Scientia and the Cartesian Circle: Finally Getting It Straight

Some changes made from printed version, pp. 23-25; footnotes need fixing.

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1. Two kinds of clear and distinct ideas, two kinds of validation

When introducing the need for "a general rule that whatever I perceive very clearly and distinctly is true" -- the "rule of truth" as I shall call it -- in Meditation III, Descartes explains that this is needed if he is to be certain about anything, -- a "certainty-pre-requisite" as I will call it -- especially about what he identifies as "this first item of knowledge." (AT VII, 35; CSM II, 24) This first item of knowledge is that I am a thinking thing.

> I am certain that I am a thinking thing. 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 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)

Sometimes Descartes subscribes to the principle that truth consists in the containment of the content of an idea (the "objective being of the idea") in its cause either formally or eminently. (Letter to Mersenne: March, 1642: AT III, 545; CMSK, 211) I call this the "containment conception of truth". In Meditation III the Rule of Truth takes a clearly and distinctly conceived *proposition* about my essence –"I am a thinking thing" – and guarantees that this proposition

corresponds to reality. The conception of truth here is a property of propositions, not ideas, as in the containment conception.[1] I use the term “Rule of Truth” always to refer to the propositional principle wherein the word “true” (or “truth”) is explicitly mentioned. This rule is stated in other places, especially important being Meditation IV where the principle is officially proved by Descartes in the last paragraph. (AT VII, 62; CSM II, 43) Sometimes the guarantee of propositional truth is expressed in principles not explicitly mentioning truth, for example, in the following passage from the Fourth Replies, to Arnauld. In this case I will refer to “The Correspondence Principle,” not “The Rule of Truth.

> …from the fact that I am aware of nothing else belonging to my essence (that is, the essence of the mind alone) apart from the fact that I am a thinking thing, it follows that nothing else does belong to it.” [4th Replies: AT VII, 154; CSM II, 154.

The wording of this principle comes from the Preface (AT VII, 8; CSM II, 7) via the 4th Objections: [AT VII, 199; CSM II, 140]

Descartes goes on to say that the place “where it was that I embarked on proving [this]” is “where I proved that God exists”. (ibid.). Why should Descartes connect the proof of this principle with his proof of God? Answering this requires looking at the details of Descartes’s proof that he is a *res cogitans* in Meditation II, the first item of knowledge mentioned in the passage from Med. III we quoted above.

In Meditation II Descartes says that a *res cogitans* is a substance whose whole essence is to think; **I** am a *res cogitans* because **I** am a substance whose whole essence is to think. Let’s set aside the question why Descartes’s thinks that my *whole* essence is thinking and ask why he maintains that at least part of it is. His answer is to give a thought experiment: Try to conceive of yourself as a being without thoughts or other mental states – you can’t do it, so thoughts or

[1] See my article on Truth in the Cambridge Descartes Lexicon for a detailed discussion of the conceptions of truth in Descartes.

other mental states are essential to my being me. [quote some texts here.] Notice that there is an implicit inference here, an inference from what I can conceive to what is objectively possible or, rather, from what I cannot conceive to what is objectively impossible. This is because the conclusion of my reasoning concerns (some of) my essential properties, and what is essential to me is an objective modal fact, a fact about objective possibilities and impossibilities. The same distinction that usually exists between the facts and what we think are the facts applies to facts about essences. In both cases certainty requires some account of how the gap can be closed.

In the Third Meditation Descartes proposes a rule of truth for clear and distinct ideas as the gap closer: *Everything of which I have a clear and distinct idea is true*. In the quotation from the Fourth Replies just given Descartes also shows his awareness of the gap but gives a slightly different account of how it is to be closed: it is to be closed by an application of The Correspondence Principle, a principle asserting a correspondence between what I *believe* is my essence and what *is in fact* my essence. (This principle might also be taken as a "rule of truth" on a redundancy theory of truth, but I won't press this suggestion here.)

Of course, Descartes does not think that just any old belief corresponds to reality, only those which are arrived at in the right way. In the passage from the Fourth Reply he calls believing[2] in the right way *awareness*, in the passage from Meditation III he calls it *having a clear and distinct idea.* In both cases, believing in the right way involves using a thought experiment and in both cases the thought experiment comes with a guarantee, The Correspondence Principle and The Rule of Truth, respectively.

But what validates the principles themselves? For this Descartes appeals to God. Following Hatfield[3] I see two notions of validation in Descartes, one weak, the other strong. A *strong validation* is one requiring a demonstration that

[2] This characterization of awareness as a kind of believing will need to be revisited in light of complications that arise from Descartes' theory of knowledge proper, which I treat below.
[3] The idea, and terminology, are due to Hatfield: G. Hatfield, *Routledge Philosophy Guidebook to Descartes and the Meditations* (Routledge, 2003): 94-95.

there is a certain kind of being, a *weak validation* is one requiring only that we show that *there is not* a certain type of being. The kind of validation provided by God in the case of the *Res Cogitans* proof is strong validation: it requires the positive presence of a certain kind of being, a being who can create human beings with the requisite intellectual capacities, not simply the absence of another kind of being, a being with God-like powers capable of, and intent on, deceiving me about the most fundamental things even when I am on my epistemic best behavior.

If we look to *Principles I, 7,* however, we find that the first item of knowledge is not that I am a thinking thing, a proposition about my essential nature, but is the cogito-inference: "I am thinking therefore I exist," quite a different proposition, not about my essential properties. (VIIIA, 6-7: CSM I, 194-95) This same formulation is given in Discourse IV: (AT VI, 32; CSM I, 127)

The cogito here is called an inference and the kind of inference that is involved is an intuition[4], an inference that we grasp by an act of deductive intuition. This is one of two main kinds of intuition countenanced by Descartes.[5] Notice that Descartes makes no reference to a Rule of Truth here, no reference to a precondition for the certainty of deductive intuition. Why is that? Because no precondition is needed to ensure the results of acts of intuition. We will see in the next section several texts in which Descartes says exactly this.

But in Meditation III Descartes seems to say that removing what he calls "this slight reason for doubt" requires that "I must examine whether there is a God". Because whether *there is* a God is in question here, whatever doubt is being removed here, removing it requires a strong validation. The critical question is: What is *this* doubt. There are two options. One is doubt about the truth of a deductive intuition like the Cogito, the other is doubt about whether a certain mental state actually is a deductive intuition – perhaps I just think that it is. The former is a doubt about non-epistemic propositions like "I think therefore I am" the second is a doubt about the epistemic status of a given idea. If the first is

[4] See Second Replies …
[5] See Rules for the Direction of the mind, chapter …, .

right, then this contradicts my contention that Descartes requires no validation for deductive intuitions like the cogito. If the second is right, then it does not. We shall see later, when we return to this text, that the examples Descartes discusses here support the first option. So, I shall take as established that if we have what is in fact a deductive-intuition of a proposition that p, that entails that p is true. I shall call this *The Entailment Principle.* If doubts arise in connection with deductive intuitions for Descartes, it is doubts about whether some idea has this epistemic status, rather than a doubt about the truth of the deductive intuition itself.

A further question: Why is no precondition needed to ensure the truth of clear and distinct ideas when they are acts of deductive intuition (as in the cogito) but a precondition is needed to ensure the truth of clear and distinct ideas when they are intellectual acts grasping the essences of substances? Part of the answer, which I have argued for in detail elsewhere, is that deductive intuition is the grasping of logical relations between propositions, which is itself inferred from a more basic intuitive action in which the mind sees logical relations between *properties or attributes*.[6] The relations in question are those between a *property determination* and a *property determinable*, for example, the relation between the property of squareness (the property determination) and that of rectangularity (the property determinable). Facts about these relations are not in themselves modal facts but they are facts about properties from which modal facts can be derived. This means that we do not need to appeal to a validation of the correspondence between what I believe to be the case about objective possibilities and impossibilities and the objective possibilities and impossibilities themselves. It is the existence of this correspondence which is the precondition for certainty that Descartes speaks of in Meditation III.

Having answered this question, it is inevitable that we raise two more. The first is: Why should Descartes not avail himself of deductive intuition, an epistemic device not requiring a strong validation, in the case of our coming to know our own essence? The answer is that deductive intuition is a form of

[6] CT, Appendix A, 223 -25.

immediate perception, and immediate perception takes only properties, not substances, as its object.[7] So, any truth involving essential properties of a particular substance has to rely on a different method, which is the case when I, a substance, serves as the subject of a thought experiment. The second, correlative, question is: Why, then, should Descartes think only in the case of thought experiments that there is a distinction between what we believe the facts to be and what they truly are and not also think that this distinction applies in the case of deductive intuition. How can there be an "awareness" of such relations that does not go through beliefs? For the answer to that question we need to wait until we discuss Descartes's epistemology, in Section 3.

To sum up. Descartes has in his philosophical deck two notions of clear and distinct ideas, one is a grasp of property relations and the other is a grasp of the essences of substances, both resting on capacities of the Intellect. Both need validation by appeal to God, but only the latter requires a strong validation. From this result we can see in principle that if Descartes plays his cards right, he should be able to avoid a vicious circularity in his deductive proofs, for example, his proof of the existence of God. But seeing this in principle is different from seeing how Descartes actually carries out the proof. To this I now turn.

My plan in Section 2 will be to look at the circularity charge in the form Arnauld gives it in the Fourth Objections and Descartes' overt response in the Fourth Replies. This response makes heavy weather of the distinction between having a clear and distinct idea and *remembering* that one had one, a response that has seemed so inadequate to many commentators that they have declined to accept it as Descartes's considered response, replacing it with responses of their own. I believe that this is a mistake. Descartes's considered solution is at least sign-posted by his overt response and, if we follow it through, turns out to be a subtle and sophisticated solution indeed. But following it through requires that we understand Descartes general epistemology, including his account of the difference between knowledge and what he calls "*scientia".* This task I undertake

[7] (See the def'n of Substance in the Second Replies geometrical exposition, AT VII, 161; CSM II, 114)

in Section 3. Only then will we be in a position to explain how Descartes's deductive proofs work, how they avoid circularity and how they depend on a strong validation from God, a task I undertake in Sections 4 and 5.

2. The Cartesian Circle

Arnauld's Formulation of the Circle.

The most famous statement of the Cartesian Circle comes in Arnauld's set of objections (the Fourth Set of Objections):

> I have one further worry, namely how the author avoids reasoning in a circle when he says that we are sure that that what we clearly and distinctly perceive is true only because God exists.
>
> But we can be sure that God exists only because we clearly and distinctly perceive this. Hence, before we can be sure that God exists, we ought to be able to be sure that whatever we perceive clearly and evidently exists. (AT VII, 214; CSM II, 150)

Descartes's Reply

Descartes responds to Arnauld's charge in the following way:

> I have already given an adequate explanation of this point in my reply to the Second Objections, under the headings *Thirdly* and *Fourthly,* where I made a distinction between what we in fact perceive clearly and what we remember having perceived clearly on a previous occasion. To begin with, we are sure that God exists because we attend to the arguments which prove this; but subsequently it is enough for us to remember that we perceived something clearly in order for us to be certain that it is true. This

would not be sufficient if we did not know that God exists and is not a deceiver. (AT VII, 246-7; CSM II, 171)

The thrust of Descartes's response, oft repeated, is that clear and distinct perception leads to absolutely certain belief whenever I am *currently* having the clear and distinct perception; doubts can creep in only for those cases when I am *remembering* having had a clear and distinct idea. These doubts are then put to rest by seeing that God exists. As long as this procedure is carried out in the right order, no circularity arises. This much is clear enough in Descartes, but we still need to know how the answer works in detail. A great deal has been written on the Cartesian Circle in general (in Arnuald's formulation, the question whether Descartes can succeed with a non-circular proof of God's existence) and with the memory-response of Descartes. Each of these topics deserves a full a detailed treatment, including a discussion of the large secondary literature devoted to each, but doing so is not part of my purpose here.

Remembering that something is the case, or misremembering that something is the case, is a species of *believing* that something is the case. While most of the textual focus in Descartes is on the memorial kind of believing that I have a clear and distinct idea, there are some texts in which the focus is on believing in general, in this case, believing in general that I have a clear and distinct idea of something. The key epistemic problem for believing in general is distinguishing true belief from false belief, given the absence of any way to distinguish between the two cases by the qualitative character of the beliefs themselves. *A fortiori*, this problem applies in the case of beliefs about clear and distinct ideas in particular and I believe that this is the underlying issue for Descartes in paragraph 4 of Meditation III, the place where he says that knowing God's nature as a non-deceiver is necessary before we can lay to rest the last of our doubts, even about those things that seem most clear and distinct. In the remainder of the paper I refine our understanding of the problem and develop a Cartesian solution to it, drawing on Descartes epistemology, a formulation of which I now present.

3. Descartes's theory of knowledge

To all appearances, Descartes's general epistemology centers on the "quest for certainty". The failure to find certainty in the teeth of dreams and evil demons is then understood as establishing, provisionally, external-world skepticism – the thesis that we lack knowledge of the external world. To get this result we assume that Descartes endorses a justified-true-belief account of knowing, with the justification clause interpreted as normatively qualified certainty. A modern version of this account is expressed in A.J. Ayer's analysis of knowing as having *the right to be sure*.[1] On this view, Descartes's account of knowledge is a version of what I would call Deontic Epistemic Justificationism.

Now there is much in this reading that is sound -- Descartes **is** concerned with certainty and he **is** concerned with with epistemic obligations as they relate to belief. Moreover, one of his central epistemic notions is that of *scientia* -- a scholastic term that is sometimes rendered in the Cottingham translation as "science," sometimes more generally as "knowledge,"[2] – and it entails certainty. It is *scientia* which Descartes intends to undermine by his method of doubt[3], *scientia* which is to be restored when the doubt has been banished. What has been restored is the right to be certain; so the status of *scientia* is achieved for a set of beliefs only when we have a right to be certain of them. That much, I think, is indisputable. But I now wish to consider two additional questions. (1) Does the notion of *scientia* amount to *knowing* for Descartes*?* I think that it does not.[4] (2) Does the Cartesian notion of intuition amount to knowing for Descartes? I think that it does. However, there is an important text from the Second Replies which may suggest otherwise. I quote it in full as it appears in Cottingham's translation:

> Now awareness of first principles is not normally called 'knowledge' by dialectitians. And when we are aware that we are thinking things, this is a primary notion which is not derived by means of any syllogism. When someone says "I am thinking, therefore I am or 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. (AT VII, 490;

CSM II, 100.)

Descartes appears here to be contrasting awareness of first principles -- later identified with intuition -- with "knowledge," hence contrasting intuition with knowledge. But this is more an artifact of Cottingham's translation than a doctrine clearly present in the original text.

The first occurrence of "awareness" (in line 1) is a translation of *notitia* in the Latin, *connoissance* in the French,both of which are naturally translated by "knowledge" in English. The first occurrence of "knowledge" (in line 1) is a translation of *scientia* in the Latin, *science* in the French. Of course we can't **both** translate *notitia/scienta* as 'knowledge' and *scientia/science* by the very same term -- that would represent the dialecticians as saying that knowledge is not normally called "knowledge". Since what is at issue here is what word the dialecticians would **call** something, perhaps the best policy is simply to use the word itself as it is in the original, *scientia.* There is also the question whether the second occurrence of "awareness" (in line 2) is the best translation of the orginal terms. In French the term is *aperçevons*; in Latin it is *advertimus.* Cottingham's translation renders these terms as "we are aware". However, the kind of cognition at issue here seems to be similar to that conveyed by the words *lorsque quelqu'un aperçoit qu' il pense* in the French text (AT IX, 225-226) and *Cum itaque quis advertit* in the Latin (AT VII, 422) in a crucial passage from the Sixth Reply. Even Cottingham there renders the original into the English "When anyone notices..." (CSM II, 285.) Moreover, "noticing" is clearly distinguished in the Sixth Replies from "inner awareness of our thought" (*la connoissance interieur/cognitio interna*). So it would seem adviseable to replace the second occurrence of "we are aware" with "we notice" in the passage from the Second Replies quoted above.The result of these changes leaves us with the following :

> Now knowledge of first principles is not normally called '*scientia*' by dialectitians. And when we notice…

It is this "knowledge" of first principles that is described as "intuition" a few lines later.

However, the text of the immediately following paragraph appears to pose a problem for this reading because Descartes there goes on to explain the difference between a mathematician's intuitive cognition and *true knowledge* in such a way as to suggest that intuitive cognition is not a form of knowledge, but *scientia* is – just the opposite of what I have been contending. This suggestion is accepted by Cottingham and is reflected in his translation of the Latin term *cognitio* as "awareness" and *scientia* as "knowledge" in the following passage :

> The fact that an atheist can be "clearly aware that the three angles of a triangle are equal to two right angles" is something I do not dispute. But I maintain that this awareness of this is not true knowledge, since no act of awareness that can be rendered doubtful seems fit to be called knowledge. (AT VII 141; CSM II, 101)

Cottingham explains the difference between the mathematician's intuitive cognition and *scientia* as the difference between "an isolated act of awareness" – something which is not knowledge - and "systematic, properly grounded knowledge" (CSM II, 101, n.1) But Descartes would regard the "ungrounded" and "isolated" nature of intuitive awareness as unsuiting it for the role of knowledge only if he has a fundamentally coherentist account of knowledge. Presumably Cottinghman is suggesting that this is just how we should understand Cartesian epistemology.

There is, however, another way to understand Descartes' doctrine that does not have this rather drastic effect on our traditional, foundationalist understanding of Cartesian epistemology. Consider the version of this same passage translated from the French:

> Now, that an atheist is able to know [*connaître*] clearly that the three angles of a triangle are equal to two right angles, I do not deny, I only maintain that the way he knows it is not as true and certain science [*science*] for no knowledge [*connoissance*] which can be made doubtful should be called by that name. Since we

> are supposing that our subject is an atheist, he cannot be certain that he will not be mistaken in those things which seem to be most evident to him, as we have shown above. (My translation of the French text: AT IX, 11; Alquie II, 565)

By “that name” Descartes is referring to *scientia.*

This passage is translated in keeping with the revisions we suggested in the first passage: the French *connoissance and connaître* are translated as “knowledge”, and *scientia/science* are left as they are in the original languages. What is brought out in this text more clearly than in the Latin is that the concept Descartes designates by *science* in the French and *scientia* in the Latin is not a form of *connoissance*, hence not a species of the ordinary concept of knowledge. *Connoissance* is knowledge, in the ordinary sense of interest to contemporary analytic philosophy, and it is knowledge which the atheist mathematician can have when he clearly grasps truths of geometry. We know from earlier doctrine, and from the first passage quoted, that the means by which such matters are grasped is intuition. So intuition in Cartesian epistemology is rightly classified as *connoissance*, knowing in our sense.

What, then is the difference between knowledge and *scientia* ? Briefly[5], it is this: intuitive knowledge is a primitive notion amounting to the presence to mind of a content, *scientia* is having the right to be sure *that I actually have* intuitive knowledge. This is what “can be made doubtful.” What the atheist mathematician fails to possess is the right to be certain of the *second order fact* that he or she does indeed possess intuitive knowledge. Possessing this right would derive from *scientia* and is available only to one possessing the knowledge that there is a God who would not deceive us and thus one possessing the means for engaging in the kind of reasoning that would secure entitlement and certainty for an affirmation of the proposition that he or she possesses genuine intuitive knowledge.

What, then, is the “right to be certain” for Descartes? I won’t attempt to answer this question for the kind of second order application just yet – that is the job of the next section -- but for first order applications the picture that emerges

from Meditation IV is basically this. Psychological certainty is a strong inclination to affirm a proposition, a right to be certain exists when the inclination is derived in accord with an appropriate normative principle. The contemporary notion of belief is best understood in Cartesian terms as an inclination to affirm a proposition, and inclinations to act in general are properties of the will.[6] The appropriate principle is this: "If… I simply refrain from making a judgment in cases where I do not perceive the truth with sufficient clarity and distincness, then it is clear that I am **behaving correctly** and avoiding error." (My emphasis. AT VII, 59; CSM II, 41.) Identifying clear and distinct perception with intuition, I shall gloss this as the principle: *Affirm p only when p is the object of intuitive knowledge.* This amounts to a very stringent principle of doxastic responsibility[8] to which Descartes is committed in his general epistemology but not in his theory of knowledge proper since this principle is not constitutive of knowing. Knowing that p, rather, is the condition that makes affirming that p epistemically responsible – knowing comes first.

This principle, which I shall call *Descartes's Doxastic-Responsibility Principle* is the second of three main principles of Descartes's general epistemology. The first is the Reality Principle, which I have discussed elsewhere.[7] Here they are together:

> *Descartes' Reality Principle*
> If someone has an intuition of a property P then there exists a substance S which contains P. (The substance can be oneself.)
>
> *Descartes' Doxastic-Responsibility Principle*
> Affirm p only when p is the object of intuitive knowledge.

Descartes's Doxastic Responsibility principle is a normative principle connecting intuitive knowledge and an inclination to affirm a proposition, part of what we might call Descartes's "ethics of believing". But there is also in

[8] I take this in a deontic sense. See Noa …

Descartes a psychological principle bridging these same two things: "a great light in the intellect was followed by a great inclination in the will" (Meditation IV: AT VII, 59; CSM II, 41). Notice that here Descartes says "was followed" rather than "should be followed", so we must count this principle as part of a naturalistic psychology not as part of an ethics of believing. (This principle does not say that the **only** cause of doxastic inclinations are acts of intuitive knowledge -- other, more epistemically dubious, sources like sense experience can also create doxastic inclinations. It is to guard against following through on these inclinations that Descartes introduces the normative principle.) The psychological principle can be stated thus:

Descartes' Psychological Principle

When someone S has intuitive knowledge of a certain content then S will come to form a strong inclination to affirm a proposition suitable to the content.

In the passage quoted from Meditation IV Descartes does not say what content or proposition he has in mind but the antecedent of the Reality Principle says that the immediate content of an intuition is a property. Things work out nicely if we now suppose that the proposition "suitable" to the content is none other than that in the consequent of the Reality Principle, which I shall gloss here as the proposition that there is a substance that possesses the intuited property in some way. So we intuit property P and then we then come to believe that there is something that possesses P in some way. But Descartes also says that there is no possibility of error for judgments of this kind (Med IV: CSM II, 39) Why not? – because of the Reality Principle. It asserts that whenever we have an intuition of P, necessarily the proposition *there is a substance that possesses P in some way* is true, and that proposition is very same as the one we are caused to believe by the intuition. So beliefs that p that arise by the natural light are both caused by, and their truth guaranteed (deductively) on the basis of, intuition.

A word about epistemic justification. In its primary use *justification* is a normative concept that assigns a property to actions when they are good or something I am obliged to undertake. The assignment of such properties falls

within the subject matter of Ethics. However, analytic epistemologists have gotten into the unfortunate habit of applying this concept to beliefs or propositions. This is a mistake. Propositions can be known or believed, beliefs can amount to knowledge in the right circumstances, propositions can be proven to be true or plausible or likely, but, despite my use of the term "Ethics of Belief," neither propositions or beliefs are justified.[9] What can be justified is an assertion of a proposition – this, and only this, is a legitimate use of the concept of epistemic justification. This is one of many important lessons that contemporary epistemologists can learn from Descartes.

These three principles, the aforementioned account of epistemic justification, and The Principle of Entailment form the core tenets of Descartes's epistemology.

4. Doubts and validations

Throughout the fourth paragraph in Meditation III (AT VII, 35-37; CSM II 25) Descartes discusses the possibility of being deceived by a God-like being in things he thinks he sees clearly:

> 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…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. (AT VII, 36; CSM II, 25)

These are all examples of knowledge through clear and distinct ideas, so Descartes is affirming here the possibility that a God-like being might be able to deceive him about such things. Deception is false belief, so a precondition of the possibility of being deceived about clear and distinct ideas is the possibility of

[9] I assume here the doctrine that beliefs cannot be formed by voluntary action. If this is not true, then it would still be *the act* of forming beliefs that is justified, not the beliefs themselves.

having false beliefs about clear and distinct ideas, a possibility that he broached in the previous paragraph:

> Yet I previously accepted as wholly certain and evident many things that I afterwards realized were doubtful. (AT VII, 35; CSM II, 24)

It is even possible to have doubts about ideas that were in fact clear and distinct. What kind of doubts are these, and how does Descartes propose to put them to rest?

I assume that, for Descartes. doubt is a psychological state in relation to a proposition p containing a more or less strong tendency to believe that p might be false, which tendency is in competition with a tendency to believe that p is true. I begin my answer to the first question with a catalogue of various kinds of doubts, understood in this sense, that we find in Descartes.

Kinds of doubt:

> Objectively permissible doubt that p: The evidence that I possess for p does not entail p. So doubts about the external world are objectively permissible doubts for an internalist about sensory evidence. Self-evident propositions are propositions whose evidentiary content entails the semantic content, so they are not subject to objectively permissible doubt. An example is The Cogito inference.

> Subjectively permissible doubt that p: may or may not be objectively permissible (evidence may or may not entail p) but I believe that my evidence does not entail p.

Rationally justified doubt that p (assumes subjectively permissible doubt): I have a subjectively justified, positive reason for thinking that p might be false.

Irrational doubt: a doubt that is neither objectively or subjectively permissible.

Doubt about epistemic status : a doubt that I know that p, a doubt that I have a clear and distinct idea that p, doubts about kinds of doubts .

*Thesis A***:** The resolution all types of doubts, save irrational doubts, require appeal to a validation.

Thesis B: The resolution of objectively permissible doubts requires appeal to a strong validation.

Modal beliefs formed as a result of thought experiments do not entail the truth of those beliefs, so doubts arising about the truth of such beliefs are *objectively* permissible. They thus require a strong validation. On the other hand, a belief that arises from a deductive intuition that p in an epistemically responsible way is logically guaranteed to be true, so doubts that arise here are not objectively permissible, so their resolution does not require a strong validation; but it does require a weak validation. This is so whether the doubts in question are rationally justified doubts, doubts where I have some positive reason to think that proposition in question might be false, or merely subjectively permissible doubts, doubts where I believe that my evidence does not entail the truth of the proposition in question but where I lack a positive reason for thinking that it might be false. The proposition in question is that a certain idea is in fact a deductive intuition. This accords with our conclusions in section 1.

The best way to lay to rest doubts that p is the case is to *prove* that p is, indeed, the case. If Descartes has a method for proving that his beliefs about

deductive intuitions are true, then he has the means to lay to rest any doubts that he might have about the subject. This points to the need for a Cartesian theory of how we can prove that our ideas have a deductive-intuition epistemic status.

As just mentioned, the need for a theory proving epistemic-status arises because of the need to lay to rest subjectively permissible or rationally justified doubts. The primary texts where Descartes discusses these considerations in *The Meditations* is Meditation V, beginning with a discussion of the doubts:

> [1] Admittedly my nature is such that so long as I perceive something very clearly and distinctly, I cannot but believe it to be true. But my nature is such that I cannot fix my mental vision continually on the same thing, so as to keep perceiving it clearly…[2] But as soon as I turn my mind's eye away from the proof, then in spite of still remembering that I perceived it very clearly, I can easily fall into doubt about its truth, if I am without knowledge of God. [3] For I can convince myself that I have a natural disposition to go wrong from time to time in matters which **I think** that I perceive as evidently as I can. [4] This will seem even more likely when I remember that there have been frequent cases where I have regarded things as true and certain but have later been led by other arguments to judge them false.

Here Descartes discusses two main cases: (a) the case where I have an actual current intuitive grasp of a self-evident proposition [1] ; and (b) one in which I just *think* that I have a current intuition, or *recall* that I had one in the past [3]. But thinking that I perceive something as evident does not entail that I do perceive it as evident [4], so the kind of doubt here is at least *subjectively permissible*. But Descartes also mentions that he recalls making mistakes about clear and distinct ideas in the past, and the recollection of past mistakes "and other arguments" counts as a reason for thinking that his present belief might be false now. So this doubt also counts as a *rationally justified doubt*.

Descartes now turns to explaining how these doubts are to be resolved:

> Now, however, [5] I have perceived that God exists, and at the same time I have understood that everything else depends on him, and that he is no deceiver; and [6] I have drawn the conclusion that everything which I clearly and distinctly perceive is of necessity true. Accordingly, [7] even if I am no longer attending to the arguments which led me to judge that this is true, as long as I remember that I clearly and distinctly perceived it, [8] there are no counter-arguments which can be adduced to make me doubt it, but on the contrary [9] I have true and certain knowledge [*scientia*] of it. (AT VII, 69-70; CSM II, 48; my numbers interpolated; my emphasis)

In [6] Descartes states the rule of truth and in [5] he validates it. Notice that it is a strong validation. Recall that have already seen an example of the Rule of Truth in Meditation III. There what was clear and distinct was “this first item of knowledge,” the result of a thought experiment that my essence is thinking. The result of the thought experiment is a *belief* that I form about my essence, a belief that counts as a clear and distinct idea since it was formed in the right way. Now, an idea is not a belief -- this is central doctrine in Descartes’s philosophy of mind – and a clear and distinct perception is not a belief – this is central doctrine in Descartes’s epistemology, a presupposition of the Doxastic Responsibility Principle -- so we have to treat the Rule of Truth in the form he gives it here and in Meditation III as considerably misleading.

Descartes doesn’t say what examples of clear and distinct ideas he has in mind in the Fifth Meditation, but there is no indication that it is a belief about my own essence. The indications are that he is thinking of deductive intuitions as his examples of clear and distinct ideas, and is thinking that there is a Rule of Truth for them. But if we want to bring his account of the Rule of Truth in Meditation V into line with his account in Meditation III there will have to be a belief element in any perspicuous formulation of it. He doesn’t explicitly say what it is, but there may be a clue in [7], in the clause: “as long as I remember that I clearly and

distinctly perceived it." Properly speaking, "remembering" is a factive verb – I remember something only if it is true -- but if we take it this way here, then Descartes seems caught in yet another circle: showing that he actually does remember requires showing that the idea was actually clear and distinct, just what was to be proven. So, let's not take it that way! Let's suppose that what Descartes means is "as long as I *believe* that I clearly and distinctly perceived it". Now we have our belief-element.

Notice that the *content* of the belief here is that a certain idea is clear and distinct. This is quite different from the content at issue in the Rule of Truth in Meditation III: there the content is "I am a thinking thing," the belief in which Descartes (misleadingly) classifies as "clear and distinct" because it was arrived at in the right way, not an assignment of the epistemic status of being clear and distinct to a certain idea, as it is in Meditation V.

If I have Descartes right here, then the Rule of Truth which he formulates in Meditation V as "everything which I clearly and distinctly perceive is true should now be reformulated with reference to things which I *believe* to be clear and distinct. Call this *The Doxastic Formulation of the Rule of Truth.* But what is the reformulation? It cannot be that everything, *without qualification*, that I believe to be clear and distinct is true – that is just what he is at pains to deny in the rest of the passage. It must be that everything, *with some qualification*, that I believe to be clear and distinct is true. We are about to find out what that qualification is.

With belief about past events replacing factive memory, Descartes's argument for the conclusion [9] now takes it as a premise that I believe that I clearly and distinctly perceived something. Notice that if we have a doubt that this belief corresponds to reality, that is an objectively permissible doubt. By thesis A resolving that doubt will require an argument that invokes a strong validation. Notice also that with this new premise, the past-time factor that comes from the remembrance premise is not significant. The problem is to get from belief about clear and distinct perception to actual clear and distinct perception, whenever it occurs or occurred. Two sentences later, referring to the counter-arguments as "objections," Descartes indicates that counter-arguments involve the possibility

of making errors. So the argument for the truth of my belief about clear and distinct ideas proceeds by elimination of possible sources of error. Putting these things together we get an argument, *The Argument from the Elimination of Sources of Error*, as I will call it, which takes the following general form:

1. I believe that I have an idea that is clear and distinct
2. If this belief is not true, then I have made an error that arises from one of the following sources of error …
3. None of the aforementioned sources of error is applicable here.

So, 4. My belief that I have an idea that is clear and distinct is true.

Now that we have this argument, we also have the qualification needed for the reformulated rule of truth: it is that no error arises from the set of possible sources of belief. Here is the rule of truth in its new, doxastic formulation:

The Doxastic Formulation of the Rule of Truth

Everything that I believe to be clear and distinct is true, with the qualification that none of the possible sources of said belief is capable of error.

Descartes does not give a catalogue of possible sources of error in Meditation IV but he does in the *Rules for the Direction of the Mind*. Deductive intuitions that p are a kind of propositional idea and propositional ideas are composite ideas. In the taxonomy of sources of composite ideas in Rule 12 (AT X, 424-25; CSM I, 47-48) there are five sources of belief (the tendency to affirm propositions) ;

Impulse: not rational: due to

1. a divine power (No error)
2. our will (Possible error)
3. the imagination (Likely error)

4. Conjecture (No error if conclusions are stated as "probable"; otherwise, likely error.) An example "would be our surmising that above the air there is nothing but a very pure ether, much thinner than air, on the grounds that …" A surmise is an act that we willingly undertake. This seems to be the source of most of the systematic misapprehensions common sense makes about the senses:

> "Right from infancy our mind was swamped with a thousand such preconceived opinions; and in later years childhood, forgetting that they were adopted without sufficient examination, it regarded them as known by the senses or implanted by nature, and accepted them as utterly true and evident." (*Principles I,* 71: AT VIIIA, 36; CSM II, 217)

5. Deduction (No error)

"Deduction…remains our sole means of compounding things that enables us to be certain of their truth." (AT VX; CSM I, 48)

Of all of these sources perhaps impulse from the corporeal imagination is most tricky for Descartes but sometime between the time when he wrote the *Rules for the Direction of the Mind*: 12 and *The Passions of the Soul*: I, 47 he appears to have given up the doctrine that there is a non-rational belief-forming impulse from the corporeal imagination:

> Now we may distinguish two kinds of movement produced in the gland by the spirits. Movements of the first kind represent to the soul the objects which stimulate the senses, or the impressions occurring in the brain; and *these have no influence on the will*. Movements of the second kind, which do have an influence on the will, cause the passions or the bodily movements which accompany the passions. (AT XI, 365; CSM I, 346; my emphasis)

So there are really only four sources to worry about. Of these, two have elements of will ((2) and (3)), leaving three basic kinds of explanations for belief in general. Specified to beliefs in clear and distinct perception we have:

1. The thought that I had a clear and distinct propositional idea arises from deduction.

2a. The thought that I had a clear and distinct propositional idea arises from a false irresistible impulse implanted by God. (see Rules 12: "Seventh para: composition through impulse: "superior power".)

2b. The thought that I had a clear and distinct propositional idea arises from a true irresistible impulse implanted by God. (see Rules 12: "Seventh para: composition through impulse: "superior power".)

3. There is a process of reasoning from assumed premises which do not include that I actually have a clear and distinct idea that leads me to think this. This is an etiology which involves acts of reasoning, hence judgment, hence will.

For The Argument from the Elimination of Error to be sound, it requires that 2a and 3 be eliminated; and if this proof is sound, then giving it proves that I have a clear and distinct idea of something. Since clear and distinct perception in its intuitional form is "knowledge" for Descartes, I not only have knowledge, I proven that I have knowledge -- I have *scientia*!

Are there problems with the elimination arguments? Is there, for example, a version of the Cartesian Circle that emerges here? Let's go through Descartes's treatment of each of the sources. If something has occurred with an act of will in its etiology, this is discoverable in principle by introspection. (See

Med VI: the argument that ideas of sensory objects have causes outside of us. AT VII79; CSM II, 55) We can see whether (3) holds in principle by seeing if the etiology of our compulsion contains some acts of will: if it does, we rule it out by introspection. (2a) is a clear case of deception and is ruled out by discovering that the concept of a deceiving God is contradictory. This is a weak validation, which we are assuming is unproblematic in relation to the Cartesian Circle. Once these appeals have been made we are left with (1) and (2b), both entailing that my thought truly is caused by a clear and distinct idea – no errors there!

The existence of source (2b) relies on the existence of God: any doubts raised about (2b) requires a strong validation. This shows that The Argument from the Elimination of Sources of Error, which is an argument that resolves an objectively permissible doubt about clear and distinct perceptions, is in accord with thesis A.

But what about introspection? It occurs crucially in two places in the elimination argument, at (2a) and at (3). Can you not simply re-raise the doubts? Can you not just ask, "How can I be sure that I am actually introspecting my inner states and not just believing that I am introspecting them?" Descartes's response would have to be to re-run the Argument from the Elimination of Sources of Error, now for introspection rather than clear and distinct ideas. Is there a circularity at the points when it comes to ruling out the errors corresponding to (2a) and (3)? Let's see. I rule out the possibility that my belief that I am introspecting is in error by showing that no act of will occurs in the source of that belief. I show this by appeal to introspection. Is this a circularity? No, because the second introspection takes a different object than the first: the first introspection, which is now under challenge, is that no act of will intervenes in the etiology of my belief I have a clear and distinct idea, the second introspection is that no act of will intervenes in the etiology of my belief that I am having the first introspection. So no explicit circularity arises. Of course you can keep raising the same doubt at every level – but I can keep responding with the same response at every level. Surely we will both grow tired of the game eventually.

What about the Cartesian Circle itself? Given the resources Descartes has to carry out the proof of God's existence– his general epistemology and key statements available for the proof in Meditation III (the Causal Principle, for example)[10] that are known through deductive intuition -- then (probably) Descartes can give the basic proof of God's existence without running foul of the Cartesian Circle. So (probably) Descartes can successfully prove the existence of God in accord with his standards of proof. Does the conclusion of this proof also amount to *scientia*? Put another way, the question is this: Given that Descartes can prove that God exists in accord with his standards of proof, can he prove that he has proven that God exists in accord with his standards of proof? Maybe not!

[1] A.J.Ayer, *The Problem of Knowledge* (Harmondsworth: Penguin, 1956): 33-35.
[2] For the former, see *Meditation* I, CSM II, 12; for the latter see the *Second Replies* , CSM II, 100-101.
[3] The word "sciences" in the first paragraph of Meditation I (CSM II, 12) is *scientiis* in the Latin. (AT VII, 17)
[4] Pace Cottingham. See CSM II,101, note 2.
[5] A more detailed treatment is given in Vinci 1998, 19 -23.
[6] Med IV: AT VII, 40-41; CSM II, 28.
[7] In Vinci 1998: 9 –19, and Vinci 2008, 256-58. The account given here is simplified.

[10] See CT for a proposal about the structure if that proof.