## DESCARTES' SYLLOGISTIC PROOF OF HIS EXISTENCE AND THE COGITO

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In the Replies to Objections 11,1 Descartes defends the Cogito ergo Sum as a first principle of his philosophy in the following manner:

But when we become aware that we are thinking beings, this is a primitive act of knowledge derived from no syllogistic reasoning. He who says, I think, hence I am, or exist, does not deduce existence from thought by a syllogism, but, by a simple act of mental vision, recognizes it as if it were a thing that is known per se. This is evident from the fact that if it were syllogistically deduced, the major premise, that everything that thinks is, or exists, would have to be known previously; but yet that has rather been learned from the experience of the individual – that unless he exists he cannot think. For our mind is so constituted by nature that general propositions are formed out of the knowledge of particulars. (HR II, 38)

Nevertheless, in Principle X, Descartes does allow that certain concepts and principles are needed, if we are to understand the Cogito ergo Sum, and he includes within his list 'in order to think we must be':

And when I stated that this proposition I think, therefore I am is the first and most certain which presents itself to those who philosophise in orderly fashion, I did not for all that deny that we must first of all know what is knowledge,

All references to Descartes' Meditations on First Philosophy are taken from the second edition, edited with an Introduction by Stanley Tweyman, Caravan Books, Ann Arbor, Michigan, 2002. References will be presented by Med. followed by the page number. All references to Descartes' other philosophical writings are taken form the two volume, The Philosophical Works of Descartes, translated by E.S. Haldane and G.R.T. Ross, Cambridge at the University Press, 1970. References will be presented by HR and volume and page number. All references to Descartes' conversation with Burman are taken from the edition prepared by John Cottingham, Clarendon Press, Oxford, 1976. References will be presented by 'CB' followed by the page number.

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what is existence, what is certainty, and that in order to think we must be, and such like; but because these are notions of the simplest possible kind, which of themselves give us no knowledge of anything that exists, I did not think them worthy of being put on record. (HR I, 222)

Burman was troubled by these two passages, and requested an explanation from Descartes that would show their compatibility. Descartes gave Burman the following account:

Before this inference, I think therefore I am' the major 'whatever thinks is' can be known; for it is in reality prior to my inference, and my inference depends on it. This is why the author says in the Principles that the major premise comes first, namely, because implicitly it is always presupposed and prior. But it does not follow that I am always expressly and explicitly aware of its priority, or that I know it before my inference. This is because I am attending only to what I experience inside myself - for example, 'I think therefore I am': I do not pay attention in the same way to the general notion 'whatever thinks is'. As I have explained before, we do not separate out these general propositions from the particular instances; rather it is in the particular instances that we think of them. (CB, 4)

Descartes is adamant that the Cogito ergo Sum is not derived from a syllogism with the major premise 'everything that thinks exists', and equally adamant that the principle 'everything that thinks exists' is presupposed in the Cogito ergo Sum. His account of this in the conversation with Burman focuses on the difference between an implicit and an explicit awareness. When the Cogito is first discovered, we have an implicit awareness of the principle 'everything that thinks exists', but not an explicit awareness; subsequent to the discovery of the Cogito, the awareness of this principle is (or can be) explicit. Presumably, however, even if he had had an explicit awareness of the principle 'everything that thinks exists' prior to discovering the Cogito, this would not alter his claim, in the Reply to Objections II, that the Cogito is a first principle derived from no syllogistic reasoning. It is the aim of this paper to show why this must be the case.

Part of the answer can be discerned from the Reply to Objections II when Descartes was asked to propound his arguments in geometrical fashion. He contrasts the method used in geometry (synthesis) with that used in the Meditations (analysis). Synthesis demonstrates its conclusions, employs definitions, postulates, axioms, theorems, and problems, "so that if one of the conclusions that follow is denied, it may at once be shown to be contained in what has gone before." He claims not to have

used this method "because it does not show the way in which the matter taught was discovered". Analysis, on the other hand, "shows the true way by which a thing was methodically discovered and derived... so that, if the reader cares to follow it and give sufficient attention to everything, he understands the matter no less perfectly and makes it as much his own as if he had discovered it." (Med. 101-102)

The impression we obtain from this discussion is that a demonstration employing the analytic mode of proof can never be either similar to, or identical to, a demonstration where the method of synthesis is involved. The move from what is implicitly involved in a conception to what is explicitly involved in that conception is not a move from analysis to synthesis. Descartes intends the procedure of each to be selfcontained, and not to lead to the other depending upon the amount of implicit and explicit knowledge involved.

What is now required is to show why analysis cannot lead to synthesis, even if all implicit knowledge is rendered explicit. To help us with this, I will examine the (analytical) demonstration of his existence in the second meditation:

But I was persuaded that there was nothing in all the world, that there was no heaven, no earth, that there were no minds, nor any bodies: was I not then likewise persuaded that I did not exist? Not at all; of a surety I myself did exist since I persuaded myself of something or merely because I thought of something. But there is some deceiver or other, very powerful and very cunning, who ever employs his ingenuity in deceiving me. Then without doubt I exist also if he deceives me, and let him deceive me as much as he will, he can never cause me to be nothing so long as I think I am something. So that after having reflected well and carefully examined all things, we must come to the definite conclusion that this proposition: I am, I exist, is necessarily true each time I pronounce it, or that I mentally conceive it. (Med. 51)

This passage contains two 'demonstrations' of his existence - the first based on the notion of 'persuasion', and the second on 'deception'. The 'persuasion demonstration' appears to be the following: Descartes affirms something that he cannot doubt, namely, that he was persuaded of something; he then attempts to affirm in thought both that he was persuaded of something and that he does not exist; by finding a repugnancy between these two thoughts (i.e. he cannot affirm in thought both that he was persuaded and that he does not exist) he concludes that his initial thought is necessarily connected with the denial of the second. A similar situation obtains in regard to his second demonstration: he affirms what

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he cannot doubt: that he has been deceived; he then attempts to affirm in thought both that he was deceived and that he does not exist; by finding a repugnancy between these two thoughts, he concludes that his initial thought is necessarily connected with the denial of the second: if he is deceived, then necessarily he exists.

It can now be seen why Descartes holds that an 'analytic demonstration', if properly attended by the reader, will make it appear as though the reader has discovered the matter in question by her/ himself: the 'demonstration' is designed to guide the reader's attention to the relevant ideas, so that the appropriate impossible connections and necessary connections can be intuited. The repugnancies and necessities that the demonstration reveals can only be appreciated by entertaining the very ideas of which the demonstration speaks, and apprehending intuitively the impossibilities and necessities. The demonstration is not a substitute for the intuition, nor, for that matter, can it be accepted without the intuition. As a result, the connections that the (analytic) demonstration are designed to reveal do not follow as conclusions from the (premises of the) demonstration. To hold otherwise is to confuse analytic demonstration with synthetic demonstration - the method of proof in metaphysics with the method of proof in geometry.

An analytic demonstration is designed to reveal necessary connections between ideas, for example, between persuaded of something and existence, and between doubting and existence. The account we have offered of analytical demonstration in the second meditation accords with Descartes' discussion of necessary connection in the Regulae. In Rule XII, Descartes says that a connection between ideas is necessary "when one is so implied in the concept of another in a confused sort of way that we cannot conceive either distinctly, if our thought assigns to their separateness from each other. Thus figure is conjoined with extension, motion with duration or time, and so on, because it is impossible to conceive of a figure that has no extension, nor of a motion that has no duration". (HR I, 42-43) In this passage, the test of necessity is identical to that employed in the second meditation: affirm in thought the first conception (for example, figure, motion) and at the same time deny the second (for example, extension, duration); in those cases where the denial of the second carries with it the inconceivability of the first, the first is necessarily connected to the second.

Although I have now shown that the conclusion in an analytic demonstration is not dependent on premises in the manner in which the conclusion in a synthetic demonstration is logically dependent on premises, I have yet to explain why, in Principle X and in the reply to Burman, Descartes maintains that the major premise 'whatever thinks, exists' is involved (at least implicitly) in arriving at the knowledge of his existence.

First, it is important to note that, whenever Descartes allows that the major premise 'whatever thinks, exists' is involved, the reference is always to the Principles, and not to the Meditations.2 Alternatively, whenever Descartes maintains (as he does in Reply to Objections II) that his existence has not been syllogistically deduced, but is apprehended in a simple intuition, the reference is to Meditation II. In other words, Descartes' intention seems to be that of calling attention to different kinds of proofs of his existence in these two works. We know, from the Reply to Objections II, that the method employed in the Meditations is analysis, and we now understand the non-syllogistic type of demonstration used to prove his existence in this work. But what of the Principles; what method is employed in that work? The standard position taken on his matter in the literature is that in the Principles the method of synthesis is employed. André Gombay explains the discrepancy between the second meditation and the Principles on the matter of major premise in this way:

[In the second meditation] the thought of the proposition Whatever thinks, is' did not occur; however, 'analytic' proof proceeds by displaying precisely what did occur; hence that proposition is not part of one 'analytic' proof of 'I am'. Descartes' answer is not simple-minded autobiography, but autobiography qua demonstration.3

Hence, according to Gombay, when Descartes rejects the need for the major premise in arriving at 'I am', as he does regarding Meditation II, he does so because at the time he was not thinking this proposition. On the other hand, had Descartes been thinking it at the time 'I am' was arrived at, it would have been included in the 'demonstration', and 'I am' would have been arrived at deductively. This leads Gombay to conclude that there is no substantive difference between an analytic and synthetic demonstration.

<sup>&</sup>lt;sup>2</sup> See Principle X and the Reply to Burman.

<sup>3</sup> André Gombay, "'Cogito Ergo Sum': Inference of Argument?" in Cartesian Studies, edited by R.J. Butler, Basil Blackwell, Oxford, 1972, p. 71-88. The passage cited appears n page 86.

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We are told that the Meditations were written in the 'analytic' mode: plagiarising the first sentence of the Tractatus Logico-Philosophicus, we might construe Descartes as saying that the Meditations will be understood only by someone who feels as though he himself has had the thoughts which are expressed in them. Yet insofar as anything in the Meditations is recognisably a piece of argumentation - say the third paragraph of Meditation Two - it scarcely measures up to the general claims made in the Reply on behalf of the 'analytic' mode of proof. There is of course the quasi-historical setting, the narrative in the first person, the frequent self-addressed questions: but it is difficult to regard these as anything more than stylistic deviations from the pattern of proof which Descartes calls 'synthetics'. I do not deny that there might be ways of leading a person to see 'how things stand', which are not those of deductive demonstration; but I do not discern any of these anywhere in the Meditations, and I can conceive of none that might accomplish what 'analysis is said to accomplish'. (Butler volume, page 86)

Now, if Gombay is correct, then the plausibility of the points being argued here, namely, that the major premise is totally irrelevant to Descartes' proof of his existence in the Meditations, and that the method of proof in the Meditations is non-syllogistic in nature, is considerably weakened. On Gombay's account, 'whatever thinks, is' is implicit in the demonstration in the second meditation, and sense can be made of this only if it is regarded as the major premise of the relevant syllogism. Therefore, to make my case against Gombay (and others), it must be shown that Descartes' procedure in the Principles is different form his procedure in the Meditations, and at the same time it must be shown why the major premise is relevant to the procedure in the Principles and in no way relevant to the procedure in the Meditations.

Descartes makes clear in the conversation with Burman that his method in the Principles is not analysis, but synthesis: "In the Principles [the author's] purpose is exposition, and his procedure is synthetic". (CB, 12) Therefore, Gombay is correct about this. Synthesis is the method Descartes advocates for demonstrating what we already know. For this reason it can be used by the geometer. He explains this point in the Reply to Objections II:

...[T]he primary notions that are the presuppositions of geometrical proofs harmonize with the use of our senses, and are readily granted by all. Hence, no difficulty is involved in this case, except in the proper deduction of the consequences. (Med. 102)

On the other hand, metaphysics, the subject matter of the Meditations, encounters difficulties in making its first principles (primary notions) clear and distinct, which, of course, explains why the method of analysis must be employed when we begin the study of metaphysics. The relevant passage here is, once again, in the Reply to Objections II:

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On the contrary, nothing in metaphysics causes more trouble than the making the perception of its primary notions clear and distinct. For, though in their own nature they are as intelligible as, or even more intelligible than those the geometricians study, yet being contradicted by the many preconceptions of our senses to which we have since our earlier years been accustomed, they cannot be perfectly apprehended except by those who give strenuous attention and study to them, and withdraw their minds as far as possible from matters corporeal ... This is why my writing took the from of Meditations rather than of Philosophical Disputations or the theorems and problems of a geometer. (Med. 102-103))

Once the first principles of metaphysics are seen clearly and distinctly, the metaphysician can proceed with deductions (as the geometer proceeds with deductions) through the method of synthesis,

The Meditations employs the method of analysis, and, as we now realize, the Principles employs the method of synthesis. Hence, the Meditations renders the first principles of metaphysics clear and distinct: the Principles will employ these first principles in arriving at certain conclusions. This helps explain the following passage in the Preface to the Principles of Philosophy in which Descartes insists that the Meditations should be read before the Principles:

«...[F]oreseeing the difficulty which would be felt by many in understanding the foundations of metaphysics, I tried to explain the principal points in a book of Meditations which is not very large, but whose volume has been increased, and whose matter has been much illuminated, by the objections which many very learned persons have sent me in their regard, and by the replies which I have made to them. Then, finally, when it appeared to me that the preceding treatises had sufficiently prepared the mind of readers to accept the Principles of Philosophy, I likewise published them, and I divided the book containing them into four parts, the first on which contains the principles of knowledge... That is why it is better to read beforehand the Meditations, which I have written on the same subject, in order that it may properly be understood. (HR I, 212).

Now, since deductive demonstrations are countenanced where the method of synthesis is utilized, it is perfectly in order for Descartes to insist that when he demonstrated his existence in the *Principles* the major premise 'whatever thinks, exists' was presupposed (either implicitly or explicitly). But in making this claim regarding the *Principles*, it must be understood that the same claim has no relevance to the non-syllogistic procedure employed in the *Meditations*.

How does the *Meditations* prepare the reader's mind for the syllogistic proof of his existence in the *Principles* with the major premise 'Whatever thinks, exists'? For this, we must return to the second meditation, and continue from where we left our discussion.

Thus far in the second meditation, Descartes has established a necessary connection between 'being persuaded of something' and 'existing', and 'being deceived' and 'existing' He now goes on to inquire about his nature:

But I do not yet know clearly enough what I am, I who am certain that I am; and hence I must be careful to see that I do not imprudently take some other object in place of myself, and thus that I do not go astray in respect of this knowledge that I hold to be the most certain and most evident of all that I have formerly learned. (Med. 51)

This passage is not easy to understand. In asking what he is, he warns against imprudently taking some other object in place of himself. However, given that he does not yet know what he is, it is difficult to understand how he can be certain that he has not confused himself with some other object. When we engage in conceptual analysis, we should be able to identify typical instances of the kind of object into whose nature we are inquiring, and then seek to discover its essential features. However, since Descartes denies that he has any knowledge of himself at this stage, he cannot be proposing to analyse the self as he would, for example, analyse the concept of a chair or table. Just how he does gain a knowledge of the self will now be elucidated.

In attempting to determine with certainty what he is, he tells us that he will review his former opinions about himself, and reject those which "might even in a small degree be invalidated by the reasons which I have just brought forward, in order that there may be nothing at all left beyond what is absolutely certain and indubitable." (Med. 51) He begins the examination into his previous beliefs about himself by dividing these beliefs into two classes – those beliefs about himself that appear to depend upon the body, and those that appear to depend upon the soul. Those that he formerly held to depend upon the body he rejects at this

stage; all functions previously held to belong to the soul are also rejected, except for thought:

"But what am I [?]... Can I affirm that I possess the least of all those things which I have just said pertain to the nature of body? I pause to consider, I revolve all these things in my mind, and I find none of which I can say that it pertains to me... Let us pass to the attributes of the soul and see if there is any one which is in me?... What of thinking? I find here that thought is an attribute that belongs to me; it alone cannot be separated from me. I am, I exist, that is certain. But how often? Just when I think; for it might possibly be the case if I ceased entirely to think, that I should likewise cease altogether to exist. I do not now admit anything which is not necessarily true...» (Med. 52-53)

The analytic demonstrations that reveal his nature take the same form as the analytic demonstrations that he employed to prove that he exists. He begins with what he cannot doubt – that he exists. He then attempts to affirm in thought both that he exists and that a) he is not extended, and b) that he does not think. By finding no repugnancy between the affirmation of his existence and that he is not extended, he rejects the claim that his existence is inseparable from himself as extended; on the other hand, by finding a repugnancy between the affirmation of his existence and that he does not think (i.e., he cannot affirm in thought both that he exists and that he does not think), he concluded that his initial thought is necessarily connected with the denial of the second, namely, if he exists, then he must think.

I realize, of course, that this formulation of the analytic demonstration of the necessary connection between thought and existence runs counter to accepted interpretations of Descartes: it is typically granted that the connection is discovered between thought and existence, and not between existence and thought. Nevertheless, as I have now shown, in the case of the *Meditations*, the certainty of Descartes' existence is discovered *before* he comes to know that thinking is his essential feature. Accordingly, in the *Meditations*, the connection that is initially discovered is between existence and thought.

This reading of the second meditation explains how he can be certain that "he has not imprudently taken some other object in place of himself." Given the necessary connection between existence and thought, to think of oneself as existing is already to think of oneself as thinking – even if we are not yet aware of this necessary connection. (Similarly, given the necessary connection between figure and extension, and mo-

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tion and duration, when we think of something moving and something figured, we are already thinking the passage of time and that the object is extended respectively, even if we are not attending to these features.) Therefore, when Descartes asks what he is, now that he knows that he exists, he is asking for the feature, or features, that are inseparable from his awareness of his existence- what must also be thought when he thinks of his existence. It is clear that in asking what he is, Descartes is not engaging in what we would refer to as conceptual analysis in the manner outlined earlier.

As we have seen, in the Preface to the Principles of Philosophy, Descartes insists that the Meditations (and the other works that he mentions, Of the Dioptric, Of Meteors, and Of Geometry) should be studied before the Principles is read, in order "to prepare the mind of readers to accept the Principles of Philosophy," or, as he puts it a few lines later "in order that it [i.e., the Principles] may be properly understood." (HR I, 212) I will conclude by addressing the problem I raised, namely, how does Descartes' treatment of the self in the second meditation support his claim, cited above, that his (analytic) treatment of a topic in the Meditations provides the proper preparation for his (synthetic) treatment of the same topic in the Principles of Philosophy? Put more succinctly, how does his treatment of the self in the second meditation help to prepare the mind to accept the Cogito ergo sum in Principle VII?

Turning to the Principles of Philosophy, then, we find that the first six Principles deal with what can be doubted, and, at the beginning of Principle VII, Descartes enumerates the extent of his doubt, while at the same time proving that this doubt cannot extend to the self, insofar as it thinks:

While we thus reject all that of which we can possibly doubt, and feign that it is false, it is easy to suppose that there is not God, nor heaven, nor bodies, land that we possess neither hands, nor feet not indeed any body; but we cannot in the same way conceive that we who doubt these things are not; for there is a contradiction in conceiving that what thinks does not at the same time as it thinks exist. And hence this conclusion I think therefore I am, is the first and most certain of all that occurs to one who philosophizes in an orderly way. (HR I, 211)

And here, to repeat, we find Descartes insisting that the demonstration of his existence in Principle VII involves the major premise 'whatever thinks, exists':

And when I stated that this proposition I think therefore I am is the first and most certain which presents itself to those who philosophise in an orderly fashion, I did not for all that deny that we must first of all know what is knowledge, what is existence, and what is certainty, and that in order to think we must be, and such like; but because these are notions of the simplest possible kind, which of themselves give us no knowledge of anything that exists, I did not think them worthy of being put on record. (HR I, 222)

In other words, the full argument in Principle VII for his existence is:

Whatever thinks exists Ithink Therefore, I exist

Now, what is interesting in this argument for our purpose is that there is no concern with a proof for the major premise 'whatever thinks exists', and no proof, in the first six Principles, that his essence is to think. In the Principles, the discussion pertaining to himself as a thinking thing appears in Principles VIII and IX, that is, it appears after the proof of the existence. In other words, the Principles treats 'whatever thinks exists' as being already known; similarly, that Descartes' essence is to think is taken for granted in the Principles. That both of these matters are countenanced in the Principles can be explained by recalling that we were told that the Meditations should be read and understood before attempting to read the Principles. Now, in light of his analytic proofs in the second meditation, we have already seen why he holds that his essence is to think. What must now be addressed is why Descartes believes that the Meditations has prepared the reader to accept the major premise 'whatever thinks exists' - a premise which nowhere appears in the Meditations. In fact, given his assertion that only analysis was used in the Meditations, no major premise could have there been employed in establishing his existence.

To understand the role of the second meditation in providing the major premise 'whatever thinks exists', we must understand the major steps in the second meditation. Thus far, we have seen that (i) Descartes provides the two analytic demonstrations of his existence - the first based on the fact that he was persuaded of something, and the second based on the fact that he has been deceived, and (ii) that Descartes uses analysis to demonstrate that his existence is necessarily connected to thinking. In the third step, the second meditation attempts to elucidate what it means to say that he is a thinking thing:

But what am I? A thing which thinks. What is a thing which thinks? It is a thing which doubts, understands, conceives, affirms, denies, wills, refuses, which also imagines and feels. (Med. 54)

Descartes' analytic demonstration of what it is to be a thing which thinks take the same form as his previous demonstrations in the second meditation: if he affirms that he is a thing which thinks and denies that he is a being who doubts, or understands, etc., then he can no longer think that he is a thing which thinks. As Descartes states this in the paragraph following the passage quoted above: "Is there likewise any one of these attributes which can be distinguished from my thought, or which might be said to be separated from myself?"

Although Descartes began the second meditation by affirming the necessary connection between being persuaded of something and existing, and being deceived and existing, by the third stage of the second meditation, he realizes that when he offered his two analytic demonstrations in the first stage of the second meditation, the first relatum in each demonstration – 'being persuaded of something' and 'being deceived' – is nothing but a mode of thought. Accordingly, in place of 'I was deceived', he can now substitute 'that I think'. We are able to see, therefore, that by the end of the third stage of the second meditation, Descartes has come to understand that if he thinks then he exists.

The major premise revealed in Principle X and elsewhere for proving his existence in Principle VII is 'whatever thinks exists'. In the Reply to Objections II, Descartes explains that 'whatever thinks exists' has 'been learned from the experience of the individual – that unless he exists he cannot think. For our mind is so constituted by nature that general propositions are found out of the knowledge of particulars." (HR II, 38) In other words, once the inseparability of thought and existence is intuited in the case of an individual in the second meditation, the general proposition can then be inferred. It is in this manner, then, that Descartes is able to approach the *Principles of Philosophy* with a major premise for this syllogism in Principle VII.

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