosophical discourse. The word has its origins in the ancient Greek language of Plato and Aristotle. Philosophers prior to Descartes, those working in the earlier Medieval and Scholastic periods, preferred to use the Latin word *species*, which they had settled on as their translation of the Greek word *idea*. This Latin word is probably familiar to you, if you have taken a course in biology. *Species* refers to a *kind* of thing. And, that is in part what the medievals and scholastics meant by it. A species of animal is a kind of thing. If we replaced the Latin with the Greek, we might instead say: the *idea* of animal is a kind of thing. In fact, said this way, we would be expressing one sense in which Plato and Aristotle intended the term.

1.37 According to ancient and medieval views, the idea of animal is the *form* of animal. If something is an animal, it is an instance of this form or idea. If we think of this form as being a pattern of organization, where matter is what is organized, we now come close to how Aristotle used the term. On his view, when matter is organized in a certain way, in the pattern of animal, say, the result would be an *individual* animal, which would be an instance of the form animal. The existent individual *things* in the universe, according to Aristotle, were each a *unity* of matter and form. So, take matter and organize it in the pattern we refer to as "dog," and there will now exist an individual dog. Take the same matter and now organize it in the pattern we refer to as "oak tree," and there will now exist an individual oak tree. Every existent individual thing in the universe is an instance of some kind.

1.38 Now, Plato and Aristotle disagreed about the ontological status of ideas. On Plato's view, ideas (the *Forms*) were the most real things in the universe. Without them, nothing existed. They were the *substances* of the cosmos. That is, if no ideas, then there could never be instances of dogs, oak trees, rivers, and so on. Every existent thing in the cosmos depended on the ideas. The ideas stood prior to any material instances (individuals). So, the idea of dog stood prior to there being any particular dogs.

1.39 When you and I think of a dog, according to both Plato and Aristotle, we are in some way accessing the idea of dog. But, the idea is not yours or mine. It is neither spatial nor temporal. It is eternal. According to Plato, it does not exist here or there, or in your head or in mine. But, through our faculty of the intellect, we can access ideas. Even if there were no existent instances of dog (i.e. no particular dogs), the idea of dog would remain. We could in principle still *think* of a dog. This in part shows how it is that ideas are the most real entities in the universe, according to Plato, since all individual (material) things in the universe depend on ideas for their being what they are, whereas ideas do not depend on individual (material) things for their being. Ideas would exist regardless of whether there were ever any (material) instances of them.

Aristotle, however, would not grant ideas that sort of ontological status. 1.40
To be sure, the idea or form of dog accounted in part for a particular instance, an individual dog, and it is what made the thing intelligible to us (as a dog), but we (as human beings) never encounter an idea independently of individual things, or apart from a pattern's being "enmattered." What we encounter are particulars, individual dogs and oak trees. We never encounter "doghood," say. As my professor Chuck Young used to say, you cannot scratch doghood behind the ears. According to Aristotle, ideas always are accompanied with matter. An individual thing is a unity of idea (form) and matter. For Aristotle, such individuals are the most real things in the universe. They are matter (*hyle*) informed or structured (*morphos*), or, as he would put it, an individual is a *hylomorphic unity*. Without matter and idea (form), there are no individuals. But here, matter and idea look to be philosophical abstractions, the results of analysis, taken from our encounters with individuals. So, where Plato had said that the *kinds* were the most real things in the universe, Aristotle said that the *particulars* (instances of kinds) were the most real things. For Aristotle, the particulars of the cosmos were the *primary substances*, everything else depending on them.

So, did Descartes adopt one of these views? Well, he seems to have devel- 1.41
oped a view that included a little of both. This would not have been a new view, however, we find it going back to at least the third-century CE, when the ancient Roman philosopher Plotinus (205–270 CE) held something like it, a view that philosophers now refer to as *Neoplatonism*. And, several prominent philosophers of the modern period appear to have adhered to some version of Neoplatonism. Descartes might certainly be counted among them. Let us now turn to looking carefully at Descartes's view on ideas, with the aim of examining his assessment of his idea of the infinite being. This will fit in with the theme of our book, with our exploration into the Problem of the External World.

Before setting out in the Third Meditation to examine whether God 1.42
exists, and is no deceiver, and is the origin of his mind, Descartes said that a point of order needed to be addressed:

> First, however, considerations of order appear to dictate that I now classify my thoughts into definite kinds, and ask which of them can properly be said to be the bearers of truth and falsity. Some of my thoughts are as it were images of things, and it is only in these cases that the term "idea" is strictly appropriate – for example, when I think of a man, or a chimera, or the sky, or an angel, or God. Other thoughts have various additional forms: thus when I will, or am afraid, or affirm, or deny, there is always a particular thing which I take as the object of my thought, but my thought includes

> something more than the likeness of that thing. Some thoughts in this category are called volitions or emotions, while others are called judgments. (AT VII 37; CSM II 26)

He characterized ideas as "as it were images." The Latin is *tanquam rerum imagines*. Strictly speaking, the idea of sweet or the idea of cold, for instance, are not images – well, they are not *visual* images. Even so, such ideas nevertheless *represent* or *exhibit* to the mind *something* (sweetness and coldness in the cases just mentioned). It is just that the representing or exhibiting here is not a visual representing. But insofar as ideas represent or exhibit things to the mind, they are "like" images. That seemed to be his point.

1.43 So, an idea, ontologically speaking, is what accounted for an *object's* being represented (or directly presented) to the mind in a moment of consciousness (Descartes uses *represented*, *presented*, and *exhibited* interchangeably). Such an "object" is that of which the mind is directly aware. The objects represented can vary: his list above includes just a few – a man, a chimera, the sky, an angel, and God. We also can have ideas of simpler objects: the idea of hot or cold, the idea of a color, the idea of sweet, and so on. The "what" of thought is given by way of an idea. So, if one asks, "What are you thinking about?," the answer would involve your referring to an idea that is before your mind. Descartes will later claim that the mental capacity or faculty responsible for directly "producing" ideas in a mind is the *intellect* or the *understanding*.

1.44 Now, according to the passage just quoted, ideas are a special kind of thought, but there are more complex thoughts, the latter nevertheless including in them an ideational component. They will include an *object* of thought. These more complex thoughts involve both essential faculties of the mind: the understanding, just mentioned, and the will. The will is associated with a second faculty of mind, the volitional faculty, which is a faculty of activity (suggesting that the understanding, as a faculty, is passive in some sense). A complex thought, then, will include an ideational element, which will be associated with the faculty of the understanding, and a willing element, associated with the volitional faculty. The latter's activity is "directed at" the object of thought, at an idea. Consider the following complex thoughts, expressed by the following statements:

I affirm the Pythagorean Theorem.
I fear the tiger.
I desire pizza.

Let us look at each. In the first, the Pythagorean Theorem is the object of the thought, which is given by way of some idea. That is the ideational element. Now, when I *affirm* what is presented to me in thought (via the idea), I exercise the volitional faculty. In the second, the tiger is the object of the thought, which is given by way of some idea. That is the ideational element. When I fear what is presented to me in thought (via the idea), I exercise the volitional faculty. And, in the third case, the pizza is the object of the thought, which is given by way of some idea. As in the other cases, that is the ideational element. When I desire what is presented to me in thought (via the idea), I exercise the volitional faculty. Descartes is not clear about what accounts for the differences between affirming, fearing, and desiring, given they are exercisings of the same faculty, but he is clear to suggest that fearing *x*, for instance, is typically called an *emotion*, and affirming *x* is typically called a *judgment*, where "*x*" here is our stand-in for an idea. Perhaps the differences in volitional exercisings are best understood in terms of the ideational elements given in a thought. Scholars are still debating about how to read Descartes on this issue. Even so, many scholars would agree that if we look carefully at Descartes's discussions of such things, we will discover that the thoughts of human beings are, on his view, to be classified in the *complex* category. Every complete thought will include an ideational (intellectual) *and* a volitional element.

But let us return to Descartes's Third Meditation analysis of thoughts, where our focus will be on what he said about ideas. Let us begin with how he sorted out ideas into three distinct kinds: 1.45

> Among my ideas, some appear to be innate, some to be adventitious, and others to have been invented by me. My understanding of what a thing is, what truth is, and what thought is, seems to derive simply from my own nature. But my hearing a noise, as I do now, or seeing the sun, or feeling the fire, comes from things which are located outside me, or so I have hitherto judged. Lastly, sirens, hippogriffs and the like are my own invention. But perhaps all my ideas may be thought of as adventitious, or they may all be innate, or all made up; for as yet I have not clearly perceived their origin. (AT VII 37–38; CSM II 26)

So, tentatively, we are told that we might divide ideas into three categories: innate, adventitious, and factitious. Innate ideas, presumably, have their origin in one's mind – the ideas of thinking and truth are examples; adventitious ideas presumably have their origin in things existing "outside" the mind – the ideas of heat and the sun are examples; and factitious ideas are put together by the mind, where presumably their contents are borrowed

from other ideas – the ideas of Pegasus and a lion-headed goat (a chimera) would be examples. "But the chief question at this point," he wrote, "concerns the ideas which I take to be derived from things existing outside me: what is my reason for thinking that they resemble these things?" (Ibid.).

1.46 Descartes provided several accounts that might explain his holding that his adventitious idea of the fire (next to which he is sitting), for instance, not only represents some object that exists "outside" his mind, but resembles it, too. For starters, he noted, "nature" has taught him this. What he seemed to have in mind was that his experience as a human being has "taught" him such things – he stands at some distance from the fire and he feels cold; he walks closer to the fire and he feels warmth; he puts his hand directly over the fire and feels intense heat! He repeats all this, which results in similar experiences. In this way, his experience has led him to think that the heat is a property of the fire.

1.47 These are not things that he ever really *reasoned* about. For, had his holding that the fire existed outside his mind and has certain properties such as heat were the result of reasoning, then that would have been revealed by the "natural light." And any verdict of the natural light (reason) is yet to be rendered. The natural light is different, he said, from what nature teaches (AT VII 38; CSM II 27). Instead, his views about "external" objects and their properties are the results of "lessons" taught in the course of living an ordinary life of a human being. The *Meditations* marks the attempt in his life to examine what nature has taught him by subjecting it to rational scrutiny.

1.48 A second, and perhaps more interesting, account that explains why he had been drawn into thinking that his adventitious ideas represent (and resemble) objects existing outside his mind is that such ideas "do not depend simply on me. Frequently I notice them even when I do not want to: now, for example, I feel the heat whether I want to or not, and this is why I think that this sensation or idea of heat comes to me from something other than myself. . .And the most obvious judgment for me to make is that the thing in question transmits to me its own likeness rather than something else" (Ibid.). Here, we might contrast adventitious ideas to innate or to factitious ideas, in that the latter can be summoned at will. One can easily summon the idea of oneself, or summon the idea of a triangle, or summon the idea of Pegasus. But, one cannot simply summon the adventitious (sensory) idea of heat. Instead, that idea forces itself on the mind when one gets too close to the fire, which, Descartes noted, might be an explanation of why he has held that the fire plays some role in the idea's being brought before the mind, and why he has held that what the idea presents to his mind resembles some property of the fire.

As we have seen, Descartes sometimes used phrases such as "inside my mind" and "outside my mind." These were phrases that were commonly used (and still are). In the Third Meditation, however, Descartes made an effort to introduce a technical, philosophical, set of terms that better expressed "inside" and "outside" with respect to the mind, which allowed him to emphasize the *representational* aspect of ideas. He used the terms "formal reality" and "objective reality." He took these to denote two distinct though related kinds of reality, or ways of being. What we will see in the study that follows, is that these terms can be defined thus: 1.49

> **Formal reality** is the kind of reality or being something possesses insofar as it is an *existent* or an *actual* thing.
> **Objective reality** is the kind of reality or being something possesses insofar as it *represents* something.

Insofar as Descartes exists (in that he is thinking), say, he would be said to possess formal reality. Insofar as Pegasus does not exist, he would be said not to possess formal reality. This is admittedly an odd way of saying such a thing, odd to us anyway, but it was a familiar way of talking to those who had gone to college in the seventeenth century.

Now, insofar as something *represents* something, the item doing the representing would be said to possess objective reality. Such an item would possess both kinds of reality. Insofar as it was an actually existing thing, it would possess formal reality. And, insofar as it represents something, it would possess objective reality. Consider Descartes's idea that represents the fire. Insofar as the idea is an occurring, existent mode, it is said to possess formal reality; and insofar as it represents something (the fire in this case), the idea is said to possess objective reality. When we look carefully at Descartes's discussions of objective reality, he attributed it only to ideas. So, even though a mirror or a painting is said to represent things, strictly speaking we will not say that they possess objective reality, though we could certainly employ either as working analogies in our attempt at understanding this kind of reality (we will in fact employ a case of a mirror image in a moment). It is just that in the end, strictly speaking, objective reality will be limited to ideas. 1.50

Descartes continued:

> And although the reality which I am considering in my ideas is merely objective reality, I must not on that account suppose that the same reality need not exist formally in the causes of my ideas, but that it is enough for it to be present in them objectively. For just as the objective mode of being belongs to

> ideas by their very nature, so the formal mode of being belongs to the causes of ideas – or at least to the first and most important ones – by *their* very nature. And although one idea may perhaps originate from another, there cannot be an infinite regress here; eventually one must reach a primary idea, the cause of which will be like an archetype which contains formally <and in fact> all the reality <or perfection> which is present only objectively <or representatively> in the idea. (AT VII 41–42; CSM II 29)

Here, Descartes made it clear that the objective reality possessed by an idea must have an origin. Although the objective reality of some ideas could certainly come from the objective reality possessed by other ideas, ultimately objective reality must have its origin in something *real*, in something that actually exists. In other words, the objective reality of ideas ultimately must have its origin in things that possess formal reality.

1.51 Consider as a working analogy a case of Descartes standing before a mirror. There are two things in the room – Descartes and the mirror. Both are real; both exist. According to the view, then, each possesses formal reality. So far, so good. But what about the *image* of Descartes that we find on the mirror's surface? It is real, right? Well, yes, but its "reality" is not the same kind that Descartes and the mirror possess as things that exist. Instead, it is understood in terms of objective reality. Objective reality is the reality of the *image*. Notice that although we "locate" the image on the surface of the mirror, we nevertheless say that the image is "of" Descartes. It represents *him*. In light of the view that we are trying to work out, we might apply our analogy as follows. Allow the mirror's image of Descartes to be the analogue to an idea understood in terms of its objective reality, and allow the mirror to be the analogue of the mind. We locate the image on the mirror; we "locate" an idea in the mind.

1.52 Now, why might an idea be "of" Descartes, say, and not of something else? Well, ask that question about the mirror case: why is this image "of" Descartes? We say that the image is of Descartes because he is clearly playing a significant causal role in the image's "production." If Descartes was not standing in front of the mirror, there could be no mirror *image* of Descartes. The image depends on Descartes in a way that Descartes does not depend on the image. To be sure, the mirror is an important player, too, since the image is located on its surface. And, it, too, is playing a significant role, for without the mirror, there would be no mirror-image of Descartes. Even so, notice that we do not say that this image represents the mirror – it represents Descartes. Likewise, we do not say that the idea represents the *mind* – the idea represents Descartes. Descartes and the mirror must be playing different causal roles, where that difference would account for why it is that we say that the image is "of" Descartes but not the mirror.

So, why might an idea represent Descartes and not the sun? Descartes's view tells us that the objective reality possessed by, or contained in, the idea has its origin in the formal reality of Descartes, and not in the formal reality of the sun. If the objective reality of an idea did have its origin in the formal reality of the sun, then that idea would be "of" the sun, it would represent or exhibit the sun.

1.53 This causal account of the objects of thought, the ideas, would apply solely to what Descartes called in the above passage "primary ideas." A primary idea is an idea whose objective reality has its origin in the formal reality of some object. This, it seems, includes both the category of innate ideas and adventitious ideas. Factitious ideas, which the mind fabricates, use the contents of other ideas. So, their objective reality could be derived or borrowed from the objective reality of other ideas; in the way that the idea of Pegasus might borrow from the adventitious ideas of a horse and a bird (where we get the idea of wings).

1.54 Descartes applied the same causal story to cases involving only formal reality, without any reference to objective reality. So, this story must be taken by us to be important. The formal reality that a thing possesses cannot come from nothing. It, too, must have its origin in something real, in something that also possesses formal reality. If the sun exists, and so possesses formal reality, the formal reality it possesses must be traceable to the formal reality of some other thing (or things). Descartes wrote:

> Now it is manifest by the natural light that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause. For where, I ask, could the effect get its reality from, if not from the cause? And how could the cause give it to the effect unless it possessed it? It follows from this both that something cannot arise from nothing, and also that what is more perfect – that is, contains in itself more reality – cannot arise from what is less perfect. And this is transparently true not only in the case of effects which possess <what the philosophers call> actual or formal reality, but also in the case of ideas, where one is considering only <what they call> objective reality. A stone, for example, which previously did not exist, cannot begin to exist unless it is produced by something which contains, either formally or eminently everything to be found in the stone; similarly, heat cannot be produced in an object which was not previously hot, except by something of at least the same order <degree or kind> of perfection as heat, and so on. But it is also true that the *idea* of heat, or of a stone, cannot exist in me unless it is put there by some cause which contains at least as much reality as I conceive to be in the heat or in the stone. For although this cause does not transfer any of its actual or formal reality to my idea, it should not on that account be supposed that it must be less real. The nature of an idea is such that of itself it requires no formal reality except what it derives

> from my thought, of which it is a mode. But in order for a given idea to contain such and such objective reality, it must surely derive it from some cause which contains at least as much formal reality as there is objectively reality in the idea. For if we suppose that an idea contains something which was not in its cause, it must have got this from nothing; yet the mode of being by which a thing exists objectively <or representatively> in the intellect by way of an idea, imperfect though it may be, is certainly not nothing, and so it cannot come from nothing. (AT VII 40–41; CSM II 28–29)

In the above passage, Descartes introduced the example of a stone. If the stone now exists, given that it cannot be the cause of itself or that it cannot have come from nothing, it must be considered the effect of some cause or causes. Whatever "reality" the stone possesses, keeping in mind we are talking about formal reality in this case, was derived from its cause or causes.

1.55 Consider another example, which should make the import of his use of the notions of cause and effect clearer: the case of a pot of water sitting over a raging fire. We measure the heat of the water and let us say that we measure it to be 100 units of heat. Let us agree that the heat possessed by the water has its origin in the fire. A common understanding of causation in the period, and one that Descartes mentions, would tell us that the fire "transmits" some of its heat to the water. Given that we have measured the water's possessing 100 units of heat, and holding that whatever heat the water possesses comes from the fire, we can infer that the fire possesses at least 100 units of heat. If it had less, then the heat possessed by the water, the effect, would be greater than the heat possessed by the fire, the cause. The effect would be "more real" with respect to heat than its cause, in which case the extra heat possessed by the water must have come from nothing. But, something cannot come from nothing. That is, nothing cannot be the cause of anything. So, the effect cannot ever be "more real" than its cause.

1.56 Toward the end of the passage just quoted, as pointed out just a moment ago, Descartes had applied this causal analysis to the relationship that holds between the objective reality of ideas and the formal reality of things. If an *idea* represents a stone, whatever is the cause of the objective reality contained in this idea, assuming it is a primary idea, must possess at least as much "reality" as we find in the idea. In such a case, we must ultimately conclude that whatever objective reality is possessed by an idea, if it must have a real and existent cause, will have its origin in the formal reality of some object. And, to be crystal clear on this point, this would hold specifically for what in an earlier quoted passage he called "primary ideas" – the "level" of formal reality of the cause must be as great as the "level" of objective reality exhibited in a primary idea. About such "levels" he wrote:

> Undoubtedly, the ideas which represent substances to me amount to something more, and so to speak, contain within themselves more objective reality than the ideas which merely represent modes or accidents Again, the idea that gives me my understanding of a supreme God, eternal, infinite, <immutable,> omniscient, omnipotent and the creator of all things that exist apart from him, certainly has in it more objective reality than the ideas that represent finite substances. (AT VII 40; CSM II 28)

In this passage, we are told that not only will an idea, in possessing or containing objective reality, represent something to the mind, but it will also represent the "level" of formal reality possessed by the object.

The level of formal reality is a kind of marker for the thing's ontological 1.57
place in the cosmos. Descartes looks to have been working under the assumption that there are at least two places (or "levels") that an item can occupy in his ontology: *substance* or *mode*. Substances are more real than modes. A mode depends for its existence on the existence of a substance in a way that a substance does not depend for its existence on the existence of a mode. An idea, which is a mode, depends for its existence on the existence of a mind, a substance, in a way that a mind does not depend for its existence on the existence of an idea. Think of a cow. Notice that when you were not thinking of it, *you* still existed. The existence of your mind does not depend on the existence of any of your ideas, including the one about the cow. But, if your mind ceased to exist, *your* idea of the cow could never be thought again. Its existence does depend on the existence of your mind. To be clear, this is all talk about formal reality. On this front, Descartes made it clear that:

> The nature of an idea is such that of itself it requires no formal reality except what it derives from my thought, of which it is a mode. (AT VII 41; CSM II 28)

This looks to be connected to something he had said just a bit earlier in the Third Meditation:

> In so far as the ideas are <considered> simply <as> modes of thought, there is no recognizable inequality among them: they all appear to come from within me in the same fashion. (AT VII 40; CSM II 27–28)

So, when we consider an idea in terms of its being a mode, we do not make reference to the object it represents, but instead focus solely on its status as mode of mind. When we do this, we consider the idea's formal reality. According to Descartes, all ideas have the same ontological status: they are modes of a mind. All actually existent modes possess the same level of formal reality.

1.58 Objective reality is not formal reality. That much is clear. It is a kind of representational reality – we might say that it *represents* formal being or reality to the mind. If the idea represents the sun, according to an earlier quoted passage from the Third Meditation, it will also represent the level of formal reality possessed by the sun, which is presumably that of a finite *substance*. This "level" of objective reality is associated with the level of formal reality of a finite substance. The idea of the sun's shape, on the other hand, insofar as it represents a shape, will also represent the level of formal reality possessed by this shape, which in this case is that of a *mode*. So, this idea's "level" of objective reality would be associated with (it represents) the level of formal reality of a mode.

1.59 Notice that insofar as they are actually occurring (existent) ideas, the idea of the sun and the idea of its shape, each possesses the level of formal reality of a mode. In simpler terms, they are existent modes. And, in this sense, Descartes said, there is no recognizable inequality holding between them. But, when we consider an idea's "object," we will discover that the idea of the sun, for example, will not only present an object that is in an important sense different from the object presented in the idea of shape (say, the idea of a sphere), but will also possess a greater level of objective reality than the idea of a shape. This is so since the sun is a finite substance and a shape is a mode (of body).

1.60 The causal account that Descartes developed tells us that if an idea possesses a level of objective reality associated with, say, a finite substance – that is, it represents a finite substance – it cannot ultimately have been caused by something whose level of formal reality is that of only a mode. A mode's reality is not great enough. It is "less" real than a substance. This is like the previous case of the heated water: whatever level of heat we find in the water must have its origin in something whose level of heat is at least as great. Instead, the idea that represents a finite substance must ultimately have its origin in something that possesses at least the level of formal reality of that of a finite substance. Otherwise, the effect, the idea's objective reality, would be greater than its cause. It would be like the water being hotter than the fire.

1.61 To summarize what we have learned, we now have enough on the table to support our claiming that Descartes appeared to think that there were at least two "levels" of formal reality: the level of that of a *mode*, and the level of that of a *substance*, or as he specifically qualified it at the end of this last passage, a *finite substance*. And, what is more, there are at least two correlated or associated levels of objective reality: the level of that of a mode, and the level of that of a finite substance. But a third and higher "level" is suggested by what he said about his idea of an infinite being (God). Let us explore this and clean some of this up before moving forward.

To do this, let us recount some of what we have learned about the ontology. The level of formal reality of a finite substance is "greater" than that of a mode, since a mode depends for its existence on a substance, but a substance does not depend for its existence on a mode. A mode, remember, is simply a "way of being" a substance. This looks to be a version of an Aristotelian substance–attribute ontology. For instance, "The ball is blue" is analyzed so that what is denoted by "The ball" is the *substance* and what is denoted by "is blue (being blue)" is the *attribute* or *property* that "modifies" the substance (the ball). Notice that we can destroy this instance of blue without destroying the ball – we could paint the ball red, for instance – but if we destroyed the ball, we would also destroy this instance of blue. In this sense, the substance is "more real" than any of its properties. We will see in the section focused on Descartes's argument for the existence of a material world, a mind-independent world, will have something to say about the commonsense practice of attributing colors, like blue, to bodies, like the ball. 1.62

Focusing on mind, Descartes said that an *idea* is a mode of thinking, it is mode of a mind. Recall from the Second Meditation that Descartes had discovered that his nature, that which defined what he was, a mind, was *thinking* or *thought*. He would go further in the Sixth Meditation, which we will look at in a moment, to identify thinking or thought as *the* defining characteristic of mind. In the *Principles*, he would go on to characterize thinking or thought as the mind's *principal attribute* (AT VIIIA 25; CSM I 210). Modes, as we will also see in a moment when we look at the Sixth Meditation, are best understood as modes of the principal attribute. So, an idea is a mode of thinking. Additionally, again in the Second Meditation, Descartes had entertained that the defining characteristic of body was extension (in length, breadth, and depth). Extension, he will show in the Fifth and Sixth Meditation, is the defining characteristic of body. Later, he would claim in the *Principles* that extension is the principal attribute of body (Ibid.). Shape, ontologically speaking, is a mode of or "a way of being" extended; it is a way of being an instance of extension. So, shape is best understood as a mode of extension. Shape is to extension (body) as idea is to thinking (mind). 1.63

1.3 Clarity and Distinctness: A Model Based on Simple Natures

Clarity and distinctness are among the most important epistemological concepts in Descartes's philosophy, though he said remarkably little about them. In the *Discourse*, Descartes had proposed a general rule, based on his 1.64

analysis of his intuiting the connection between "I am thinking" and "I exist." He wrote:

> . . . I considered in general what is required of a proposition in order for it to be true and certain; for since I had just found one that I knew to be such, I thought that I ought also to know what this certainty consists in. I observed that there is nothing at all in the proposition "I am thinking, therefore I exist" to assure me that I am speaking the truth, except that I see very clearly that in order to think it is necessary to exist. So I decided that I could take it as a general rule that the things we conceive very clearly and very distinctly are all true. (*Discourse*, Part Four: AT VI 33; CSM I 127)

We encountered something like this in the Third Meditation. Let us recall that passage. Within the context of his discovery that not even a supremely powerful being could deceive him about the truth of "If I am thinking, I exist," he wrote:

> Do I not therefore also know what is required for my being certain about anything? In this first item of knowledge there is simply a clear and distinct perception of what I am asserting; this would not be enough to make me certain of the truth of the matter if it could ever turn out that something which I perceived with such clarity and distinctness was false. So, I now seem to be able to lay it down as a general rule that whatever I perceive very clearly and distinctly is true. (*Meditations*, Third Meditation: AT VII 35; CSM II 24)

1.65 About propositions, it seems to have been Descartes's view that they are linguistic entities used by human beings to express the contents of their ideas. Our words "declare" our thoughts (*Discourse*, Part Five: AT VI 56–59; CSM I 140–141). But, technically speaking, what constitutes the "content" of our ideas? We have already considered this question in terms of objective reality or being. And, we have also considered this question in terms of the "objects" represented or presented (or exhibited) in our ideas. But, what are such "beings," such "objects," constituted of exactly? Although not perfectly clear, Descartes proposed the view that the "elements" of our ideas are what he called "simple natures." For example, in the *Rules*, he wrote:

> We should turn to the things themselves; and we should deal with these only in so far as they are within the reach of the intellect. In that respect we divide them into absolutely simple natures and complex or composite natures. Simple natures must all be either spiritual or corporeal, or belong to each of these categories. As for composite natures, there are some which the intellect experiences as composite before it decides to determine anything about

> them: but there are others which are put together by the intellect itself. . .In view of this, we divide natures of the latter sort into two further classes, *viz*. those that are deduced from natures which are the most simple and self-evident. . ., and those that presuppose others which experience shows us to be composite in reality. (*Rules*, Rule Eight: AT X 399; CSM I 32)

If the simple natures are the "inhabitants" of our ideas – they are what the mind is directly aware of in a moment of consciousness or awareness – they can be understood as either being absolutely simple, or compounded out of simples. The simplest natures, Descartes suggested, can be classified as members of one of two distinct classes: as members of the class of thinking (thinking things), or as members of the class of extension (extended things). *Thinking* or *thought* is a principal attribute, which defines the former class of simple natures; *extension* is a principal attribute, which defines the latter class. We learn from a careful study of the *Rules* that class membership is determined by the "presupposes" relation. Thus, since *shape* presupposes *extension*, or as Descartes said in the *Principles*, *extension* is what underwrites the intelligibility of *shape* (AT VIIIA 25; CSM I 210), the simple nature *shape* is a member of the class of extended things (specifically, *shape* is the name of a subclass of simple natures in the class of *extension*; where in this subclass would be the classes of *circle*, *triangle*, *quadrilateral*, *sphere*, *pyramid*, *cube*, and so on). The same would hold for the class of *thinking*. *Doubting*, for instance, presupposes *thinking* – that is, *thought* or *thinking* is what makes *doubting* intelligible. *Colors*, *sounds*, *smells*, and the like, would also be understood as simple natures. Interestingly, such "qualities" would find membership in the *thinking* class.

In the Second Meditation, Descartes would again mention this way of 1.66
understanding mental content. Our waking experiences, he noted, present to us all sorts of objects, typically composed out of simpler elements. The latter, of course, may not be obvious at first. But upon analysis, they can be separated out. Our imagining things, or even our dreams, are composed out of these same natures. He wrote:

> For even when painters try to create sirens and satyrs with the most extraordinary bodies, they cannot give them natures which are new in all respects; they simply jumble up the limbs of different animals. Or if perhaps they manage to think up something so new that nothing remotely similar has ever been seen before – something which is therefore completely fictitious and unreal – at least the colors used in the composition must be real. By similar reasoning, although these general kinds of things – eyes, head, hands and so on – could be imaginary, it must at least be admitted that certain other even

> simpler and more universal things are real. These are as it were the real colors from which we form all the images in things, whether true or false, that occur in our thoughts. (AT VII 20; CSM II 14)

We could, then, translate what we have considered thus far in terms of propositions into simple nature talk. For instance, we could restate our discovery of the (necessary) truth of "If A is shaped, A is extended," as our having discovered that the simple nature shape presupposes the simple nature extension, where if A is shaped, A is extended. Can any of this help us better understand Descartes's view on clear and distinct perception? Yes!

1.67 In a careful study of the *Rules* (and some correspondence), we would learn that *clarity* is to be understood in terms of our recognizing the necessary connections between simple natures – those elements constituting the contents of our ideas. The model for this was brought out in our recognizing a necessary connection between *thinking* and *existence*. We also discovered a necessary connection between *doubting* and *thinking*, and a necessary connection between *shape* and *extension*. In light of what Descartes said in the *Discourse* passage above, we can say that when we recognize the necessary connection between the simple natures that make up an idea, this idea is *clear*. When we recognize a necessary connection to hold between *all* of the simple natures included in an idea, the idea can be said to be *maximally* clear. It cannot get any clearer than that. But there can be lesser degrees of clarity: for instance, if we recognize a necessary connection to hold between only some of the simple natures in the idea but not all. That is easy enough. So what about distinctness? How are we to understand that?

1.68 In the *Principles*, Descartes defined "clear perception" and "distinct perception." He wrote:

> I call a perception "clear" when it is present and accessible to the attentive mind – just as we say that we see something clearly when it is present to the eye's gaze and stimulates it with a sufficient degree of strength and accessibility. I call a perception "distinct" if, as well as being clear, it is so sharply separated from all other perceptions that it contains within itself only what is clear. (AT VIIIA 22; CSM I 207–208)

1.69 Descartes's first principle is made *clear* to him when he recognized a necessary connection holding between *thinking* and *existence* – he recognized that *thinking* presupposes *existence*. In line with this criterion, then, his idea of a shaped thing was also shown to be clear when he recognized the necessary connection between *shape* and *extension* – he recognized that *shape* presupposes *extension*. If an idea includes simple natures for which no

necessary connection could be recognized, then the idea would be said to be *obscure* – it is maximally *unclear*. We might think of this as telling us that the connection between ideational elements is obscured from mental view. No connection is seen. Perhaps it is obscured by various jumbled elements included in the idea; or perhaps there just is no connection between them. Either way we fail to see any connection. The thing to stress is that:

> ***Clarity* = recognition of a necessary connection between simple natures in an idea,**

And, its opposite:

> ***Obscurity* = no recognition of a necessary connection between simple natures in an idea.**

A maximally clear idea is one for which we recognize a necessary connection to hold between *all* of the simple natures included. A maximally obscure idea is one for which we recognize *no* necessary connection to hold between any of the simple natures included in the idea. Now, if we recognize a necessary connection to hold between *some* simple natures, but not all, then we can say that the idea is clear, but not maximally clear. Such an idea can also be said to be obscure, since we recognize no necessary connection to hold between some of the simple natures that make up the idea. But because we recognize a necessary connection to hold between some of the simple natures, this idea is not maximally obscure. An idea that is more clear is less obscure, and an idea that is less clear is more obscure. "More" and "less" in this context could be understood in terms of the proportion of simple natures included in the idea that are related necessarily. The more that are related, the clearer the idea.

Consider the sensory idea of the sun. This sensory idea exhibits to you an extended, round-shaped, yellow, hot object. As we already know, there is a necessary connection holding between the simple natures *shape* and *extension*, so that "*if the sun is round-shaped, it is extended*" is true. So, this much about the idea is clear. But in order for the idea to be maximally clear, we must see how *all* of the simple natures it contains are connected. So, let us start with the simple nature *hot*. If something is hot, *must* it be shaped or yellow or extended? Here, the focus is on *hot* as a sensed *quality*. With respect to such sensed qualities – colors, sounds, feels, smells, and tastes – Descartes, as we know, will say that although they are exhibited to you in sensory experience, it is not at all obvious that to conceive them we must 1.70

conceive *extension*. This is very different from modes such as shape, size, position, and motion. Those *require* extension in order to be conceived. That is, there is a necessary connection that holds between *shape* and *extension*, between *size* and *extension*, and so on. But between *hot* and *extension*? This much seems obvious: given that minds perceive properties such as hot, cold, yellow, and the like, if there were no minds, such properties (as perceived) would not exist. This suggests that the intelligibility of *hotness* (the sensed quality), and other simple natures like it, require the conception of mind – specifically the conception of a mind that perceives *hot* and items like it. But at this point in the Third Meditation, even this connection is fuzzy. No necessary connection is perceived to hold between the presented *hot*, say, and *extension*, or *thinking*, or *shape*, or *color*, and so on. Since this is so, the sensory (adventitious) idea of the sun includes simple natures for which we recognize *no* necessary connection to hold between them and the other simple natures also included in the idea. And since we do not see a necessary connection between *all* of the simple natures that are included in this idea, it follows that the sensory idea of the sun is not maximally clear but is (to some degree or with respect to some of its content) obscure. Further, since a distinct idea includes *only* what is clear (so, a distinct idea is maximally clear), the sensory idea of the sun is not distinct. It is *confused*. The Latin word *confusio*, which Descartes used, means a *mixing together* (*con* = *with* and *fusio* = *mixed*). We might understand this to mean that a confused idea mixes together simple natures that lack a necessary connection to one another. Like *clarity* and *obscurity*, *distinctness* and *confusion* are opposites.

According to Descartes, ideas can be:

clear and *distinct*,
clear and *confused*,
obscure and *confused*,

but never:

obscure and *distinct*.

An example of a clear and distinct idea is the idea that one has that includes the simple natures *thinking* and *existence*. Here, one recognizes that there is a necessary connection between *thinking* and *existence*. An example of an obscure and confused idea is one's idea that includes *thinking* and *extension* (one's pre-philosophical idea of oneself as a *thinking body* – that is, a body

with a face, limbs, that senses, thinks, and so on). To say that this idea is obscure, we mean that it is not maximally clear (we recognize a necessary connection to hold between some of the simple natures, but not all). Another example of an obscure and confused idea, discussed already, is one's sensory idea of the sun. In the Third Meditation, Descartes in fact compares his sensory idea of the sun with what he calls his astronomical idea of the sun (AT VII 39; CSM II 27). The sensory idea is obscure and confused. But the astronomical idea, which includes only simple natures associated with extension – so, size, shape, motion – is clear and distinct. He will tell us more about such ideas in the Fifth and Sixth Meditation.

1.71 But, before leaving the Third Meditation, let us now apply what we know about Descartes's view about ideas and look carefully at his examination of his idea of the infinite being, his idea of God, and how it supported Descartes's trust in his faculty of reason.

1.4 The Idea of the Infinite Being: A Proof for God's existence

1.72 In the Third Meditation, Descartes had been working with the idea of himself that represented himself as a thing that thinks. In terms of formal reality, this idea possesses the level of that of a mode. What about in terms of objective reality? Well, insofar as this idea represented him as a thing, a *substance*, the *level* of objective reality of this idea is that of a substance. Descartes said: "It is true that I have the idea of substance in me in virtue of the fact that I am a substance" (AT VII 45; CSM II 31). This aligns with what was stated earlier, when Descartes noted that the idea of what a thing is, what thinking is, and so on, "seems to derive simply from my own nature" (AT VII 37; CSM II 26). Given that this idea of himself is derived from himself, in Descartes's terms we can say that the idea's objective reality is derived from the formal reality of his own mind, where in saying that, his mind is said to possess formal reality, which is to say that he, a mind, exists. "But," Descartes said, none of this would "account for my having the idea of an infinite substance, when I am finite, unless this idea proceeded from some substance which really was infinite" (AT VII 45; CSM II 31).

1.73 Descartes was aware of the commonly held view of God as the kingly individual who had long hair and a beard, who wore a long flowing robe, who ruled the universe from a throne in Heaven, and so on. But this is not how Descartes conceived God in his philosophical work. "By the word 'God,'" he wrote, "I understand a substance that is infinite, <eternal,

immutable>, independent, supremely intelligent, supremely powerful, and which created both myself and everything else (if anything else there be) that exists" (AT VII 45; CSM II 31). And insofar as the idea of God represents an infinite substance, its level of objective reality is immeasurably greater than that which represents a finite substance. So, instead of two levels of objective reality, as suggested in a passage considered earlier, we learn that there are *three* levels of objective reality:

Infinite substance
Finite substance
Mode

As you would expect, the level of reality of an infinite substance is greater than that of a finite substance, and the level of reality of a finite substance is greater than that of a mode. And, as you would also expect, the levels of reality are expressions of ontological dependence: a mode depends ontologically on a finite substance, and a finite substance depends ontologically on an infinite substance. The infinite substance depends on no other thing – it is self-sufficient. In Part One, Article 51 of the *Principles*, Descartes would make it clear that the term "substance," strictly speaking, only applied to God, to an infinite substance that depended on nothing. He wrote:

> By *substance* we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence. And there is only one substance which can be understood to depend on no other thing whatsoever, namely God. (AT VIIIA 24; CSM I 210)

He would go on to say that we could use the word "substance" in a qualified sense, if we wanted to use it to refer to finite things. Specifically, in this qualified sense, we can refer to finite things as *substances* which do not depend on other finite things for their existence, but only depend on God, or the infinite substance, for their existence. For Descartes, as he would make clear in the next article, Article 52, there were only two kinds of finite substance: *mind* and *body* (AT VIIIA 25; CSM I 210). In this and the following article (Article 53), he would also claim that we identify each kind by way of its principal attribute. As we know from earlier discussions, the principal attribute of mind is *thought* or *thinking*, and the principal attribute of body is *extension* (in length, breadth, and depth).

1.74 Specifically concerning ideas, recall, the three levels of objective reality are to be understood as telling us that an idea that represents a mode has the

level of objective reality associated with the level of formal reality of a mode, an idea that represents a finite substance has the level of objective reality associated with the level of formal reality of a finite substance, and an idea that represents an infinite substance has the level of objective reality associated with the level of formal reality of an infinite substance.

Descartes considered whether the idea of the infinite being was an idea 1.75
that he could have constructed out of the idea he had of himself. In this way, it would be like the idea of Pegasus; an idea made from other ideas. Thinking back to his tripartite division of ideas introduced earlier (innate, adventitious, and factitious), if the idea of God was like this, it would be a factitious idea. How might the construction go? Here is how Descartes entertained such a construction: He comes to know one thing (that he exists so long as he thinks), and then comes to know another (that he is at the very least a thing that thinks). So, on Monday he knows one thing, on Tuesday he knows a second thing, on Wednesday a third, and so on. The idea of an infinite knower, then, might be constructed by extrapolating, where each day he is a "greater" knower than the day before. Why is this not an acceptable account of how he acquired the idea of the infinite being? Here is Descartes's answer:

> First, though it is true that there is a gradual increase in my knowledge, and that I have many potentialities which are not yet actual, this is all quite irrelevant to the idea of God, which contains absolutely nothing that is potential; indeed, this gradual increase in knowledge is itself the surest sign of imperfection. What is more, even if my knowledge always increases more and more, I recognize that it will never actually be infinite, since it will never reach the point where it is not capable of a further increase; God, on the other hand, I take to be actually infinite, so that nothing can be added to his perfection. (AT VII 47; CSM II 32)

An idea of God that Descartes might construct from the idea of himself (the latter, remember, is an idea of a finite substance) would be an idea of a *potentially* infinite being. A potentially infinite being is not an actually infinite being; just like a potentially moving object is not an actually moving object. In fact, a potentially moving object is actually *not* moving (well, if A is a potential mover in respect to B, then A is not actually moving in respect to B; though A and B *could* be actually moving in respect to C, where $C \neq B$. But, let us put that aside). Likewise, a potentially infinite being is actually not infinite. So, his constructed idea of a potentially infinite being is not an idea of an actually infinite being. And yet, Descartes says, he has an idea of an *actually* infinite being. That is what he is calling "the idea of God." Now, if he does have an idea of an actually infinite being, then he cannot be its

origin, for the level of formal reality that he possesses, which is that of a finite substance, is simply not great enough to cause the level of objective reality possessed by his idea of an actually infinite being. At best, Descartes can be the origin of the idea of a potentially infinite being.

1.76 But, is there another way he could have come by the idea of the infinite? What about this: The idea is simply a *negative* idea – that is, it is the negation of the finite? No doubt the logical or grammatical relationship between "finite" and "infinite" is no different from other paired opposites, such as "moral" and "immoral." In cases like the latter, we take "moral" to be the *positive* stem and then add to it the *negative* prefix, "im," so that "immoral" is simply the negation of "moral." We might think, then, that we take "finite" to be the positive stem and then add to it the negative prefix, so that "infinite" is simply the negation of "finite." So, it is not that we have an idea of some *thing* that is infinite, but rather we have simply produced a linguistic entity, the *term* "infinite," which correlates to no idea we have. So, "infinite" is simply a negative construction from our idea of a finite being.

1.77 But, Descartes will argue that this account would not work in the end. Inspecting his idea of finite being, Descartes found that there are at least two ideational components that made it up: (i) limitless *being* and (ii) some *limitation*. Here, limitless being is identical to infinite being. It is boundless being. What Descartes discovered was that the idea of the finite is actually constructed out of the idea of the infinite *and* the introduction of some limitation. So, unlike "moral" and "immoral," "infinite" is actually expressing the *positive* stem and "finite" is its negation! As Descartes put it: "I must not think that, just as my conceptions of rest and darkness are arrived at by negating movement and light, so my perception of the infinite is arrived at not by means of a true idea but merely by negating the finite" (AT VII 45; CSM II 31). In fact, the infinite, he said, "is in some way prior to" the finite (Ibid.). Using a term we learned earlier, finite being *presupposes* infinite being. As Descartes puts it in a 1649 letter to his friend Claude Clerselier:

> I say that the notion I have of the infinite is in me before that of the finite because, by the mere fact that I conceive being, or that which is, without thinking whether it is finite or infinite, what I conceive is infinite being; but in order to conceive a finite being, I have to take away something from this general notion of being, which must accordingly be there first. (AT V 356; CSMK III 377)

To conceive being without limitation is to conceive the infinite. The idea of finite being is the idea of *limited* being. Descartes's point was that the idea

of finite being presupposes the idea of infinite being. To limit *x*, you first have to have *x*. A limitation of *x* is a limitation imposed *on x*. The finite is a limiting of the infinite. For example – mathematically, we form a finite line segment from limiting a line, the latter being "endless," extending infinitely in both directions. The "limit" here is where we "cut out" a segment of line. The line segment no longer extends infinitely in both directions. Putting this in Descartes's terms, we construct the finite line segment out of the boundless infinite line by introducing two limitations (one at each "end"). If we think of the line as "being," we might think of the limitation as "non-being." A line segment (being) is "bounded" by regions of non-line (nonbeing) (Figure 1.2).

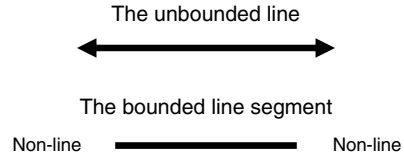

Figure 1.2 The Finite Presupposes the Infinite.

We do not construct the boundless, infinite, line by setting bounded line segments side by side. That would never amount to an infinite line. Instead, we construct the bounded, finite, line segment from the boundless, infinite, one. The boundless, infinite, line is presupposed in the bounded, finite, line segment. Similarly, Descartes claimed that the idea of the infinite is not constructed out of our idea of finite being. Instead, the idea of the finite is constructed out of the idea of the infinite. The idea of infinite being is presupposed in the idea of a finite being. This is a sense in which the finite *depends* on the infinite being!

If it is true that the finite depends on, or presupposes, the infinite, 1.78
Descartes has a reason to think that he, in being a finite being, depends on the infinite, on God. In other words, he has a reason to now hold that ultimately, and this would be true for any finite being in fact, the infinite being is presupposed, or in metaphysical speak, the infinite is ultimately the origin of the finite – or, in theological speak, the infinite being is creator of the finite. This line of reasoning alone, suggested Descartes, provided the following argument for God's existence:

> Altogether then, it must be concluded that the mere fact that I exist and have within me an idea of a most perfect being, that is, God, provides a very clear proof that God indeed exists. (AT VII 51; CSM II 35)

This argument looks to go as follows: the idea that Descartes has of himself, an idea that represents him as a finite thing, presupposes the idea of an infinite being. So, if he has such an idea of himself (and he does), he *ipso facto* (by that very fact) has an idea of the infinite, too. The "presupposes" language tells us that in every conceivable world in which a finite being exits, an infinite being exists, too. Moreover, given what was said about the various levels of reality, the "presupposes" language also expresses the notion that Descartes (understood as a finite being) ontologically depends on the infinite being: he depends for his existence on the infinite being in a way that the infinite being does not depend on Descartes for its existence. Thus, if he (Descartes) exists, then so does the infinite being. Here is the nutshell version of the argument:

If I (qua finite being) exist, then God (qua infinite being) exists.
I exist (qua finite being).
Therefore, God (qua infinite being) exists.

Premise (1) was established in the Third Meditation; premise (2) was established in the Second Meditation. Together they yield (3).

1.79 Although what has been said might apply, say, to talk about the beginning of the universe, that was long ago. Surely, Descartes does not *now* depend for his existence on God, right? Well, not so fast. In the Third Meditation, Descartes would go on to write:

> For a lifespan can be divided into countless parts, each completely independent of the others, so that it does not follow from the fact that I existed a little while ago that I must exist now, unless there is some cause which as it were creates me afresh at this moment – that is, which preserves me. For it is quite clear to anyone who attentively considers the nature of time that the same power and action are needed to preserve anything at each individual moment of its duration as would be required to create that thing anew if it were not yet in existence. Hence the distinction between preservation and creation is only a conceptual one, and this is one of the things that are evident by the natural light. (AT VII 49; CSM II 33)

So, Descartes's mind, in being a finite being, has a "beginning" point in time. Prior to that temporal moment, prior to the act of the creation of his mind, we might agree that Descartes's mind did not exist. But, surely, once his mind had been created, from that point of time forward the "creator" would no longer be needed. Not so, says Descartes in the above passage. If we analyzed something's

existence over some duration of time – let us say it exists over the duration t_1 to t_3 – Descartes claims that the power required to sustain or to preserve this thing over this duration of time would be identical to the power required to create it anew at every moment – at t_1, then at t_2, then at t_3. There is nothing about Descartes's own existence at t_2 that guarantees his existence at t_3. Thus, if Descartes is said to exist over the duration measured by t_2 and t_3, something other than Descartes is responsible for that – namely, God. To be sure, we might identify several underlying finite beings that are responsible for his continued existence (such as his body, the earth, an atmosphere, the sun, and so on). But each of those are finite beings, and cannot in principle be the causes of themselves. Ultimately, if we stuck to the story that included only finite beings, all possible causes of Descartes's existing over time would be finite. As he said in an earlier quoted passage about objective reality, such things cannot go back forever. At some point, if any finite being is real at all, and subsequently we claim that all of the finite beings that make this possible are real, nothing could be real unless at bottom there existed something that itself is not caused (and so, is not finite). There must be in place at any given moment something that sustains or supports every existing finite being – a being that has no beginning or end, an infinite being. Thus, if Descartes's mind exists *now*, then ultimately this is so because there exists an infinite being.

As interesting as the above arguments are, they are warm-up to Descartes's *main* argument for the existence of God. The main argument for God's existence, at least in the Third Meditation, turns on the fact that the level of objective reality in the idea of God, that is, the idea of an actually infinite being, requires a cause other than Descartes's own mind. This argument hinges specifically on the notion of a primary idea and the connection between objective and formal reality. We have everything we need to make sense of this main argument, where we can then move on to considering why it is that the infinite being cannot be a deceiver. 1.80

From our earlier discussion, we can formulate two working causal–representational principles: 1.81

The objective reality of a primary idea has its origin in the formal reality of some thing or mode.

And,

The *level* of formal reality possessed by this thing or mode (from which the idea derives its objective reality) is at least as great as the level of objective reality in the idea.

Descartes noted that the level of objective reality possessed by the idea of God is immeasurably greater than the level of objective reality possessed by any idea that represents finite being. Concerning the latter, since Descartes's mind possesses a level of formal reality of that of a finite substance, it possesses a level of formal reality sufficient to account for the level of objective reality possessed by the idea of himself (the idea that represents him as a finite substance). But the level of formal reality that he possesses (insofar as he is a finite substance) is not sufficient to account for the level of objective reality possessed by the idea of God. It is simply too weak to be the origin of this level of objective reality. Since Descartes cannot be the origin of this idea's objective reality – in other words, he cannot fabricate its content – it looks to be a primary idea (either innate or adventitious). According to the first causal–representational principle, since this idea is a primary idea, its objective reality will have its origin in (it will be derived from) the formal reality of some object. And, according to the second causal–representational principle, the thing from which a primary idea derives its objective reality must possess a level of formal reality that is at least as great as the level of objective reality possessed by the idea. So, if the level of objective reality possessed by the idea of God is associated with the *infinite*, then the cause (or origin) of this objective reality must possess a level of formal reality that is at least as great. Therefore, the cause (or origin) of the idea of God must possess at least a level of formal reality that is infinite. Since Descartes's mind is finite, the origin of his idea of God cannot be himself. The origin must be some being other than himself that possesses an infinite level of formal reality. And, since formal reality is simply another way of expressing existence, to say that the cause of this objective reality possesses formal reality is to say that it *exists*. Thus, God, or the infinite being, *exists*. The cause (or origin) of the idea of God must be something that exists and is infinite. So, applying this to you, given that you have an idea of God (an idea of an actual infinity), "from what has been said it must be concluded that God necessarily exists" (AT VII 45; CSM II 31). This is Descartes's main argument in the Third Meditation for the existence of God.

1.5 Why God, Creator of Descartes's Mind, Cannot be Understood as Being a Deceiver

1.82 Why must God be benevolent? Why cannot God be evil? Descartes reasoned that if God is the origin of his faculty of reason, and supposing that God is all powerful and God *cannot* be a deceiver, then whenever Descartes

used this faculty appropriately, this faculty could never go wrong. It could go wrong only if God intended it to go wrong. But, if God's intentions are those of a benevolent being, intending wrongdoing must be ruled out. And, if God is all powerful, God could certainly do whatever God intended to do. To be sure, one could misuse the faculty of reason, in which case going wrong would certainly be possible. But that would not be due to any fault in the design. Instead, it would be the fault of the one employing the faculty. This is basically Descartes's line of reasoning in the Fourth Meditation, when considering how it is that error in judgment is possible.

1.83 The upshot is this: if Descartes's faculty of reason compelled him to assent to, say, "If I am thinking, I exist," and God is the author of that compulsion, Descartes can trust this compulsion, he can trust his faculty of reason, the one that God designed. If Descartes cannot conceive a case in which "I am thinking" is true and "I exist" is false, then that would also tell Descartes that it is impossible that "If I am thinking, I exist" is false. Whatever his faculty of reason tells him is true *is* true. If anything like "If I am thinking, I exist," which he understood with such clarity, *could* turn out to be false, God would be to blame for having provided Descartes with such a lousy faculty. And given that God could have suited him with a reliable faculty but did not, God must be taken as being nothing short of a deceiver (or as an underachiever of some sort). So, why cannot God be a deceiver?

1.84 An analysis of the concept of *deception*, Descartes suggested, would show us that deception is a complex idea composed of two items: *being* and *nonbeing* (privation). Now, we have seen this sort of analysis before: in Descartes's analysis of his idea of finite being. Let us keep that in mind, for there looks to be a connection between the idea of the finite and the idea of deception. Very likely borrowing from Augustine, Descartes identified the metaphysical concepts of being and nonbeing with the epistemic concepts of *truth* (being) and *falsity* (nonbeing). We saw that already supported by what he said in a letter to Clerselier. But, Descartes will also associate being and nonbeing with the *moral* concepts of *good* (being) and *evil* (nonbeing). On this view, evil is not something that is "real," but is simply the absence of being, the absence of what is "real." (So, on this view, God is not cast as having *created* evil, since evil is not anything at all, and so it is not something that is created.)

1.85 Suppose that Jones aims at deceiving Smith. How is this to be understood? On Descartes's view, Jones will succeed at deceiving Smith if she can convince Smith that there is something (being) when in fact there is nothing (nonbeing), or if she convinces Smith that there is nothing (nonbeing) when in fact there is something (being). For example, Jones takes a gold

coin and appears to place it in her right hand. She closes her right hand tightly. Smith sees Jones do this. He believes that the coin is there, in Jones' closed right hand. But through sleight of hand, Jones actually retained the coin in her left hand the entire time. Her closed right hand is actually empty. Jones succeeds at deceiving Smith by getting him to believe that there is a gold coin (being) in her right hand, when in fact there is no gold coin (nonbeing) there.

1.86 Recall that the idea of God, the idea of an actual infinity, is an idea of boundless being. The idea contains *being* only – there is no limitation or privation. Putting things together in terms of being, truth, and goodness, God *is* being, truth, and goodness. By contrast, and this is important, insofar as no limit or privation is associated with the infinite (as Descartes understood it), God simply cannot be understood in terms of nonbeing, falsity, or evil. Since the concept of deception requires both being and nonbeing for its formulation, and the idea of God includes only the first of these, *being*, then the concept of deception cannot apply to God. In other words, we cannot conceive of God as being a deceiver. For, to do that we would have to impose some element of limitation or privation. But as soon as we did that, we would render the idea an idea of *finite* being. It would no longer be the idea of God. In fact, the idea of an infinite being who was a deceiver is an *internal contradiction*. This insight is important to Descartes's view. For if God is conceived as being infinitely powerful (omnipotent), say, then God cannot be conceived as being a deceiver. The very idea of a deceitful infinitely powerful being is a contradiction, no different from the idea of a square-circle, or from a contradiction discussed earlier, when noting that the supremely powerful evil being, assuming there was such a being, could not deceive you, because in order to do so, it would have to make it so that you exist and do not exist at the same time. Why is this important? Well, recall that the supremely powerful evil being was cast as an *infinitely* powerful, *deceitful* being. According to Descartes's analysis, the idea of a supremely powerful evil being is shown to be a contradiction. Such a being is *not* possible: it *cannot* be conceived. So, although Descartes initially raised the concern about a supremely powerful evil being in the First Meditation, by the close of the Third Meditation, he demonstrated that that concern was ill-formed. For, since a supremely powerful evil being is akin to a square-circle, it is not a possibility (that is, it is not conceivable!). Descartes suggests to the reader that we were just confused when raising this issue initially in the First Meditation. But, philosophizing in an orderly and proper way has cleared this up. If Descartes has shown that God exists, is no deceiver, and is the origin of his mind, he can now dispense with the skeptical concern, as

slight as it was, that a deceiver created his mind and its faculty of reason. When used properly, the faculty of reason can be trusted!

A supremely powerful evil being, then, was really not something that should have ever worried us. As noted earlier, Descartes would admit that his initial worry looked to have been based on a rather serious confusion. But, luckily, philosophy straightened all of that out. And, if that story was really the only thing holding us back from trusting our faculty of reason, and we have dismissed that story as a story that cannot even be told (it is self-contradictory), we have no other reasons for doubting the reliability or trustworthiness of our faculty of reason. As was just affirmed, reason can be trusted. 1.87

So, here is a summary of what we should have learned in the Third and Fourth Meditations: God exists, God is no deceiver, and God is the origin of Descartes's faculty of reason. How did Descartes establish this last claim? He showed that all finite beings, including his own mind, will ultimately have their origin in the Infinite being, namely, in God. Now, Descartes had recognized that his faculty of reason sometimes compelled him to assent to the truth of a clear and distinct idea. Were it the case that an idea to which one was compelled to assent (a clear and distinct idea) was in fact false, then God, who authored the compulsion to assent, would be a deceiver. But God cannot be a deceiver. So, it cannot ever turn out that an idea to which one is compelled to assent is false. It would appear, then, that all of those propositions that are classified as eternal truths, the ones that compel our assent to affirming their truth, which includes his first principle and all mathematical propositions, are true. 1.88

The conclusion just drawn, including the "truth rule" that whatever he clearly and distinctly perceives is true, expresses what Descartes would claim toward the close of Part Four of the *Discourse*: 1.89

> For in the first place, what I took just now as a rule, namely that everything we conceive very clearly and very distinctly is true, is assured only for the reasons that God is or exists, that he is a perfect being, and that everything in us comes from him. It follows that our ideas or notions, being real things and coming from God, cannot be anything but true, in every respect in which they are clear and distinct. Thus, if we frequently have ideas containing some falsity, this can happen only because there is something confused and obscure in them, for in that respect they participate in nothingness, that is, they are in us in this confused state only because we are not wholly perfect. And it is evident that it is no less contradictory that falsity or imperfection should proceed from God than that truth or perfection should proceed from nothingness. But if we did not know that everything real and true within us comes from a perfect and infinite being then, however clear and distinct our ideas were, we would have no reason to be sure that they had the perfection of being true. (AT VI 38–39; CSM I 130)

1.6 The Problem of the External World Continued: The Case for a Material World

1.90 Descartes's proof for the existence of the material world is offered in the Sixth Meditation. There are two stages of the proof. In the first stage, we find what is sometimes referred to as the "Real Distinction Proof." This establishes the possibility that mind and body can exist separately or independently of one another. It is in the Fifth Meditation that Descartes worked out some of the details of the nature of body, which allowed him in the Sixth Meditation to draw a real distinction between body and mind. We will focus primarily on the Sixth Meditation in what follows. In the second stage, we find the proof of the existence of body (or the material world). Let us look at each stage. This will bring our examination of Descartes to a close.

1.6.1 The Real Distinction Proof: Descartes's Mind–Body Dualism

1.91 In the Synopsis of the *Meditations*, Descartes summarized the results of the Second, Fourth, and Sixth Meditations. He wrote:

> The inference to be drawn from these results is that all the things that we clearly and distinctly conceive of as different substances (as we do in the case of mind and body) are in fact substances which are really distinct one from the other; and this conclusion is drawn [ultimately] in the Sixth Meditation. (AT VII 13; CSM II 9)

Several paragraphs later, still in the Synopsis, specifically concerning the Sixth Meditation, Descartes would write:

> . . . the mind is proved to be really distinct from the body, but is shown, notwithstanding, to be so closely joined to it that the mind and the body make up a kind of unit . . .. (AT VII 15; CSM II 11)

The "unit" that he is talking about here is the human being. The human being is composed of both a mind and a body. As he would show in the Sixth Meditation, they worked together by divine institution. Even so, the metaphysics shows that what makes up this "unit," namely *mind* and *body*, are nevertheless ontologically independent entities – they *can* exist independently of one another.

1.92 Descartes held that we can conceive of the nature of mind independently of the nature of body, and vice versa. In the Sixth Meditation, he wrote:

> First, I know that everything which I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my understanding of it. Hence the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct, since they are capable of being separated, at least by God . . . on the one hand I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand I have a distinct idea of body, in so far as this is simply an extended, non-thinking thing. And accordingly, it is certain that I am really distinct from my body, and can exist without it. (AT VII 78; CSM II 54)

The two ideas – the idea of mind and the idea of body – are cast by Descartes as being *distinct* ideas. We now know that an idea is distinct whenever it includes or contains only what is clear. And, we know that an idea is clear whenever we recognize a necessary connection to hold between the simple natures in the idea. Since a distinct idea includes only what is clear, then a distinct idea is *maximally* clear. This means that a necessary connection is recognized to hold between *all* of the simple natures constituting the idea's content. So, the idea of mind and the idea of body as described in the above passage is each maximally clear. This line of reasoning is not surprisingly related to the notion of *presupposition*, which we will now discover is importantly related to what Descartes says about *abstraction* and *exclusion*. Let us pause to work this out before moving forward.

Recall we said that *shape presupposes extension* in the sense that our con- 1.93
ceiving *shape* required our conceiving *extension*. We engage in the mental activity of *exclusion* when we focus on one ideational element and remove or separate out the others, where post-removal the ideational element, the one on which we are focusing, remains intelligible. Sometimes Descartes says that the way we go about removing or separating out the other elements is by *negating* them. If we were to exclude, remove, or separate out the simple nature *extension* from our idea of *shape*, we would render *shape* unintelligible. What this reveals is that in every conceivable world in which B is shaped, B is extended. Were we to negate *extension*, we would also negate *shape*. Once we negate (remove or separate out) *extension*, *shape* will not remain as an intelligible item. Even so, we can focus on *shape* in our idea, *ignoring* the fact that it is *extended*. Ignoring is not the same as negating or removing. When we focus on some simple nature in an idea and ignore others, we are engaged in the mental activity of *abstraction*. So, in focusing on *shape* while simply ignoring the fact that it is extended, we produce an abstract idea – the abstract idea of shape. We can abstract *shape* from *extension* by focusing on shape (as given in the idea) and ignoring extension, but we cannot exclude extension from the idea of shape.

Doing so (removing or excluding extension) would immediately render shape, that on which we are focused, unintelligible.

1.94 Now, two things are "really distinct," Descartes says, if we can exclude them. In line with what he will later say in the *Principles* (AT VIIIA 28; CSM I 213), we can define *real distinction* as follows:

> **A is *really distinct* from B if, and only if, we can conceive A (or its nature) independently of our conceiving B (or its nature), and vice versa.**

The paradigm case is the case of mind and body. We can conceive of the nature of mind, which is *thinking*, independently of our conceiving of the nature of body, which is *extension*, and vice versa. Using the *exclusion* language, we say that we can exclude the simple nature *extension* from our idea of mind and the simple nature *thinking* from our idea of body. Showing that mind and body are really distinct from one another is the first stage of the proof of the material world.

1.95 The second stage of the proof begins by again analyzing the idea of body (the idea of corporeal substance). In the *Meditations*, Descartes would note that the level of objective reality contained in the idea of body could have its origin in the formal reality of the mind. This was unlike the result of our analysis of the idea of God. In that case we reasoned that the level of objective reality contained in this idea was too great to have its origin in a being whose level of formal reality was only that of a finite substance. In this new analysis of the idea of body Descartes no longer concerns himself with the *level* of objective reality contained in the idea, but instead focuses on the fact that this idea exhibits to the mind an *extended* thing. This simple nature, we now know, can be understood independently of the nature of mind. Its independence is emphasized in Descartes's noticing that his ideas of bodies, especially those that constitute sensory experience, are "produced without my cooperation and often even against my will" (AT VII 79; CSM II 55). What is more, the shapes, sizes, and motions that he perceives in bodies are modes whose very intelligibility requires the conception of extension (the simple nature). "But it is clear," he wrote, "that these other faculties (the capacity to be shaped, sized, etc.), if they exist, must be in a corporeal substance and not an intellectual one; for the clear and distinct conception of them includes extension, but does not include any intellectual act whatsoever" (AT VII 79; CSM II 55). So, there must be some *other* substance, he claimed, a substance other than his mind, that was the origin of the objective reality of the (primary) ideas of bodies.

1.96 This theme was briefly entertained back in the Third Meditation. There, Descartes had asked what it was about his sensory ideas of bodies that led

him to believe that they have their origin in things existing "outside" his mind. He answered:

> . . . I know by experience that these ideas do not depend on my will, and hence that they do not depend simply on me. Frequently I notice them even when I do not want to: now, for example, I feel the heat of the fire whether I want to or not, and this is why I think that this sensation or idea of heat comes to me from something other than myself, namely the heat of the fire by which I am sitting. (AT VII 38; CSM II 26)

The trouble, he said, is that his thinking that such ideas have their origin in bodies existing independently of his mind looked to be based on a "spontaneous impulse," something that may be simply the product of human nature. That these ideas have their origin in a *material* reality was not revealed by reason or by the "natural light." In the Third Meditation, he was not in a position to trust this spontaneous impulse. This led him to conclude in the Third Meditation:

> All these considerations are enough to establish that it is not reliable judgment but merely some blind impulse that has made me believe up till now that there exist things distinct from myself which transmit to me ideas or images of themselves through the sense organs or in some other way. (AT VII 39; CSM II 27)

The question of this impulse reemerged in the Sixth Meditation. Descartes now thought that he was in a better position to assess its veracity. This would begin by considering that there are only four possible causes (origins) of the idea of body: 1.97

> *his mind,*
> *some finite mind other than his,*
> *God,*
> *Body.*

Since the ideas of bodies appear to come to him even against his willing them, it follows, Descartes says, that his mind cannot be their origin. For, if he were their origin, he would know it. But, if it *were* his mind, or some other finite mind, or even God, and minds are essentially non-extended, then the ideas of bodies would represent to him their causes as having a property that they in fact do not possess – as least not formally. At best, his mind, or some other finite mind, or God would possess extension eminently. We should pause here and get clear about this formal/eminent distinction.

1.98 As with many of the philosophical distinctions we find in Descartes's work, this was another that was taught in the schools. We already know about the formal reality/objective reality distinction. The formal–eminent distinction is different, though it does employ the term "formal." The distinction is discussed in some detail in Aquinas' work. It has to do with two ways in which we think about the possession of properties. To be said to possess a property formally, two criterions would have to be met. We can define formal possession this way:

> **A *formally* possesses property P if, and only if, A can give P to other things, and "A is P" is true.**

Take, for example, the hot fire. We can say that the fire formally possesses heat, since the fire can give heat to other things, and "The fire is hot" is true. By contrast, eminent possession can be defined thus:

> **A *eminently* possesses property P if, and only if, A can give P to other things, and "A is P" is false.**

Consider a charred log sitting in the firepit. The fire "caused" the log to blacken. In this sense, the fire is understood as having given the property *black* to the wood log. Even so, we know that "The fire is black" is false. Given that the fire can give to other things the property *black*, and yet "The fire is black" is false, we say that the fire possesses black *eminently*.

1.99 Returning to Descartes's consideration of the possible causes of his ideas of bodies, ideas that represent to him essentially *extended* things, he noted that whatever is the cause must possess extension either formally or eminently. We now know what that would mean. How does this distinction inform his analysis? Let us look.

1.100 Descartes claimed that his ideas of bodies represent to him objects that are *essentially* extended. That is, his ideas represent bodies as things possessing extension *formally*. So, whatever is their cause, it would have to be true that they are extended. If his mind, or some other finite mind, or God *were* the cause (origin) of your ideas of body, then these ideas would misrepresent their object (the cause or origin of the ideas). For, they would misrepresent an essentially non-extended thing as though it were an essentially extended thing! Descartes reasoned:

> But since God is not a deceiver, it is quite clear that he does not transmit the ideas to me either directly from himself, or indirectly, via some creature

> which contains the objective reality of the ideas not formally but only eminently. For God has given me no faculty at all for recognizing any such source for these ideas; on the contrary, he has given me a great propensity to believe that they are produced by corporeal things. So, I do not see how God could be understood to be anything but a deceiver if the ideas were transmitted from a source other than corporal things. It follows that corporeal things exist. (AT VII 79–80; CSM II 55)

The "great propensity to believe" that his ideas of bodies originate in bodies, a propensity given to him by God, turns out to be that spontaneous or blind impulse he considered back in the Third Meditation. Back then, he was not in a position to assess its veracity, so he put little stock in it. But now that he has discovered that God exists, is no deceiver, and is the origin of his mind, which includes that great propensity to believe that his ideas of bodies originate in bodies, that impulse *can* be trusted. For, were God to give him this impulse, and yet it compelled him to believe something that was false, then God would be a deceiver. But, God is not a deceiver. So, it follows that this impulse, which God gave him, compels him to believe something that is true. Specifically, now using Descartes's technical terminology, the impulse compels him to believe that the objective reality of the idea of body has its origin in the formal reality of body – that is, in the formal reality of a *corporeal* substance. And, since saying that *a thing possesses formal reality* is identical to saying that *it exits*, then in saying that body possesses formal reality, which is the origin of the objective reality contained in his idea of body, this is no different than saying that body exists (or that bodies exist). This is Descartes's proof for the existence of the material world, a world that exists independently of the mind.

1.101 We can now apply a way of casting a distinction between "internal to the mind" and "external to the mind," which was briefly introduced in our Introduction. A thing is said to be *internal* to a mind if, and only if, it depends on this mind for its existence. A thing is said to be *external* to a mind if, and only if, it does not depend on this mind for its existence. Casting the distinction this way allows us to avoid thinking of the mind as a kind of box, which has an inside and an outside. The mind, at least according to Descartes, is *not* extended, and so it is not like the box, which is extended. To think of the internal/external distinction in this "boxy" sense, if talking about the mind, we would be speaking metaphorically at best. When Descartes claims that bodies exist *external* to his mind, he is not speaking metaphorically. What he is claiming is that bodies do not depend on his mind for their existence.

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