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"The Limits of Cartesian Doubt"

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The Limits of Cartesian Doubt

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Abstract: This paper addresses the question: what did Descartes regard as subject to doubt, and what was beyond doubt, in the *Meditations*? A review of the *Objections* and Descartes' reactions in the *Replies* provides some useful clarification, but viewing Descartes' method of doubt in conjunction with his professed theory of knowledge in the *Rules for the Direction of the Mind* further elucidates his own understanding of the project. In the *Rules*, Descartes introduces the mind's intuition of "simple natures" as the atomistic basis of all knowledge, its form as well as its content. The simple natures, Descartes claims, can only be understood thoroughly, and I argue that Descartes' doubt in the Meditations appears not to include doubt of simple natures. A related attempt to link the earlier work to the Meditations by Peter Schouls is considered and criticized; I suggest as an alternative that there are three classes of objects pertaining to the construction of knowledge in the Meditations: a) first principles and concepts that are constituents of other knowledge, intuited and not doubted, nor called 'knowledge' by Descartes; b) what Descartes calls clearly and distinctly perceived knowledge that survives doubt, known through a kind of intuition; and c) science, as remembered collections of clearly and distinctly perceived knowledge. Finally, because the two works do have important dissimilarities, I also consider how differences between the Rules and the Meditations might affect the applicability of the simple natures to the arguments of the Meditations, especially in the light of clues found in the intellectual autobiography of the Discourse on Method.

Introduction

One of Descartes' projects in the *Meditations on First Philosophy* is a systematic doubt of all belief that can be called into question -- a doubt meant to ensure that all constructive efforts that follow in its wake will produce unshakably certain knowledge. In the opinion of many, including some of Descartes' contemporaries, the project itself was puzzling. Could this project be carried out? What was *not* to be doubted under Descartes' scheme? What could the limits of this doubt be?¹

Despite others' concerns, the project appears to have remained a feasible, perhaps even promising task in Descartes' opinion after the *Meditations*, for he continues to endorse the project in the Principles of Philosophy, for example. Why such unfailing devotion to an apparently questionable approach? I would like to suggest reasons for Descartes' adherence to the project that are based on an analysis of his epistemological views as discussed in an earlier work, the Rules for the Direction of the Mind. Although much of the development in the Rules is obviously superseded in the later work, a careful accounting of what Descartes appears to have tacitly and explicitly retained, and of what he has tossed aside and why, allows for some reasonable conclusions concerning the appropriateness and value of interpreting later work in the light of this early work. The Rules, I believe, provides an illuminating and very helpful discussion of the contents of the mind and the nature of knowledge that cannot be found elsewhere in Descartes' work, and that exhibits plausible connections to Descartes' later work. Viewing the Meditations with a regard for Descartes' professed theory of knowledge may greatly clarify for Descartes' readers his own understanding of many philosophical issues; and especially the crucial project of doubt, given the account of the contents of the mind presented in the Rules.

Descartes' project of doubt

To begin considering the limits of Descartes' doubt, I must carefully characterize — and note others' misconceptions of — the scope and the purpose of his method of doubt. Descartes begins the *Meditations* with his famous concerns about "the highly doubtful nature of the whole edifice" of knowledge that he had constructed in his youth. The methodical doubt that he subsequently develops is created for the purpose of removing the falsehoods that were then generated, and that Descartes believes provide an unstable foundation for more recently acquired beliefs. For the envisioned method of doubt to work — a doubt that will serve to level the edifice to its foundation and allow absolutely certain knowledge to follow in its path — the doubt must be comprehensive in scope and extreme: as Descartes writes,

Reason now leads me to think that I should hold back my assent from opinions which are not completely certain and indubitable just as carefully as I do from those which are patently false. So, for the purpose of rejecting all my opinions, it will be enough if I find in each of them at least some reason for doubt. (VII 18)

But what is the extent of this doubt? It is clear, from the development which ensues in Meditations I and II that Descartes does not by all accounts go on to "demolish [all knowledge] completely", despite that this is his dramatic claim just prior to the above passage. And indeed, many commentators have taken Descartes to task on his inability to deliver on his perhaps over-hasty commitment, since it would appear that Descartes could doubt much more than he does: for

he might also doubt, in general, the coherence of his thought. This doubt could, for example, take the form of questioning the coherence of the concepts he uses, or the language that he writes. Descartes might also generally doubt the coherence of the reasoning involved in his train of thought, as he appears to do when he entertains the possibility that he may even be misled when he attempts to "add two and three or count the sides of a square" (VII 21). Descartes rules out such an extreme interpretation, however, in the *Replies* (VII 141, 146).²

Such concerns are common in the Objections that accompanied Descartes' Meditations. Mersenne doubts the clarity of at least one of Descartes' ideas when he wonders whether the idea of God can adequately represent God, and Hobbes questions the same idea's coherence and conceivability (VII 127, 187, 189). Mersenne also challenges the general coherence of Descartes' thought when he asks, "How can you establish with certainty that you are not deceived, or capable of being deceived, in matters which you think you know clearly and distinctly?" (VII 126). Pierre Bourdin, in the seventh set of objections, brings similar doubts regarding coherence to the fore with a dash of humor:

I know a man who once, when falling asleep, heard the clock strike four, and counted the strokes as "one, one, one, one". It then seemed to him that there was something absurd about this, and he shouted out: "That clock must be going mad; it has struck one o'clock four times!" (VII 457, c.f. 478)

The reasonable core of Bourdin's criticism need have nothing to do with counting or arithmetic in particular; it is that even the coherence of an individual's train of thought might conceivably be called into doubt. So where, precisely, do the limits of Descartes' doubt lie?

We must consider both Descartes' intentions — where he chooses to place the limits for his doubt — and his reasoned basis for those intentions — the basis for placing the limits where he does place them. The first meditation presents spheres of doubt that are clearly intended to encompass more of his previous beliefs with each step. But cartesian doubt appears never to grow so large as Bourdin would have it, even if it might be successfully inflated to such extremes. Indeed, Descartes recognizes and deliberately steers away from possibilities for doubt that may appear plausible, however extreme; for example, when he considers, and as quickly dismisses, the possibility that he might be mad:³

Again, how could it be denied that these hands or this whole body are so damaged by the persistent vapours of melancholia that they firmly maintain they are kings when they are paupers, or say they are dressed in purple when they are naked, or that their heads are made of earthenware, or that they are pumpkins, or made of glass. But such people are insane, and I would be thought equally mad if I took anything from them as a model for myself. (VII 18-19)

Descartes does not appear to have a noteworthy response to this objection, and the last sentence above reads in the

Latin, though not in the French, more as a joke than a reply, a capitulation to an insurmountable difficulty.

There is more subtlety to Descartes' responses concerning the conceivable limits of doubt, however. He often answers the attacks of his critics not directly, but by delineating more precisely the method of acquiring knowledge that he espouses; and such instruction points indirectly to answers regarding the scope of his doubt, and of conceivable doubt, on his view, as well. In the Meditations, Descartes writes, "Whatever is revealed to me by the natural light for example, that from the fact that I am doubting it follows that I exist - cannot in any way be open to doubt" (VII 38; see also 65, 144). Descartes continues by explaining that the natural light cannot be open to doubt because he possesses no other faculty as capable and as trustworthy as this sort of intellectual perception. In the Rules for the Direction of the Mind, Descartes also makes a particularly lucid response to this sort of attack:

The method cannot go so far as to teach us how to perform the actual operations of intuition and deduction, since these are the simplest of all and quite basic. If our intellect were not already able to perform them, it would not comprehend any of the rules of the method, however easy they might be. (X 372; c.f., VII 145) It appears that Descartes might have replied more directly to critics such as Bourdin and Mersenne along two lines. First, the doubt they suggest is unrepresentative of the doubt he wishes to invoke with his method, because it is too extreme;

and second, it presents a misguided effort, since if we ever could succeed in applying it, we would be digging for ourselves a hole from which we could not escape, as is the case also with doubts about sanity. As Anthony Kenny is at pains to point out, though language, logic, and the like can be called into question, only *portions* or aspects of their compass may be doubted at a given time, and certainly they cannot all be coherently doubted *each in their entirety*, and *all at once*: for such an activity would merely be confusion, and not coherent doubt (c.f. X 421-2).

Descartes complements the comments in the Meditations and Rules in his reply to Bourdin's objections, where he compares his doubt to sorting a basket originally containing good and bad apples by overturning the basket and returning to it only the good ones (VII 481). Such a procedure, he believes, is the best way to be sure that all of the apples are good; analogously, it is the best method for sorting beliefs, and is the method by which he intends to gain certainty. One must still have enough of one's wits about one to compare the fruit, so doubting all that can conceivably be doubted all at once leads to incoherence; and doubting pieces of knowledge one at a time, as Kenny suggests for a reasonable alternative,⁴ just would not be representative of Descartes' project, since a comprehensive doubt of as much belief as can be doubted, all at once - a grand feat of epoché - is what Descartes is attempting to put into effect through his project of doubt.

I hope, then, that Descartes' intentions are now in clear focus. There are limits that must be maintained, against Bourdin and Mersenne, in order to keep Cartesian doubt a coherent activity; and there are also limits to maintain against revisionists such as Kenny, in order to keep the doubt in line with Descartes' purposes.⁵

The limits of doubt and the simple natures of the Rules for the Direction of the Mind

I return, then, to the question of what Descartes regards as subject to doubt under his project. Passages later in the *Meditations* and *Replies* provide some useful further indications of what is not doubted. At the beginning of the second meditation, Descartes assumes the position of doubt again, and wonders what may be certain.

I will believe that my memory tells me lies, and that none of the things that it reports ever happened. I have no senses. Body, shape, extension, movement and place are chimeras. So what remains true? Perhaps just the one fact that nothing is certain. (VII 24)

From this point, Descartes continues on to develop what I will refer to as the *cogito* argument, which ultimately survives doubt, and the clarity and distinctness with which Descartes perceives its truth allows him a criterion for certainty in other knowledge as well (VII 35). The *cogito* becomes the first certainty, supplanting the alternative candidate that nothing is certain. Other truths he also finds

to be certain, truths which he states are "manifest by the natural light", and that play a fundamental role in formulating the proof of God's existence in the third meditation: among them, that "there must be at least as much [reality] in the efficient and total cause as in the effect of that cause", and "all fraud and deception depend on some defect" (VII 40, 52).

Descartes has provided a short list of certainties; but though the cogito may be a "primary notion" (VII 140) and Descartes' 'first certainty', it seems necessary that something prior to the cogito, whether or not one wishes to call it a certainty or knowledge, must not be subject to doubt, as Descartes' own words cited in the previous section indicate; and it is just such prior elements that we are concerned with as at the limits of doubt. Some intelligible cognitive ordering must be in place prior to the cogito, pace Bourdin, first, because Descartes appears to need to be able to entertain that he exists before he can proclaim, "I am, I exist, is necessarily true whenever it is put forward by me or conceived in my mind." Second, Descartes also suggests later in the Meditations that some sort of argument, albeit not a deductive one,⁶ has occurred (e.g., "I have realized that from the very fact of my raising the question it follows quite evidently that I exist" (VII 58, italics mine)). I will not here take on the task of characterizing the sort of argument launched by Descartes, I need only note that the cogito argument is some sort of argument, founded on

something more basic. I will return to these issues and draw some limited conclusions about the structure of the *cogito* argument further on in this paper.

We have a partial inventory: the first certainties are presented; but what, then, are the prior resources that are not doubted? The key to understanding the contents of that class, I believe, lies in the theory of knowledge that Descartes may have considered as he constructed the *Meditations*. On the basis of the comparisons that I will lay out below, it appears reasonable to conclude that a key aspect of that epistemology is, or at least closely resembles, the theory of the 'simple natures' outlined in the *Rules for the Direction of the Mind*, despite that (as far as I have found) simple natures are nowhere mentioned in the *Rules*. As I will argue in this section, the *Rules* appears to provide a particularly clear explanation of where Descartes' methodical doubt stops, and why it stops there.

Extensive discussions of the method developed in the *Rules* for investigating truth and achieving certainty — one substantially different from that presented in the *Meditations* — may be found elsewhere,⁷ so I will restrict myself to briefly explicating the work along lines useful to present concerns. Descartes' comments noted above, concerning what cannot be open to doubt, suggest that the key to solving the problem of the limits of doubt lies in examining the objects of the understanding: the good and the bad apples of

the metaphor in the *Replies*, and the operations that are "simplest of all, and quite basic." We have, I think, a good representation of those objects in the *Rules*, for in that work, which develops an explicit analytic epistemology, Descartes holds that the intellect perceives as its *exclusive* contents what he names "simple natures", which might be considered the 'atoms' of understanding for Descartes.

In the Rules, Descartes lists a number of simples: corporeality, extension, doubt, ignorance, existence, and duration among them. Descartes divides these simple natures into three kinds: they are, he writes, either material, intellectual, or common to both, depending upon their origins. Purely material natures are those "recognized to be present only in bodies", and include the ideas of corporeality, extension, and motion. Intellectual natures may be recognized by their non-material nature: "it is impossible to form any corporeal idea which represents for us what knowledge or doubt or ignorance is... and yet we have real knowledge of all of these." Common natures are common to both, "ascribed indifferently, now to corporeal things, now to spirits - for instance, existence, unity, duration, and the like" (X 419). The simple natures are perceived by the intellect with the aid of the other faculties of imagination, memory, and sense perception. The details of Descartes' account of the process of perception of simple natures with the aid of these faculties, and its relation to the mind-body

problem, need detain us here no longer than it takes to note his treatment of these features:

when an external sense organ is stimulated by an object, the figure which it receives is conveyed at one and the same moment to another part of the body known as the 'common' sense, without any entity really passing from the one to the other. ...the power through which we know things in the strict sense is purely spiritual, and is no less distinct from the whole body than blood is distinct from bone, or the hand from the eye. (X 414-5).

The common sense serves to funnel sense perceptions and memories to the mind, which one might expect to be *more* distinct from body than hand from eye, since each of the latter pair are both body. But I will pass over these issues, for Descartes appears not to have altered the basics of his account of interaction enough in later writings for this to provide an important stopping place for the concerns of this paper.

The account of the simple natures becomes particularly salient to our concerns in its relation to the characterization of understanding, truth, certainty, and knowledge that Descartes develops in the *Rules*. Simple natures are central to his explanation of these because, rule twelve suggests, they are the objects of *understanding* as well as of *perception* (X 418). Just by virtue of its being simple, a simple nature must be completely self-evident and thoroughly understood when it is perceived on its own — "Otherwise, it could not be said to be simple, but a

composite made up of that which we perceive in it and that of which we judge we are ignorant" (X 420-1). One simply grasps these most basic objects of the mind: the material natures are perceived "by the intellect as it intuits the images of material things"; the intellectual natures "the intellect recognizes by means of a sort of innate light"; and the common natures are understood through either resource (X 419). As they lie at the basis of understanding, simple natures also found Descartes' analysis of truth. Simple natures are all self-evident and "never contain any falsity" (X 420). Falsity arises out of unfortunate applications of the faculty of judgment, and because all that we can perceive are simple natures, falsity must only apply to our judgments about certain combinations of simple natures.

Descartes' analyses of perception, understanding and truth in the *Rules* lead very directly to the topics of certainty and knowledge, and, consequently, to the proper objects of doubt. Descartes applies his account of the contents of the mind first of all to an account of error and of the development of knowledge. From childhood we come to perceive simple natures and how they are in fact connected to form composites through experience, as in sense perception. Since they are the exclusive contents of the mind, in *any* act of perception or comprehension the simple natures are perceived. But perception of natures and their potential for providing knowledge are not always simply associated:

Indeed, it is often easier to attend at once to several mutually conjoined natures than to separate one of them from the others. For example, I can have knowledge of a triangle even though it has never occurred to me that this knowledge involves knowledge also of the angle, the line, the number three, shape, extension, etc. (X 422)

One may perceive natures from childhood, then, but the perception might not always be entirely clear and distinct.⁸

Composites of simple natures may be perceived by the mind as composites, as is the case for the triangle noted above, but they may also be compilations of the active intellect (X 423). Composites may be produced by the intellect in three ways: 1) by impulse, wherein we do not come to believe something for good reasons, but are instead driven by a superior power, or by our wills, or by the imagination; 2) through conjecture, which is not erroneous so long as the will does not assert that those constructions of the intellect are true; 3) through deduction, whereby we intuit the necessary connections among simples (X 424). Deduction, the only method which produces composites that we can be certain will be true, proceeds through the intuition of "common notions", which are themselves simple natures and "are, as it were, links which connect other simple natures together, and whose self-evidence is the basis for all the rational inferences we make" (X 419). Simple natures, then, provide the basis for deduction, and thus both the content

and the structure of all activity of the mind geared towards constructing knowledge.

With these aspects of Cartesian epistemology in view, several obscure features of the *Meditations* can be seen more clearly, and most especially, a general hypothesis about the limits of Cartesian doubt may be put forward. In the Rules, Descartes holds that most of what is commonly taken to be knowledge may be false, for it has been developed throughout life largely in an undifferentiated mix of the procedures of perception and voluntary combination, the former process often resulting in indistinct perception of collections of natures, and the latter process including beliefs formed through illegitimate conjecture and impulse. But because the individual simple natures *can* only be known thoroughly and are also the intuitional atoms of knowledge, they themselves must be immune to doubt in order that coherent doubt may be possible, according to the Rules; and I find it quite plausible to hold that Descartes' doubt in the later Meditations also does not include them, and that they represent the remnant materials of Descartes' metaphor of razing the edifice of knowledge. The simple natures present one of the limits of knowledge: the lower limit, and the most fundamental objects and structures of knowledge. Doubt, then, could only address judgments concerning combinations of simple natures, and this limitation on doubt would seem to correspond to that limitation of Descartes' method for

acquiring knowledge that he alluded to above in both the *Rules* and the *Meditations*.⁹

Simple natures and the Meditations generally

I have suggested that simple natures may fit the bill for explaining what it is that Descartes does not doubt in his method of doubt. The solution, however, remains open to question for two good reasons: first, because Descartes does not appear to discuss the simple natures in his later work, and second, because Descartes did not complete, nor publish the Rules. Both of these points might suggest that Descartes was dissatisfied with the Rules, and the first bears directly on the analysis of simple natures; and so, though simple natures may be drafted into service to aid in explaining one difficulty in Descartes' later work, we must ask, could this augmentation accurately reflect Descartes' thought? I will consider both concerns in subsequent sections; I will turn first to the question of whether there is any other evidence in the Meditations to suggest that Descartes embraced a latent account of simple natures there, and whether the simple natures help to elucidate any other problems of interpretation in the Meditations.

Indications that Descartes does maintain a position resembling his earlier view of simple natures are common enough in the *Meditations*. Descartes continues to embrace the general scheme of knowledge and the contents of the mind as

concerning a relation between composites and simples; referring, for example, to his attempt to discern and question the "basic principles on which all [his] former beliefs rested", and later to the "clear and distinct elements in [his] ideas of corporeal things ... " (VII 18, 20, 44). Though one might expect 'principle' and 'element' to be features of opposed forms of analysis, Descartes does not oppose them in the *Meditations*, nor in the *Rules*, as his account of the "common notions" grounding inference that is noted above illustrates. Descartes also uses the term 'common notion' in the *Replies* in a manner similar to its application in the Rules (VII 135). As in the Rules, progress in constructing certain knowledge in the Meditations is made through the intuition of necessary connections among ideas: between 'I' and thinking in the proof of the cogito, and in the link between the ideas of God and perfection, etc. Jean-Luc Marion has recently drawn the most explicit of connections between the *Rules* and the *Meditations*, carefully mapping simple natures mentioned in the Rules onto the arguments of the *Meditations*.¹⁰ Marion argues that the first meditation is structured to cast truths concerning combinations of the material natures and some of the common natures into doubt; and the *cogito* establishes a link among several common and intellectual natures (existence, thinking, doubting, ...).¹¹ These features suggest a fundamental similarity between the two epistemologies.

Descartes' use of language is clearly very close in the two works, but it does not appear to match exactly: for the term 'simple nature', for example, is not used in work after the *Rules*; and in the *Principles of Philosophy*, the class of "objects of perception" differs at least enough to provide a fourth category, the "eternal truths" (about which, see below) (VIIIA 22-4). A more careful discussion of a few crucial terms used in Descartes' writings — 'simplicity', 'natures', and 'primary notions' — will be appropriate, to strengthen the connections: for I expect that, apart from the addition of the fourth category of objects discussed in the *Principles*, the mismatch in language has a great deal to do with differences in purpose between the *Rules* and the *Meditations*, and little to do with changes in epistemology.

Consider simplicity, which is clearly an important feature of certain ideas as they are considered in the *Rules*. Simplicity is introduced as a characteristic relevant to analysis in the first meditation, in which Descartes provides a temporary respite from doubt in the claim that "arithmetic, geometry, and other subjects of this kind, which deal with the simplest and most general things, regardless of whether they really exist in nature or not, contain something certain and indubitable" (VII 20). In the *Rules*, by contrast, what sets geometry and such subjects apart is not so much their simplicity as the clarity and distinctness with which the ideas of these subjects have been apprehended (X 377-8). Descartes does find a simplicity in the subject matter of

these subjects in the Rules as well, however; and the pause in the doubt of the *Meditations* is only temporary: in the first meditation, knowledge of geometry and arithmetic are not stopping places, and do not correspond to the limits of doubt. Descartes continues on to maintain that he might err in performing even the simplest of arithmetic, and with respect to much mathematical and geometrical knowledge, as Descartes' discussion of the atheist mathematician suggests, a clear and distinct perception of God's existence and goodness is necessary to establish certainty in these subjects (VII 21, 141, 146). The dissimilarity in Descartes' use of 'simplicity', then, results from his using the term in a loose and familiar fashion when discussing certain subjects in the Rules as well as in the Meditations, with the term also having a specific technical application in the Rules that does not happen to surface in the Meditations.

Descartes also uses the expression "true and immutable natures" in the *Meditations* and *Replies*, and never "simple natures"; and the extensions of these two terms appear to differ:

countless ideas ... are not my invention but have their own true and immutable natures. When, for example, I imagine a triangle, even if perhaps no such figure exists ... there is still a determinate nature to it. (VII 64)

For example, the fact that its three angles are equal to two right angles is contained in the nature of a triangle; and

divisibility is contained in the nature of body, or of an extended thing... (VII 163)

If we compare the second passage with the Rules passage concerning triangles cited above, the similarities and dissimilarities become clearer. Descartes has applied the term 'nature' much more broadly in the *Meditations*; but whether or not the nature of a triangle is a composite of simple natures is not explicitly addressed in that text.¹² But again, this change in terminology does not signal a discontinuity or an inconsistency, for the difference might arise simply because Descartes' project in the Meditations is not the same as that of the Rules: his concern in the Meditations is with achieving certainty by a different path; and I will consider the differences in the next section. The approach of distinguishing simpler ideas in an analytic epistemology and examining the relations among them appears to be a technique employed where useful in the Meditations and a very useful one, since relations of necessary connection among ideas are supposed to be involved in most of Descartes' constructive argument, from the cogito argument forward. The epistemology of the simple natures may play a role in the foundations of Descartes' argument, but instead of being a central concern of his exposition, it lies in the background, tacitly asserted.

Finally, Descartes also uses the term 'primary notion' in the *Replies*, an expression that might be taken, and is apparently taken by some, to match or very closely

approximate 'simple nature' in the *Rules*. The attractions of this interpretation are evident from the following quote:

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 any 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 premiss 'Everything which thinks is, or exists'; yet in fact he learns it from experiencing in his own case that it is impossible that he should think without existing. (VII 140)

In "Descartes and the Autonomy of Reason", Peter Schouls utilizes the above passage in a subtle attempt to trace the path of Descartes' doubt, and dispel the charge of circularity in the proof of God's existence in the third meditation.¹³ Schouls argues, much as I have argued, that Descartes maintains a lower limit of doubt, below which reason is "autonomous"; one that can be clearly delineated, once the *Rules* is compared with the *Meditations* and the epistemology of the simple natures is adopted for an interpretation of the later work. As a consequence, Schouls suggests, careful attention to the doubt of the *Meditations* shows that Descartes has not drawn the circle that he is supposed to have constructed. Descartes' doubt in the first

meditation extends to the deductive manipulation of ideas, including mathematics and geometry; but, taking a page from the *Rules*, Schouls argues that the immediate objects of intuition ("intuition1"), are "simple ideas", perhaps identical with the simple natures, and such simple ideas are not doubted in the first meditation, as one interpretation of the *Replies* quote above may suggest.¹⁴ Schouls holds that only such immediate objects of intuition as the *cogito* are used in the deductive proof of God's existence, a proof which, once discovered, may be rehearsed until it is grasped in a seamless, second sort of intuition ("intuition2"), that holds a certainty similar to that of immediate intuition because it, too, provides an idea that is at that point clearly and distinctly perceived. A passage from the *Rules* provides Schouls' guide for interpretation:

Those propositions which are immediately inferred from first principles can be said to be known in one respect through intuition, and in another respect through deduction. But the first principles themselves [i.e., simple natures] are known only through intuition, and the remote conclusions only through deduction." (X 370)

With God's existence and goodness known through intuition₂ as securely as the undoubted intuitions such as the *cogito*, Descartes' argument can be considered a non-circular justification of all (non-intuitive) deductive argument: the deductive support initially used in building the argument for God's existence and goodness has been successfully kicked

away.¹⁵ Thus, Schouls has argued that Descartes attempts to validate reason, but only above a certain unjustified or autonomous level of intuition.

Schouls' argument is intriguing, and might illustrate a fruitful application of the simple natures of the *Rules* to the problems of the *Meditations*. I believe, however, that he does not present quite the right accounting of the objects of knowledge as 'intuition1', 'intuition2', and 'deduction'. The problem lies in his collecting together under one heading ('intuition1') the elements of thought at the limits of doubt in the *Meditations* — which might be closely compared to the simple natures of the *Rules* — and propositions such as the *cogito*. To keep the accounting clear, I should distinguish between those elementary features that are never subject to doubt, and those that survive some test of doubt, such as the *cogito*.

Among primary notions, Descartes appears to include the *cogito*, and principles necessary for constructing the proof for God's existence in the third meditation: that 'there is nothing in the effect that was not previously in the cause', and the notorious principle concerning formal and objective reality (VII 135). This bodes well for Schouls' argument, and indeed, Descartes does characterize these ideas both as primary notions, and as established beyond doubt. But from this can we conclude that the primary notions belong in the same epistemological class with correlates to the simple natures of the *Rules*? First of all, though they may be

"manifest by the natural light" (VII 40, 52), these truths appear to be established through argument of some kind from more basic elements: the principles of thought that are not doubted, the candidates that I suggest might match the simple natures. It is important that, though the arguments may be short and not deductively valid in form, Descartes does nonetheless feel the need to somehow show the plausibility of these "primary notions". Whether or not Descartes finds it "manifest", the principle concerning formal and objective reality demands of him over 500 words of careful treatment in the Meditations (VII 40-42); by contrast, the basic notions underlying the first principles, 'existence', 'thinking', 'objective reality', etc., warrant little or no explication. As his discussion of learning and error in the Rules suggests, Descartes does take pains to explain that distinguishing what is cognitively simple may nonetheless require careful inquiry; but the relative simplicity of 'existence' in comparison to the *cogito* proposition, which contains 'existence' is, I think, clear enough; and, as Marion argues, Descartes appears to be manipulating simple natures in his construction of the cogito argument in the Meditations. In the Rules, furthermore, the cogito argument itself is not constructed, nor is it explicitly referred to, but simples from which the cogito argument might be constructed (by use of the simples that guide intuition or deduction) are referred to (X 368).¹⁶

The central shortcoming I find in Schouls' accounting is that, whereas these very important propositions are "manifest by the natural light", and cannot be doubted, this does not serve to place them as close to the limits of doubt as the equivalents to the simple natures that may underlie the constructions of the *Meditations*.¹⁷ Though there is precious little in the *Meditations* that could serve to decide between the two accounts, I suggest an alternate interpretation of the link between the Rules and the Meditations. If the class of 'intuition1' in the *Meditations* is to be identified with those items which cannot "be divided or analyzed into ... simple(r) components"¹⁸, then this class would have a different extension from that which Schouls gives it: the class of intuition₁ would include ideas parallel to the simple natures of the Rules, such as "cause" and "I think", but it would not include the primary notions, such as the principle that there is nothing in the effect which was not previously in the cause, or the *cogito* argument. It would not include them because, unlike the simple natures, which are not subject to doubt, these primary notions *survive* doubt; they are subject to doubt in ways that the simpler ideas are not. The brief arguments in the *Meditations*, and the longer arguments re-worked in the Replies, are proposed in order to establish the certainty of the primary notions, which, therefore, is a certainty arrived at through considering the arguments, and then developing an intuition of their truth, which we might, perhaps, label a 'primary intuition', or

(better) an '*immediate inference*', in the scheme explicated in the *Rules* (X 370). Unlike simple natures, which are entirely clear and distinct once first perceived, the socalled 'primary notions' of the *Meditations* appear to require clarification, and matched up to the system of the *Rules*, they appear at least as likely to be complex ideas, and not simple.¹⁹

The Rules for the Direction of the Mind and Descartes' later philosophy

One important concern lingers: if the *Rules* might provide a useful key to understanding Descartes' later philosophy, then why did he not complete them, much less publish them; and why did he scarcely allude to them in his later work?

Descartes envisioned the *Rules* as consisting of thirtysix rules, with each, presumably, accompanied by a commentary. Descartes writes that the rules were to be divided evenly among three topics. The first twelve rules were to concern the general rules of method that lead to certain knowledge, and included the discussion of simple natures, and their role in establishing certain knowledge. The second and third divisions were to concern applications of the method: the second division was intended to treat of problems that "can be understood perfectly, even though we do not know the solutions to them", and would focus particularly

upon arithmetic and geometry (X 429); the third division would consider problems "not perfectly understood", presumably the mixed mathematics, and would consider the methods necessary for reducing those problems to perfectly understood problems. The reduction was to be carried out by discerning the conditions required for defining the problem and for determining mutual dependencies among things, as is done in the investigations of magnetism and the nature of sound that Descartes sketches briefly in the text (X 431-7).

Descartes appears not to have finished the work: his notebooks provide drafts of the first twenty-one rules and the first eighteen commentaries, at least some of which show obvious gaps that suggest a need for revision. Jean-Paul Weber argues that many of these gaps and inconsistencies can be accounted for if the Rules was composed during several distinct periods, dating from around mid-1619 to 1626-9.20 That Descartes put down the work before finishing it is not out of the ordinary: Descartes appears to have been quite content to lay aside, re-commence, polish and re-polish his work, a great deal of which was left unfinished; and he was loath to publish, especially in the period before the Discourse. Neither should the unfinished condition of the work be taken to imply any particular dissatisfaction with its contents. No explicit mention of the work before Descartes' death has been found, though the author may have alluded to it with approval, or at least to its subject matter, in correspondence in 1631, within a few years of his

laying the project aside.²¹ Silence might also be less surprising if we note that the work was unfinished, and accept the conjecture that the title may have been affixed after the work left Descartes' hands.²²

Why did Descartes not finish the work, however; and what is its relation to his later work? Though this question deserves, and has received, more extended consideration 23 , some notes towards its answer may be helpful in concluding the argument of this paper, allowing an importance to the simple natures in his later philosophy, and especially in the method of doubt. To that end, we need look no further than the autobiography of the Discourse on Method for many useful clues. The Discourse implies that Descartes may have left the project behind because he had found what he considered to be a superior didactic strategy and a new and superior philosophical approach, which he presented in the Discourse and the *Meditations* - respectively, the method of doubt and the approach from 'first philosophy'. These improvements, however, do not appear to me to constitute a rejection of the epistemology of simple natures of the Rules.

The differences between the *Rules* and later works can be elucidated by noting a few features of Descartes' own history in his search for certainty. First, the scant evidence we have regarding Descartes' own studies during his mid-twenties - some of which is provided by his letters and the *Discourse* - indicates that they did indeed include two sorts of work represented in a careful mix in the *Rules:* works of geometry

and mathematics, and books concerning strategies for problem solving.²⁴ Especially if Descartes began composing the *Rules* in 1619, the link to these areas should not be surprising. The dissimilarities of this approach to Descartes' later work may, I expect, also be explained by reference to shifts in focus and insights gained further on; and central to an explanation of the change would be accounting for the adoption of the method of doubt developed in later works, the task to which I now turn.

In the *Rules*, we find that one of Descartes' recommendations to others wishing to acquire knowledge runs as follows:

...since in these preliminary inquiries we have managed to discover only some rough precepts which appear to be innate in our minds rather than the product of any skill, we should not immediately try to use these precepts to settle philosophical disputes or to solve mathematical problems. Rather, we should use these precepts in the first instance to seek out with extreme care everything else which is more essential in the investigation of truth... (X 397)

Note that Descartes' celebrated method of doubt and the metaphoric goal of razing the edifice of knowledge that he has lived in find no explicit mention in the *Rules*: here Descartes recommends that we inventory our beliefs and proceed through a much more orderly dismantling and reconstruction of each. The metaphor used in the *Rules* is of Theseus tracing the thread in the Labyrinth, it is not one of

wholesale destruction (X 380).²⁵ In the *Rules*, Descartes does consider (briefly) the central importance of "the problem of investigating every truth for the knowledge of which human reason is adequate", and states that "we ought once in our life carefully to inquire as to what sort of knowledge human reason is capable of attaining before we set about acquiring knowledge of things in particular", but these pronouncements serve only to foreshadow, and not to identify the method of doubt (X 395, 397)

In the *Discourse*, Descartes also mentions this early approach as one of "uprooting from my mind any errors that might previously have slipped into it" (VI 28). He continues the autobiography, however, by claiming that shortly after he settled in Holland in 1629, he engaged in a rather more extreme approach to justifying knowledge: "I thought it necessary to ... reject as if absolutely false everything in which I could imagine the least doubt, to see if I was left believing anything that was entirely indubitable" (VI 32). He himself claims that this method of doubt marks a significant shift in approach from the piecemeal doubt embraced earlier, which appears to be recommended in the Rules. Why he found it necessary to adopt the new approach - whether it signals a realization of shortcomings in the justificatory strategy in the Rules, or simply represents nothing but a novel idea or a fresh approach, as of about 1629 - I will leave aside here.²⁶ The new method's adoption, and subsequent development in Descartes' works after the Discourse, indicates one plausible

reason why Descartes dropped the project of the *Rules*: though the *Rules* embodies a discussion of method, like the *Discourse* and many later works, Descartes' method for guiding reason rightly had changed.

The agenda for epistemological foundations in the Rules is further re-written in passages further on in the Discourse and in the Meditations, where Descartes picks up another new thread: the goal of justifying knowledge from foundations in first philosophy. The assurance with which knowledge may be held appears to be advanced on two fronts in this approach. First, the approach allows one to fix the order of investigation of phenomena in a way that is unrelated to the advantages accruing to the method of doubt: first philosophy allows one to discover the "first causes" of everything that exists (VI 64). Second, in the Meditations, both the method of doubt and metaphysical foundations are used in concert, and are intended to remove all doubt, however "slight and, so to speak, metaphysical" (VII 36). This metaphysical doubt, in addition to its progressively encompassing more and more supposed knowledge, differs from the doubt of the Rules in that it includes doubt of the certainty of mathematical truths as well, making them dependent upon God's will.²⁷ The approach particularly differs from that taken in the Rules, of course, in that knowledge crucially hinges on the method of doubt, and, ultimately, on the foundation, in first philosophy, of a proof of God's existence.

The Discourse suggests, then, that the combination of these two strategies *together* in a new method for tempering doubt was an innovation that gradually developed for Descartes. It is important to note that Descartes refers to a need for philosophical foundations for all of the mixed sciences in the Discourse (VI 21-22), explicitly distinguishing them from pure mathematics and geometry, which already contain "certain and evident reasonings" (VI 19). If his autobiography can be taken as accurate, Descartes held to this hierarchy in 1619; and this might provide some explanation regarding why the third portion of the Rules, which was intended to concern natural science, was never attempted. The Discourse continues on to suggest that Descartes did not consider the foundations in first philosophy that would be addressed in the *Meditations* to apply to all knowledge, including pure mathematics and geometry, until perhaps ten or eleven years later (VI 31).

The *Discourse*, then, presents an account of Descartes' method up to 1619 that reflects that presented in the *Rules*, and it also provides us accounts of two very significant changes to his approach thereafter. The method of doubt and philosophical foundations for certainty are introduced in the *Discourse* in 1637, and appear to have gradually transformed Descartes' approach to method over the preceding eight years. What, then, is left over from the *Rules*? The analysis of knowledge in terms of simple natures from the *Rules* may remain largely intact, though Descartes' discovery of the

dependence of the eternal truths on God's will, which yielded a re-assortment of "common notions" in the *Principles*, affected the *Meditations* as well. Descartes has, however, presented a shift in method and a greater shift in emphasis. The piecemeal doubt of the *Rules* is replaced by the thoroughgoing methodical doubt of the *Meditations*, and a new metaphysical foundation of certainty, from first philosophy, is added to the epistemological basis of the *Rules*.²⁸ The metaphysical basis greatly alters Descartes' project, and it also explains the importance of the method of doubt in Descartes' later philosophy. The appeal to metaphysical foundations for certainty does not interfere with methods for determining legitimacy in empirical knowledge, but does complement and re-arrange the grounding of certainty for all scientific knowledge.

Conclusion

I do not see sufficient reason to hold that the *Rules* represents Descartes' definitive treatment of epistemology for later works, for there is much further development in the *Principles*, for example, and the *Rules* does not maintain that eternal truths are dependent upon God's will. I suggest, however, that vestiges of the theory of simple natures may well be found tacitly represented within many of Descartes' later works. Concerning the *Meditations*, perhaps I have gained a clearer view of Descartes' method of doubt by suggesting that three classes of ideas relevant to knowledge

are represented therein: a) the objects not doubted: the intuited atomic *constituents* of knowledge, which correspond with the simple natures of the Rules; b) the "immediate inferences", which include the "primary notions" of clearly and distinctly perceived knowledge that survive doubt, such as the cogito, as well as Schouls' class of "intuition2", gained through deductive argument, but subsequently understood in an uninterrupted intuition of thought and "revealed" by the natural light, like the primary notions; c) deductive knowledge and science, as remembered collections of clearly and distinctly perceived knowledge, guaranteed by the intuitive certainty of the primary notions. Some commentators appear to lump the first and second of these classes together in their discussions, but the analysis here presented maintains that only the first is foundational in the sense that its contents are never subjected to doubt in the *Meditations*.²⁹

¹See especially the seventh set of objections in the Objections and Replies to the Meditations on First Philosophy (VII 451 ff.). Quotations in the text to follow will be referred to the pagination of Adam and Tannery, volume and page; the translation is that of Cottingham et. al., in Rene Descartes, The Philosophical Writings of Descartes, eds. and trans., J. Cottingham, R. Stoothoff, D.

Murdoch, and A. Kenny, 3 vols. (Cambridge, U. K.: Cambridge University Press, 1984-91).

²For one reasonable attempt to interpret this problematic passage, in which Descartes appears to entertain a possibility for doubt that equals Bourdin's (see next paragraph in this paper), see Harry Frankfurt, *Demons*, *Dreamers, and Madmen* (New York: Bobbs-Merrill, 1970) 61-78. For a more comprehensive list of doubts, see Anthony Kenny, *Descartes: A Study of His Philosophy* (New York: Random House, 1968) 20-1.

³Thanks to Charles Johnson for indicating the relevance of this passage of Descartes to my concerns; see also Descartes' capitulation to the problem of 'absolute falsity' in the second reply (VII 145).

⁴For consideration of a 'piecemeal' solution, see Kenny 18-20; for rejection of this view on other grounds, see Margaret Wilson, *Descartes* (London; Routledge & Kegan Paul) 5-11. ⁵This verdict against Kenny should not, however, be understood as an attempt to dismiss the implicit criticism of Cartesian doubt embodied in his Wittgensteinian alternative. ⁶For reasons against characterizing the *cogito* as deductive, see Peter Schouls, "Descartes and the Autonomy of Reason," *Journal of the History of Philosophy* 10 (1972) 307-322: reprinted in Willis Doney, ed., *Eternal Truths and the Cartesian Circle* (New York: Garland, 1987) 312 ff. As I use

'deductive' here, I use it with the sense of deductive logical validity. As Descartes uses the term, and as it will be used to denote his use elsewhere in this paper, 'deduction' often has a much less apparent meaning (see discussion of 'deduction' in the *Rules*, considered below, and Schouls, 311).

⁷For further discussion, see especially N. Smith, *Studies in* the Cartesian Philosophy (New York: Russell & Russell, 1962); Jean-Paul Weber, La Constitution du Texte des Regulae (Paris: Société d'Édition d'Ensignement Supérieur, 1964); L. J. Beck, The Method of Descartes (Oxford: Clarendon, 1952); Pierre Costabel, "Physique et métaphysique chez Descartes," Human Implications of Scientific Advance (Edinburgh: Edinburgh University Press); John Schuster, "Descartes' Mathesis Universalis, 1619-28," Descartes: Philosophy, Mathematics, and Physics ed. Stephen Gaukroger, (New Jersey: Barnes & Noble, 1980); Desmond Clarke, Descartes' Philosophy of Science (Manchester: Manchester University Press, 1982). ⁸Note that perception is not always "clear and distinct" despite the utter "self-evidence" of simple natures. Descartes comes closest to solving this apparently paradoxical combination of views by alluding to metaphors of inattentiveness, which obscures such self-evidence (e.g., (X 417)).

⁹(VII 38), c.f. the *Rules*:"...there can be no falsity save in composite natures which are put together by the intellect" (X

399). Descartes' theory of perception for the *Meditations* is also hinted at in passages in the *Replies* (VII 381-2). ¹⁰Jean-Luc Marion, *Questions Cartésiennes* (Paris: Presses Universitaires de France, 1991). The relevant chapter is translated into English by John Cottingham and reprinted as Marion, "Cartesian metaphysics and the role of the simple natures," *The Cambridge Companion to Descartes* ed. Cottingham (Cambridge: Cambridge University Press, 1992) 115-139. ¹¹Marion, "Cartesian metaphysics and the role of the simple natures," 127: "The Cogito consists in a single fact: the *ego* puts to work, by a performance of thinking, the common simple nature of existence. And because this performance takes place in time ... it also puts to work the common simple nature of duration."

¹²The closest indication of a correspondence in the *Meditations* and *Replies* to the *Rules'* comparison between necessary connections among ideas (such as hold for truths of geometry) and adventitious connection is perhaps expressed in the following: "...we must notice a point about ideas which do not contain true and immutable natures, but merely ones which are invented and put together by the intellect. Such ideas can always be split up by the same intellect" (VII 117). ¹³One formulation of the problem of the circle, authored by Margaret Wilson, is particularly well attuned to the issue considered by Schouls:

... to remove the Deceiver Hypothesis we must rely on something the Hypothesis says we cannot rely on. Thus, if the idea of God's omnipotence provides us with a reason for doubting our mathematical intuitions, it seems to provide us with exactly the same reason for doubting any other intuition, including further intuitions about God Himself. (131-2)

Those "further intuitions" particularly include the principles necessary for Descartes' proof, that 'there must exist as much reality in an effect as exists in a cause', and that "fraud and deception depend on some defect" which God could not have (VII 52).

¹⁴Schouls draws parallels between the *Rules* and the *Meditations*, leading to the conclusion that "the distinction [between two sorts of intuition] in the *Rules* is present in later works as well" (312-13).

¹⁵Schouls, 320.

¹⁶The *Replies* (VII 140, see above) indicates that Descartes does not, in fact, take the "*ego cogito*, *ergo sum*" as a first principle, but only "*nos esse res cogitans*", a treatment similar to that of the *Rules*: "*Ego cogito*, *ergo sum*" is a product of experience, and it is not altogether clear from this passage, or from the *Meditations*, that "*ego cogito*, *ergo sum*" is a 'first principle' or a 'primary notion' (though it is clear, by contrast, that two primary notions are the principles that "there is nothing in the effect which was not

previously present in the cause", and "all the reality or perfection present in an idea merely objectively must be present in its cause either formally or eminently" (VII 135)).

¹⁷Indeed, any properly constructed deductive knowledge has the potential for being revealed by the natural light, if this is the important criterion that is supposed to distinguish these primary notions: any notion may be known through intuition₂, given sufficient rehearsal for a sufficiently skilled mind, if we take the passage quoted above in the *Rules* (X 370) to hold for the *Meditations* as well (see also VII 58-9).

¹⁸Schouls, 313.

¹⁹The altered taxonomy might allow for an escape from the circle similar to Schouls': if a more careful distinction is made between deduction, and the sort of argument used in establishing both the *cogito* (an 'immediate inference') and the requisite principles for proving God's existence, then the line dividing autonomous reason from justified deduction need be changed only so as to include the immediate inferences, and intuition₂.

²⁰See Weber; that argument is further supported in Schuster. ²¹Letter to Villebressieu Summer 1631, (I 212-13).

²²Crapulli finds no references to the work among Descartes' writings, and puts forward the conjecture that the work was untitled. He also has his doubts about closely fixing dates

of composition (Rene Descartes, *Regulae ad Directionem Ingenii*, with introduction, notes and appendices, ed. Giovanni Crapulli (The Hague: Martinus Nijhoff, 1965) xxiixxiii, 85, 106 ff.).

²³See esp. Beck; Jean-Luc Marion, Sur l'Ontologie Grise de Descartes (Paris: Vrin, 1975); Schuster; Marion, "Cartesian metaphysics and the role of the simple natures." 24 See *Discourse* (VI 17-22). Descartes notes two of Ramon Llull's works, one of which he appears to have read, the other of which he requests information about, in letters to Beeckman of 26 March and 29 April 1619 (X 156, 164-5); in the later autobiographical passage of the Discourse, however, he finds Llull's method useful only "for speaking without judgment about matters of which one is ignorant." ²⁵Though I should note that, even though destructive metaphors for founding certain knowledge do not appear in the Rules, Descartes attributes them to that era in the Discourse (VI 13; c.f. 29). The methodical doubt, however, which seems particularly appropriate to this metaphor, receives no mention in the Rules, nor at this early stage of the biography in the Discourse. For its development, see below. ²⁶For discussion, see Schuster; Marion, Sur l'Ontologie Grise de Descartes; Marion, "Cartesian metaphysics and the role of the simple natures."

²⁷Emile Bréhier, "The creation of the eternal truths in Descartes' system," trans. Willis Doney, Descartes: A Collection of Critical Essays, ed. Doney (Garden City, New York: Anchor, 1967).

²⁸Costabel 275.

²⁹Thanks for aid and encouragement to Zeno Vendler, Charles W. Johnson, Clifton MacIntosh, and an anonymous reader for the Canadian Philosophical Association.