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Nietzsche and Heidegger on the Cartesian Atomism of Thought

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Nietzsche and Heidegger on the Cartesian Atomism of Thought

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
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List of Abbreviations

Works by Descartes:

AT: *Oeuvres de Descartes*, 11 volumes

CSM: *The Philosophical Writings of Descartes*, Vols. 1-2

CSMK: *The Philosophical Writings of Descartes*, Vol. 3

References to Descartes are to Adam and Tannery's *Oeuvres de Descartes* (1974-1989). I primarily use the Cottingham et al. translation, but when I do occasionally modify it, I note it in the text and provide the original in brackets. I have also consulted the Cress, Haldane, Ross, Ariew and Grene translations contained in *Descartes 2000*.

Works by Nietzsche:

EH: *Ecce Homo*

FW: *Die fröhliche Wissenschaft (The Gay Science)*

GD: *Götzen-Dämmerung (The Twilight of the Idols)*

GM: *Zur Genealogie der Moral (On the Genealogy of Morals)*

GT: *Die Geburt der Tragödie (The Birth of Tragedy)*

JGB: *Jenseits von Gut und Böse (Beyond Good and Evil)*

KSA: *Kritische Studienausgabe*, 15 volumes

MA: *Menschliches, Allzumenschliches (Human, All too Human)*

PT: *Philosophy and Truth: Selections from Nietzsche's Notebooks of the early 1870's*

WL: *Ueber Wahrheit und Lüge im aussermoralischen Sinne (On Truth and Lies in a Nonmoral Sense)*

WM: *Der Wille zur Macht (The Will to Power)*

Z: *Also Sprach Zarathustra (Thus Spoke Zarathustra)*

References to Nietzsche are to Colli and Montinari's *Kritische Studienausgabe* (1967-77), as well as aphorism number where applicable. Although I generally make use of Kaufmann's translations (except MA, which follows Hollingdale), I often modify their rendering and note it in the text when I do. Kaufmann occasionally alters the original text, adding or omitting paragraph breaks, italics and other punctuation. In these cases, I revert back to the original without noting it. Daniel Breazeale has also published translations of some of Nietzsche's early notebooks, including WL, and I also make use of these (abbr. PT).

Works by Heidegger:

- BaT *Being and Truth*
- BT *Being and Time*
- BW *Basic Writings*
- GA *Gesamtausgabe*, 102 volumes
- IPR *Introduction to Phenomenological Research*
- N *Nietzsche*, 4 volumes

References to Heidegger are to the 102 volume *Gesamtausgabe* published by Vittorio Klostermann (1976-), as well as to the standard English translation, if one is available. I occasionally modify the translations, and note it in the text when I do.

Abstract

My dissertation has two main parts. In the first half, I draw out an underlying presupposition of Descartes' philosophy: what I term "atomism of thought." Descartes employs a radical procedure of doubt in order to show that the first principle of his philosophy, the cogito, is an unshakeable foundation of knowledge. In the dialogue that follows his dissemination of the *Meditations*, Descartes reveals that a whole set of concepts and rational principles innate in our minds are never doubted. These fundamental units of thought are indivisible, distinct, and isolated, and enable the possibility of any rational demonstration. Atoms of thought are perfectly individuated because God has created them as such. Likewise, our minds have been fashioned such that we necessarily have a clear and distinct perception every time we alight upon these simple notions.

In the second part of the dissertation, I take up critiques of Descartes' view given by Nietzsche and Heidegger. In the chapter on Nietzsche, I attempt to fill a lacuna in scholarship about Nietzsche's commentary on Descartes. More specifically, I argue that once the foundation of God is displaced, the basis for accepting atomism of thought dissolves. In the final chapter, I analyze Heidegger's critique of Cartesian atomism. I first look at Heidegger's critique of classical truth as correspondence from Being and Time, and show how it is relevant to a critique of atomism. Then I show how the early

Heidegger's holistic philosophical framework can provide an alternative that avoids the pitfalls of atomism.

While I limit the scope of my analysis to Descartes' particular formulation, atomism of thought was an influential doctrine throughout modern philosophy. This aspect of Cartesianism has persisted and continues to be a significant theoretical underpinning of many contemporary views. It is my contention that Nietzsche and Heidegger have important contributions to make to this area of thought, and the relative neglect of their work in recent scholarship is a detrimental oversight.

Introduction

It is fashionable for contemporary scholars to trace certain unfortunate philosophical positions back to René Descartes in order to distance their own thought from a well-known line of thinking. This practice of using Descartes as a foil for one's views fails to be worthwhile, when it is rooted in a neglect of the rich nature of Descartes' philosophy. This disregard is based on an assumption that his work is unworthy of serious consideration when discussing contemporary issues. Rather than carefully engaging with the subtleties of his writings, one reconstructs Descartes' arguments so that they find a place within twentieth and twenty-first century debates. This is why one finds positions such as radical skepticism or the incorrigibility of first-person mental states pejoratively attached to Descartes' name. The situation characterized above makes it appear as though one may be considered "Cartesian" by simply accepting one or more claims within a field of obvious possible positions. Likewise, one may avoid the pitfalls of Cartesianism by choosing other positions among the natural, pre-delineated array of possibilities. There is something right about the claim that the philosophy of the last century is still mired with Cartesian presuppositions.¹ The problem is that attempts to diagnose this Cartesianism by way of careless reconstructions fail to capture its deepest and most significant aspects.

This dissertation is an attempt to illuminate one important and influential doctrine in Descartes' philosophy, what I coin "atomism of thought," and to explore its reception

¹ Some examples of worthwhile studies in this regard include Grene 1985 and Guignon 1983.

in two authors closer to our own time, Friedrich Nietzsche and Martin Heidegger. As hinted at above, my concerns are not purely historical, since atomism of thought is a doctrine that maintains powerful sway in many philosophical circles today. It is my contention that the current manifestations of atomism have their origin, at least in part, in Descartes. It is too large a task for this study to take on the historical investigation of Descartes' atomism of thought, the critical reactions from Nietzsche and Heidegger, and the full implications of the historical analysis for contemporary thought. In fact, the full genealogy of atomism of thought would run through many other figures of the canon, the doctrine not being one of monolithic constancy, but instead making its appearance here and there without conscious articulation. Its simultaneous invisibility and omnipresence in the Western tradition is what fascinates me. So, I have chosen one figure in this line of thinking whom I deem particularly important for its development (Descartes), and two whose critical acuity in this regard are exemplary (Nietzsche and Heidegger), in order to broach a very complex topic. I will, however, say a few words here and in the conclusion regarding the significance of these historical insights for contemporary philosophy.

Atomism is traditionally taken to be a view that asserts the existence of indivisible pieces of matter. Descartes thought that the very concept of a material atom was absurd, since material substance is by its nature divisible. However, there is strong evidence to suggest that Descartes believed in atomistic units of thought. Although he did not use the term "atom," a certain class of thoughts has all of the features one would expect from an atom of thought: indivisibility, simplicity, ability to be combined into composites, and distinct boundaries that separate the atom from all else. Descartes recognizes two types of atoms of thought that play different roles in his work. The first I shall call

epistemological atoms of thought. These are the simplest demonstrations that make up the framework upon which all science rests. They are epistemologically atomistic because they cannot be divided into smaller parts in order to analyze their meaning. Their propositional content is perfectly individuated with clarity and distinctness. The statement of the cogito from Meditation II is the paradigm example of an epistemological atom of thought. It is captured in a singular moment of pure intuition, independent of syllogistic reasoning. The epistemic evidence for the cogito is also self-contained within its unbreakable boundaries.

Somewhat paradoxically, Descartes claims that although the cogito enjoys a privileged epistemological status as the simplest moment in the order of reasons, certain concepts are nevertheless required for the possibility of any demonstration, including the cogito. Concepts such as existence, thought, truth, and doubt are innate in our minds, carving out static essences. These I shall call *conceptual atoms of thought*.² The eternal natures represented in such concepts are indivisible, distinct, and isolated from all else. They attain this status of atomism by being created by God. God has immutably willed the essential natures of our fundamental concepts to have indestructible meanings, absolutely bounded and distinct from other meanings.

I doubt that many contemporary scholars would accept Descartes' full blown version of atomism of thought, particularly with its grounding in God. Nevertheless, the idea that we can capture precise, distinct units of propositional content and static, rigidly designated conceptual meanings is a view that has widespread currency. It would appear

² In recent years, the term "conceptual atomism" has been used to name a theory of concepts that maintains that concepts have no internal structure (see, for example, Kwong 2007). Although there are a few parallels, my interpretation of Descartes' view of the same name does not draw on these recent developments.

that something of the sort is required if we are to guarantee rational inferences, and as such, much of recent philosophy hangs in the balance depending on the fate of at least some form of atomism of thought. I believe that if we are to grant Descartes the existence of God – a rather large allowance, though much less so in the seventeenth century – his vision of atomism of thought is reasonably well-supported. Once one has abandoned Descartes' divine foundation – as many are inclined to do in our time – the doctrine of atomism loses its support structure. I believe that atomism of thought is one of the ways that we are still Cartesian. The problem is that we no longer accept the metaphysical context in which such a view makes sense. Today, readers of Descartes often scoff at his dependence on God, which enables nearly everything in his system to work. We ought to take an equally derisive look at the way we have ripped certain Cartesian doctrines from their context (in particular, the divide between knower and world, substance ontology, and atomism of thought), and employed them without adequate grounding.

The first half of the dissertation is an in-depth analysis of Descartes' atomism of thought. In the first chapter, I take up the question of what lies presupposed behind the method of doubt in the *Meditations*. One gets the impression that from the beginning of Meditation I to the statement of the cogito everything that can be doubted has been. The cogito itself has the appearance of a self-contained unit of truth, independent of any extraneous assumptions. However, when we dig a bit deeper, we realize that Descartes has in fact already exempted a whole set of concepts and principles from the process of doubt. We can resolve this tension by taking seriously Descartes' claim that the *Meditations* are intended to be *demonstrations* modeled after the great geometers. This affords us a distinction between that which is presupposed by rational demonstration

(concepts and principles), and that which is to be demonstrated (the cogito, the existence of God, the real distinction between mind and body, etc.). We can thereby understand the sense in which the cogito is considered both epistemologically simple and conceptually composite. When looked at in terms of the order of demonstration, the cogito is first, epistemically dependent on no other demonstration. If, on the other hand, we analyze the conceptual resources required for carrying out any demonstration at all, we can see that the pronouncement of the cogito implicitly depends on the meaning of its terms.

Resolving the question of the undoubted background to the *Meditations* will serve two main purposes for our study of atomism. The first is a historical point; it will reveal some of the ways that contemporary philosophy has concealed the underlying presuppositions of Cartesian philosophy. I argue that some of these presuppositions are still maintained, often without conscious recognition of their historical origin. The second upshot of chapter 1 is that we are given two ways of understanding atomism according to the divide between the necessary conditions for demonstration and the results of demonstration. The former – concepts – correspond with conceptual atoms of thought and the latter – assertions of truth – correspond with epistemological atoms of thought.

In chapter 2, I use the results of the previous chapter to carry out a complete interpretation of Descartes' atomism of thought. In order to complete this task, we must first determine the precise nature of Cartesian ideas. Ideas are responsible for carrying out the most important functions of conceptual atomism, and also ground the doctrine of clarity and distinctness essential for epistemological atoms of thought. By going back to Descartes' early, unfinished work, *Regulae ad Directionem Ingenii*, we can ascertain the key features of atomism: indivisibility, isolation, and distinctness. In the *Regulae*,

Descartes also employs a fundamental principle of reducing epistemological problems down to their absolutely simple components in order to build science back up again upon these foundations. We find that this guiding principle and the three aforementioned characteristics are still operative in the *Meditations*, albeit in a way transformed in light of Descartes' new set of concerns in 1641. Particularly important for capturing the full import of atomism of thought will be offering an account of clarity, distinctness, and innate ideas. Finally, the cornerstone to the interpretation offered, as mentioned above, is God's free creation of the true, immutable, and eternal natures.

In Chapter 3, which begins the second half of the dissertation, I take up Nietzsche's argument against Descartes' atomism of thought. There is relatively little written about Nietzsche's thoughts on Descartes, and in the first section of this chapter, I show that Descartes was in fact the target of many of Nietzsche's important critiques. Several of these more general attacks – especially the concealment of moral and linguistic presuppositions within Cartesian philosophy – are relevant for Nietzsche's specific critical argument concerning atomism. In order to fully make sense of this latter argument, we must develop additional background resources from Nietzsche's discussion of absolutes in the history of philosophy. There are four absolute conceptions that play a significant role in our interpretation: God, truth, reason, and being. All four conceptions are part of Descartes' attempt to find a space independent of the dynamic flux of sensory experience, where static atoms of thought can exist. Nietzsche's critique of absolutes and his corresponding embrace of becoming as the essential attribute of reality undermine the possibility of Cartesian atomism of thought.

The fourth chapter is similar in structure to chapter 3. The goal is to analyze Heidegger's assessment of atomism of thought. Heidegger writes quite a bit about Descartes, especially in his lecture courses of the 1920s and 30s. From these works, we can capture three primary Cartesian assumptions that Heidegger considers to be considerably influential, largely unrecognized, and philosophically detrimental: (1) the modern requirement of rigorous certainty; (2) the insouciant acceptance of substance ontology; and (3) a medieval/scholastic conception of truth. In the same way that the critique of absolutes and revealing of Cartesian presuppositions formed the basis for Nietzsche's attack on atomism, the three assumptions just mentioned constitute the background necessary for making Heidegger's analogous critique. Nietzsche's version of the argument does not make a careful separation between epistemological and conceptual atoms of thought; he offers reasons for the impossibility of any form of atomism. Heidegger, on the other hand, deals with epistemological atoms of thought in his discussion of the traditional understanding of truth as correspondence. This argument shows that any assertion whatsoever, even those such as the cogito, depend upon notions of uncovering and disclosedness that are not atomistic. Finally, the meaningful content of conceptual atoms of thought, as forms of understanding, is proven to be rooted in the situatedness and futural projection of human being-in-the-world. This hermeneutically circular structure of understanding means that distinct, isolated, and indivisible meanings are impossible.

Chapter One:

The Structure of Undoubted Rationality in the *Meditations*

René Descartes' famous process of doubt in the opening passage of the *Meditations* presents a host of interpretive difficulties. He employs a method of doubt with so wide a scope that even our knowledge of some of the simplest and most obvious truths is challenged. His reason for such hyperbolic doubt is clear: anything that passes the test will be a certain foundation for metaphysics, and, in turn, science. For someone so concerned with raising skeptical doubts about some of our most basic beliefs, Descartes is remarkably dogmatic about others. I do not mean he is dogmatic about the beliefs that he finds indubitable after going through the doubting process – these are carefully considered – but rather about those things that are never called into question at all. Some of these undoubted presuppositions are idiosyncrasies that Descartes alone holds dear. But many others are still accepted today. Thus an investigation into the undoubted background to Descartes' thought is worthwhile.

Carrying out an analysis of the undoubted in Descartes' thought is not merely interesting as a study in its own right; it proves to be essential in understanding Descartes' atomism of thought. Descartes' commitment to geometrical demonstration is the key to understanding the distinction between what is entertained as a candidate of doubt and what is never questioned. Once we have completed a full interpretation of the undoubted rationality that underlies the inquiry of the *Meditations*, we will briefly take up

two specific presuppositions of the unchallenged background – substance ontology and the divide between mind and world – in order to provide a blueprint for the argument concerning atomism. These two assumptions will prove important for Heidegger’s critique of atomism given in chapter four.

I. The Method of Doubt

A. Doubt in the Discourse and Principles

Descartes uses a method of doubt in several works outside of the more well-known version in the *Meditations*. For example, in Part Four of the *Discourse on the Method* he writes, “But since I now wished to devote myself solely to the search for truth, I thought it necessary to do the very opposite and reject as if absolutely false everything in which I could imagine the least doubt, in order to see if I was left believing anything that was entirely indubitable” (AT VI, 31/CSM I, 126-127). This statement of the doubting process is almost identical to the one in Meditation I. But in the *Discourse*, the use of doubt is not the primary method, as the four rules enumerated in Part Two take precedence throughout the work.³ Descartes later calls these the “principal rules of logic” (AT IX-2, 15/CSM I, 186). And as he writes in the Preface to the *Meditations*, his main goal

was not to provide a full treatment, but merely to offer a sample, and learn from the views of my readers how I should handle these topics at a later date. The issues seemed to me of such great importance that I considered they ought to be dealt with more than once; and the route which I follow in explaining them is so untrodden and so remote from the normal way, that I thought it would not be helpful to give a full account of it in a book written in French and designed to be read by all and sundry, in case weaker intellects might believe that they ought to set out on the same path. (AT VII, 7/CSM II, 6-7)

³ Garber ([1988] 2001) argues that the method is reminiscent of the early *Regulae*, though I would say only vaguely so.

“These topics,” namely the ones dealt with in Part Four of the *Discourse* are precisely the ones at issue for our purposes. So, this gives us reason to lend primacy to the text of the *Meditations* over the earlier works with respect to the method of doubt.

The method of doubt is also employed in the later *Principles of Philosophy*, again differently than in the *Meditations*, but for a new set of reasons. The first article of Part One of the *Principles* is entitled “The seeker after truth must, once in the course of his life, doubt everything, as far as is possible” (AT VIII-1, 5/CSM I, 193). Descartes offers the same basic strategy here for using the method of doubt as he did in both the *Discourse* and the *Meditations*. But it is obviously more important here than it was in the *Discourse*, as the method is used to discover the most fundamental truths of metaphysics (Part One), which in turn are to provide the foundation for the principles of physics (Parts Two through Four). Helpful in this regard is Descartes’ famous tree analogy in the Preface to the French edition of the *Principles*:

Thus the whole of philosophy is like a tree. The roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are all the other sciences [...]. Now just as it is not the roots or the trunk of a tree from which one gathers the fruit, but only the ends of the branches, so the principal benefit of philosophy depends on those parts of it which can be learnt last of all. (AT IX-2, 14-15/CSM I, 186)

The *Discourse*, then, is primarily intended to be an exercise in applying his “principal rules of logic” to the “branch” sciences to show how fruitful they can be.⁴ Descartes intended the *Principles*, on the other hand, to be “an explanation of the whole of philosophy in an orderly way, without having omitted any of the things which ought to precede the topics I wrote about last” (AT IX-2, 16-17/CSM I, 187-188). As such, the

⁴ Interestingly, even the *Essays* is not clearly an application of the principal rules, as Garber ([1988] 2001) points out.

statement of the method of doubt at the beginning of the *Principles* and its subsequent employment deserve significant attention.⁵

Nonetheless, I would argue that the *Meditations* still should enjoy precedence in our interpretation. After Descartes has explained the role of the *Discourse* and its accompanying essays as examples of what his method can accomplish, he writes:

Later on, foreseeing the difficulty which many would have in grasping the foundations of metaphysics, I tried to explain the principal points in a book of *Meditations*. [...] And finally, when I thought that these earlier works had sufficiently prepared the minds of my readers to accept the *Principles of Philosophy*, I published these too. The first contains the principles of knowledge, i.e. what may be called ‘first philosophy’ or ‘metaphysics’; so in order to gain a sound understanding of this part it is appropriate to read first of all the *Meditations* which I wrote on the same subject. (AT IX-2, 16/CSM I, 187)

So we can understand the *Principles* as an attempt at a culmination of his previous efforts into one unified project that explains the entirety of the tree of philosophy, roots, trunks and branches. (However, the completion of the branches is left largely to posterity.) This is only legitimate once the mind has been properly “prepared” and Descartes urges the reader to carefully go through the *Meditations* first, written strictly in his preferred analytic style.⁶ In any event, it is clear that the *Meditations* offers Descartes’ most

⁵ See Ariew 1992 for a full treatment of Descartes’ tree of knowledge.

⁶ On the two modes of demonstration, Descartes writes in the *Second Replies*: “Analysis shows the true way by means of which the thing in question was discovered methodically and as it were *a priori*, so that if the reader is willing to follow it and give sufficient attention to all points, he will make the thing his own and understand it just as perfectly as if he had discovered it for himself. [...]

Synthesis, by contrast, employs a directly opposite method where the search is, as it were, *a posteriori* (though the proof itself is often more *a priori* than it is in the analytic method). [...]

Now it is analysis which is the best and truest method of instruction, and it was this method alone which I employed in my *Meditations*. As for synthesis, [...], it is a method which it may be very suitable to deploy in geometry as a follow-up to analysis, but it cannot so conveniently be applied to these metaphysical subjects” (AT VII, 155-156/CSM II, 110-111).

Although the *Principles* is perhaps closer to synthesis than analysis, it is not quite right to say that Descartes wrote them synthetically, as he does not list definitions, postulates and axioms in the same way as he does at the end of the *Second Replies* (AT VII, 160-170/CSM II, 113-120). Furthermore, he never explicitly associates the *Principles* with synthesis in any non-disputed works (Garber and Cohen [1982] 2001). It’s more accurate, I believe, to think of the *Principles* as Descartes’ attempt – albeit a failed one – at writing in the style of the scholastic textbook, as he intimates in his November 11, 1640 letter to Mersenne: “My plan is to write a series of theses which will constitute a complete textbook of my philosophy. I will not waste any words, but simply put down all my conclusions with the true premises from which I derive them. I think I could do this without many words. In the same volume I plan to have printed a textbook of

devoted investigation to the relevant issues. But the *Principles* will certainly provide helpful insight.

B. Doubt in the Meditations

English-speaking commentators of Descartes have devoted many pages of analysis to the details of the specific epistemological arguments that occur in the process of doubting in Meditation I, particularly the dream argument and the evil genius/deceiving God passages (Frankfurt 1970; Wilson 1978; Curley 1978; etc.). This will not be my focus here. Rather, I wish to investigate the general method of doubt itself, and especially what gets to count as being susceptible of doubt and what doesn't.

Descartes' primary purpose in the *Meditations* is made clear almost immediately at the start of Meditation I: "I realized that it was necessary, once in the course of my life, to demolish everything completely and start again right from the foundations if I wanted to establish anything at all in the sciences that was firm and enduring [*firmum & mansurum*]" (AT VII, 17/CSM II, 12; translation modified). This passage brings to light several important features of the project. Descartes is primarily interested in grounding science in a new, more solid basis. He clearly believes that the reigning foundation – scholastic science rooted in Aristotelian principles – is incapable of attaining this goal. He does not think that a minor adjustment will do the trick; our thought is so thoroughly corrupted that only a complete demolition of our beliefs will effect the necessary transformation to "firm and enduring" science.

traditional philosophy, perhaps Father Eustache's, with notes by me at the end of each proposition. But please do not tell anyone yet of this plan, especially before my *Metaphysics* is published; [...]. It might also hold up the approbation of the Sorbonne, which I want, and which I think may be very useful for my purposes, for I must tell you that the little book on metaphysics which I sent you contains all the principles of my physics" (AT III, 133/CSMK, 156-157). See Ariew forthcoming for a detailed study of this topic.

The method to achieve this goal is stated not long after:

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. And to do this I will not need to run through them all individually, which would be an endless task. Once the foundations of a building are undermined, anything built on them collapses of its own accord; so I will go straight for the basic principles on which all my former beliefs rested. (AT VII, 18/CSM II, 12)

The nature of the method reflects the nature of the inquiry. Descartes wants a foundation for science that is certain, i.e. impossible to doubt. Thus we must submit our beliefs to a scrutiny that is excessively stringent. Along the way of hyperbolic doubt we may discard some beliefs that are in fact true; but this is to err on the side of caution. In order to legitimately ground science, we must provisionally overturn all beliefs that have even the slightest possibility for doubt. This way, anything that does pass the test would by necessity be the unshakeable foundation desired.

There is another reason for the excessive nature of Descartes' method of doubt. In the *Synopsis* to the *Meditations*, he writes:

In the First Meditation reasons are provided which give us possible grounds for doubt about all things, especially material things, so long as we have no foundations for the sciences other than those which we have had up till now. Although the usefulness of such extensive doubt is not apparent at first sight, its greatest benefit lies in freeing us from all our preconceived opinions, and providing the easiest route by which the mind may be led away from the senses. The eventual result of this doubt is to make it impossible for us to have any further doubts about what we subsequently discover to be true. (AT VII, 12/CSM II, 9)

The last sentence is consonant with what was said above. We also see further emphasis on the fact that it is our previous foundations of science that enable the possibility of such an extensive scope of doubt. But beyond this, Descartes makes it clear that it is primarily the senses that have been the culprit for our shaky epistemic situation. And even though we may recognize this fact when faced with the skeptical concerns Descartes presents early in Meditation I (previous deception from the senses, uncertainty associated with small/distant objects, the dream argument), this will not be enough to fully disabuse us of

our long-standing prejudices. Thus the especially hyperbolic stages of doubt (deceiving God and evil genius) act more as a counter-weight: “I think it will be a good plan to turn my will in completely the opposite direction and deceive myself, by pretending for a time that these former opinions are utterly false and imaginary. I shall do this until the weight of preconceived opinion is counter-balanced and the distorting influence of habit no longer prevents my judgement from perceiving things correctly” (AT VII, 22/CSM II, 15).⁷

For these reasons, many commentators have pointed to the emphasis Descartes puts on the *practice* of meditation. It is only through deep immersion in the themes presented that one can properly overcome dependence on the senses. Strictly speaking, all that is needed to discard one’s previous beliefs is a simple act of the will: “in order to get rid of every kind of preconceived opinion, all we need to do is resolve not to affirm or deny anything which we have previously affirmed or denied until we have examined it afresh” (AT IX-1, 204/CSM II, 270). Yet, this alone is not enough to outweigh the deep-seated impressions from the senses; hence the necessity of meditation. One need only compare the detail given to the skeptical arguments of Meditation I with the brevity of the treatment offered in the *Discourse* and the *Principles* to see the force of this point.⁸

⁷ As we will see later, the deceiving God possibility is only entertained on grounds that are “very slight and, so to speak, metaphysical” (AT VII, 36/CSM II, 25). Thus the counterweight appears mainly to be the evil genius hypothesis.

⁸ This is also part of the reason why Descartes is so reluctant to put the arguments of the *Meditations* in synthetic form at the end of the *Second Replies*, and why he must preface his demonstrations with multiple exhortations to the reader (the “Postulates”) about withdrawing from the senses.

II. The Other Criterion of Doubt

A. Initial Engagement with the Problem

We have just taken a brief look at what Descartes explicitly states to be his method of doubt in the *Meditations*, along with the motivations for adopting such a method. I now wish to investigate doubt from a different perspective. Recall that when the method is presented in Meditation I, Descartes says that it is *reason* that will guide the process, and it is *reason* that convinces him that the form the method must take is the best one. Furthermore, Descartes later admits that certain notions could never be doubted, and thus are outside the scope of doubt. Many commentators have also questioned the sincerity of Descartes' more radical doubts, of the truths of mathematics for example.⁹ Thus we see that there is a certain framework in place that allows the process to develop. When Descartes says that he wishes to doubt all of his former opinions, he clearly has a delimited group in mind, ones that are susceptible of doubt in the first place. Our question now is: what is Descartes' criterion for something being susceptible of doubt?

Michael Williams (1986) offers one response to this question, arguing that an understanding of epistemology as a fundamentally foundational project runs through the first Meditation. It is important for Descartes' project in the *Meditations* that his method of doubt does not conceal unnatural metaphysical assumptions at work that are at least partially responsible for the results of the process. But Williams says, "I think, however,

⁹ Scholars have adopted this position in varying degrees: To name a few, Frankfurt (1970) and Cottingham (1976) think that Descartes' main purpose for presenting the evil demon was to add more force to the counter-weight against naive empiricism, rather than to call mathematics into doubt; O'Brian (1977) and Wilson (1978) do not believe that Descartes ever doubted the actual mathematical truths themselves, but only our ability to know them; finally Wachbrit (1996) and Grene (1999) contend that Descartes never seriously doubted mathematics at all.

that Descartes' doubts are much less natural, much less metaphysically noncommittal, than they are made to seem" (1986, p. 118).

We already know that Descartes is explicitly concerned with foundations, as he makes the grounding of science his most pressing need. But he also makes clear that "once the foundations of a building are undermined, anything built on them collapses of its own accord; so I will go straight for the basic principles on which all my former beliefs rested" (AT VII, 18/CSM II, 12). The arguments of Meditation I presuppose that our beliefs can be separated into epistemic classes based on their level of certitude. Each class has a principle or set of principles that distinguishes it from the others. And these classes are arranged in a foundational hierarchy.

The dream argument, for instance, is intended to call into question all particular beliefs about external existence derived from the senses (sitting by the fire, holding a piece of paper, etc.). All beliefs of this kind rely upon a more universal class of beliefs characterized by a principle that cannot be doubted using the dream argument. The progression of doubt now continues to challenge the more basic classes of beliefs upon which the earlier ones depend. Gueroult ([1952] 1984) portrays this as a set of proto-Kantian transcendental arguments, going from one class of beliefs (the more composite) to the conditions for its possibility (the simpler). So, Williams' main point is that inherent in all of this is a foundational conception of knowledge (and that Descartes' metaphysically "loaded" version of skepticism contrasts with its pyrrhonian ancestors).

I agree that Descartes does operate with the presupposition that knowledge is foundational; but I think it is unfair of Williams to say that Descartes concealed his metaphysical commitments about it. After all, he is quite explicit in saying that reason is

guiding the doubting process, and that the method will involve attacking the fundamental principles on which all his former beliefs depend, using the metaphor of a building and its foundations.¹⁰ So, taking Descartes at his word, we should not expect a metaphysically neutral account with respect to these points. Unfortunately, Williams' account does not go any deeper in order to countenance the less explicit philosophical commitments we will be considering here.

However, this does leave us with an interesting interpretive problem. At the beginning of Meditation II, Descartes reiterates how much he has doubted:

So serious are the doubts into which I have been thrown as a result of yesterday's meditation that I can neither put them out of my mind nor see any way of resolving them. It feels as if I have fallen unexpectedly into a deep whirlpool which tumbles me around so that I can neither stand on the bottom nor swim up to the top. [...] So what remains true? Perhaps just the one fact that nothing is certain. (AT VII, 23-24/CSM II, 16)

By the time the cogito is announced as the fundamental principle that defies hyperbolic doubt, none of the previous beliefs jettisoned can count as justification. Is the cogito then an isolated, self-standing truth, relying on nothing but its own self-certainty?

It would seem not; for when the authors of the *Sixth Objections* put forward the challenge that "in order to be certain that you are thinking you must know what thought or thinking is, and what your existence is" (AT VII, 413/CSM II, 278), Descartes responds as follows:

It is true that no one can be certain that he is thinking or that he exists unless he knows what thought is and what existence is. But this does not require reflective knowledge, or the kind of knowledge that is acquired by means of demonstrations; [...] It is quite sufficient that we should know it by that inner knowledge [*cognitione illa interna*] which always precedes reflective knowledge. This inner knowledge of one's thought and existence is so innate in all men that, although we may pretend that we do not have it if we are overwhelmed by preconceived opinions and pay more attention to words than to their meanings, we cannot in fact fail to have it. (AT VII, 422/CSM II, 285; trans. mod. following Cress)

¹⁰ See Broughton (2002, pp. 74-78) for a critique from a different angle, arguing that Descartes' understanding of sensation in Meditation I is in fact ordinary, natural, and metaphysically noncommittal.

Thus we know that the background rationality includes at least the “inner knowledge” of certain innate concepts. This is to be distinguished from “reflective knowledge,” which is known through demonstrations. But Descartes does not explain just what this notion amounts to. Is this the last vestige of deduction from the early *Regulae*? Does Descartes mean demonstrations analogous to those appended to the *Second Replies*? Or do demonstrations simply mean arguments, requiring premises and inferences (in contrast to immediate intuitions)?

Descartes clarifies this further in the *Principles*, article 10:

And when I said that the proposition *I am thinking, therefore I exist* is the first and most certain of all to occur to anyone who philosophizes in an orderly way, I did not in saying that deny that one must first know what thought, existence and certainty are, and that it is impossible that that which thinks should not exist, and so forth. But because these are very simple notions, and ones which on their own provide us with no knowledge of anything that exists, I did not think they needed to be listed. (AT VIII-1, 8/CSM I, 196)

The distinction appears similar to the one made in the *Sixth Replies*, yet this time it is made between “very simple notions” and those that provide us grounds for making existence claims. The simple notions in this case are surely the same innate concepts mentioned previously. But now we have a second potential candidate for being susceptible of doubt. If one’s belief has existential import, it can be called into question.

This criterion coheres with much of the process of doubt: all beliefs derived from the senses seem to make claims about external existence; so do the more general beliefs upon which they depend – that there is a world, that corporeal objects in general exist, etc.; the cogito itself is also quite obviously an existence claim (and even though it turns out to be impossible to doubt, the meditator’s own existence was momentarily questioned). But other moments during the doubting process do not seem to cohere with the existence criterion: general concepts like quantity, size, shape and duration do not make any claims about existence. Neither do mathematical truths about triangles or

arithmetic. Does this mean that these items of knowledge were never doubted? And further than that, perhaps they are not even susceptible of doubt at all? Or maybe Descartes' criterion itself is faulty?

These difficulties led Marjorie Grene (1999) to investigate the question of “what Descartes did and did not doubt” (p. 558) in the *Meditations*. Her main interest is showing that Descartes never truly doubted the truths of mathematics and more importantly that he never doubted reason: “reason itself has been serenely in charge all along. Metaphysical doubt is just a pointer along the way, but even hyperbolic doubt, which is to be taken seriously, Descartes insists, in an intellectual undertaking, does not touch the secure domain of pure rational insight” (Grene 1999, p. 570).¹¹ The latter includes causal principles, metaphysics understood in terms of substance and, of course, concepts like thought, certainty and existence.

I don't wish to enter into the debate about the status of the mathematical truths;¹² rather, I want to take up the question of the undoubted beyond Grene's brief initial

¹¹ Grene's point appears to be supported to some degree by Descartes' refusal to admit the possibility of being insane (AT VII, 18-19). Frankfurt takes this up in great detail in his extended treatment of the method of doubt in *Demons, Dreamers, and Madmen* (1970). It will soon become clear that I do not share his view that one cannot glean Descartes' genuine positions from the internal dialogue of Meditation I.

¹² On the whole, I tend to agree with Grene's position. The texts in Meditations I, II and III support this. In Meditation I, the evil genius never actually throws mathematics into doubt: “I shall think that the sky, the air, the earth, colours, shapes, sounds and all external things are merely delusions of dreams which [the evil genius] has devised to ensnare my judgement. I shall consider myself as not having hands or eyes, or flesh, or blood or senses, but as falsely believing that I have all these things” (AT VII, 22-23/CSM II, 15). And the possibility of a deceiving God entertained beforehand only questions our own ability to reason mathematically, not the eternal truths themselves: “What is more, since I sometimes believe that others go astray in cases where they think they have the most perfect knowledge, may I not similarly go wrong every time I add two and three or count the sides of a square, or in some even simpler matter, if that is imaginable?” (AT VII, 21/CSM II, 14). In Meditation II, Descartes does not include mathematics in his list summarizing what has been doubted (AT VII, 23-25/CSM II, 16). Most convincing of all is Descartes' situating of simple facts of arithmetic alongside the cogito as “the things themselves which I think I perceive clearly” and appear to be beyond doubt: “let whoever can do so deceive me, he will never bring it about that I am nothing, so long as I continue to think I am something; [...] or bring it about that two and three added together are more or less than five, or anything of this kind in which I see a manifest contradiction” (AT VII, 36/CSM II, 25). However, one text that does seem to support the opposing position comes during the discussion of the deceiving God: “I have no answer to these arguments, but am finally

investigation. The basic questions guiding this line of inquiry are as follows: How are we to understand the background rationality that Descartes assumes from the start? What is the background framework that enables the method of doubt to take place? In order to adequately address these questions, we will see that it becomes less important to discuss what Descartes actually did and did not doubt, and more important to investigate the difference between what gets brought forth as a potential item of doubt and what is not even mentioned. As we have just shown, the first step will be to resolve the difficulties associated with the respective distinctions between knowledge that is reflective, syllogistic and existential on the one hand, and innate, intuitive and non-existential on the other.

B. A Further Interpretive Problem to Be Resolved

There is a second major knot that must be worked through in order to adequately address our guiding question. An important transition occurs in the *Meditations* with the statement of Descartes' "Archimedean point":

So after considering everything very thoroughly, I must finally conclude that this pronouncement [*pronuntiatum*], *I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my mind. (AT VII, 25/CSM II, 17; trans. mod.)

The process of doubting initiated at the beginning of Meditation I and continued through the first few paragraphs of Meditation II has now produced at least one indubitable piece of knowledge. Along the way, all beliefs derived from the senses and from memory have been thrown into question. Recall that Descartes adheres to a strict geometrical order in

compelled to admit that there is not one of my former beliefs about which a doubt may not properly be raised" (AT VII, 21/CSM II, 14-15). As it turns out however, the deceiving God hypothesis is not even a possible doubt, since the very concept is contradictory. Furthermore, here Descartes only mentions doubting his *former* beliefs, and not his current ones. (I thank Roger Ariew for bringing this latter point to my attention.)

the *Meditations*, where “items which are put forward first must be known entirely without the aid of what comes later; and the remaining items must be arranged in such a way that their demonstration depends solely on what has gone before” (AT VII, 155/CSM II, 110). If we take this statement seriously, then the arguments between the pronouncement of the cogito and the first argument for the existence of God can only depend on the cogito itself and whatever was never doubted at all.

We have seen that it is unlikely that Descartes ever seriously doubted the truths of mathematics. Yet, interestingly, none of the arguments after the cogito and before the first proof for God’s existence appear to depend on them directly, and they make only one appearance in those sections of the text, early in Meditation III:

But what about when I was considering something very simple and straightforward in arithmetic or geometry, for example that two and three added together make five, and so on? Did I not see at least these things clearly enough to affirm their truth? Indeed, the only reason for my later judgement that they were open to doubt was that it occurred to me that perhaps some God could have given me a nature such that I was deceived even in matters which seemed most evident. [...] And since I have no cause to think that there is a deceiving God, and I do not yet even know for sure whether there is a God at all, any reason for doubt which depends simply on this supposition is a very slight and, so to speak, metaphysical one. But in order to remove even this slight reason for doubt, as soon as the opportunity arises I must examine whether there is a God, and, if there is, whether he can be a deceiver. For if I do not know this, it seems that I can never be quite certain about anything else. (AT VII, 35-36/CSM II, 25)

A few points made in this passage are worth noting for our purposes. For one, we have much stronger basis for accepting the truths of mathematics than for doubting them. We have also been given urgent reasons for taking up the question of the existence of God, and especially if he can be a deceiver. Finally, the order followed in the *Meditations* demands that none of the subsequent arguments can draw on anything that depends upon a non-deceiving God. Although it doesn’t seem possible to doubt simple truths like $2 + 3 = 5$, it would be backwards to base a proof for God’s existence on them, as their veracity depends on God and not the other way around.

At this stage in the progression, Descartes also mentions that the cogito seems to entitle him “to lay down as a general rule that whatever I perceive very clearly and distinctly is true” (AT VII, 35/CSM II, 24). This, of course, becomes his criterion of truth in Meditation IV; yet, at this point, it is illegitimate to employ this principle, since it also relies on the first proof for God’s existence. And so Descartes immediately rescinds the criterion of clarity and distinctness for the time being. What, then, is at our disposal?

In the pages immediately preceding the first proof, Descartes makes frequent use of the natural light, of which he says, “there cannot be another faculty [...] as trustworthy” (AT VII, 38/CSM II, 27). It is remarkable how often the natural light is invoked throughout Meditation III (nine times), as opposed to the other five Meditations (only mentioned three times). The natural light is introduced as a faculty distinct from our natural impulses that lead us to believe that our thinking resembles external things (and presumably other beliefs derived from the senses). It is used variously to know “that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause” (AT VII, 40/CSM II, 28), that ideas are like images of things (AT VII, 42), that ideas and their causes must adhere to their own form of the principle of reason (AT VII, 41-42), and many other aspects of the causal principles needed to prove God’s existence “a posteriori.” Thus, we have another piece to the puzzle generated by Descartes’ announcement that reason will be our guide in the method of doubt; for in Meditation III, he says, “Whatever is revealed to me by the natural light [...] can in no way be doubtful [*nullo modo dubia esse possunt*]” (AT VII, 38/CSM II, 27; trans. mod.). But of course, this part of the answer requires clarification; this will be the second step towards the interpretive solution to our problem.

We have uncovered several aspects to the problem of the undoubted. First, there are the potentially inconsistent texts where Descartes explains that certain notions are presupposed by the statement of the cogito, or are not susceptible of doubt, or did not need to be mentioned, etc. The constellation of issues surrounding these texts includes innate ideas, syllogistic knowledge, reflective knowledge and intuition. These will be investigated in the first part of section III. The second aspect of the problematic involves the natural light; this will be taken up in the second part of section III.

III. The Structure of Undoubted Rationality

A. Descartes' Project as Geometrical Demonstration

The question of which concepts were available throughout the method of doubt was a recurring theme in the objections Descartes received to his *Meditations*.¹³ Aside from a brief passage in Meditation III,¹⁴ Descartes had done little to make his position on the matter clear in the original version he had disseminated in order to receive critical remarks. In response to the queries, he attempted to clarify his position most notably in the *Objections and Replies* and *Principles*, but also in a few other various places. The problem is that in the many texts Descartes makes a host of distinctions that if not wholly inconsistent, are at least substantively different. I will first go through the various

¹³ For example, the Sixth Objectors write: “The *first* point is that from the fact that we are thinking it does not seem to be entirely certain that we exist. For in order to be certain that you are thinking you must know what thought or thinking is, and what your existence is; but since you do not yet know what these things are, how can you know that you are thinking or that you exist?” (AT VII, 413/CSM II, 278) Bourdin the Jesuit spends the majority of his lengthy set of objections complaining that Descartes’ positive arguments are doomed to fail based on how much he has doubted at the start. (For a full treatment of the *Seventh Objections* see Ariew 1995.) And in the appendix to the *Fifth Objections and Replies*, Clerselier’s “friends” objected, “that when I say ‘I am thinking, therefore I exist’ I presuppose the major premiss ‘Whatever thinks exists’, and hence I have already adopted a preconceived opinion” (AT IX-1, 205/CSM II, 271).

¹⁴ “My understanding of what a thing is, what truth is, and what thought is, seems to derive simply from my own nature” (AT VII, 38/CSM II, 26).

distinctions Descartes makes; then I will take up a few interpretations of these texts given in the literature; finally, I will offer my own perspective, showing how this goes some way toward resolving our initial question.

(1) *Syllogistic knowledge vs. intuition.* The first major discussion of the primary notions presupposed by the method of doubt occurs in response to the 2nd Objectors' concerns with the so-called Cartesian circle:

Thirdly, when I said that we can know nothing for certain until we are aware that God exists, I expressly declared that I was speaking only of knowledge of those conclusions which can be recalled when we are no longer attending to the arguments by means of which we deduced them. 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. It is in the nature of our mind to construct general propositions on the basis of our knowledge of particular ones. (AT VII, 140-141/CSM II, 100)

The main distinction at work here is between knowledge arrived at by means of syllogism – and thus with certain major premises in hand – and self-evident “primary notions,” which are known immediately through “simple intuition.” The only example of a primary notion we are given in this passage is the inferential form of the cogito given in both the *Discourse* and *Principles*.¹⁵ Descartes also mentions the first principle “Everything which thinks is, or exists,” though it is not immediately obvious how we should understand such principles. They are not the results of syllogisms, nor are they intuited in the same way that the cogito is. We will clarify the role of principles below.

¹⁵ This is rather interesting, as Descartes takes pains to phrase the cogito as a simple intuition in Meditation II (“this pronouncement, *I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my mind” (AT VII, 25)). And this statement from 2nd *Replies* is his clearest indication that the cogito is not a syllogistic inference, even though he reverts back to the more familiar *cogito, ergo sum*.

(2) *Reflective knowledge gained by demonstration vs. innate knowledge.* The second major distinction Descartes makes is in response to questions by the Sixth Objectors about what must be known prior to the cogito:

It is true that no one can be certain that he is thinking or that he exists unless he knows what thought is and what existence is. But this does not require reflective knowledge, or the kind of knowledge that is acquired by means of demonstrations; still less does it require knowledge of reflective knowledge, i.e. knowing that we know, and knowing that we know that we know, and so on *ad infinitum*. This kind of knowledge cannot possibly be obtained about anything. It is quite sufficient that we should know it by that inner knowledge [*cognitione illa interna*] which always precedes reflective knowledge. This inner knowledge of one's thought and existence is so innate in all men that, although we may pretend that we do not have it if we are overwhelmed by preconceived opinions and pay more attention to words than to their meanings, we cannot in fact fail to have it. Thus when anyone notices that he is thinking and that it follows from this that he exists, even though he may never before have asked what thought is or what existence is, he cannot fail to have sufficient knowledge of them both to satisfy himself in this regard. (AT VII, 422/CSM II, 285; trans. mod. following Cress)

On the one hand, we have “reflective knowledge,” which is the result of demonstration. On the other hand, innate or internal knowledge is in us whether we acknowledge it or not. We may “pretend” not to have such knowledge, if we allow preconceived opinions to blind us. The only concepts Descartes mentions here in this regard are thought and existence, as his response is tied to concerns with the cogito specifically.¹⁶

(3) *Knowledge with existential import vs. knowledge without existential import.*

Whereas the first two criteria left much to be explained, Descartes is more clear in *Principles I, 10*:

And when I said that the proposition *I am thinking, therefore I exist* is the first and most certain of all to occur to anyone who philosophizes in an orderly way, I did not in saying that deny that one must first know what thought, existence and certainty are, and that it is impossible that that which thinks should not exist, and so forth. But because these are very simple notions, and ones which on

¹⁶ In the dialogue *The Search for Truth*, Eudoxus, seemingly the best representative of Descartes' own views, says, “I quite share your view, Epistemon [the scholastic interlocutor], that we must know what doubt is, what thought is, what existence is, before being convinced of the truth of this reasoning [*ratiocinii*], ‘I am doubting, therefore I exist’, or what amounts to the same thing, ‘I am thinking, therefore I exist’. [...] But someone who wants to examine things for himself, and to base his judgements about them on his own conceptions, must surely have enough mental capacity to have adequate knowledge of what doubt, thought and existence are, whenever he attends to the question, without having to be taught the difference between them” (AT X, 523/CSM II, 417; trans. mod.). So it seems that we can add the concept of doubt to our list of innate notions that precede all reflective knowledge.

their own provide us with no knowledge of anything that exists, I did not think they needed to be listed. (AT VIII-1, 8/CSMI, 196)

Here the contrast is between that which makes an existence claim and the “very simple notions” that do not. Again we are given a list of concepts – thought, existence, certainty – that never get doubted, but this time Descartes includes the modal principle “that it is impossible that that which thinks should not exist” in the class of simple notions. He explains how principles like this fit in to the scheme in a letter to Clerselier of June or July, 1646:

It is one thing to look for a *common notion* so clear and so general that it can serve as a principle for proving the existence of all the beings, or entities, to be discovered later; and another thing to look for a *being* whose existence is known to us better than that of any other, so that it can serve as a *principle* for discovering them.

In the first sense, it can be said that ‘It is impossible for the same thing both to be and not to be at the same time’ is a principle which can serve in general, not properly speaking to make known the existence of anything, but simply to confirm its truth once known, by the following reasoning: ‘It is impossible that that which is, is not; I know that such a thing is; so I know that it is impossible that it is not.’ This is of very little importance, and makes us no better informed. (AT IV, 444/CSMK, 290)

Descartes makes it clear that he does not find principles like the law of contradiction to be helpful in discovering truth, even though they are obviously true. In particular, principles like this cannot teach us about the existence of anything we did not already know of.

(4) *Preconceived opinions vs. notions which involve no affirmation or denial.*

Descartes presents a fourth way primary notions can be distinguished from those which are susceptible to doubt in his letter to Clerselier of January 12, 1646, appended to the

Fifth Set of Objections and Replies:

[...]The term ‘preconceived opinion’ applies not to all the notions which are in our mind (which I admit it is impossible for us to get rid of) but only to all the opinions which we have continued to accept as a result of previous judgements that we have made. [...] For, after all, in order to get rid of every kind of preconceived opinion, all we need to do is resolve not to affirm or deny anything which we have previously affirmed or denied until we have examined it afresh.

This line of thinking continues in response to a further objection a few pages later:

The second objection which your friends note is that in order to know that I am thinking I must know what thought is; and yet, they say, I do not know this at all, since I have denied everything. But I have denied only preconceived opinions – not notions like these, which are known without any affirmation or denial. (AT IX-1, 204/CSM II, 270)

This portrayal of “preconceived opinions” as judgments that we have previously affirmed is reminiscent of the very first line of the *Meditations*: “Some years ago I was struck by the large number of falsehoods that I had accepted as true in my childhood [...]” (AT VII, 17/CSM II, 12). By contrast, primary notions that have never been doubted are not known through affirmative or negative judgments that we have made. Rather, they are innate in us, as Descartes says in a letter to Mersenne of July 22, 1641: “I explained in my Reply to the First Objections how a triangle inscribed in a square can be taken as a single idea or several. Altogether, I think that all those which involve no affirmation or negation are innate in us” (AT III, 417-418/CSMK, 187).

I think (1) – (4) are the most important distinctions Descartes makes between primary notions that are not entertained in the method of doubt and those that are. However, he does say a few other things. He frequently contrasts preconceived notions with those known by the natural light; but we will enter the full discussion of this issue in section III.B. He also distinguishes that for which a definition is appropriate and that for which a definition will only render the concepts at issue more obscure.¹⁷ At some points

¹⁷ In the Letter to Mersenne, October 16, 1639 Descartes writes: “I have never had any doubts about truth, because it seems a notion so transcendently clear that nobody can be ignorant of it. [...] But no logical definition can be given which will help anyone discover its nature. I think the same of many other things which are very simple and are known naturally, such as shape, size, motion, place, time, and so on: if you try to define these things you only obscure them and cause confusion.” (AT II, 596-598/CSMK, 139)

Similar sentiments are expressed in the *Search for Truth*: “[...] There are, in my view, some things which are made more obscure by our attempts to define them: since they are very simple and clear, they are perceived and known just on their own, and there is no better way of knowing and perceiving them. Perhaps some of the most serious errors in the sciences are those committed by those who try to define what should only be conceived, and who cannot distinguish between something which needs and merits a definition if it is to be known and something which is at best known just on its own. But doubt, thought and existence can be regarded as belonging to the class of things which have this sort of clarity and which are known just on their own. [...] Thus it would be pointless trying to define, for someone totally blind, what it is to be white: in order to know what that is, all that is needed is to have one’s eyes open and to see white.

Descartes says that no clear perceptions that we are immediately attending to can be doubted, while our memory of those same perceptions can be called into doubt.¹⁸ The texts associated with the latter two distinctions will be helpful to clarify (1) – (4), but I don't think they are of essential importance on their own.

One valuable and rather thorough interpretation of these texts is offered by Murray Miles in his book-length study of the cogito, *Insight and Inference: Descartes's Founding Principle and Modern Philosophy*. Miles contends that the distinction between implicit and explicit knowledge is the key for making sense of the above passages. Much of his discussion relies on the *Conversation with Burman*, where Descartes tries to explain the possible inconsistency of *Second Replies* and *Principles I*, 10:

Before this conclusion [*conclusionem*], 'I am thinking, therefore I exist', the major 'whatever thinks, exists' can be known; for it is in reality prior to my conclusion [*conclusionem*], and my conclusion [*conclusio*] depends upon it. That is why the author says in the *Principles* that the major premiss 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 conclusion [*conclusionem*]. This is because I am attending only to what I experience within myself – for example 'I am thinking, therefore I exist'. I do not pay attention in the same way to the general notion 'whatever thinks, exists'. 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. This, then, is the sense in which the words cited here should be taken. (AT V, 146/CSMK, 333; trans. mod.¹⁹)

In the same way, in order to know what doubt and thought are, all one need do is to doubt or to think. That tells us all it is possible to know about them, and explains more about them than even the most precise definitions" (AT X, 523-524/CSM II, 417-418).

And of course, this is stated most definitively in the *Principles* passage cited previously: "*Matters which are very simple and self-evident are only rendered more obscure by logical definitions, and should not be counted as items of knowledge which it takes effort to acquire*. I shall not here explain many of the other terms which I have already used or will use in what follows, because they seem to me to be sufficiently self-evident. I have often noticed that philosophers make the mistake of employing logical definitions in an attempt to explain what was already very simple and self-evident; the result is that they only make matters more obscure" (AT VIII-1, 8/CSM I, 195-196). It is interesting that Descartes insists upon this immediately after he has defined the term "thought" in the preceding article, even though he lists "thought" as one of the simple notions in the very next sentence! It is also the first definition listed in the synthetic exposition of the *Meditations* offered in "geometrical fashion" in the *Second Replies* (AT VII, 160/CSM II, 113).

¹⁸ "So long as we attend to a truth which we perceive very clearly, we cannot doubt it. But when, as often happens, we are not attending to any truth in this way, then even though we remember that we have previously perceived many things very clearly, nevertheless there will be nothing which we may not justly doubt so long as we do not know that whatever we clearly perceive is true." (AT VII, 460/CSM II, 309)

¹⁹ In rather confusing fashion, Miles translates '*conclusio*' at first as 'conclusion', but throughout the rest of the passage as 'inference' (Miles 1999, pp. 148-149).

Miles argues that this passage shows that “analytical reflexion” reveals to us that we are explicitly aware of our own thought and existence in the cogito. The cogito does indeed rely upon principles such as “whatever thinks exists,” but we know these only implicitly until they are made explicit in further stages of reflexion *after* the cogito is understood. We can reason syllogistically only after this process of analytical reflexion has occurred (Miles 1999, pp. 231-239).

Miles also takes seriously Descartes’ claim that “It is in the nature of our mind to construct general propositions on the basis of our knowledge of particular ones” (AT VII, 141/CSM II, 100). This is why the particular claim of the cogito is prior in the order of analysis to the general principles, even though the former depends on the latter. All stages of analytical reflexion make use of intuition, rather than discursive reasoning. The latter can help us clearly express what we have already discovered (*ibid.*).

I think Miles’ take on this complex situation is helpful and insightful. He sums up his analysis as follows:

It appears from the foregoing that the task of reconciling the Second Replies and the *Principles*, while showing that the *cogito, ergo sum* cannot be part of a syllogism with a suppressed major premise, falls, not to the implicit-explicit distinction alone, but to three different distinctions, two of which (particular-general, intuitive-discursive) figured already in the previous replies to challenges to the primitiveness of the *cogito, ergo sum*. Still, the implicit-explicit distinction deserves pride of place. (*ibid.*, p. 238)

I agree that the implicit-explicit distinction appears to be important for solving the puzzle; but why the last step, making it the most important piece? Miles’ main evidence for the claim comes from the *Conversation with Burman*. Yet, recent commentators have called into question the legitimacy of relying too heavily on this work, as we are simply unsure how accurately Burman remembered the interview when he relayed it to Clauberg, or how carefully Clauberg transcribed it; not to mention that many of the

claims made there are not found anywhere else in the Cartesian corpus, or worse, are inconsistent with it (Garber and Cohen [1982] 2001; Ariew 1987).

This certainly does not mean that the implicit-explicit distinction plays no part in the story, as Descartes speaks this way on other, uncontested occasions (albeit less directly).²⁰ But if Miles' sole evidence for why it warrants "pride of place" comes in the *Conversation with Burman*, then we have reason to be suspicious.²¹ Worse still, Miles follows this assertion with one that has even less support: "By contrast with these three [particular-general, intuitive-discursive, implicit-explicit], the further distinction between 'simple notions' having no existential import and existential propositions like 'I exist,' of which much appears to be made in the *Principles*, features in a relatively minor way" (Miles 1999, p. 238). It's hard to see why the second-hand comments from a disputed text should take precedence over the statement of the authoritative *Principles*, inked from Descartes' own quill.²²

²⁰ In the 3rd Meditation, after summarizing the knowledge he had discovered in Meditation II, Descartes says, "In this brief list I have gone through everything I truly know, *or at least everything that I have so far discovered that I know*" (AT VII, 35/CSM II, 24; emphasis added). And in the appendix to the *Fifth Objections and Replies*, he writes, "The author of the *Counter-Objections* claims that when I say 'I am thinking, therefore I exist' I presuppose the major premiss 'Whatever thinks exists', and hence I have already adopted a preconceived opinion. Here he once more misuses the term 'preconceived opinion'. For although we can apply the term to the proposition in question when it is put forward without attention and believed to be true only because we remember that we judged it to be true previously, we cannot say that it is always a preconceived opinion. For when we examine it, it appears so evident to the understanding that we cannot but believe it, *even though this may be the first time in our life that we have thought of it [...]*" (AT IX-1, 205/CSM II, 271; emphasis added). Lastly, in the Letter to Mersenne of October 16, 1639, Descartes mentions that "there are many things which can be known by the natural light, but which no one has yet reflected on" (AT II, 596-598/CSMK, 139).

²¹ Miles makes reference to the controversy very briefly in a different context (1999, pp. 490-491, n. 29), and in lieu of giving an argument as to why he believes the *Conversation* to be a legitimate source, he simply cites a footnote of Curley's (1986, n. 13), calling it an "apt rejoinder." (The issue in this case was whether the *Principles* was written synthetically; in his rejoinder, Curley contends that it was; and it may very well be an apt one, but nonetheless gives us no reason to put our confidence in the *Conversation* as a whole.)

²² This line of criticism is not entirely fair to Miles, as his discussion is embedded in a context somewhat different than the one pursued here. His concern is with the nature of the inferential aspect of the cogito, while ours is with Descartes' "other" criterion of doubt. Nevertheless, the two issues are clearly inter-related.

At this point, it will be helpful to go through the different items of knowledge that we know Descartes never entertained in the process of doubt. First, there are principles Descartes explicitly says he knows by the natural light: “that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause” (AT VII, 40/CSM II, 28), “there is nothing in the effect which was not previously present in the cause, either in a similar or in a higher form,” “nothing comes from nothing,” and “all the reality or perfection which is present in an idea merely objectively must be present in its cause either formally or eminently” (AT VII, 135/CSM II, 97). These are all some form or variation of what Leibniz will later call the principle of sufficient reason; as for their being known by the natural light, we will postpone that discussion until the next section. Descartes variously calls all of the above principles “common notions,” “primary notions” or “simple notions.” Descartes also admits that the principle “that it is impossible that that which thinks should not exist” is known before the cogito is pronounced (AT VIII-1, 8/CSM I, 196). One would imagine that other similar principles are probably presupposed by the method of doubt, but Descartes does not mention them. There are also a class of concepts that are never challenged such as thought (AT VII, 422; VIII-1, 8; IX-1, 204; X, 524), existence (AT VII, 422; VIII-1, 8; X, 524), certainty (AT VIII-1, 8), doubt (AT X, 524), truth (AT II, 596-598), and certain mathematical notions (AT II, 597).²³

Will any of the distinctions (1) – (4) above capture the criterion we are looking for? Distinction (1), between syllogistic knowledge and intuition, does not quite do the job. It is true that none of the principles and concepts listed above can be understood

²³ Alan Hart (1970) makes a similar distinction between “simple notions” and “common notions” (corresponding to what I am calling concepts and principles, respectively) that he believes runs through all of Descartes’ work. To what extent this is true will be taken up in chapter 2, section II.

through syllogism, but only through self-evident intuition. Yet, several of the candidates in the process of doubt do not require syllogistic reasoning to be understood. The most obvious is the cogito, as Descartes makes clear in the *Second Replies* (AT VII, 140). It is also unlikely that simple arithmetical calculations like $2 + 3 = 5$ necessitate the use of syllogism. Thus distinction (1) does not adequately express the criterion we are in search of.

Before moving on to the other potential criteria, a few remarks are in order. We said earlier that it was unlikely Descartes ever seriously doubted the truths of mathematics. And it is obvious that the cogito is impossible to doubt. Why, then, do these items rule out distinction (1)? Recall that the key to our discussion is what Descartes *entertained* in the process of doubt, not what he *actually doubted*. Doubt is even attempted with respect to the meditator's own existence, even though it turns out to be illegitimate:

In that case am not I, at least, something? But I have just said that I have no senses and no body. This is the sticking point: what follows from this? Am I not so bound up with a body and with senses that I cannot exist without them? But I have convinced myself that there is absolutely nothing in the world, no sky, no earth, no minds, no bodies. Does it now follow that I too do not exist? (AT VII, 24-25/CSM II, 16)

I have two reasons for thinking all of this is significant. For one, Descartes invokes the natural light in order to ascertain certain principles required for the proof of God's existence. Why couldn't the natural light be used to show the certainty of mathematics? Secondly, and in the other direction, why aren't the principles of the natural light mentioned during the passage about the possibility of a deceiving God in Meditation I? Wouldn't they be considered on the same footing as simple mathematics? These questions lead me to believe that the criterion we are investigating is a significant one.

Back to our question: what about distinction (2), between reflective and innate knowledge? It is difficult to tell exactly what Descartes has in mind by the term “reflective knowledge.” For the most part, we can ignore his talk about knowledge of reflective knowledge, since this was merely a response to the Sixth Objectors’ claim that “you do not even know that you are saying or thinking anything, since this seems to require that you should know that you know what you are saying; and this in turn requires that you be aware of knowing that you know what you are saying, and so on *ad infinitum*” (AT VII, 413/CSM II, 278). None of this is at all essential to reflective knowledge, which is simply “the kind of knowledge that is acquired by means of demonstrations” (AT VII, 422/CSM II, 285).

Descartes normally uses the word “demonstration” [*demonstratio*] in mathematical contexts, or what he labels his proofs for the existence of God and the distinction between soul and body. We might call the latter *metaphysical demonstration*. Most scholastic textbook writers followed Aristotle in understanding demonstration as one form of syllogism, suitable for science.²⁴ Descartes, on the other hand, talks about two different modes of demonstration: synthesis, which involves definitions, axioms, postulates and theorems, and analysis, which “shows the true way by means of which the thing in question was discovered methodically” (AT VII, 155/CSM II, 110). We need not get entangled in the many scholarly debates about analysis and synthesis here; for our

²⁴ Scholastic textbooks were typically split into four topics: Logic, Ethics, Physics and Metaphysics. Demonstration would be dealt with in the logic chapter. For example, in his *Corpus of Philosophy*, Scipion Dupleix says: “The Philosopher [Aristotle] says that demonstration is a *scientific* syllogism, that is, [something] making and producing science. Only this kind of syllogism has deserved the name demonstration, because it alone shows not only the being of the thing, but also whence it came and because of what it is – because it shows, I say, the effect by its cause, which is to induce or produce science. It is this difference that distinguishes demonstration from the other two kinds of syllogism, namely, *probable and captious* [...]” (Ariew et al. 1998, p. 102). Eustachius a Sancto Paulo expresses similar sentiments about demonstration in the Third Part of his logic chapter in *Summa philosophiae quadripartita* (1609 I, 222-265).

purposes, it will be sufficient to point out that both modes are set out in geometrical fashion, following a strict order, where “items which are put forward first must be known entirely without the aid of what comes later; and the remaining items must be arranged in such a way that their demonstration depends solely on what has gone before” (ibid.).

The knowledge that is exhibited in the major metaphysical works like the *Discourse*, the *Meditations*, and the *Principles*, Part I would be considered reflective, since Descartes explicitly says they are the result of metaphysical demonstration, modeled after geometrical demonstration. Likewise, none of the undoubted principles and concepts would be known via demonstration, since the demonstrations of the cogito, the existence of God, etc. depend on them. At first glance, then, distinction (2) appears to be a good candidate for doing the work of sorting between items entertained in the doubting process and items not entertained. The only problematic item might be the cogito, which is never explicitly considered the result of a demonstration.²⁵ Even though the cogito does not look like an argument in Meditation II, it does depend on principles and concepts in the same way that the proofs for the existence of God do in Meditation III.²⁶ In any event, even if we do consider the cogito reflective knowledge, distinction (2) alone does not clarify our puzzle. For we now must ask why certain items are susceptible to demonstration, while others are not.

While demonstration is clearly essential to resolving our query, the other half of the distinction does not appear equally important. The other half is “inner knowledge

²⁵ Recall that in the full title of the *Meditations*, the existence of God and the distinction between the human soul and the body are stated as being demonstrated, while the cogito is not. I suppose mentioning the demonstration of one’s own existence in the title of a book might sound a bit strange though.

²⁶ We must emphasize that the cogito is not the conclusion of a syllogistic argument, but a “simple intuition of the mind” (AT VII, 140; CSM II, 100). This does not, however, preclude it from being the result of a rational demonstration. See Beyssade 1979, pp. 237-249.

[*cognitione illa interna*] which always precedes reflective knowledge,” which is “so innate in all men” that we simply cannot fail to have it (AT VII, 422/CSM II, 285; trans. mod. following Cress). Clearly, the cogito is innate in us, as is our idea of God. The former is enough to doom distinction (2), but interestingly, it is our *idea* of God, not the proof for his existence, that is innate.²⁷ This last fact adds to what we have learned at the expense of distinction (2).

The third distinction, between knowledge with and without existential import, seems to me to be the most robust of the four. Unfortunately, the increase in the substantive content of distinction (3) is matched by its failure to adequately express the criterion we are looking for. Case in point here is mathematics. Neither the truths of mathematics themselves nor their demonstrations make any claims to existence, even though they are one of the more startling inclusions in the process of doubt (while nonetheless never being truly doubted).²⁸ As mentioned above, the natural light itself is available and presumably could have been used to ascertain mathematical truths, even before the criterion of clarity and distinctness was known. But alas, it was not. It appears, then, that distinction (3) is better understood as a possible criterion for what Descartes actually doubted.

Finally, let us consider distinction (4), which cleaves preconceived opinions from notions which involve no affirmation or denial. Descartes is primarily thinking of concepts such as thought and existence when he talks of notions that are not judgments. Just having a concept in one’s mind does not necessitate making a judgment about it. Principles are a bit more tricky. When Descartes is classifying his thoughts in Meditation

²⁷ In chapter 2, section II, parts D and E this matter will be discussed more fully.

²⁸ However, Funkenstein 1980 and McRae 1991 argue that the eternal truths of mathematics depend on the existence of matter for Descartes. I can’t say that I agree, but this is not the place for that debate.

III, he says, “the chief and most common mistake which is to be found [with respect to judgments] consists in my judging that the ideas which are in me resemble, or conform to, things located outside me” (AT VII, 37/CSM II, 26). Although the main issue involves judgments about external things, Descartes does not say that propositions such as “that nothing comes from nothing,” “that there is as much reality in the cause as in the effect,” and so on are not judgments. These appear to involve affirmation, or at the very least are susceptible to affirmation or denial, even if we have never actually made a previous judgment about them. This brings to the forefront which side of the distinction Descartes privileges, previous judgments that we have made *in fact*, or knowledge that involves affirmation or denial *in principle*.

Based on the principle of charity, I think we must opt for the former option, since Descartes explicitly mentions items of knowledge that involve affirmation or denial, but are never entertained in the doubting process. So, distinction (4) becomes (4') previous judgments we have made vs. innate knowledge that is not the result of previous judgments. This seems to work better than the previous possibilities; all the stages of doubt in Meditation I are beliefs that the meditator has previously accepted. None of the concepts or principles that we later find out have been presupposed all along are judgments that have been explicitly affirmed at any point. But if we do take distinction (4') seriously, we have to admit that Descartes' reasons for entertaining doubt with respect to some things and not others are non-philosophical and contingent. It is not inconceivable that at some point the meditator could have affirmed simple principles like “nothing comes from nothing” and “it is impossible to think without existing” similar to the way basic principles of mathematics are accepted. I don't think Descartes has in mind

things that we just happened to have chanced upon and affirmed as true in our past. So, distinction (4') captures the extensional aspect of the criterion; yet, it does not give us much help in understanding the essential reasons why some elements fall on one side of the fence and some on the other.

We have now pieced together enough of the parts to be able to attempt to resolve our guiding question. First, let's sum up what we have discovered about each side of the criterion. With respect to that which is entertained in the doubting process, we know that each item must be a preconceived opinion involving affirmation or denial and the kind of thing acquired by demonstration. On the side of that which is not entertained in doubt, the items of knowledge are innate, known through non-syllogistic intuition that precedes demonstration, and without existential import. Thus far, most of the features listed are merely necessary conditions for their respective sides, since we saw some affirmative judgments that were ignored in the method of doubt and some innate, non-syllogistic intuitions without existential import that were not. Only demonstration remains as a clear-cut deciding factor, and I do not think this is a coincidence; now we must clarify exactly what is demonstrable and what precedes demonstration.

Descartes wishes to employ the method of demonstration after the great geometers (AT VII, 155-159).²⁹ He explains what this means in the *Meditations* in a famous letter to Mersenne of December 24, 1640: "It should be noted that in all my writings I do not follow the order of topics, but the order of reasons" (AT III, 266/CSMK,

²⁹ As Gueroult says, "[Descartes] insists that he follows the order of the geometers, that there are no good demonstrations in philosophy that are not mathematical, and that his work cannot be understood by those who do not have a mathematical mind. It is therefore evident that we ought to force ourselves to understand this philosophy by its demonstrations, and these demonstrations, according to their mathematical spirit" (Gueroult [1952] 1984, p. xx). Peter Dear (1995) also offers a helpful analysis of the geometrical model of demonstration that Descartes employs in his metaphysical reasoning.

163; translation following Ariew in Gueroult [1952] 1984, p. 6). Martial Gueroult went so far as to call the order of reasons “the sine qua non of the value of Descartes’ doctrine in his own eyes” (Gueroult [1952] 1984, p. xx). The rational order of geometrical demonstration demands that we first clear away previous demonstrations not proven with the certainty necessary for true science. This is accomplished by the method of doubt, which is only applied to the results of possible demonstrations. What cannot be doubted are the very concepts and principles employed in carrying out geometrical demonstration that enable it to take place. It would be senseless to ask whether we can doubt the essential components of the structure through which questioning, doubting, and demonstration are made possible.

We have just shown that the question of what gets entertained in the doubting process is answered by that which can be geometrically demonstrated. Basic concepts like thought, existence, doubt and certainty are the very terms through which we can make sense of a system of demonstration. Principles such as the law of contradiction, the principle of sufficient reason, or “it is impossible to think without existing” are the basis for making any rational connections whatsoever.³⁰ The only remaining issue is how we can know which principles are presupposed by demonstration. The answer here is quite clearly the natural light, which Descartes invokes repeatedly in Meditation III.³¹

³⁰ Leibniz actually sought to provide demonstrations of what most would consider axioms. He commended his contemporary, Gilles Personne de Roberval, for attempting to carry this practice out in mathematics, and criticized Descartes for not going far enough in his “rule” of hyperbolic doubt: “I am convinced that the demonstrations of the axioms is of great assistance to true analysis or the art of discovery. So if Descartes had wished to carry out what is best in his rule, he should have worked at the demonstration of scientific principles and thus achieved in philosophy what Proclus tried to do in geometry, where it is less necessary” (Leibniz [1692] 1989, p. 384; quoted by Sasaki 2003, p. 409). See Sasaki 2003, pp. 405-418 for more on this issue.

³¹ What about concepts? How do we know which concepts are known in advance of demonstration? This question is more difficult than the question about principles. We will attempt a more complete solution of it in chapter 2.

B. The Natural Light

Having recourse to the natural light (*lumen naturale, lumière naturelle*) in order to affirm basic truths in Meditation III would have been less controversial to Descartes' scholastic contemporaries than it is for the present day reader. Aquinas and Scotus primarily contrast the natural light with divine revelation.³² In the preface to his *Disputationes metaphysicae*, Francisco Suárez writes:

Divine and supernatural theology relies on the divine light and on principles revealed by God; yet since it is carried out through human discourse and reasoning, it is also assisted by truths known by the light of nature, and employs such truths as ministers and, as it were, instruments in order to carry forward its theological inquiries and to shed light on divine truths. Among all the natural sciences, that which comes first of all, and has taken the name 'first philosophy,' does special service to sacred and supernatural theology. For it comes closest of all to the knowledge of divine things, and also explicates and confirms those natural principles that include universal things and in a certain way support and sustain all learning. (Ariew et al. 1998, p. 30)

The division between pursuits of natural knowledge and theology is one Descartes regularly employs, often to shirk difficult questions about the faith. Furthermore, the *Meditations* are primarily about "first philosophy," rather than the topics traditionally associated with a treatise on metaphysics (being, substance, accidents, etc.). Suárez later clarifies the role of the natural light, saying, "It is as it were an instrument joined to [a created] essence for the purposes of eliciting all the acts of understanding of which the essence itself, which is the basis of that light, is the proper and principal cause, acting through its own proper influence" (*Disputationes metaphysicae*, disp. 30, 11; Ariew et al. 1998, p. 32; Gilson [1912] 1963, 260).³³ Eustachius a Sancto Paulo, whom Descartes admired,³⁴ says, "By means of the natural light we can even in this life have imperfect awareness of God, not merely of his existence but even of his essence" (*Summa*

³² Aquinas 1911, part I, quest. 12, art. 13; Scotus 1891-1895, *Ordinatio*, prologue, 1.

³³ References to Gilson's *Index Scholastico-Cartésien* are to his numbered paragraphs.

³⁴ "I have bought the *Philosophy* of Father Eustache of St Paul, which seems to me the best book of its kind ever made" (Letter to Mersenne of November 11, 1640; AT III, 232/CSMK, 156).

philosophiae quadripartita, Metaphysics, Third Disputation, question I, Ariew et al., p. 96).³⁵

The important takeaway from our brief survey of scholastics and their medieval predecessors is that the natural light is primarily employed in contrast to supernatural illumination. Descartes makes use of natural light or reason in much the same way. In his prefatory letter to the *Meditations*, dedicated to the Faculty of Theology at the Sorbonne, Descartes reveals the nature of his project:

I have always thought that two topics – namely God and the soul – are prime examples of subjects where demonstrative proofs ought to be given with the aid of philosophy rather than theology. For us who are believers, it is enough to accept on faith that the human soul does not die with the body, and that God exists; but in the case of unbelievers, it seems that there is no religion, and practically no moral virtue, that they can be persuaded to adopt until these two truths are proved to them by natural reason. (AT VII, 1-2/CSM II, 3)

He makes similar remarks in the preface to the French version of the *Principles* (AT IX-2, 4) and in many other places (AT III, 274; AT IV, 63; AT VII, 15; AT VIII-2,353).

Descartes also distinguishes the natural light from the “teachings of nature” or our “natural impulses.” He introduces the light of nature for the first time in the *Meditations* (after the synopsis) in this way:

When I say ‘Nature taught me to think this’, all I mean is that a spontaneous impulse leads me to believe it, not that its truth has been revealed to me by some natural light. [...] But as for my natural impulses, I have often judged in the past that they were pushing me in the wrong direction when it was a question of choosing the good, and I do not see why I should place any greater confidence in them in other matters. (AT VII, 38-39/CSM II, 27)

Descartes reinforces this distinction in Meditation VI:

[...] I must more accurately define exactly what I mean when I say that I am taught something by nature. In this context I am taking nature to be something more limited than the totality of things bestowed on me by God. For this includes many things that belong to the mind alone – for example my perception that what is done cannot be undone, and all other things that are known by the natural light [...]. (AT VII, 82/CSM II, 57)

³⁵ John Morris (1973) mentions several other medieval sources in which the natural light is said to enable us to know common notions that are indubitable (pp. 169-172).

The “teachings of nature” are our inclinations to believe that our sense perceptions represent external things. Even though this is a natural proclivity, and one that is God-given, it is so tied up with the uncertainty of the senses that we cannot trust it in the same way as the pure natural light of reason.

In his “Descartes’ Natural Light,” John Morris offers an analysis of the term. He contends that the understanding has two parts: active and passive. The natural light is the passive part of the understanding, which “is what makes me recognize that something is true, and there is no further faculty, superior to the natural light, which can show that it is false” (Morris 1973, p. 175). The active part of the understanding has the ability to conceive of ideas, while the passive natural light simply shows us what is true. This is an appealing interpretation; unfortunately, as Deborah Boyle (1999) argues convincingly, the textual evidence for Morris’ primary distinction is lacking. His main support is that the French version of the *Meditations* employs the phrases *puissance de connaître* (“power of cognition”) and *puissance de concevoir* (“power of conceiving”). But it is far from clear that these phrases are meant to indicate passivity or activity. Furthermore, Descartes never clearly distinguishes between active and passive sides to the understanding.

Morris does, however, confirm some of the features we had postulated of the natural light before: it is a faculty of the understanding that recognizes truths, particularly causal principles; these truths are completely immune from doubt; and following medieval and scholastic practice, the natural light is in contrast to divine revelation. He also points out another important feature of the light of nature that we have not specifically mentioned, however obvious it might be. The natural light is a function of the

understanding, and is not directly associated with the imagination or the will.³⁶ The most important thing to note is that the natural light is a faculty purely of the mind, unmixed with sensation or anything bodily.

With all of these pieces in place, we are now prepared to offer some insight on the natural light with respect to our larger interpretive goal. We know that Descartes never doubts – or even entertains the possibility of doubting – reason, since reason is our guide throughout the entire project. In the previous section, we also saw that Descartes is using the method of geometrical demonstration for metaphysical aims. The natural light furnishes us with the principles that enable demonstration to be carried out. Since Descartes is interested in proving metaphysical truths in the *Meditations*, many of the principles that are brought forth are causal principles. Unfortunately, Descartes is not entirely clear how we know which principles are known by the natural light, and in particular which ones are immune to the doubting process.

The ambiguity with respect to the natural light becomes apparent once one compares Descartes' use of it in other places. In the Second Postulate in the *Second Set of Replies*, Descartes asks his readers to

reflect on their own mind, and all its attributes. They will find that they cannot be in doubt about these, even though they suppose that everything they have ever acquired from their senses is false. (AT VII, 162/CSM II, 115)

He continues in the Third Postulate as follows:

I ask them to ponder on those self-evident propositions that they will find within themselves, such as 'The same thing cannot both be and not be at the same time', and 'Nothingness cannot be the efficient cause of anything', and so on. In this way they will be exercising the vision which nature gave them, in the pure form which it attains when freed from the senses; for sensory appearances generally interfere with it and darken it to a very great extent. (AT VII, 162-163/CSM II, 115)

³⁶ Boyle contends that "the natural light is very closely tied to the operation of the will; when the intellect perceives some proposition particularly clearly and distinctly, the will feels itself compelled to assert the truth of that proposition, and in these cases Descartes says that the natural light has shone" (1999, p. 612). I think this is right, but this doesn't change the fact that the natural light, considered in itself, is a passive faculty.

The natural light is not specifically mentioned here, but the principles given as examples (a variation on the law of contradiction and a causal principle) and the language used (“the vision which nature gave them”) leave us in no doubt that it is the implicit reference. We see that Descartes does not think that the pure faculties of our mind are susceptible to doubt. This seems to go well beyond what was known indubitably by the natural light in the Third Meditation. This may have to do with the synthetic style adopted, which alters the order of demonstration (most notably the proofs for God’s existence).

Descartes also makes use of the natural light in Part I of the *Principles* before he has proven God’s existence (first accomplished in article 14). In article 11, he writes, “we should notice something very well known by the natural light: nothingness possesses no attributes or qualities” (AT VIII-1, 8/CSM I, 196). And in article 13, titled “The sense in which knowledge of all other things depends on the knowledge of God,” Descartes uses language very similar to that from the postulates in *Second Replies*:

The mind, then, knowing itself, but still in doubt about all other things, looks around in all directions in order to extend its knowledge further. First of all, it finds within itself ideas of many things; and so long as it merely contemplates these ideas and does not affirm or deny the existence outside itself of anything resembling them, it cannot be mistaken. Next, it finds certain common notions from which it constructs various proofs; and, for as long as it attends to them, it is completely convinced of their truth. For example, the mind has within itself ideas of numbers and shapes, and it also has such common notions as: *If you add equals to equals the results will be equal*; from these it is easy to demonstrate that the three angles of a triangle equal two right angles, and so on. And so the mind will be convinced of the truth of this and similar conclusions, so long as it attends to the premisses from which it deduced them. (AT VIII-1, 9/CSM I, 197)

This passage provides support for our interpretation in several respects. The class of ideas understood without reference to anything else seems to include the concepts discussed in the previous section – thought, existence, and so on – even though it also includes

sensory and mathematical ideas.³⁷ The common notions “from which [the mind] constructs various proofs” are the principles we can know by the natural light. Descartes does not explicitly reference the natural light, but at this stage what else could furnish us with the common notions, since the doctrine of clear and distinct perception does not appear until article 30? So, we have the two components required for geometrical demonstration: concepts and principles. Finally, our earlier issue regarding why mathematics was included in the process of doubting can now be resolved. Mathematical truths must be demonstrated on the basis of mathematical ideas (such as triangles and numbers) and common notions (like *adding equals to equals makes equal results*). While we attend to such demonstrations we cannot be in doubt as to their truth; but the order demands that we prove God’s existence first, since we cannot give attention to these proofs at all times (AT VIII-1, 9-10/CSM I, 197).

We have gone beyond what Descartes has explicitly stated we know by means of the natural light. Perhaps it is what he meant by the term, or perhaps not. He gives us no precise criterion and so the concept remains a bit ambiguous. What has become less equivocal is our understanding of the “other” criterion of doubt. Metaphysical proofs using the method of geometrical demonstration are the desiderata. Neither our ability to demonstrate (reason) nor our resources (concepts and principles) for constructing proofs are ever entertained in the doubting process.

Recall the structure of Descartes’ tree of knowledge from the Preface to the French edition of the *Principles*: metaphysical roots, physical trunk and branches bearing the fruits of medicine, mechanics and morals. Descartes does not believe that logic is part

³⁷ There are difficulties with considering concepts like “thought” and “existence” as ideas, which are, according to Descartes, “images of things” (AT VII, 37/CSM II, 25). We will take up these potential problems in chapter 2.

of the tree, but is something that must be practiced before one studies philosophy in order to properly prepare the mind. Unlike scholastic textbook authors, who usually spend a good deal of time discussing syllogism, Descartes does not include any material on logic. Instead, he refers the reader back to his “summary” of the rules of logic given in the *Discourse*. The four rules offered are rather underwhelming: (1) never accept anything as true unless it is presented clearly and distinctly; (2) divide problems into as many parts as possible; (3) follow an order from the simplest to the gradually more complex; (4) make sure one is complete in all investigations (AT VI, 18-19/CSM I, 120). Descartes does not believe these to be philosophically substantive, since they are not even included as part of the tree. Yet, we have shown that Descartes presupposes quite a lot prior to carrying out any philosophical demonstrations. Mostly, these are assumptions that Descartes would consider harmless and moreover, completely unsusceptible to critical analysis. Our task now is to expose some of these presuppositions and to show that one in particular, atomism of thought, is far from innocuous.

IV. Three Major Cartesian Presuppositions

The unchallenged background to Descartes’ thought is a rich and complex topic, involving much that will not be discussed here. Thus I am limiting the scope of this discussion to three particularly influential themes. First, I want to briefly look at two presuppositions, substance ontology and the divide between knower and world, that have garnered significant attention in the literature. This should provide us with a blueprint, as it were, for taking up in much greater detail the third presupposition, Descartes’ atomism of thought, which has received far less scholarly consideration. The first two will also be

important components of both Nietzsche and Heidegger's critiques of atomism, to be taken up in chapters three and four.

A. *Substance Ontology*

In article 51 of the *Principles*, Descartes defines substance as follows:

By *substance* we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence. And there is only one substance which can be understood to depend on no other thing whatsoever, namely God. In the case of all other substances, we perceive that they can exist only with the help of God's concurrence. Hence the term 'substance' does not apply *univocally*, as they say in the Schools, to God and to other things; that is, there is no distinctly intelligible meaning of the term which is common to God and his creatures. (AT VIII-1, 24/CSM I, 210)

There was a substantial debate in the Scholastic literature stemming from positions Aquinas and Scotus took with respect to whether or not being could be predicated in the same way to God and to creatures. Descartes leaves his own stance ambiguous, since there are three possible views: (1) univocal predication (Scotus, Eustachius); (2) analogical predication (Aquinas, Suarez); (3) equivocal predication (Spinoza). He has simply denied position (1), without choosing between the remaining options.³⁸

Heidegger interpreted Descartes as circumventing the heart of the issue: "This evasion is tantamount to his failing to discuss the meaning of Being which the idea of substantiality embraces, or the character of the 'universality' which belongs to this signification" (BT, 126/GA 2, 93). Heidegger thinks that Descartes simply takes over an understanding of being as substance without actually engaging in a study of ontology. And his insouciance towards the nuances between analogical, equivocal and univocal predications of being underscores this claim.

³⁸ This topic has received considerable attention in the recent literature. See, for instance, Schmaltz 2000 and Ariew 2011, chapter 2.

One may well think that Heidegger has a point, when recalling that Descartes includes the concept “existence” in those that he finds so immediately obvious and simple, that it neither requires explanation in a definition nor can possibly be doubted (AT VII, 422 and AT VIII-1, 8). In the early parts of the *Meditations*, Descartes never explicitly mentions that he accepts an understanding of existence as substance, but it can be inferred from some of the remarks made immediately following the statement of the cogito. After affirming that the pronouncement “I am, I exist” must be true whenever it is uttered or thought, Descartes says, “But I do not yet have a sufficient understanding of what this ‘I’ is, that now necessarily exists” (AT VII, 25/CSM II, 17). The next few paragraphs are spent trying to understand precisely what kind of thing this ego is.

Particularly significant for our purposes is what Descartes says after he has already discovered that his existence is essentially marked by thought:

But what then am I? A thing that thinks. What is that? A thing that doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions.

This is a considerable list, if everything on it belongs to me. But does it? Is it not one and the same ‘I’ who is now doubting almost everything, who nonetheless understands some things, who affirms that this one thing is true, denies everything else, desires to know more, is unwilling to be deceived, imagines many things even involuntarily, and is aware of many things which apparently come from the senses? (AT VII, 28/CSM II, 19)

For Descartes, there cannot be particular thoughts – doubts, denials, affirmations, sensations, etc. – without a mind, a subject, that thinks them.³⁹ Here we see the beginnings of Descartes’ substance ontology. He is following an Aristotelian understanding of substance in several respects. In *Metaphysics Z*, Aristotle says the following:

³⁹ Berkeley, Kant and Husserl all think that it is impossible to doubt this. Hume, Nietzsche and Heidegger, on the other hand, are among those who find this move illegitimate. Nietzsche, for instance, writes: “‘There is thinking: therefore there is something that thinks’: this is the upshot of all Descartes’ argumentation. But that means positing as ‘true *a priori*’ our belief in the concept of a substance – that when there is thought there has to be something ‘that thinks’ is simply a formulation of our grammatical custom that adds a doer to every deed. In short, this is not merely the substantiation of a fact but a logical-metaphysical postulate” (KSA 12, 549/WP, 484).

The word 'substance' is applied, if not in more senses, still at least to four main objects; for both the essence and the universal and the genus are thought to be the substance of each thing, and fourthly the substratum. Now the substratum is that of which other things are predicated, while it is itself not predicated of anything else. And so we must first determine the nature of this; for that which underlies a thing primarily is thought to be in the truest sense its substance. (1028b33-1029a1)⁴⁰

Descartes is appealing to the first part of the definition of the "substratum," since the "I" is "that of which other things [in this case, particular thoughts] are predicated."⁴¹

Descartes offers an even more clear admission of presupposing substance ontology in Meditation III:

But it now occurs to me that there is another way of investigating whether some of the things of which I possess ideas exist outside of me. In so far as the ideas are simply modes of thought, there is no recognizable inequality among them: they all appear to come from within me in the same fashion. But in so far as different ideas represent different things, it is clear that they differ widely. Undoubtedly, the ideas which represent substances to me amount to something more and, so to speak, contain within themselves more objective reality than the ideas which merely represent modes or accidents. (AT VII, 40/CSM II, 27-28)⁴²

At this stage in the order, Descartes has not yet proven God's existence; thus, we only have access to simple concepts and things known via the natural light. So we see that when Descartes later states in the *Sixth Replies* that the concept of existence is known prior to the statement of the cogito, he has in mind an entire ontological framework rooted in the concept of substance.

⁴⁰ All references to Aristotle are from the translations in Princeton's *Complete Works* (1984).

⁴¹ Paul Hoffman [1986] 2009 argues that Descartes employs a weaker notion of substance than Aristotle, since he never says that substance cannot be predicated of anything else.

⁴² Descartes employs substance-mode terminology throughout the early parts of Meditation III. He calls ideas modes of thought in another place (AT VII, 37) and even explains that the disparate notions of thought and extension have at least substantiality in common: "With regard to the clear and distinct elements in my ideas of corporeal things, it appears that I could have borrowed some of these from my idea of myself, namely substance, duration, number and anything else of this kind. For example, I think that a stone is a substance, or is a thing capable of existing independently, and I also think that I am a substance. Admittedly I conceive of myself as a thing that thinks and is not extended, whereas I conceive of the stone as a thing that is extended and does not think, so that the two conceptions differ enormously; but they seem to agree with respect to the classification 'substance'. [...] As for all the other elements which make up the ideas of corporeal things, namely extension, shape, position and movement, these are not formally contained in me, since I am nothing but a thinking thing; but since they are merely modes of a substance, and I am a substance, it seems possible that they are contained in me eminently" (AT VII, 44-45/CSM II, 30-31).

Heidegger never devotes a full-length study to Descartes, as he did with other major figures in the history of philosophy such as Aristotle, Kant and Nietzsche, though he does discuss Descartes at length in several of his lecture courses, as well as in a few aphorisms of *Being and Time*.⁴³ Jean-Luc Marion ([1986] 1999b) attempts to complete a full Heideggerian analysis of Cartesian metaphysics. He argues that Heidegger misplaces his critique of Descartes by failing to recognize both that Cartesian metaphysics is rich enough to sustain an ontology and that Descartes did not merely assume a substance ontology, but provided adequate support for one.

On the latter point, which is more significant for our purposes, Marion contends that Descartes derived his concept of substance from the “*ego sum, ego existo*”:

Substance is extracted as a loan that the *ego* makes to itself: As I am a substance, I can transfer [...] substance to other things – despite the difference in attributes (thought in my case, extension in the other) and in the name of a *ratio substantiae* intelligible to me because deduced from me. This transfer testifies that finite substance is first borrowed from the *ego*, the first substance, origin of the cognition and recognition [*de la connaissance et reconnaissance*] of other finite substances. (Marion [1986] 1999b, pp. 151-152; trans. mod.)

Marion thinks that the *ego* is our first principle in the order of reason, the one known with the highest certainty. Since it does not depend on the existence of any other beings (even though it will later be shown to depend on God), and is immediately known just by thinking itself thinking, the *ego* gets to count as substance. And it is from this understanding of the *ego* that Descartes applies the concept substance to extension (the other finite substance that shares no other qualities with thought) and, paradoxically, to God (the only thing to which the name “substance” truly applies). Therefore, if this interpretation is accurate, then it is not quite right to say that Descartes merely assumes a position of substance ontology, since the concept was first derived from the *ego* (what Marion calls “the egological deduction”).

⁴³ See chapter 4, section I for a more detailed analysis of Heidegger’s writings on Descartes.

I think there is a problem with this interpretation. Marion tries to show that Descartes first proves the existence of the *ego* and from its very nature extracts the concept of substance. Yet, the *ego* is just the thing that is in need of proof. At the moment of the pronouncement of the cogito, one is really only justified in asserting the existence of thoughts. Sensations, judgments, doubts and affirmations are uttered or conceived; nobody questions this. But the inference to a unified subject, a mind that thinks these particular thoughts, is a move that is only legitimate if one has already granted that existence is substance. Descartes gives no reason for why it must be “one and the same ‘I’” (AT VII, 28/CSM II, 19) beyond the fact that he cannot imagine it any other way. Does this not prove that he has presupposed an understanding of ontology all along? Doesn't this prove Heidegger's point that Descartes has never actually taken up the question of the meaning of being?

B. The Divide between Knower and World

In Meditation VI Descartes claims to have proved the distinction between mind and body:

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

Descartes has refrained from giving this proof until this late stage when it is appropriate in the order. And it is true that the real distinction could not have been demonstrated any earlier; but one gets the feeling that this basic divide between mind and world, even if not in the strict sense of a *real distinction* between substances, has been maintained all along.

For one, material objects have not been proven to exist until after the real distinction has been demonstrated. The majority of the *Meditations* progresses as a disembodied mind meditating according to the dictates of reason.

Just by admitting that it is possible to bracket the existence of the body, and indeed the entirety of the material world, while still carrying out the demonstrations contained in Meditations II-VI, shows that Descartes presupposes a basic split between mind and world. This division may appear innocuous, and Descartes does provide reasons for his doubts, but the main problem is that he believes it is possible to think, doubt, and argue without having a body at all. Several of the objectors to the *Meditations* made criticisms of this sort. Hobbes, for instance, says the following:

M. Descartes is identifying the thing which understands with intellection, which is an act of that which understands. Or at least he is identifying the thing which understands with the intellect, which is a power of that which understands. Yet all philosophers make a distinction between a subject and its faculties and acts, i.e. between a subject to which the mind, reason or intellect belong; and this subject may thus be something corporeal. The contrary is assumed, not proved. (AT VII, 172-173/CSM II, 122)

We need not get entangled in the rather unhelpful sparring between Descartes and Hobbes to see that the Englishman finds no reason why thinking could not simply be a faculty of a material body.

Likewise, Gassendi finds it hard to imagine thinking without a body (all the while playfully calling Descartes “Soul”):

Finally, you reach the conclusion that *thinking* belongs to you. This must be accepted, but it remains for you to prove that the power of thought is something so far beyond the nature of a body that neither vapour nor any other mobile, pure and rarefied body can be organized in such a way as would make it capable of thought. [...] You will also have to prove that this solid body of yours contributes nothing whatever to your thought (for you have never been without it, and have so far never had any thoughts when separated from it). (AT VII, 262/CSM II, 183)

It would be one thing if Descartes had presupposed a simple divide between knower and world; but we see that the gap is already quite substantial, since thought can exist entirely independent of any body.

More recently, Marjorie Grene has argued that Descartes' notion of body is incoherent:

There is, I submit, no such event as an experience of mind without some bodily resonance – 'bodily', of course, not in the sense of *res extensa* [...] but in the sense of a live, breathing, organic body. [...] What he [Descartes] suspends in Meditation One and reinstates in Meditation Six is a dim surrogate for body: mere shapes and sizes, not growth and digestion and fatigue, comfort and discomfort—everything that the lived body at once is and means. [...] It is the notion of separate mind that is *unintelligible*. It is not even a fact that needs explanation or apology. One can explain, historically, why Descartes the mathematician should have found it so clear. But there is no philosophical excuse for it whatsoever. It is distressing to acknowledge how much contemporary philosophizing is still based on this illusory Cartesian certainty. (Grene 1985, pp. 20-21)

If Grene is right in thinking that the possibility of a disembodied mind is not just difficult to understand, but downright *unintelligible*, then Descartes' underlying assumption of a knower/world split in carrying out the process of doubt comes to appear far less modest. As Grene points out, it is this latter, supposedly harmless, version of dualism that is still regularly maintained in current debates.

C. Atomism of Thought

I contend that there is a third equally important and pervasive presupposition in Descartes' philosophy. In this chapter, we have seen that certain concepts and principles are taken as givens in the method of demonstration that Descartes employs in the *Meditations*. Thus far we have discussed which concepts and principles are presupposed, how they are known, and their role in the demonstrations of the cogito and the existence of God. In the next chapter, we will analyze the nature of those entities that enable the possibility of demonstration, arguing that Descartes understands them to be distinct, indivisible units, what I will term "atoms of thought." In the process, we will entertain the following questions concerning these atoms: What is their ontological status? How do

they relate to Descartes' theory of ideas? And can the early *Regulae* shed light on the more mature account given in the *Meditations* and *Principles*?

Chapter Two:

Descartes' Atomism of Thought

This chapter explores the nature of Descartes' most basic units of the mind. I argue that the mental entities essential to Descartes' philosophy are atomistic, that is, indivisible and distinct from all else. This atomism of thought takes two forms. The first is at the level of the undoubted background that enables the possibility of demonstration. The simple concepts innate in our minds are *conceptual atoms of thought*, understood immediately by the natural light, and grounded in eternal, immutable natures. The second form, *epistemological atoms of thought*, consists in the demonstrations that Descartes gives based only on these foundations; the metaphysical results of these demonstrations are known in pure, singular moments of clear and distinct intuition. Principles (what Descartes calls "common notions") have features of both types of atomism. They are understood by the light of nature and are presupposed for metaphysical demonstration just as conceptual atoms of thought are, but have propositional content in much the same way that epistemological atoms of thought do. For this reason, we will focus primarily on making sense of Descartes' understanding of concepts (such as thought, existence, shape, size, etc.) and the results of demonstration (the cogito, that God exists, etc.). All three basic types of mental atoms form the basis for all of Cartesian science, which itself is not necessarily atomistic. If we are to adequately understand any form of atomism of thought,

we must first explain Descartes' theory of ideas. And in order to clarify his mature thought on the topic, we will also need to look back to the "simple natures" of the *Regulae ad Directionem Ingenii*.

I. Descartes' Theory of Ideas

A. The Scholastic Background

The work of Descartes, Locke, and their contemporaries placed ideas at center stage in the 17th century philosophical landscape. Although ideas did not play as essential a role before Descartes as they would for Arnauld and Malebranche, there certainly was a precedent in the literature. I do not think that Descartes spent a good deal of time engaging directly with scholastic interpretations of the term "idea." Nonetheless, he had absorbed enough from the schools to make use of the traditional way of thinking about ideas, albeit with his own twist.⁴⁴ There are two main aspects of the background on ideas that are relevant to our study of Descartes. The first goes back to St. Augustine, where ideas are understood as exemplars, either Platonic or divine. The second is the later distinction between formal and objective concepts found in Suarez, Eustachius a Sancto Paulo, and others.

There was a long-standing tradition that understood ideas as exemplars in God's mind. This is the Augustinian reformulation of Platonic Ideas or Forms that serve as the perfect models through which God created all things in this world. At first blush, it is

⁴⁴ Recall Descartes' tone of pleasant surprise at discovering that Suarez had understood the material falsity of ideas in the same way that he does: "One fear that I might have had, however, is that since I have never spent very much time reading philosophical texts, my calling ideas which I take to provide subject-matter for error 'materially false' might have involved too great a departure from standard philosophical usage. This might, I say, have worried me, had I not found the word 'materially' used in an identical sense to my own in the first philosophical author I came across, namely, Suarez [...]" (AT VII, 235/CSM II, 164).

hard to see how this account of ideas could have had a direct influence on Descartes' thought. There were, however, currents in the scholastic tradition that made use of this Platonic-Augustinian conception in a way that looks forward to the more familiar modern Cartesian ideas. For example, in his *Summa Philosophica Quadripartita*, Eustachius a Sancto Paulo writes:

What the Greeks call Idea the Latins call Exemplar, which is nothing else but the explicit image or species of the thing to be made in the mind of the artificer. Thus the idea or exemplar is in this case some image (*phantasma*) or work of imagination (*phantasiae*) in the artificer to which the external work conforms. And so in the artificer insofar as he is an artificer there are two internal principles of operation, namely the art in his mind or reason and the idea or exemplar in his imagination (*phantasia*). Art is a certain disposition, but idea is a certain act or concept represented by the mind. (Eustachius a Sancto Paulo 1609, Physics, Part III, disputation I, question III, p. 54; quoted in Ariew 2011, pp. 108-109)⁴⁵

This sense of idea lacks the supernatural elements of divine Ideas and Platonic Forms. The focus here is on the exemplar as existing in the individual's mind and functioning as a blueprint of sorts for the creation of some work external to the individual. Notice also the inverted use of idea as image, where the work to be produced must be likened to the artificer's idea and not the other way around (as it will be for Descartes). Although Descartes will ultimately discard the connection with the imagination, as well as the talk of the artificer, he will certainly retain the dual notions of idea as act and representation.

Another aspect of the scholastic understanding of ideas that was influential in Descartes' thinking is the distinction between the formal and objective existence of ideas. We find the formal/objective terminology in Suarez's *Disputations* with respect to concepts:

We must first of all assume the common distinction between a formal and an objective concept. A formal concept is said to be the act itself, or (which is the same) the word whereby the intellect conceives some thing or common definition [*ratio*], which is called a concept because it is, as it were, the offspring of the mind. It is called "formal" either because it is the ultimate form of the mind, or because it represents formally to the mind the thing that is known, or because it really is

⁴⁵ My brief discussion of ideas as exemplars closely follows chapter 3 (co-written with Marjorie Grene) of Ariew 2011.

the intrinsic and formal term of the mental conception, thus differing from an objective concept, as I shall now explain. An *objective* concept is said to be the thing, or notion [*ratio*] which is strictly and immediately known or represented by means of the formal concept. (Ariew et al., p. 33; Suarez 1861 [1597], pp. 64-5)

The fact that Suarez employs the term *conceptus* here, while Descartes uses *idea*, should not trouble us.⁴⁶ The important thing to notice is that Suarez distinguishes between the formal *act* of the mind that does the representing and the objective thing that is represented. The formal concept is an actually existing mental conception acting as representative vehicle for the objective concept.⁴⁷

Eustachius uses this terminology in much the same way:

The concept of any given thing may be taken in two senses, one formal and the other objective. The latter, strictly speaking, is called a “concept” only in an analogical and nominal sense; for it is not truly a concept, but rather a thing conceived, or an object of conception. A formal concept, however, is the actual likeness of the thing that is understood by the intellect, produced in order to represent the thing. [...] It may be understood from this that the formal concept is a word that the mind possesses, or the species that it forms of the thing understood. The objective concept however [...] is the thing as represented to the intellect by means of the formal concept [...]. (Ariew et al., p. 93; Eustachius a Sancto Paulo 1609, *Metaphysics*, Part I, disputation I, question 2, pp. 3-4)

In Eustachius we have a similar distinction between the formal concept as an existing representational mental entity and the objective concept as the object of representation. However, notice the decidedly Aristotelian bent of formal concepts as housing the “actual likeness” and “the species” of the thing understood.⁴⁸

⁴⁶ Descartes’ claim that “by the term ‘idea’ I mean in general everything which is in our mind when we conceive [*concevons*] something, no matter how we conceive it [*concevions*]” (AT III, 392-3/CSMK, 185; quoted in Ariew 2011, p. 104) echoes Suarez’s claim that concepts are “offspring of the mind.” Furthermore, as Ariew 2011 (pp. 103-114) and Wells 1993 (pp. 515-518) point out, late scholastic texts and dictionaries of the early 17th century reveal that “idea” and “concept” are closely related terms.

⁴⁷ Wells 1984 offers a much more detailed account of Suarez’s influence on Descartes’ thinking about ideas, particularly with respect to the issue of material falsity.

⁴⁸ Descartes, of course, jettisons this latter usage: “And finally, even if these ideas did come from things other than myself, it would not follow that they must resemble those things. Indeed, I think I have often discovered a great disparity <between an object and its idea> in many cases. For example, there are two different ideas of the sun which I find within me. One of them, which is acquired as it were from the senses and which is a prime example of an idea which I reckon to come from an external source, makes the sun appear very small. The other idea is based on astronomical reasoning [...]. Obviously both these ideas cannot resemble the sun which exists outside me; and reason persuades me that the idea which seems to have emanated most directly from the sun itself has in fact no resemblance to it at all” (AT VII, 39/CSM II,

B. Ideas in the Meditations

The theory of ideas is absolutely essential to Descartes' epistemological project. He requires a vehicle of truth capable of bearing the weight of certainty necessitated by his new science. These resources cannot be found in the reigning scientific paradigm, Aristotelian empiricism, which is why Descartes warns his audience in the "Preface to the Reader" of the *Meditations* as follows: "I would not urge anyone to read this book except those who are able and willing to meditate seriously with me, and to withdraw their minds from the senses and from all preconceived opinions" (AT VII, 9/CSM II, 8). In the last section, we saw that there was a precedent in the 17th century for understanding ideas as divine exemplars, which Descartes references in a reply to Hobbes:

Here my critic wants the term 'idea' to be taken to refer simply to the images of material things which are depicted in the corporeal imagination; [...]. But I make it quite clear in several places throughout the book, and in this passage in particular, that I am taking the word 'idea' to refer to whatever is immediately perceived by the mind. [...] I used the word 'idea' because it was the standard philosophical term used to refer to the forms of perception belonging to the divine mind, even though we recognize that God does not possess any corporeal imagination. And besides, there was not any more appropriate term at my disposal. (AT VII, 181/CSM II, 127-128)

It is rather curious that Descartes should mention this use of the term "idea," since he does not really employ this meaning himself. However, if we take seriously his claim from the Preface, and recall the way Eustachius exploited the Platonic understanding, we may be able to make sense of what Descartes has in mind.

In his early work, *Treatise on Man*, Descartes explains how ideas can be etched onto the pineal gland in the brain:

Now among these figures, it is not those imprinted on the external sense organs, or on the internal surface of the brain, which should be taken to be ideas – but only those which are traced in the spirits on the surface of the gland H (*where the seat of the imagination and the 'common' sense is located*). That is to say, it is only the latter figures which should be taken to be the forms or

27); similar claims are made as early as the *Treatise on Man* (AT XI, 3-6) and the *Optics* (AT VI, 83-86, 112-117, 130-131) and later in the *Principles*, Part Two (AT VIII-1, 41-42).

images which the rational soul united to this machine will consider directly when it imagines some object or perceives it by the senses. (AT XI, 176-177/CSM I, 106)

By the time of the *Meditations*, however, Descartes reserves the term solely for entities of the mind. He continually reminds his objectors and correspondents that “it is not only the images depicted in the imagination which I call ‘ideas’. Indeed, in so far as these images are in the corporeal imagination, that is, are depicted in some part of the brain, I do not call them ‘ideas’ at all” (AT VII, 160-161/CSM II, 113).⁴⁹ There is an important place in the grand Cartesian scheme of things for “brain images,” but Descartes wants to make it absolutely clear that in his later thought these are carefully distinguished from purely mental ideas. We see that it is in relation to this withdrawal from material things that Descartes can call on the Platonic tradition of ideas in God’s mind (which are completely independent of any corporeal imagination), even though he has discarded much the original meaning.⁵⁰ Our discussion will follow this later conception highlighted in the *Meditations*.

Descartes has made things difficult for his commentators trying to make sense of his theory of ideas. There are many different aspects relevant to Cartesian ideas and Descartes does not always make it clear which features he is talking about. To start with, there is a range of ways in which Descartes defines ideas. On one end, the loosest sense is to consider ideas as simply any entity in the mind: “everything which can be in our thought” (AT III, 383/CSMK, 183) or “anything which is thought [*omne quod cogitatur*]” (AT VII, 366/CSM II, 253, trans. mod.). On the other end, there is a very focused way in which Descartes employs the term “idea”: “Some of my thoughts are as it were the images of things, and it is only in these cases that the term ‘idea’ is strictly appropriate –

⁴⁹ The same sentiments are expressed at AT VII, 181; AT VII, 366; and AT VII, 392-393.

⁵⁰ For a more extended discussion of this point, see Ariew 2011, pp. 119-121.

for example, when I think of a man, or a chimera, or the sky, or an angel, or God” (AT VII, 37/CSM II, 25).⁵¹ It is a bit unfortunate that he chose to use the word “images [*imagines*],” since he means to include in this category many things that cannot exist in our imagination, such as God or a chiliagon. I think Descartes is mainly trying to capture the representational aspect of ideas – that they are *of* some thing.

The problem is that Descartes also talks about ideas in ways that appear to vacillate between the two poles of this range: “that which we perceive with the intellect, when the intellect apprehends, or judges, or reasons” (AT VII, 139/CSM II, 99); “whatever is immediately perceived by the mind” (AT VII, 181/CSM II, 127); and “everything which is in our mind when we conceive something, no matter how we conceive it” (AT III, 392-393/CSMK, 185). These instances do tacitly imply an object of thought insofar as *something* is conceived or perceived, though this is not emphasized. The point is that Descartes is not all that precise in his use of *idea* in the general sense of being a mental entity; he is less equivocal when the concept must carry out significant philosophical work, in the Third Meditation Proof of God’s existence, for example. It is worth devoting some space to the focused sense of ideas as “images of things.”

Descartes tries to head off the inevitable confusion that will arise with his understanding of the term “idea” in the *Meditations* by addressing a criticism of the *Discourse* in the “Preface to the Reader.” He disambiguates the term as follows:

‘Idea’ can be taken materially, as an operation of the intellect, in which case it cannot be said to be more perfect than me. Alternatively, it can be taken objectively, as the thing represented by that operation [...]. (AT VII, 8/CSM II, 7)

⁵¹ See Nadler 2006, pp. 87-89 for a similar use of this distinction between the loose and the focused aspects of the term “idea.”

The distinction as laid out here is rather straightforward. An idea can be understood materially as a mode of my thinking, as well as objectively as the object represented in my mind. Vere Chappell (1986) helpfully terms these two aspects as “ideas_m” (the material sense) and “ideas_o” (the objective sense). He notes that Descartes tends to say that ideas “contain” [*continent*] (AT VII, 40-42) a certain amount of objective reality. This allows him to interpret this bifurcation of ideas as a distinction of reason, in which “they, the contained things, are objective entities of various types, hence ideas_o. This being so, the ideas that do the containing must be ideas_m. And what this suggests is that ideas_m in general are being conceived as vessels or coffers, and ideas_o, as their contents” (Chappell 1986, p. 193). This makes it clear that since all ideas_m have objective contents and all ideas_o exist only in ideas_m, the two are not really distinct entities but rather two sides to the same coin.

The only problem with Chappell’s account is that he doesn’t explain the inconsistencies in Descartes’ terminology, restricting his study to the definition offered in the Preface to the *Meditations*. In Meditation III, for example, Descartes explains what appears to be the same distinction with different language:

The nature of an idea is such that of itself it requires no formal reality except what it derives from my thought, of which it is a mode. But in order for a given idea to contain such and such objective reality, it must surely derive it from some cause which contains at least as much formal reality as there is objective reality in the idea. (AT VII, 41/CSM II, 28-29)

Speaking of the “formal reality” of an idea as a mode of thought shows that Descartes means this in much the same way as an idea taken “materially.” However, he is pointing to another important feature of ideas: they come in different degrees of “reality” or “perfection.” As modes of our thinking, ideas_m all have the same amount of reality. The

objective reality of an idea, on the other hand, derives its degree of reality from its represented object.

So far, we have not noticed a great divergence in terminology from the original interpretation given by Chappell. Once Descartes begins talking of the material falsity of ideas, things become a bit more convoluted. The problem is that he makes use of the same formal/material/objective language, yet in a different way, without giving the reader sufficient notice that such a shift in meaning has taken place. Although Descartes hasn't made it easy on us in this respect, contrary to the thought of many commentators,⁵² I do think his doctrine is consistent, once one has gotten clear on which meanings are being used, and where.

When it comes to truth and falsity, it is really judgments that do the truth (and falsity) bearing:

Now as far as ideas are concerned, provided they are considered solely in themselves and I do not refer them to anything else, they cannot strictly speaking be false; for whether it is a goat or a chimera that I am imagining, it is just as true that I imagine the former as the latter. As for the will and emotions, here too one need not worry about falsity [...]. Thus the only remaining thoughts where I must be on my guard against making a mistake are judgments. And the chief and most common mistake which is to be found here consists in my judging that the ideas which are in me resemble, or conform to, things located outside me. Of course, if I considered just the ideas themselves simply as modes of my thought, without referring them to anything else, they could scarcely give me any material for error. (AT VII, 37/CSM II, 26)

Judgments are made about the representational content of ideas and are susceptible to being *formally* true or false, depending on how clear and distinct those ideas are. This is why ideas play such an important role in Descartes' theory of truth, even if, strictly speaking, they are not the bearers of truth and falsity. Ideas understood simply as modes of thought have no essential connection to truth or falsity.

However, our ideas taken *objectively* can incur another type of falsity:

⁵² E.g. Wilson 1978.

[A]lthough, as I have noted before, falsity in the strict sense, or formal falsity, can occur only in judgments, there is another kind of falsity, material falsity, which occurs in ideas, when they represent non-things as things. For example, the ideas which I have of heat and cold contain so little clarity and distinctness that they do not enable me to tell whether cold is merely the absence of heat or vice versa, or whether both of them are real qualities, or neither is. And since there can be no ideas which are not as it were of things, if it is true that cold is nothing but the absence of heat, the idea which represents it to me as something real and positive deserves to be called false; and the same goes for other ideas of this kind. (AT VII, 43-44/CSM II, 30)

Confusion has often arisen with respect to these passages since “material falsity” has nothing to do with ideas in the material sense (ideas_m); likewise “formal falsity” is simply a formal truth-relation and is unrelated to ideas formally existing in our minds (ideas_m). Indeed, when Descartes is referring to ideas as *modes of thought*, independent of any truth-relation, he uses both terms, “material” and “formal.” When, on the other hand, he talks of the representational content of ideas, he employs the term “objective.” Ideas in the objective sense have varying degrees of objective reality or perfection, as well as the possibility of being so unclear and indistinct as to warrant the label “material falsity.”

Margaret Wilson criticizes Descartes’ account of material falsity as follows: “But notice that the view that sensations, from the objective point of view, are ‘caused by nothing’ has an interesting and surprising implication: sensations must *lack objective reality, despite having representative character!*” (Wilson 1978, p. 111) To make her claim, Wilson says that ideas all have a representative character (which we have also pointed out), and the objective reality of an idea is distinct from this representative character. She derives this conclusion from Descartes’ statement about sensory ideas such as those of heat and cold: “if they are false, that is, represent non-things, I know by the natural light that they proceed from nothing [*nullas res repraesentent, lumine naturali notum mihi est illas a nihilo procedere*] – that is, they are in me only because of a deficiency and lack of perfection in my nature” (AT VII, 44/CSM II, 30; trans. mod.). If Descartes is indeed advocating a position where ideas can have no objective reality, while

nevertheless being representative, then Wilson is right to castigate it. However, I disagree that Descartes is in fact saying this.

Wilson puts the phrase “caused by nothing” in scare quotes to indicate a paraphrase of Descartes’ position, but this is misleading. He has said that materially false ideas “proceed from nothing,” which is to say that we are limited, finite beings that participate in nothingness and this “defect” in us gives rise to confused ideas. Descartes has been careful to avoid saying that these ideas have been *caused* by nothing, since nothingness doesn’t cause anything at all. Arnauld asks for clarification on this point with respect to our idea of cold. Cold is an absence (i.e. not a positive entity in its own right), so either we have an idea of this absence (materially true, but lacking objective reality) or an idea of a positive entity, which isn’t of coldness at all. Either way, we do not get a materially false idea. If we somehow do have a positive idea that is caused by nothingness, this “violates the author’s most important principles” (AT VII, 207/CSM II, 146).

This afforded Descartes a chance to explain his meaning more clearly to Arnauld, who had misinterpreted his remarks: “if cold is simply an absence, the idea of cold is not coldness itself as it exists objectively in the intellect, but something else, which I erroneously mistake for this absence, namely a sensation which in fact has no existence outside the intellect” (AT VII, 233/CSM II, 163). This shows that we do not have ideas without objective reality.⁵³ The positive idea in this case is of a *cold sensation*; yet, since this idea is so obscure and confused, we may be led to judge that such a quality exists

⁵³ This had been stated unequivocally in Meditation III: “For if we suppose that an idea contains something which was not in its cause, it must have got this from nothing; yet the mode of being by which a thing exists objectively <or representatively> in the intellect by way of an idea, imperfect though it may be, is certainly not nothing, and so it cannot come from nothing” (AT VII, 41/CSM II, 28-29).

outside of our mind. And finally, when Descartes says this “proceeds from nothing,” he means nothing more than that we are limited beings, tied to a body and its corresponding sensations. Although all our ideas have a positive cause, the obscure and confused ones are tainted by our defective nature.⁵⁴

There is another important way Descartes classifies ideas: “Among my ideas, some appear to be innate, some to be adventitious, and others to have been invented by me” (AT VII, 37-38/CSM II, 26). Adventitious ideas appear to come from things external to us, while inventions of the mind are put together out of materials already in our minds (from the senses, etc.). The latter are not at all essential to Cartesian metaphysics and while adventitious ideas have an important role in Descartes’ physics, none of the clear and distinct aspects of material nature are actually derived from our particular experiences of external things, but are innate in us.⁵⁵ Innate ideas, then, are the key to the entire project, capturing the most important concepts Descartes discusses, including mathematical essences, the cogito, and of course God. If we are to draw out the atomistic nature of Cartesian ideas, we must look to them in their most paradigmatic form.

⁵⁴ “For I do not claim that an idea’s material falsity results from some positive entity; it arises solely from the obscurity of the idea – although this does have something positive as its underlying subject, namely the actual sensation involved.

Now this positive entity exists in me, in so far as I am something real. But the obscurity of the idea is the only thing that leads me to judge that the idea of the sensation of cold represents some object called ‘cold’ which is located outside me; and this obscurity in the idea does not have a real cause but arises simply from the fact that my nature is not perfect in all respects” (AT VII, 234-235/CSM II, 164).

Norman Wells (1984) sums this point up nicely: “It is imperative to realize that the material falsity of *ideas* is not a case of representing false *objects*. It is still more imperative to acknowledge it to be a case of *representing falsely* in the sense of failing to represent adequately. Due to the alleged deficiency of our sensory ideas, in spectator-like fashion, we cannot decide *judgmentally* what their *objects* are. Do they represent a *reale quid et positivum* or a *nulla res*? It is just not possible to tell! In such a cognitive situation, our judgments are at risk because, in the presence of a flawed representation, we are in the presence of *materia errandi*” (p. 37).

⁵⁵ AT VII, 43-44; AT VIII-2, 358-359.

II. Atomism of Thought

A. Innate Ideas

The absolute importance of innate ideas is nowhere made more apparent than in Descartes' response to Regius' new work in physics, from the *Notes on a Certain Program*:

[...] If we bear well in mind the scope of our senses and what it is exactly that reaches our faculty of thinking by way of them, we must admit that in no case are the ideas of things presented to us by the senses just as we form them in our thinking. So much so that there is nothing in our ideas which is not innate to the mind or the faculty of thinking, with the sole exception of those circumstances which relate to experience, such as the fact that we judge that this or that idea which we now have immediately before our mind refers to a certain thing situated outside us. (AT VIII-2, 358-359/CSM I, 304)

This is Descartes' strongest statement about innate ideas and it comes rather late in his life. To make sense of this remarkable text, it will help to go back to some of his earlier remarks on the topic.

Innate ideas clearly play an essential role in the *Meditations*, judging by Descartes' claim in the last of the *Objections and Replies*: "My principal aim has always been to draw attention to certain very simple truths which are innate in our minds, so that as soon as they are pointed out to others, they will consider that they have always known them" (AT VII, 465/CSM II, 312). In Meditation III, Descartes lists several items that coincide with some of the concepts presupposed by the method of doubt looked at earlier (chapter 1, section III): "My understanding of what a thing is, what truth is, and what thought is, seems to derive simply from my own nature [...]" (AT VII, 37-38/CSM II, 26). This "seeming" is confirmed in other places (e.g. AT II, 596-598; AT VII, 422) and by the end of the Third Meditation we know that the ideas of God and of our own minds are also innate (AT VII, 51). We see that these ideas "derive" from our own nature as a thinking thing. In another place, he also includes all of the "common notions" such as

“things which are equal to a third thing are equal to each other” in his list of innate ideas (AT VIII-2, 359/CSM I, 304-305).

In the *Objections and Replies*, Descartes repeatedly explains innate ideas negatively as not coming from other sources: “Because the idea of God is implanted in the same way in the minds of all, we do not notice it coming into our minds from any external source, and so we suppose it belongs to the nature of our own intellect” (AT VII, 105/CSM II, 76); “I expressly said at the end of the Third Meditation that ‘this idea is innate in me’ – that is, that it comes to me from no other source than myself” (AT VII, 133/CSM II, 96). In the previous section, we showed that one of the main reasons Descartes wished to link the term ‘idea’ with its Platonic-Augustinian roots was to reiterate his plea to the reader to withdraw from the senses. In several letters, he stresses the contrast between ideas derived from the senses and innate ideas: “for the sense-organs do not bring us anything which is like the idea which arises in us on the occasion of their stimulus, and so this idea must have been in us before” (AT III, 418/CSMK, 187); “they are merely such that we come to know them by the power of our own native intelligence, without any sensory experience” (AT VIII-2, 166/CSMK, 222).

The last quotation, from the Letter to Voetius of May 1643, even continues by citing Plato’s famous statement of the theory of recollection from *Meno*:

All geometrical truths are of this sort – not just the most obvious ones, but all the others, however abstruse they may appear. Hence, according to Plato, Socrates asks a slave boy about the elements of geometry and thereby makes the boy able to dig out certain truths from his own mind which he had not previously recognized were there, thus attempting to establish the doctrine of reminiscence. (AT VIII-2, 166-167/CSMK, 222-223)

So far we have merely pointed out some of the obvious features of innate ideas: they are derived from our own nature and are completely independent from the senses (and our own invention). Things get a bit more interesting when one considers Hobbes’ rather

reasonable assumption, from the *Third Replies*, that “what is innate is always present” (AT VII, 188/CSM II, 132). Surely there is something right about this; if an idea is part of the structure of our minds, then it must always be there (otherwise it would have come from some other source). But Descartes rejects this characterization, claiming that “when we say that an idea is innate in us, we do not mean that it is always there before us. This would mean that no idea was innate. We simply mean that we have within ourselves the faculty of summoning up the idea” (AT VII, 189/CSM II, 132). Descartes is making an important distinction between actual occurrent ideas “before us” and the faculty which gives us the potential for having such an occurrent idea. Thus there is a sense in which innate ideas are always present; but their presence is not a heap of entities like apples waiting to be picked out of a basket.⁵⁶

In the texts we have looked at, Descartes isn’t entirely clear about what he means when he says that an innate idea is a “faculty” within us. He does elaborate in the *Notes on a Program*, saying, “[innate ideas] always exist within us potentially, for to exist in some faculty is not to exist actually, but merely potentially, since the term ‘faculty’ denotes nothing but a potentiality” (AT VIII-2, 361/CSM I, 305). Throughout Descartes’ work, he has tried to overcome the Aristotelian doctrine of substantial forms so prevalent in his day. It should not really be surprising then, nor should we consider it inconsistent with earlier works, when he claims that “the ideas of pain, colours, sounds and the like must be all the more innate if, on the occasion of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions” (AT VIII-2, 359/CSM I, 304). Therefore, in order to

⁵⁶ There are many other places where Descartes distinguishes our explicit knowledge of innate ideas from their implicit capacity to be known existing within us (AT VII, 422; AT III, 382-383; AT VIII-2, 166-167; AT III, 424). We discussed the implicit/explicit distinction in more detail in chapter 1, section III.A.

understand the “potentiality” of innate faculties, we must look to Descartes’ theory of sensation.

The basic story goes like this. Motions in the nerves of our eyes, ears, tongue, etc. give rise to a corporeal brain image (which is really just more motion in the brain). These motions, both of the objects we are seeing, hearing, and tasting and of the nerves in our body, are nothing like the sights, sounds and tastes we experience in our minds. Our minds are structured in such a way that particular motions in our brain give rise to a corresponding idea in our mind.⁵⁷ To speak anachronistically, the innate faculties must be like a priori Kantian structures through which experience is possible. We may never in our lives turn our mind’s eye toward this or that idea, but the latent potential is always there.

Interestingly, Descartes admits that even ideas of motions and figures are innate. This poses a problem of interpretation, since figure, motion and size are supposed to be primary qualities of material objects, the essential characteristics of extension. Does that mean our ideas *do* resemble things outside of our mind at least in this respect? Is the only difference that material objects are actually extended, while our ideas of them are not? We need not get caught up in this difficulty, but it does bring to light another important aspect of innate ideas that we must consider. Thus far we have learned the origin of innate ideas (only from our own faculty of thinking) and what it means for them to be in

⁵⁷ This should help make clear the rest of the relevant text from *Notes*: “there is nothing in our ideas which is not innate to the mind or the faculty of thinking, with the sole exception of those circumstances which relate to experience, such as the fact that we judge that this or that idea which we now have immediately before our mind refers to a certain thing outside us. We make such a judgement not because these things transmit the ideas to our mind through the sense organs, but because they transmit something which, at exactly that moment, gives the mind occasion to form these ideas by means of the faculty innate to it. Nothing reaches our mind from external objects through the sense organs except certain corporeal motions [...]. But neither the motions themselves nor the figures arising from them are conceived by us exactly as they occur in the sense organs [...]. Hence it follows that the very ideas of the motions themselves and of the figures are innate in us” (AT VIII-2, 358-359/CSM I, 304).

us potentially. What about their representative content? Are innate ideas distinguished in any way by their objective reality? In Meditation V, Descartes explains that “there is a great difference between this kind of false supposition [a geometrical falsehood] and the true ideas which are innate in me, of which the first and most important is the idea of God. There are many ways in which I understand that this idea is not something fictitious which is dependent on my thought, but is an image of a true and immutable nature” (AT VII, 68/CSM II, 47). The “true and immutable natures” that we have so far uncovered – simple concepts, common notions and geometrical properties – all hark back to the simple natures of the *Regulae*.

Throughout his work, Descartes tries to distance his physical theories from those of Democritus and Leucippus. Although Descartes did believe that there were minute particles of matter that could not be perceived with the naked eye, he did not believe that any bit of matter was indivisible (AT VIII-1, 325-327). In fact, he finds the concept contradictory, likening it, in a letter to Gibieuf, to conceiving a mountain without a valley:

In the same way we can say that the existence of atoms, or parts of matter which have extension and yet are indivisible, involves a contradiction, because it is impossible to have the idea of an extended thing without also having the idea of half of it, or a third of it, and so conceiving it as being divisible by two or three. (AT III, 477/CSMK, 202)

The word “atom” comes from the Greek *ἄτομος* and the Latin *atomus*, both of which refer to a “particle that is incapable of further division” (OED 2008). When Descartes uses the term (*atomus/atome*), it is primarily in connection with this etymological origin of indivisibility.⁵⁸

⁵⁸ AT III, 191-192; AT V, 273-274; AT VIII-1, 51-52.

This character of indivisibility in turn gives rise to two related aspects of Descartes' conception of atoms. First, and this was already hinted at in the above quotation, the possibility of division is tied up with our ability to conceive such a division, as stated in *Principles*, Part Two, paragraph 20: "For anything we can divide in our thought must, for that reason, be known to be divisible" (AT VIII-1, 51/CSM I, 231). Finally, Descartes completes his analysis of the term by showing that God's ability to divide something is all that is required to prove that it really is divisible:

Even if we imagine that God has chosen to bring it about that some particle of matter is incapable of being divided into smaller particles, it will still not be correct, strictly speaking, to call this particle indivisible. For, by making it indivisible by any of his creatures, God certainly could not thereby take away his own power of dividing it [...]. Hence, strictly speaking, the particle will remain divisible, since it is divisible by its very nature. (AT VIII-1, 51-52/CSM I, 231-232)

In what follows, I will argue that Descartes' understanding of atoms applies to the ideas that are innate in us, and have the "true and immutable" essences as their object.

B. The Simple Natures of the Regulae

Before turning to Descartes' atomism of thought in his mature works, it will be helpful to turn our attention to his rather strange early work, published only many years after his death, the *Regulae ad Directionem Ingenii*. Jean-Luc Marion's difficult monograph, *Sur l'Ontologie Grise de Descartes* ([1975] 1981), presents an insightful interpretation of the *Regulae* that will help guide our discussion. The *Regulae* poses several difficulties for the historical interpreter: It is unclear to which texts or debates Descartes is responding; the work has little immediate historical influence, having been first published in Latin in 1701 (although there was a Dutch version published in 1684); and finally, the content is a bit anomalous with respect to Descartes' corpus. To alleviate these hermeneutical issues, Marion recommends the reader to try to understand Descartes as implicitly responding to

Aristotle. Aside from the fact that Aristotle's philosophy was ubiquitous in Descartes' time, we also know that Descartes makes veiled reference to several common Aristotelian themes (syllogism, the order of being, etc.) and had studied texts such as the *Prior* and *Posterior Analytics*, *Metaphysics*, and *Physics* at La Flèche in his early days (Marion [1975] 1981, pp. 13-23).⁵⁹

Marion wants to maintain an even stronger thesis, however. He believes that Descartes covertly makes a shift from Aristotle's science of being qua being to his own method-based inquiry. This is evidenced by Descartes' re-signification of key Aristotelian terms such as *intuitus* (the standard Latin translation for *nous*), which left behind their Peripatetic connotations.⁶⁰ As Marion puts it, "Each concept is thus subjected to a multiple displacement and readjustment, which measures its difference [écart] from the original Aristotelian concept. More than a critique, Descartes establishes a metaphor" (ibid., p. 22). This is why Marion believes that Descartes adopts a "grey" ontology in the *Regulae*. By privileging an epistemological exigency over the ontological concerns of Aristotle,⁶¹ Descartes has neglected to enter into an ontological inquiry, while at the same time tacitly accepting that the new objects of Cartesian science, stripped of their Aristotelian significance, now take on a metaphysical character guided

⁵⁹ It is rather obvious that Aristotelian philosophy was an important foil to Descartes' early thought. One may wonder why Marion focuses solely on Aristotle, when it was really scholasticism – following Aristotle, of course – that was his contemporary. Descartes disparagingly mentions the scholastics several times in the *Regulae* (AT X, 363-364, 369, 371), but does not mention Aristotle even once.

⁶⁰ Again notice that it is specifically scholasticism that Descartes refers to in this case: "In case anyone should be troubled by my novel use of the term 'intuition' and of other terms to which I shall be forced to give a different meaning from their ordinary one, I wish to point out here that I am paying no attention to the way these terms have lately been used in the Schools" (AT X, 369/CSM I, 14).

⁶¹ Rule II states: "We should attend only to those objects of which our minds seem capable of having certain and indubitable cognition" (AT X, 362/CSM I, 10). The contrast with Aristotle is even more clear in the following text from Rule VI, one Marion frequently cites: "[This rule] instructs us that all things can be arranged serially in various groups, not in so far as they can be referred to some ontological genus (such as the categories into which philosophers divide things), but in so far as some things can be known on the basis of others" (AT X, 381/CSM I, 21). Descartes reiterates this latter point at AT X, 418.

by the strictures of thought. This is the early gestation of Descartes' revolution in thought.

Marion's interpretation aids our own in particular because it brings to light a fundamental shift in philosophical grounding. Let me explain. For Aristotle, a being understood in its most primary sense as substance is a union of form and matter. If we are to understand a being, we must understand its essence: "Each thing then and its essence are one and the same in no merely accidental way, [...] because to *know* each thing, at least, is to know its essence [...]" (1031b18-20).⁶² Then we might ask which part of the hylomorphic union captures a thing's essence, the form, the matter or their union as a whole? Aristotle is unequivocal on this point in *Metaphysics Z.7* (even if it appears to be in tension with things he says about substance in other places): "By form I mean the essence of each thing and its primary substance" (1032b1-2). In the investigation of beings, once one has understood a thing's form (*eidos*), no further inquiry is needed; one has knowledge of a thing's essence and thus has reached the proper philosophical ground.

Like Descartes, Aristotle rejects the notion of the material atom, instead pointing to substantial forms as the end of analysis.⁶³ Descartes, argues Marion, displaces the Aristotelian *eidos* in favor of a radically new concept, the simple nature (Marion 1975, pp. 131-136; 1999a, pp. 46-48). Descartes introduces the notion of the "simple nature" [*natura simplex*] in Rule VI by making a distinction between the absolute [*absolutus*] and the relative [*respectivum*]:

I call 'absolute' whatever has within it the pure and simple nature in question; that is, whatever is viewed as being independent, a cause, simple, universal, single, equal, similar, straight, and other qualities of that sort. I call this the simplest and easiest thing when we can make use of it in solving problems.

⁶² All references to Aristotle are to the Barnes edition (1984).

⁶³ Marion regularly refers to the *eidos* as "indivisible" (e.g. 1975, p. 133; 1999, p. 48), following Aristotle (1034a8).

The 'relative', on the other hand, is what shares the same nature, or at least something of the same nature, in virtue of which we can relate it to the absolute and deduce it from the absolute in a definite series of steps. The concept of the 'relative' involves other terms besides, which I call 'relations': these include whatever is said to be dependent, an effect, composite, particular, many, unequal, dissimilar, oblique, etc. (AT X, 381-382/CSM I, 21)

Ironically, the absolute turns out to be relative in several ways. For one, Descartes has already made it clear that he wishes to order things according to their epistemic qualities as opposed to their true ontological attributes. Thus the absolute is only such relative to the nature of our method. Descartes offers several examples of what he means by this:

[T]he universal is more absolute than the particular, in virtue of its having a simpler nature, but it can also be said to be more relative than the particular in that it depends upon particulars for its existence [...]. Furthermore, in order to make it clear that what we are contemplating here is the series of things to be discovered, and not the nature of each of them, we have deliberately listed 'cause' and 'equal' among the absolutes, although their nature really is relative. (AT X, 382-383/CSM I, 22)

Here we see that some things which are absolute from one perspective may be relative from a different standpoint. And ultimately, the absolute is the first in the "series of things to be discovered," that is, first in the proper ordering of knowledge.

We also see that the entire distinction between absolute and relative is subordinated to "its possible usefulness to our project" (AT X, 381/CSM I, 21). This is connected with our earlier claim – that Descartes wishes to replace the Aristotelian ontological science with his epistemologically certain new method – insofar as Descartes' goal in laying down rules for the "direction of the mind" is to be able to solve mathematical and physical problems.⁶⁴ Hence, he mentions the method's usefulness quite frequently (AT X, 373; 378; 381; 397).⁶⁵

It is difficult to make sense of Descartes' list of the absolutes from Rule VI (independent, a cause, simple, etc.), especially since he gives quite a different list in Rule

⁶⁴ He even says that the absolute is "the simplest and easiest thing when we can make use of it in solving problems" (AT X, 381-382/CSM I, 21).

⁶⁵ Compare that to his refrain about the uselessness of Aristotelian method (AT X, 372- 373; 405- 406).

XII, where he divides the simple natures into three kinds (1. intellectual: knowledge, doubt, ignorance; 2. material: shape, extension, motion; and 3. common: existence, unity, duration). Brian O’Neill (1972) provides a plausible interpretation of this situation, which will also help clarify the comments we made concerning the simple natures from Rule VI. If we look at the context in which each list occurs, we see that Rule VI is dealing with what must come first in a series. With this aim in the background, it becomes clear why some simple natures work here, while others would not. As O’Neill puts it, “in any narrow investigation, if one finds the ‘cause,’ or the ‘universal,’ or the ‘simple,’ or the ‘equal’ – whatever would be applicable to the case at hand – then one has reached the end of analysis, and one can begin synthesis” (1972, p. 165).

It is not my primary purpose here to enter the debate about how to reconcile the different lists of simple natures; rather, I wish to come to an understanding of some of the essential characteristics common to the various statements Descartes makes about them throughout the *Regulae*. We have seen that in Rule VI, the main goal is to construct various series of knowledge, “our project being, *not to inspect the isolated natures [naturas solitarias] of things*, but to compare them with each other so that some may be known on the basis of others” (AT X, 381/CSM I, 21).⁶⁶ Even though he makes it clear that at this stage his purpose is to understand the relations that exist between things, nevertheless Descartes accepts that the simple natures themselves are *isolated*.

In Rule IX, we get the second important characteristic of simple natures: “We must concentrate our mind’s eye totally upon the most insignificant and easiest of matters, and dwell on them long enough to acquire the habit of intuiting the truth

⁶⁶ Later, in Rule XIV, Descartes mentions the “simple and pure intuition of a *single, solitary thing*” as the only type of knowledge not obtained through “comparison between two or more things” (AT X, 440/CSM I, 57; emphasis added).

distinctly and clearly [*distincte & perspicue*]” (AT X, 400/CSM I, 33).⁶⁷ Here Descartes does not explicitly mention the simple natures, but it is clear that he has them in mind. The ultimate goal of this rule is to better solve complex problems, even though Descartes’ focus is on their necessary preconditions – the proper intuition of the “most insignificant and easiest of matters.” In order to do this, one must work at carefully distinguishing things, a skill that Descartes frequently mentions: “perspicacity in the distinct intuition of particular things”; “[to] grasp each truth by means of a single and distinct act”; “to acquire the habit of encompassing in his thought at one time facts which are very simple and very few in number [...] as distinctly as any of the things he knows most distinctly of all” (AT X, 400-402/CSM I, 33-34). From these texts we can glean that simple natures must be *distinct*.⁶⁸

We get Descartes’ most extended discussion of the simple natures in Rule XII, which acts as the culmination of Part I of the *Regulae*.⁶⁹ He begins the Rule by saying, “Where knowledge of things is concerned only two factors need to be considered: ourselves, the knowing subjects, and the things which are the objects of knowledge” (AT X, 411/CSM I, 39). As to the first factor, Descartes offers several pages explaining how the different faculties of the mind work, particularly with respect to the perception of material objects. The text of the second factor is devoted to showing how one can

⁶⁷ This statement has obvious marks of being an early version of the clear and distinct truth criterion from Meditation IV. However, “clear” translates a different Latin word in each case: *perspicuus* in the *Regulae* and *clarus* in the *Meditations*. Nonetheless, there is not a major divergence in meaning between the two.

⁶⁸ The following text from Rule XII summarizes both of the first two characteristics: “[E]ach of us, according to the light of his own mind, must attentively intuit only those things which are distinguished from all others” (AT X, 426-427/CSM I, 49).

⁶⁹ It appears that Descartes originally intended the entire work to be in three parts, with twelve rules each. Part I was supposed to be a full exposition of the method, while he planned Parts II and III to be sets of solutions to “perfectly known” problems (incomplete) and “imperfectly known” problems (never started), respectively (AT X, 429).

understand the simplest things in the order of knowledge, and ultimately how to go from these starting points to scientific knowledge of a more complex nature.

Descartes begins by again reinforcing his aim of understanding things “in the order that corresponds to our knowledge of them” as opposed to “how they exist in reality” (AT X, 418/CSM I, 44). With this epistemic commitment firmly in place, he goes on to define the simple natures as follows: “That is why, since we are concerned here with things only in so far as they are perceived by the intellect, we term ‘simple’ only those things which we know so clearly and distinctly that *they cannot be divided by the mind into others which are more distinctly known*” (ibid., emphasis added). This is an important piece of text for several reasons. For one, we see that Descartes repeats one of our previously noted attributes of simple natures: distinctness.⁷⁰ We are also given our third and final characteristic – simple natures are essentially *indivisible*.

We have now identified the main features of Descartes’ earliest understanding of what he will later call *ideas*.⁷¹ Simple natures are isolated, distinct and indivisible, bearing in mind that all of these terms are relative to an order of thought. This has resulted in a tradition of commentators labeling Cartesian simple natures and their later manifestations as “atoms of evidence.”⁷² This phrase reveals three things about Descartes’ early conception of atomism: (1) it captures the epistemological aspect of simple natures, (2) it confirms Descartes’ own understanding of atoms as indivisible, all while (3) transferring the locus of this indivisibility to the mind. As we shall see, the

⁷⁰ See note 67.

⁷¹ As Marion says, “Descartes adopts the terminology and thematic faculties of the soul established by Aristotle, even if he does so only to critique them and modify them”; and he continues, “But then, one may object, why did we not refer, right from the start, to this genuinely Cartesian determination of the idea? Answer: because Descartes’ doctrine of the idea does not at first use the term *idea*. Instead, it uses a new and original substitute: namely, the simple nature” (Marion 1999, p. 44 and 46, respectively).

⁷² Marjorie Grene uses the phrase in two instances (1985, p. 54; Ariew [with Grene] 2011, p. 119), referencing Marion (1975, p. 135), who himself cites Hamelin (1921, p. 86).

account given in the *Regulae* will be refined, modified, and broadened in later works, which is why we have opted for the more general phrase, “atoms of thought.”

Now that Descartes has explained all of the salient features of simple natures, he tells us that they come in three different classes. The first class are those that are “purely intellectual [...] which the intellect recognizes by means of a sort of innate light, without the aid of any corporeal image” (AT X, 419/CSM, 44). The examples he gives – knowledge, doubt, ignorance, volition – are reminiscent of the concepts presupposed by the geometrical demonstration in the *Meditations* (see chapter 1, section III.A). As examples of the second kind of simple nature, the “purely material,” Descartes lists shape, extension, and motion, features that are essential to material bodies throughout his writings. The last group, the “common notions,” consists of those that can be attributed to both minds and bodies, such as existence, unity, and duration. Interestingly, Descartes also adds to the latter category certain “links which connect other simple natures together” (AT X, 419/CSM I, 45). These “links” and at least one of the common notions listed above (existence) are also part of the background structure that enables the demonstrations of 1641.

We will later address the issue of the extent to which these very same simple natures resurface in later works. At the moment, it would be helpful to offer some remarks concerning the situation of the *Regulae* we have just uncovered, as there is an interpretive puzzle that has not yet been resolved: What is the basis for claiming that certain items come first in an epistemic series, i.e. are absolute, while others are considered relative? Descartes makes it clear that things as they exist in reality are not the source of this justification. We saw that in Rule VI, it was simply in the nature of the

particular inquiry that would demand that this or that item to be considered absolute. Rule XII, on the other hand, seems to appeal to the very structure of the mind as to what counts as simple.⁷³ Yet what exactly it is that grounds this appeal is left unclear, aside from a claim of self-evidence.

It will help clarify this situation to recall Marion's argument for Descartes' "grey ontology." In the *Regulae*, Descartes has intentionally neglected ontology, making no explicit claims about categories of being. He feels as though his task is simply independent of Aristotelian ontology. Thus there is no need to refute it directly, even though Descartes uses much the same terminological apparatus and re-signifies all of the key terms. Despite all of this, Descartes has implicitly ascribed ontological significance to the new objects of science – the simple natures – by constructing them according to the strictures of thought. However, since this has been a covert operation, as it never was Descartes' purpose to carry out a metaphysical inquiry, we are never given the ultimate foundation for the simple natures. This would have to wait for a treatise expressly devoted to metaphysics, the *Meditations*, to which we must now return. Thus my goal in the next two sections will be to show that Descartes continues to maintain an atomism of thought in the *Meditations*; a third and final section will examine just how the "true and immutable" natures are grounded.

⁷³ "[...] [A]nd yet we have real knowledge of all of these [intellectual simple natures], knowledge so easy that in order to possess it all we need is some degree of rationality. [...] [T]hese simple natures are all self-evident and never contain any falsity. [...] For it can happen that we think we are ignorant of things we really know [...]. For if we have even the slightest grasp of it in our mind [...] it must follow that we have complete knowledge of it. 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" (AT X, 419-421/CSM I, 44-45).

C. The Continued Prevalence of the Simple/Composite Distinction in the Meditations

The importance that Descartes places on reducing complex epistemic problems to their simplest components continues to be significant in the *Meditations*, albeit now directed towards metaphysics. Martial Gueroult claims that the method of doubt employed in Meditation I strictly follows an order of reasons (as does the entire work) and “goes from the complex to the simple” ([1952] 1984, vol. 1, p. 16). The order of reasons that Gueroult argues for is a succession of dependences, where the meditator slowly works regressively from our everyday perceptions to the conditions for their possibility, until one has arrived at that upon which all else depends. At this point, the meditator can then work progressively to reinstate our beliefs on a more sound footing.

In Meditation I, we are given the beginning to this process which we recognize as working from the complex to the simple in the successive stages of doubt. Gueroult gives a nice summary for how this works:

The senses deceive us. Sensible perceptions are perhaps only dreams. But dreams are imaginary only because they arbitrarily combine simpler and more general elements: eyes, hands, heads, bodies, etc. These elements can only appear as real since, not being composite, they escape the possible arbitrariness of composition. However, these constitutive elements are themselves composite; they can therefore be arbitrarily composite, and consequently, imaginary, and therefore dubious. From this stems the necessity to rise to the level of the elements of these elements: shape, number, quantity, magnitude, space, time, etc. We then end up with absolutely “simple and general” natures, that, not being composite, escape, by definition, any possible arbitrariness of composition, and consequently, any doubt. We rejoin here the plane of the *Rules*, according to which mathematics is an absolutely certain science because it deals with simple and general objects. (ibid.)

Descartes confirms this reading by saying that while “these general kinds of things – eyes, head, hands, and so on – could be imaginary, it must at least be admitted that certain other even simpler and more universal things are real”; and that while certain scientific disciplines “which depend on the study of composite things” are dubious, “arithmetic, geometry and other subjects of this kind, which deal only with the simplest

and most general things, [...] contain something certain and indubitable” (AT VII, 20/CSM II, 13-14).

Marion follows Gueroult in thinking that at this point Descartes has taken up the problematic of the *Regulae*, particularly Rule XII. We notice that the process has been guided by the strictures of thought, and that Descartes has even listed the material simple natures (as well as some of the common ones)⁷⁴ as the simplest things that cannot be doubted by means of the dream argument, or on the basis of arbitrary composition (Marion 1999a, pp. 54-55).

Part of what made the *Regulae* such a peculiar work was that it broached metaphysical themes, and listed the intellectual simple natures, only to completely ignore them in the analyses given (ibid., pp. 48-51). We can start to make sense of this story by understanding the role of the simple natures in Meditation I:

It is only the material simple natures that make their appearance at this point in the *Meditations*; there is no mention of the intellectual simple natures. Moreover, these material natures enter the game only to be disqualified by means of the hyperbolic doubt: ‘he [the evil genius] may have brought it about that there is no extended thing, no shape, no size, no place’ (AT VII, 21, ll. 4-6: CSM II, 14). It is thus that the simple natures enter the realm of metaphysics. (Marion 1999a, pp. 55)

Both Gueroult and Marion agree that according to Descartes we cannot naturally doubt the material simple natures; it is only by invoking the “very slight and, so to speak, metaphysical” (AT VII, 36/CSM II, 25) hypothesis of the evil genius that we can thus move on to an analysis of the intellectual simple natures in their own right. The upshot of all this is that we can expect the results uncovered with respect to the simple natures of

⁷⁴ “[...] [C]orporeal nature in general, and its extension; the shape of extended things; the quantity, or size and number of these things; the place in which they may exist, the time through which they may endure, and so on” (AT VII, 20/CSM II, 14).

the *Regulae* to be in some ways consonant with the structures of the analogous units of thought from the *Meditations* (ideas).⁷⁵

D. The Doctrine of Clear and Distinct Ideas

Descartes certainly does not have the same theory of ideas in the *Meditations* as he did in the *Regulae*, even though, as we have just shown, some of the important pieces do remain in place. Not only are the two projects of a different nature, but his thought has also matured considerably. At this point, there are a few different candidates to act as atoms of thought: judgments of the will, ideas in the material sense, and ideas in the objective sense. In any event, we know that we are at least dealing with some form of ideas taken in the loosest sense, as “everything which can be in our thought” (AT III, 383/CSMK, 183), since all of the above are captured under this umbrella.

Judgments appear to be a strong candidate to do the work of atomism. Near the start of Meditation III Descartes groups his thoughts into several kinds in order to determine “which of them can properly be said to be the bearers of truth and falsity” (AT VII, 37/CSM II, 25). The discussion is slightly confusing since judgments are supposed to be a product of the will affirming or denying something, thus making them the proper truthbearers, yet Descartes rules out the will, as well as ideas and emotions, as being susceptible to truth and falsity. He clarifies by saying that “even if the things which I may desire are wicked or even non-existent, that does not make it any less true that I desire them” (AT VII, 37/CSM II, 26). The same reasoning is applied to ideas (and presumably emotions): taken merely as modes of thought, we cannot attribute truth or falsity to them.

⁷⁵ Marion’s discussion continues by showing how all types of the simple natures operate within the text of the remaining five Meditations (1999, pp. 56-66). We need not go through all of those arguments here.

It is only the special case of the will making affirmations and denials that can handle this task.

But alas, judgments are not the fundamental epistemological units of thought for Descartes; they depend essentially on ideas for their worth. This is why the discussion in Meditation III immediately gives way to a thorough investigation of ideas, even though Descartes has just given precedence to judgments in the business of truth. Likewise in Meditation IV, where most of the text is devoted to explaining that errors of judgment arise due to the incongruity in scope between the will (perfect) and the intellect (limited); yet, the key to avoiding error turns on the account of clear and distinct perception. So we ought to look directly at the foundations of truth if we are to discover the essential atoms of thought.

In a letter to Meyssonier of January 29, 1640, Descartes says that “we never have but one thought at the same time [nous n’avons jamais qu’une pensée en même temps],” which gives us reason to look to ideas understood simply as modes of thought (AT III, 19/CSMK, 143; trans. mod.).⁷⁶ We might think that a thought atom in this sense is distinguished temporally, for instance, the singular thought at time t . This line of thinking is supported by Descartes’ theory of divine preservation:

For a lifespan can be divided into countless parts, each completely independent of the others, so that it does not follow from the fact that I existed a little while ago that I must exist now, unless there is some cause which as it were creates me afresh at this moment – that is, which preserves me. (AT VII, 48-49/CSM II, 33)

⁷⁶ In the *Conversation with Burman*, Descartes seems to contradict this statement: “it is just not true that the mind can think of only one thing at a time. It is true that it cannot think of a large number of things at the same time, but it can still think of more than one thing” (AT V, 148/CSMK, 335). In both this passage and the letter to Meyssonier quoted above, Descartes is not careful to distinguish between the objective and the material aspects of thought. Thus, it is hard to say whether the text from the *Conversation* shows an inconsistency in Descartes’ thought or an additional reason to contest the reliability of the *Conversation*. Fortunately, the interpretation I offer in this chapter does not stand or fall with the fate of this dilemma.

This passage has puzzled scholars, as it seems to commit Descartes to both a temporal atomism (since each instant is sharply separated from all others) and the indefinite divisibility of time (since time can be divided into “countless” pieces). If the former is right, then perhaps it can serve as the basis for atomism of thought; if it is instead the latter, then it may very well have implications not only for ideas considered merely as modes of thought, but also for any account of atomism in Descartes.

Martial Gueroult attempts to resolve this dilemma by saying that Descartes believes in *both* temporal atomism and the indefinite divisibility of time, depending on which point of view one adopts with respect to God’s creative acts to preserve the universe. If we take the “abstract and imperfect point of view of created existence,” we can understand how there can be extremely short stretches of time that are, as quantities of duration, divisible, even if our minds cannot perceive further division (Gueroult [1952] 1984, p. 195). However, if we take the “concrete and real point of view, which is that of the creation of existence,” we see that each instance of divine creation is absolutely indivisible, “enclosed within itself, radically separated from all others” (*ibid.*, pp. 194-195). Gueroult says this because Descartes has claimed that the universe is created anew and subsequently annihilated in each of its moments, meaning that each instant of creation is discontinuous with both its predecessor and successor.

Plenty of ink has been spilled debating whether such a temporal atomism is possible, and if Descartes subscribed to such a view. The main argument given to call it into question is as follows: an atom of time cannot have any duration; adding together instants without duration will not result in a length of time, just as adding up mathematical points will not result in a line; yet, we do know that duration exists;

therefore, time cannot be composed of temporal atoms. I'm not sure if Descartes has a coherent response to this problem. He may want to say that time can be understood by analogy to the number line where between any two numbers, even of finite length, there exists an infinite number of points. Unlike counting integers, for instance, one cannot identify the *next number*, given any point. If we start at 1.4, there is no number that we can understand to come next in the order. Nevertheless, given any other number, we can tell whether it is greater or less than 1.4. God's creation of infinitesimally small instants may prove equally difficult for our finite minds to comprehend; but this is consonant with other remarks Descartes makes about God's aims (AT VII, 55; 374-375).

I don't want to get caught up in the debates surrounding this issue; I simply want to point out that there is an important way in which Descartes' vision of divine preservation captures the characteristics of atomism we are looking for. For one, temporal instants, and thus the thoughts that occur at them, are isolated, since they are "each completely independent of the others." If we follow Gueroult's interpretation, at least insofar as we consider God's acts of creation, then temporal atoms of thought must also be indivisible. I do think these are important considerations; however, there are several reasons why temporally individuated ideas in the material sense do not fit our original desideratum.

First of all, as we have seen, the temporal instants Descartes is talking about must be incredibly small, if not completely without duration. His views on the nature of light attest to this: light reaches our eyes from its source instantaneously. Although Descartes was of course wrong about this, it shows that temporal instants are at least so small as to be imperceptible. If this is true, then some of the thoughts which are supposed to be

paradigm cases of clear and distinct knowledge – the cogito, for one – could not possibly be captured in a temporal instant. It does not take long for the mind to recognize its own existence, but it is a length of time. And if it has a quantifiable length, then it can be divided and is not an atom. A second reason we should reject ideas in the material sense is because we are looking for atoms of thought that capture distinct meanings, as the simple natures did. Even if thoughts were isolated into atoms temporally, this would go no way towards distinguishing them conceptually or epistemologically. Thus, in searching for the proper locus of atomism of thought, we require an entity that has indivisible, isolated, and distinct meaning, either as a concept or as a full statement, such as innate principles or the results of metaphysical demonstration.

These considerations force us to turn to our final candidate, ideas in the objective sense. They are promising as atoms of thought, since in certain cases they meet all three criteria. Clearly our focus will not just be on any ideas insofar as they represent something, but rather on the ones that are clear and distinct. We have already spent some time discussing the preconditions of demonstration; in what follows, we will take up the results of demonstration to examine the extent to which they are atomistic. As it turns out, each of the major achievements from Meditations II (the cogito), III (the first proof of God's existence), IV (the theory of clear and distinct perception) and V (the theory of the true and immutable natures) displays all three of the criteria of atomism of thought, while substantially developing the nascent thoughts of the *Regulae*. A careful analysis of these results in turn forces us to again consider the background concepts and principles that make them possible.

In Meditation II, Descartes likens his quest to that of Archimedes, who “used to demand just one firm and immovable point in order to shift the entire earth; so I too can hope for great things if I manage to find just one thing, however slight, that is certain and unshakeable” (AT VII, 24/CSM II, 16). The cogito, Descartes’ “firm and immovable point,” is an atom of thought in two different ways. The non-syllogistic pronouncement made in Meditation II itself acts as the paragon of epistemic certainty, the epistemological atom of thought upon which the whole Cartesian system is founded. It also necessitates looking at the preconditions for the possibility of its demonstration, which are conceptually atomistic.

Let us first consider the cogito as it is an atom in itself. One first notices that the cogito is isolated from all other pieces of knowledge, when Descartes reinforces how much has been doubted: “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” (ibid.). In fact, we know that in the order of the *Meditations*, the cogito does not depend on anything else, since nothing has been demonstrated yet. This isolation is reinforced by the absence of all else: “I have convinced myself that there is absolutely nothing in the world, no sky, no earth, no minds, no bodies” (AT VII, 25/CSM II, 16).

It is only later, in Meditation III, that Descartes retroactively attributes distinctness to the cogito: “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” (AT VII, 35/CSM II, 24). Like Descartes at this stage in the *Meditations*, who is not prepared to accept the criterion of clarity and distinctness until after God’s existence has been

proved, we are not yet ready to fully discuss the theory of clear and distinct perception. This will play an important role in our interpretation, and will prove to be significantly improved from the account offered in the *Regulae*.

For now we should note that the cogito has the marks of distinctness. The reasons for the cogito's distinctness, however, turn out to be nearly the same as those for its isolation. The cogito has been separated out from all other thoughts, and is undoubtedly clearly understood.⁷⁷ In Rule VI, Descartes had referred to the "isolated natures" of things, as opposed to our mind's ability to distinctly perceive things. Part of what Descartes means by distinctness in the *Meditations* is isolation from other thoughts, yet from this point of view, there is no trace of the solitary nature of a *thing*, in the same way that it is alluded to in the *Regulae*.

This highlights an issue with our interpretation thus far. We began this part of the discussion by claiming that ideas in the objective sense would be key for understanding atomism of thought. In analyzing the atomistic structures of the cogito, we have not yet mentioned its representational content. It does not appear to represent some existing thing, like our ideas of God or the sun do. Rather, it is the truth *that* something is true, namely, that the pronouncement "I am, I exist" must be true "whenever it is put forward by me or conceived in my mind" (AT VII, 25/CSM II, 17). Up until this point, we have understood the cogito as a unified unit of thought as a whole. And considered in this way, we see that the cogito is also epistemologically indivisible in the order of demonstration. In fact, it appears to be the only demonstration that has this feature. Although other

⁷⁷ In *Principles* I, 46 Descartes explains that clarity is a necessary condition for distinctness (though not a sufficient condition).

intuitions have meanings that are perceived distinctly, they depend epistemically on what has gone before.

However, the bit of text quoted above (“I am certain that I am a thinking thing [...]”) leads us to believe that we ought to consider the fundamental constituents of the cogito, which themselves are more obviously ideas in the objective sense, as well as fulfilling the criteria for atomism.⁷⁸ The “I am, I exist” proclamation leads Descartes to inquire into “what this ‘I’ is, that now necessarily exists” (ibid.), which takes up most of Meditation II. He gives us some insight near the end of Meditation III while explaining how we got the idea of God: “The only remaining alternative is that [the idea of God] is innate in me, *just as the idea of myself is innate in me*” (AT VII, 51/CSM II, 35; emphasis added). Now we are given a clear instance of an idea insofar as it represents something – the mind itself. Recall that thought was one of the innate concepts presupposed by demonstration.⁷⁹ The same goes for existence, which is the other major component of the cogito. And finally, the inferential import needed to connect the two is one of the “common notions” that links together innate concepts, also presupposed by the demonstrations of the *Meditations*.

When looking at the objective content of the different parts of the cogito, we can easily make sense of the idea we have of ourselves as thinking things. Descartes says that our mind is indivisible in many places (AT I, 523; AT III, 123-124; 432; AT VII, 13-14;

⁷⁸ This would appear to violate one of the requirements for being an atom of thought, indivisibility, since we are now dividing the cogito into parts. But, as we have just shown, the cogito can be epistemologically indivisible in the order of demonstration, while nevertheless presupposing the conceptually atomistic resources required for its intuition. In the last section of the chapter, we will also bring to light another way in which all clear and distinct ideas, even ones which are the results of demonstration, are indivisible. This latter fact will help us to clarify how it is that the non-conceptual preconditions of demonstration (principles) are atomistic.

⁷⁹ When Descartes discusses the idea he has of himself, he says that it is the idea of a “thinking thing.” The concept of a thing is also innate: “My understanding of what a thing is, what truth is, and what thought is, seems to derive simply from my own nature” (AT VII, 38/CSM II, 26).

85-86), and it must also be distinct from all else, since it was possible to bracket the existence of all bodies and minds (AT VII, 25).⁸⁰ What about the other components? Unlike our idea of ourselves or the sun, it is not obvious what existing thing our idea of existence is supposed to represent. It is even less clear what our ideas of the common notions represent objectively. The explanation of these components will have to wait until the eternal and immutable natures from Meditation V are considered.

Let us now turn to the major achievement from Meditation III, the demonstration of God's existence. Our idea of God, understood in the objective sense, represents a being that is "infinite, <eternal, immutable,> independent, supremely intelligent, supremely powerful, and which created both myself and everything else [...]" (AT VII, 45/CSM II, 31). This idea grounds the proof for God's existence, since such an idea could not possibly exist in us unless it had been caused by a perfect being. God's absolute independence means that if any being is distinct from all else it is God. Descartes later continues, "the unity, the simplicity, or the inseparability of all the attributes of God is one of the most important of the perfections which I understand him to have" (AT VII, 50/CSM II, 34).⁸¹ We already knew that God must be indivisible, since he is a pure mind, having no corporeal characteristics; this last piece of text attests to this essential simplicity.

The objective content of our idea of God has been confirmed to be atomistic. However, when we consider another important attribute of God – his incomprehensibility (AT VII, 55) – we realize how paradoxical a result this is. In the *Principles*, Descartes claims that "Even if we do not comprehend [*non comprehendamus*] the nature of God,

⁸⁰ Bourdin chided Descartes on this point in the *Seventh Objections* (AT VII, 478).

⁸¹ See also AT VII, 137.

his perfections are known to us more clearly than any other thing” (AT VIII-1, 12/CSM I, 199; trans. mod.). It is a bit mysterious just how our understanding of God can be the thing that is most clear in our minds if at the same time we cannot comprehend God’s nature. Later in the same aphorism, he makes a point to include distinctness in our idea of God (albeit relative to our perception of corporeal things), which indicates that now is the time to interpret the doctrine of clear and distinct ideas directly. This doctrine is the key to making sense of atomism of thought, and thus it will be no light task.⁸²

Descartes repeatedly reminds his reader that his primary goal in devoting himself to the study of metaphysics is to show which things can be distinctly understood (AT III, 192; 272; 665-666). He spends most of Meditation IV discussing clarity and distinctness, yet his most straightforward definition of the terms comes from *Principles* I, 45:

I call a perception ‘clear’ when it is present and accessible to the attentive mind – just as we say that we see something clearly when it is present to the eye’s gaze and stimulates it with a sufficient degree of strength and accessibility. I call a perception ‘distinct’ if, as well as being clear, it is so sharply separated from all other perceptions that it contains within itself only what is clear. (AT VIII-1, 22/CSM I, 208)

These are aspects of ideas in the objective sense, since ideas in the material sense do not differ from one another and judgments rely already on ideas that are either clear and distinct or obscure and confused. We know an idea is clear when it has the quality of engaging the mind in a forceful way. If one did not already understand what Descartes had in mind by clarity, this definition would not be very helpful. He uses an example of feeling intense pain to aid the reader: “For people commonly confuse this perception with an obscure judgement they make concerning the nature of something which they think exists in the painful spot and which they suppose to resemble the sensation of pain; but in

⁸² I wish that I had more to say about the tension between our understanding of God’s simplicity and his incomprehensibility. I don’t see an easy solution for reconciling this dilemma, so we will have to take Descartes at his word that the content of our idea of God is simple.

fact it is the sensation alone which they perceive clearly” (ibid.). Such a perception is clear because the content of the sensation is simply the feeling of pain itself, which obviously engages our mind with enough strength.

Distinctness presupposes clarity, but also involves being isolated from other ideas in the right kind of way. The example of the sensation of pain does not count as distinct, as it involves an unclear judgment about something beyond the sensation itself. Steven Nadler aptly sums up Descartes’ understanding of distinctness as follows:

An idea’s limits or boundaries are discerned because its content is well defined and delineated. A distinct idea is a semantically discrete idea. It provides evident information on the properties of its object and leaves no room for doubting what does and does not belong to it. There is no mistaking the idea for any other. (Nadler 2006, p. 98)

It should also be noted that of capital importance in Meditations II-V is the practice of carefully separating out that which is known via the senses from that which is known by the intellect alone. On this point, recall Descartes’ insistence in Meditation III that our “chief and most common mistake” can be found in “my judging that the ideas which are in me resemble, or conform to, things located outside me” (AT VII, 37/CSM II, 26). Even the example of pain attests to this, since it is only when we overstep the bounds of what our minds actually perceive that we go wrong.⁸³

We have already seen that one can have a clear and distinct idea of some *thing*, such as one’s own mind or God. Descartes also claims that a clear and distinct idea “can serve as the basis for a certain and indubitable judgement,” such as the cogito or that God exists. The *Meditations* are mainly concerned with demonstrations of the latter type, yet there is an important sense in which these depend upon the clear and distinct ideas of innate concepts and principles. I think the two have different roles to play in the atomism

⁸³ See Patterson 2008 for a more thorough account of this.

of thought, following the previous analysis of the cogito. As a metaphysical achievement in the order of reasons, the cogito is a singular, unified moment of demonstration, understood “as something self-evident by a simple intuition of the mind” (AT VII, 140/CSM II, 100). Since it is the foundation for all other demonstrations, it is the ultimate atom of thought, indeed paradigmatically illuminating the criteria by which we are to know all further atoms, conceptual or epistemological.

E. God as Ground

Although the cogito is the first atom of evidence in the process of demonstration, it arises out of an entire background of concepts and principles. At the beginning of Meditation V, Descartes takes stock of the mathematical concepts that underlie our knowledge of material objects, such as quantity, shape, number and motion:

And the truth of these matters is so open and so much in harmony with my nature, that on first discovering them it seems that I am not so much learning something new as remembering what I knew before; or it seems like noticing for the first time things which were long present within me although I had never turned my mental gaze on them before. (AT VII, 63-64/CSM II, 44)

He talks the same way about having implicit knowledge of thought, existence, doubt, etc., as well as the “common notions,” in other places (e.g. AT VII, 422). Descartes continues by saying that all such concepts “are not my invention but have their own true and immutable natures” (AT VII, 64/CSM II, 44). He takes the example of a triangle; there may be no such being in existence; nevertheless, “there is still a determinate nature, or essence, or form of the triangle which is immutable and eternal, and not invented by me or dependent on my mind” (AT VII, 64/CSM II, 45).

So our ideas of concepts innate in our minds objectively represent true, immutable, and eternal natures. What is the ontological status of such natures? And how

is it that they are eternal? For these answers, we must go back to Descartes' famous letters to Mersenne of 1630:

The mathematical truths which you call eternal have been laid down by God and depend on him entirely no less than the rest of his creatures. [...] [I]t is God who has laid down these laws in nature just as a king lays down laws in his kingdom. [...] They are all †inborn in our minds† just as a king would imprint his laws on the hearts of all his subjects if he had enough power to do so. (AT I, 145/CSMK, 23)

The true and immutable natures are thus radically dependent on God's will. There has been some debate about whether the eternal truths are like Platonic essences,⁸⁴ or simply exist in God's mind,⁸⁵ or exist only in our minds.⁸⁶ There is no way that they could be true Platonic essences, since it is impossible for them to be independent of God. Vere Chappell criticizes the second position and argues that the third option is the correct one, claiming that "for Descartes, God's creation of numbers and figures *consists* in his creation of minds containing the ideas of numbers and figures" (1997, p. 125). I think that Chappell is right to insist that the eternal truths exist as objective ideas in our minds. I do not see why they cannot also exist eternally in God's mind, as God surely understands the creations of his will (see text from footnote 85).⁸⁷

We previously asked about the ontological status of the true and immutable natures and have now discovered that they represent eternal essences that have been wrought from God's immutable will alone. They exist as innate potentialities in our minds that become realized as ideas with objective existence and force us to recognize their independent reality. Our souls have been fashioned such that we necessarily have a clear and distinct perception every time we alight upon these natures, which partially

⁸⁴ As the passages quoted above from Meditation V seemed to suggest.

⁸⁵ "[...] †[F]rom all eternity he willed and understood them to be, and by that very fact he created them. † [...] In God, willing, understanding and creating are all the same thing [...]" (AT I, 152-153/CSMK, 25-26).

⁸⁶ "All objects of our perception we regard either as things, or affections of things, or else as eternal truths which have no existence outside our thought" (AT VIII-1, 22/CSM I, 208). Cf. also AT VIII-1, 27.

⁸⁷ Funkenstein 1980 and McRae 1991 offer a different solution (see chapter 1, footnote 28). It is hard to see how their solution could square with the quote from footnote 85.

constitute the very fabric of the mind itself. These essences have independent reality from our minds and the world as concepts in God's mind that he has created to be as they are. God's will is immutable and his understanding is complete; this is the ontological home of the eternal essences, the unwavering formal reality that our ideas represent. Even the common notions exist in this way, since God has decreed these in the same way, as a king that establishes laws in his kingdom.

We can now see why the concepts and principles innate in our minds are the most pure atoms of thought we have yet encountered. They are indivisible in the strongest sense, since the creations of God's will can in no way be altered, let alone divided. God has decreed each of them to be perfectly distinct, that is, separated from all others. The unbreakable metaphysical nature of the true and immutable essences gives rise to their privileged epistemic status as undoubted, self-evident atoms of evidence. They exist as a set of absolutely grounded axioms and definitions. Our mind has been endowed with reason in order to connect the various essences and prove new items of knowledge. We cannot help but assent to the results of these demonstrations, since they have the God-given clarity that commands our approval, and are perfectly distinguished from all else.

Descartes is perfectly aware that the extent of demonstrable truths that have a certainty at least as powerful as those of mathematics is not terribly far-reaching. Demonstrations in the realm of metaphysics, insofar as we offer proofs independent of the senses, can reach this pitch of assurance associated with atomism. Once we venture into the realm of the material world, we can still give demonstrations, but they aren't susceptible to the same standard of certainty. Descartes knew that the further away from the foundations one was, the more composite and uncertain would be the corresponding

knowledge. This underscores the importance Descartes has always afforded to making sure that the foundations of all knowledge – those of first philosophy – were indubitable. If the interpretation offered here is correct, the vehicle for achieving these lofty aims is the method of demonstration. This method is made possible by the third presupposition of undoubted rationality, the atomism of thought, grounded in God’s will. Given the essential role that God plays in Descartes’ philosophy, the atomism of thought must be given an equally momentous casting.

Given the last few remarks, there remains one puzzle to resolve. We have made a distinction between conceptual and epistemological atoms of thought. It is rather clear that notions like thought, existence, and certainty fall into the former category, while the results of demonstrations such as the cogito and the proof of God’s existence slot into the latter. Yet, principles such as “everything that thinks, exists” share features of both categories, and demonstrations that occur after the cogito do not seem to be epistemologically indivisible. To clear this up, we should recall that all perfectly clear and distinct ideas are grounded in God’s will. Therefore, all forms of atoms of thought – concepts, principles, results of demonstration – have distinct and individuated meanings. Concepts have meaningful essences distilled, while principles and other truths have full propositional contents fixed. It is in this sense, then, that all atoms of thought are metaphysically indivisible, being products of God’s unbreakable and immutable choice. From the epistemological side, we know that both concepts and principles act as atoms of evidence, and the cogito is the only indivisible demonstration, serving as the foundation for all the rest. For this reason, the most important feature of principles and demonstrations is that their meaning is distinct, since it is not true that all demonstrations

are epistemologically indivisible. We have termed this class of thoughts “epistemological atoms of thought,” though it is really their alethic content that is atomistic. In chapter four and the conclusion, we will deal with this form of atomism in its more recent foundationalist manifestations in the theory of knowledge and its essential place in contemporary theories of truth.

Chapter Three:

Nietzsche's Critique of Atomism of Thought

The aim of this chapter is to articulate Nietzsche's critique of Descartes' atomism of thought, and argue that this critique is successful. Scholars have largely neglected Descartes' influence on Nietzsche, yet a careful look at the *Nachlass* shows that Cartesian thought is in fact an important target for some of Nietzsche's significant critiques from 1885-1887. Some of these direct attacks will prove to be relevant to Nietzsche's arguments concerning atomism. However, in order to fully appreciate the force of these arguments, I will need to provide an interpretation of Nietzsche's more general criticisms of absolute philosophical concepts. The first section of this chapter is an attempt to go some way towards filling in the lacuna of scholarship concerning Nietzsche's writings on Descartes. This discussion leads into the second section, a more general analysis of Nietzsche's critique of absolutes in the history of philosophy, with a focus on Descartes. Nietzsche writes quite extensively about the many forms absolute concepts have taken, but I focus on three – God, truth, and reason – to the extent that they are relevant to the current study.

In the third section, I examine how Nietzsche's positive philosophical project at the root of his rejection of atomism of thought depends on his treatment of a fourth absolute, being. With this framework in place, the final section of the chapter analyzes Nietzsche's critique of atomism of thought. First, we will reinforce the extent to which Descartes' version of atomism depends on God. If one accepts the existence of Descartes' God, and with it the guarantee of pure rational insight, the doctrine of atomism of thought is compelling. Next, I argue that without this divine foundation, there are no legitimate Cartesian grounds for accepting the doctrine. Finally, I will take up the specific reasons for Nietzsche's rejection of atomism of thought, independent of the question of God's existence.

I. Nietzsche's Writings on Descartes

Nietzsche wrote very little about Descartes in the works he prepared for publication: I count only ten direct references to Descartes, and about half of this unremarkable lot is philosophically insignificant. Despite the lack of direct citations, Nietzsche nevertheless considered Descartes to be a significant philosophical figure. One of the most interesting references comes in the first edition of *Human, All Too Human*, where Nietzsche quotes a lengthy passage from Descartes' *Discourse on Method* "in place of" his own preface (KSA 2:11). This would appear to be a significant homage to Descartes; yet, Nietzsche later re-published the work with a new preface of his own, removing the original Cartesian text without even mentioning it.⁸⁸ And the work does not appear to be obviously influenced by Descartes, as there is not a single reference to him in either

⁸⁸ The recent editors of Cambridge's translation of *Human, All too Human* (1996) follow Nietzsche's 1886 lead and leave out the Descartes quote as well. Curiously, they do not note the change either.

volume. Nietzsche's relative silence concerning Descartes is surprising considering how much Nietzsche has to say about some of the other major philosophers of the canon. This would appear to be the reason for the dearth in scholarship comparing the two philosophers.⁸⁹

If one looks a bit closer, it becomes apparent that Descartes was in fact the intended recipient of many of Nietzsche's critiques. Several considerations speak in favor of this claim. First, there are dozens of references to Descartes in the *Nachlass*, particularly in 1885-1887. Many of these unpublished notes are substantive engagements with Descartes' philosophy and indicate a growing concern with his work during the period of some of Nietzsche's most important texts (*Beyond Good and Evil*; *The Gay Science*, Book V; *On the Genealogy of Morals*). The second consideration is that in many of the published works, although Descartes is not directly cited by name, it is clear that he is the intended target of critique, analysis, or interpretation. In some cases this is rather obvious, as Nietzsche loosely quotes Descartes or makes ostensible reference to one of his doctrines (e.g. the cogito or the method of doubt). In other cases, the published text is more opaque, yet one finds nearly identical passages in the notes that *do* make explicit reference to Descartes.

Finally, the last reason we should take Descartes seriously as a critical opponent of Nietzsche is because their overall philosophical projects are such sharp contrasts to one another. On the one hand, so many of Nietzsche's wide-ranging critiques could be legitimately applied to Cartesian thought; on the other, it seems that Descartes is a perfect foil for Nietzsche's own positive philosophy. Unlike our first two considerations, this last one has garnered some attention in the scholarly literature. Most accounts of this sort,

⁸⁹ Some notable exceptions include Rethy 1976, Martin 1987, Hill 1997, and McNeill 2004.

however, have amounted to no more than brief caricatures of Descartes employed as crude contrasts to this or that argument in Nietzsche, rather than careful comparative analyses. Given the paucity of commentary, this section serves as an introduction to motivate the value of studying Nietzsche's writings on Descartes. My primary concern is to show that the *Nachlass* reveals a significant concern with Cartesian philosophy in the mid to late 1880s, both in the published and unpublished works. Two of the critiques found here will be important underpinnings of the analyses given in sections II-V. The first is that although Descartes believes his project of grounding science is rooted only in rational considerations of metaphysics and epistemology, certain moral assumptions prove to be tacitly presupposed as well. The second involves Nietzsche's deconstruction of the cogito, which reveals hidden ontological commitments concerning the ego.

Most of Nietzsche's writing on Descartes involves critique of his philosophy, yet there are moments of genuine admiration. Nietzsche was particularly fond of Descartes' commitment to challenging the outdated ways of thinking of his contemporaries. One can imagine that Descartes' use of skeptical considerations would have influenced Nietzsche's own skeptical turn of thought. In one of Nietzsche's notebooks, he takes up Descartes' method of doubt, though he claims that "Descartes is not radical enough to me" (KSA 11:632). His reasons for thinking this are consonant with our analysis of the presuppositions behind Descartes' method of doubt in chapter one (which itself was at least partially inspired by Nietzsche's concerns); thus, we ought to investigate what Nietzsche means by this statement. The previous fragment continues as follows:

Concerning his desire to have certainty and 'I do not want to be deceived' it is necessary to ask, 'why not'? In short, moral prejudices (or reasons of utility) in favor of certainty instead of appearance and uncertainty. On this point I consider the philosophers from the Vedanta-philosophers up until now: why this hate for untruth, evil, pains, etc.? (ibid.)

The main point of this passage is that while Descartes thinks that his method of doubt is founded on purely rational grounds, in fact he is making a moral commitment in his will not to be deceived, equating epistemic certainty with the impossibility of deception. This line of thinking is repeated in several other notes in August-September of 1885 (KSA 11:624; 638; 641). Consider another passage from this period:

Irony in Descartes: suppose there was fundamentally something deceitful in things out of which we arose, what would it help, *de omnibus dubitare!* It could be the most beautiful means to deceive oneself. Moreover: is it possible?

‘Will to truth’ as ‘I do not want to be deceived’ or ‘I do not want to deceive’ or ‘I want to assure myself and become firm’ as form of the will to power. (KSA 11:624)

We can only glean so much from these vague and fleeting remarks. If we assume that deceit is in the very nature of things, even that “out of which we arose,” then Descartes’ goal of certainty by means of non-deception requires additional motivation.

We can make more sense of the somewhat elliptical commentary above by referring to published work on the same topic. This will serve two purposes. Once we recognize that these notes were in fact Nietzsche’s formative thoughts on what soon after became important published aphorisms, we can make use of the more polished versions in order to shed light the themes presented in the fragments. But more importantly, the unpublished notes reveal Descartes to be the primary focus of some of Nietzsche’s most important pieces of text. Take, for example, the following oft-cited aphorism from Book Five of *The Gay Science*:

We see that science also rests on a faith; there is simply no science ‘without presuppositions.’ The question whether *truth* is needed must not only have been affirmed in advance, but affirmed to such a degree that the principle, the faith, the conviction finds expression: ‘*Nothing* is needed *more* than truth, and in relation to it everything else has only second-rate value.’ This unconditional will to truth—what is it? Is it the will *not to allow oneself to be deceived*? Or is it the will *not to deceive*? For the will to truth could be interpreted in the second way, too—if only the special case ‘I do not want to deceive myself’ is subsumed under the generalization ‘I do not want to deceive.’ But why not deceive? But why not allow oneself to be deceived? (FW, 344/KSA 3:575)

Notice that Nietzsche uses language here that is remarkably similar to the above-cited notes. The notes are composed during the period when Nietzsche would have been working on the 1887 edition of *The Gay Science*, so it is safe to assume that the notes represent his attempts to work through the same material. The text from FW, 344 is also referenced by Nietzsche in the conclusion to his other 1887 work, *On the Genealogy of Morals* (GM III, 24/KSA 5:401), which shows how important Nietzsche considered the theme.⁹⁰ We see more clearly here that the moral commitment upon which Descartes' project rests is a "faith" that involves judgments about the value of deception. Truth is understood to exclude deception, and it is this conception of truth that guides the entire Cartesian inquiry.

As seen in the above texts, Nietzsche attacked what he perceived to be a false divide pervasive in the history of philosophy between theories of knowledge and moral values. It is not that Nietzsche conflates the two conceptually; rather, he believes philosophers have been convinced that their epistemological theories are affirmed independently of any moral commitments when in fact the two are fundamentally intertwined.⁹¹ The moral value against deception achieves its highest form in the nature of God. Nietzsche chides Descartes for requiring a non-deceiving God in order to accept

⁹⁰ Laurence Lampert's *Nietzsche and Modern Times: A Study of Bacon, Descartes, and Nietzsche* (1993) is one of the few monographs that explicitly deals with Nietzsche's views on Descartes. Lampert devotes several pages of analysis to FW, 344 (pp. 319-324), but makes no reference to the fact that Nietzsche has Descartes specifically in mind in this aphorism.

⁹¹ In one of the notes included in *The Will to Power* Nietzsche writes:

"Moral values even in the theory of knowledge:

trust in reason—why not mistrust?

the 'true world' is supposed to be the good world—why?

appearance, change, contradiction, struggle devalued as immoral; desire for a world in which these things are missing; [...]

Descartes' contempt for everything that changes; also that of Spinoza" (WM, 578/KSA 12:430).

the testimony of our senses (WM, 436/KSA 12:107).⁹² We saw in chapter 2, section II.E how essential God is to Descartes' atomism of thought; it will be no less important for Nietzsche's critique of that doctrine to be taken up in the next section.

The second set of significant texts I wish to consider concerns Descartes' cogito and its relation to his substance ontology. In fact, Nietzsche's line of reasoning in this regard anticipates the critique Heidegger offered (discussed in chapter 1, section IV.A).⁹³

In another fragmented chunk of text from the *Nachlass* of 1885, Nietzsche writes:

Cogito is certainly only one word: but it means something multiple: it is something multiple and, in good faith, we have a loose and rough grasp of it [*greifen derb darauf los*] being unified. Inserted within that famous *cogito* is 1) it is thinking 2) and I believe that I am it, which is here thinking 3) but it is also supposed that these two points remain up in the air as matters of faith, and so that first 'it is thinking' would also include yet another matter of faith: namely, that 'thinking' is an activity, and to that a subject, at least an 'it', would have to be thought — and the *ergo sum* means nothing more! But this is the faith in grammar, which here already assumed 'things' and their 'activity', and we are far from unmediated certainty. Let us therefore also let this problematic 'it' go and leave the *cogitatur* as the facts without mixing in articles of faith [...]. (KSA 11:639-640)

Nietzsche is pointing to the fact that buried beneath the surface obviousness of the cogito is the not-so-obvious, yet substantive, claim that all thinking occurs in a subject. This assumption appears to stem from the very structure of our language "that adds a doer to every deed" (WM, 484/ KSA 12:549). Descartes seeks to reinforce this in his statement of the cogito in both the *Meditations* and *Principles*. The former text reads "*Ego sum, ego existo*" (AT VII, 25); in Latin, of course, the "ego" is grammatically superfluous, since the first-person singular is indicated by the respective conjugations of *esse* and *existere* and idiom dictates that no pronoun is necessary. Descartes is intentionally emphasizing the ego to indicate the existence of the subject of thought. In the *Principles* version, Descartes makes a similar emphasis on the grammatical subject: "*ego cogito, ergo sum*"

⁹² The Cartesian use of God to guarantee knowledge of the external world is a topic Nietzsche referred to throughout his writings (KSA 1:86/GT, 12; KSA 1:625; 7:463; 11:442; 12:107; 204)

⁹³ This was pointed out by Marion (1999, pp. 151, 165), but his discussion of Nietzsche does not extend beyond passing references.

(AT VIII-1, 7). Nietzsche thinks that this apparently innocuous grammatical claim actually conceals a significant “logical-metaphysical postulate,” which involves “positing as ‘true *a priori*’ our belief in the concept of substance” (WM, 484/KSA 12:549).⁹⁴

There are two lessons we can draw from the above texts. The first is that Descartes makes the traditional distinction between substance and mode without argument, assuming it to be self-evident that to any thought there must be a thinking subject. According to Nietzsche, this is an attempt to posit an underlying substrate free of the fluctuations of particular thoughts. This tendency to identify a realm of static being exempt from becoming recurs throughout the history of thought, as we will discuss in sections II and III. This is necessary for the possibility of atomism of thought. The second lesson we can learn from Nietzsche’s notes on the cogito is that language often seduces philosophers into making ungrounded metaphysical assumptions. Just as grammar led Descartes into accepting substance ontology (so says Nietzsche), the structure of linguistic statements may cause us to uncritically attribute rather fundamental characteristics to the nature of units of truth. This line of thinking will be essential to the argument offered in section IV.

⁹⁴ Again we have an instance of unpublished notes with explicit reference to Descartes that lie in the background of an important published piece of text that fails to mention Descartes’ name. In this case, however, it is quite a bit more obvious: “With regard to the superstitions of logicians, I shall never tire of emphasizing a small terse fact, which these superstitious minds hate to concede—namely, that a thought comes when ‘it’ wishes, and not when ‘I’ wish, so that it is a falsification of the facts of the case to say that the subject ‘I’ is the condition of the predicate ‘think.’ *It* thinks; but that this ‘it’ is precisely the famous old ‘ego’ is, to put it mildly, only a supposition, an assertion, and assuredly not an ‘immediate certainty.’ [...] One infers here according to the grammatical habit: ‘Thinking is an activity; every activity requires an agent; consequently—’” (JGB, 17/KSA 5:30-31).

It should be noted that in compiling these pieces of evidence, I do not mean to say that in these passages Nietzsche’s *only* target is Descartes. For instance, Nietzsche discusses Afrikan Spir’s interpretation of Descartes along similar lines as the above quotations (KSA 11:640-641). Thus Nietzsche does not simply have Descartes himself in mind, but also the enduring trends of Cartesianism in the 19th century.

II. The Fiction of the Absolutes

A great part of Nietzsche's work is devoted to dismantling a set of philosophical prejudices that find their origin in Plato and Socrates. Socrates' wisdom lay in the recognition of his own epistemological deficiency. Implicit in his acceptance that "he knows that he does not know" is a standard of knowledge that was impossible for his contemporaries to meet, rooted as they were in the fleeting currents of custom, instinct, and sense perception. This standard forced Plato to look beyond the world of becoming to a transcendent realm of entities that captured all of the features essential to Socratic knowledge. Nietzsche laments this fundamental shift in values, where virtue is now equated with rational knowledge of unchanging and permanent essences. Nietzsche believes that Plato's world of forms was simply an invention in order to meet the strict Socratic criteria of knowledge, not something based in reality or verifiable in any way. Even if few have been convinced by the famous middle-period Platonist doctrine, the Socratic standard of knowledge has persisted, manifesting itself in countless ways in the history of philosophy. Nietzsche claims that all of these various manifestations share features of absolute ideals. Each offers its own unique way to ground philosophy in concepts that are not susceptible to the coming to be and passing away of life. Even when the obvious cases of absolute ideals, such as God and Plato's forms, are rejected, there still exists an unflagging commitment to reason, truth, or being. Nietzsche says that these "highest concepts" are "the most general, the emptiest concepts, the last smoke of evaporating reality" (GD, "'Reason' in Philosophy," 4/KSA 6:76).

The critique of the absolutes extends wider than a direct attack on Descartes, since it targets the concepts themselves in their many historical representations, rather than as

they are expressed in one particular figure. Nevertheless, the goal will be to develop these accounts only insofar as they are essential for understanding the critique of Cartesian atomism; indeed, part of the argument here is that the impossibility of atoms of thought depends on the more general impossibility of absolutes. The following two subsections correspond to the two components that constitute Descartes' atomism of thought: (A) God as ground of (B) the structure of the rational mind. The connection of these two in clear and distinct ideas makes up the foundation of truth.

A. The Death of God

Nietzsche first pronounces the death of God in Book III of *The Gay Science* (aphorisms 108 and 125). Naturally, this event is typically associated with a loss of grounding for Western religious values, as Nietzsche's equation of it with the fact that "the belief in the Christian god has become unbelievable" (FW, 343/KSA 3:573) suggests. Nietzsche also sees the structure of modern morality, even that which is purportedly secular, as essentially intertwined with religious foundations: "how much must collapse now that this faith has been undermined because it was built upon this faith, propped up by it, grown into it; for example, the whole of our European morality" (ibid.). Nietzsche is pointing to an entire cultural and moral order, based on "an ancient and profound trust" (ibid.) where one's place in the societal cosmos is a given, grounded ultimately in the absolute.⁹⁵ Just as Socrates called into question the values of his noble peers (GD, "The Problem of Socrates"/KSA 6:67-73), Copernicus and the innovators of modern science shook the absolute foundations of meaning by challenging some of its most basic tenets. The connection with Descartes must not be lost here; Nietzsche says that this "profound

⁹⁵ See Guignon 2004, chapter 2 for a full discussion of this theme.

trust has been turned into doubt” (FW, 343/KSA 3:573). Descartes was no skeptic, as should be clear from chapters 1 and 2, yet the skeptical tools deployed in his method of doubt were nevertheless seen as dangerous enough to warrant multiple official condemnations.⁹⁶

What do these moral and religious concerns have to do with our current inquiry, which is primarily metaphysical and epistemological in nature? And furthermore, why does Nietzsche say that the event of God’s death is “far too great, too distant, too remote from the multitude’s capacity for comprehension even for the tidings of it to be thought of as having *arrived* as yet”? (ibid.) Indeed, the *atheist* bystanders in the marketplace in which the madman makes his astounding speech should not be so “*befremdet*” from his message (FW, 125/KSA 3:481). It seems that it should be precisely those proponents of secularized science that go beyond the moral-religious worldview.

Nietzsche anticipates this line of reasoning in the *Genealogy*, while discussing the supposed opponents of the ascetic ideal, the proponents of modern science:

These Nay-sayers and outsiders of today who are unconditional on one point – their insistence on intellectual cleanliness; these hard, severe, abstinent, heroic spirits who constitute the honor of our age; all these pale atheists, anti-Christians [*Antichristen*], immoralists, nihilists; these skeptics, ephectics, *hectics* of the spirit [...]; these last idealists of knowledge in whom alone the intellectual conscience dwells and is incarnate today – they certainly believe they are as completely liberated from the ascetic ideal as possible, these ‘free, very free spirits’ [...]. (GM III, 24/KSA 5:398-399)

It is worth noting that this discussion of science and the “men of knowledge” comes at the climax of Nietzsche’s most important work on morality. This might seem surprising, but Nietzsche thinks this placement is necessary, considering that even these atheists have moral presuppositions that lie at the foundation of their epistemological views:

⁹⁶ In 1691, the King of France prohibited the following propositions from being taught in the schools: “1. One must rid oneself of all kinds of prejudices and doubt everything before being certain of any knowledge. 2. One must doubt whether there is a God until one has clear and distinct knowledge of it. 3. We do not know whether God did not create us such that we are always deceived in the very things that appear the clearest” (Ariew et al. 1998, p. 257). Similar prohibitions were made by the Jesuits in 1706 (ibid., p. 258).

to disclose to them what they themselves cannot see – for they are too close to themselves: [the ascetic] ideal is precisely *their* ideal, too; they themselves embody it today and perhaps they alone; they themselves are its most spiritualized product, its most advanced front-line troops and scouts, its most captious, tender, intangible form of seduction – if I have guessed any riddles, I wish that *this* proposition might show it! – They are far from being *free* spirits: *for they still have faith in truth.* (GM III, 24/KSA 5:399)

Nietzsche calls this the faith in “a *metaphysical* value, a value *in itself of truth* [*einen Werth an sich der Wahrheit*]” (GM III, 24/KSA 5:400, trans. mod.). In order to explain his meaning at this crucial juncture in the book, he quotes a long passage from FW, 344 titled “How we, too, are still pious” and encourages the reader to consult the entire aphorism. The purpose of this aphorism, as was briefly explained in section I, is to investigate whether or not science operates with any hidden presuppositions. We have seen that the major “faith” presupposed by science is the “unconditional will to truth,” which Nietzsche understands as a will not to deceive, not even oneself (FW, 344/KSA 3:575).

Nietzsche’s discussion about deception may strike the reader as rather contrived; why is he making such a bother about a will not to be deceived? How could this be considered a problematic philosophical virtue? Also, how does this talk of science relate to the metaphysical and epistemological aspects of atomism of thought? I think this aphorism is very significant, and in order to make sense of it in light of these concerns, we will have to unpack its layers carefully. First, recall that Nietzsche uses the very same language of deception with respect to Descartes, and his injunction to doubt everything (KSA 11:624, 632, 641). Descartes’ main goal in writing the *Meditations* is to ground his physics in metaphysical principles (AT III, 233; VII, 12, 17), so the discussion of the presuppositions of science is not out of place here, as it is certainly relevant to our philosophical concerns. Given that Nietzsche has Descartes (among others) in mind in his

criticism, what understanding of truth does he attribute to those keeping the (scientific) faith?

Deception is an important theme in Meditation I and is often cited as a reason for doubting the truth of a belief. We find that the senses occasionally deceive us (AT VII, 18), an omnipotent God could deceive us (if that were possible) even about mathematics (AT VII, 21), and an evil genius might be deceiving us about all external existence (AT VII, 22-23). Nietzsche says that there are two possibilities for interpreting this obsession with deception: either it is derived from (1) a “will *not to allow oneself to be deceived*” or from (2) a “will *not to deceive*” (FW, 344/KSA 3:575). His argument runs in the form of a disjunctive syllogism. The first option involves nothing more than a practical, self-interested concern: it is disadvantageous to let oneself be deceived. But Nietzsche thinks that science could never be grounded on the basis of utility alone for *this* reason, since it is often extremely useful to allow oneself to be deceived.

This leaves the other possible interpretation, that the unconditional will to truth is a will not to deceive, which includes deceiving oneself. Nietzsche says that in this case

we stand on moral ground. For you only have to ask yourself carefully, ‘Why do you not want to deceive?’ especially if it should seem – and it does seem! – as if life aimed at semblance, meaning error, deception, simulation, delusion, self-delusion [...]. Charitably interpreted, such a resolve might perhaps be a quixotism, a minor slightly mad enthusiasm; but it might also be something more serious, namely, a principle that is hostile to life and destructive. (FW, 344/KSA 3:576).

Nietzsche is saying that, on the surface, deception appears to be part of the very nature of life. Often he claims that untruth is even a condition of life (FW, 110; JGB, 4), as well as that the illogical and irrational are necessary conditions of existence (MA I, 31; 515). This is why Nietzsche writes that “those who are truthful in that audacious and ultimate sense that is presupposed by the faith in science *thus affirm another world* than the world of life, nature and history” (FW, 344/KSA 3:577).

The final step in this line of thinking connects this understanding of the will to truth with God:

But you will have gathered what I am driving at, namely, that it is still a *metaphysical faith* upon which our faith in science rests – that even we seekers after knowledge today, we godless anti-metaphysicians still take our fire, too, from the flame lit by a faith that is thousands of years of old, that Christian faith which was also the faith of Plato, that God is the truth, that truth is divine. (ibid.)

Here we are given the ultimate moral commitment – the belief in an all-good God – as the basis for all scientific thought. Furthermore, this conception of truth is *identified* with the supernatural God, surpassing all bounds of this world. Nietzsche reinforces this connection in Descartes in a note investigating the degree to which our “faith in reason still rests on moral prejudices”:

Even Descartes had a notion of the fact that in a fundamentally Christian-moral mode of thought, which believes in a *good* God as the creator of things, only God’s truthfulness [*Wahrhaftigkeit*] *guarantees* to us the judgments of our senses. Apart from a religious sanction and guarantee of our senses and rationality – where should we derive a right to trust in existence! (WM, 436/KSA 12:107; trans. mod.)

This shows that according to Nietzsche the modern scientific understanding of both truth and reason – paradigmatically represented by Descartes – is essentially tied to a *moral-religious* notion of divine perfection.

It should be clear now why the death of God plays such an important role in our analysis. If Nietzsche is right that “the Christian god has become unbelievable” (FW, 343/KSA 3:573), or “if God himself should prove to be our most enduring lie” (FW, 344/KSA 3:577), then the concepts that have been formed only on the basis of God (truth and reason in this case) cannot be afforded the same exalted status. Many Enlightenment thinkers desired to overcome the dependence of knowledge on religion by dissociating the authority of natural reason from faith. This sharp separation cannot be made without

fundamental reinterpretation. The following section takes up Nietzsche's deconstruction of truth and reason in light of the death of God.

B. The Bodily Preconditions of the Rational Mind

A great part of the rhetorical structure of Descartes' *Meditations* (particularly the opening passages) is geared toward persuading the reader to withdraw from the senses in order to consider the rational mind in all its purity. Perhaps when he is urged to "set the entire argument in geometrical fashion" (AT VII, 128/CSM II, 92) in the *Second Objections*, he is reluctant to do so because he knows that he will not be able to employ the same rhetorical techniques. To assuage this worry, Descartes includes a set of strange "postulates" where he emphasizes to his readers "how feeble are the reasons that have led them to trust the senses up till now" and asks them to "reflect on their own mind, and all its attributes," which they "cannot be in doubt about [...] until they have got into the habit of perceiving the mind clearly" (AT VII, 162/CSM II, 114-115). Ultimately the rational intellect, the unified ego, is the condition for the possibility of any experience, sensory or otherwise (AT VII, 25-34).

There are two main ways of viewing the order of Descartes' philosophy. Ontologically speaking, or in the order of being, God is first as the ground for all other beings, including our own minds. Descartes is not terribly interested in developing his thought in the order of being; he presents demonstrations in the order of reasons, which gives the cogito priority, since it is the precondition for having the idea of God. Note, however, that in both cases Descartes' conception of God is at work all along. This is obvious from the former perspective, yet if one recalls Descartes' reason for invoking the

evil genius hypothesis, it becomes clear in the latter as well. After claiming that mathematical truths appear to be beyond all doubt (AT VII, 20), Descartes admits that “an omnipotent God” could deceive us concerning even these matters, if he so desired (AT VII, 21; CSM II, 14).⁹⁷ Descartes ultimately refrains from doubting truths of this kind, as he is not sure that an omnipotent deceiver is possible. This leads him to “suppose therefore that not God, who is supremely good and the source of truth, but rather some malicious demon” is deceiving him (AT VII, 22/CSM II, 15). So we see that even though God’s existence has not yet been demonstrated, Descartes’ understanding of him as all-good and non-deceiving nevertheless shapes the process of doubt, and fixes the type of truth that he is willing to accept.

Even if one does not assume that Descartes is making veiled commitments to the nature of God in the first two Meditations, Nietzsche still thinks there are other reasons to question his use of reason. In section I, we briefly examined Nietzsche’s critique of the cogito, within which was concealed the presupposition of substance ontology. To this should be added Nietzsche’s various genealogical analyses of reason. In one fragment, he argues that the formation of the categories of reason is analogous to the way in which moral values become dominant:

A morality, a mode of living tried and *proved* by long experience and testing, at length enters consciousness as a law, as *dominating* – And therewith the entire group of related values and states enters into it: it becomes venerable, unassailable, holy, true; it is part of its development that its origin should be forgotten – That is a sign it has become master –

Exactly the same thing could have happened with the categories of reason: they could have prevailed, after much groping and fumbling, through their relative utility – There came a point when one collected them together, raised them to consciousness as a whole [...] From then on, they counted as a priori, as beyond experience, as irrefutable. (WM, 514/KSA 13:283)

⁹⁷ It is not altogether clear at AT VII, 21 that this is what Descartes is claiming, but this reading is confirmed in Meditation III (AT VII, 35-36).

We saw that Descartes considers the stripping away of that which is obtained via the senses to be an important technique for understanding the metaphysical precepts of pure reason. The fluctuating and deceptive aspects of experience mask the a priori certainty of the unchanging essences that are innate in our minds. Nietzsche tells quite a different story. He gives a possible natural history for how rational concepts could have been formed, arising out of the play of bodily forces and drives. They eventually obtain the status of “a priori” not because they truly exist as eternal essences grasped by reason, but rather because they are the product of a particularly strong set of drives. In another note, Nietzsche explains this as “the misunderstanding of passion and reason, as if the latter were an independent entity and not rather a system of relations between various passions and desires; and as if every passion did not possess its quantum of reason” (WM, 387/KSA 13:31). Notice that according to Nietzsche, reason is not an independent faculty that guarantees the truth of its intuitions. Instead, it is a group of warring, bodily drives, each of them striving to overcome the others with its own bit of “reason.”

For Descartes, reason enables us to have clear and distinct perceptions, which form the basis for true judgments. We are in this relation of truth when we have rationally intuited the truths that God has created from eternity. Nietzsche argues that this understanding of truth is itself the result of a set of biases, of viewing the nature of existence in a certain way. “[Philosophers] all pose as if they had discovered and reached their real opinions through the self-development of a cold, pure, divinely unconcerned dialectic,” when in fact these “truths” are no more than beliefs rooted in “a kind of ‘inspiration’ [...], a desire of the heart that has been filtered and made abstract” (JGB, 5/KSA 5:18-19) or that are essential for the preservation of life (WM, 493; JGB, 3-4).

This is what leads Nietzsche to claim that “trust in reason and its categories, in dialectic, therefore the valuation of logic, proves only their usefulness for life, proved by experience – *not* that something *is* true” (WM, 507/KSA 12:352). Thus it is not truth or pure rational insight that guides our beliefs, but rather deeply rooted desires and values that have proved expedient in life.

As we have seen, Nietzsche’s critique of absolutes is not a direct attack showing that these concepts are impossible; instead, he favors a genealogical deconstruction that undermines the source of their authority. Attempting a direct criticism would imply that there is some neutral, objective arbiter (e.g. reason) that could definitively determine the truth of the matter, which Nietzsche expressly denies. His arguments do, however, point to an alternative understanding of reality, as he appeals to “life,” “existence,” “this world,” etc. in order to challenge anti- and super-natural tendencies. This might seem to be in tension with our above claim that Nietzsche does not believe that an objective arbiter of truth exists. Yet, it is in the nature of his conception of reality as fundamentally becoming that it could never serve as such an absolute tribunal in the way that the orthodox understandings of truth, reason or God do. What he finds most paradoxical is that these latter concepts are taken to be that which is most *real*, even though they are farthest from *reality*.

III. A Heraclitean Conception of the World

Nietzsche regularly derides the long-standing philosophical tradition that privileges unchanging being, and he follows Heraclitus in affirming the nature of this world to be that of becoming, rather than of being. It is no coincidence that all three of the absolutes

from the previous section (God, reason, truth) are understood as pure, static, and perfect beings, which coincides with an unchanging conception of being. Furthermore, Nietzsche rejects a sharp divide between mind and world, as well as the notion of a unified subject or self; this entails that Descartes' hallowed realm of the pure mind will be in the throes of the dynamic ebb and flow of drives, just like the rest of existence. Atoms of thought share characteristics of being with the absolute concepts, and thus an analysis of Nietzsche's ontological alternative underwrites the critique of atomism.

Nietzsche rarely gave unequivocal praise for individual philosophers, but of Heraclitus he writes: "With the highest respect, I except the name of *Heraclitus*. When the rest of the philosophic folk rejected the testimony of the senses because they showed multiplicity and change, he rejected their testimony because they showed things as if they had permanence and unity. [...] Heraclitus will remain eternally right with his assertion that being is an empty fiction" (GD, "'Reason' in Philosophy, 2/KSA 6:75). There is a slew of literature on Nietzsche's relation to Heraclitus, and it is not my intention to step into that river even once. I simply want to work with the somewhat obvious guiding thread that Nietzsche's understanding of the world was radically Heraclitean insofar as he believed it to be fundamentally and thoroughly in flux. From there, we can extract several facts about this Heraclitean conception that will prove to be significant for our inquiry.⁹⁸

At the outset, we should be careful about attributing to Nietzsche the kind of doctrine he wishes to overcome, as he lists both being *and* becoming as having "nothing to do with metaphysical truths" (WM, 513/KSA 12:237). This is in line with the previous section; Nietzsche does not wish to espouse an absolute truth about reality, since no such

⁹⁸ See Jensen 2010 for a recent, helpful interpretation of Nietzsche and Heraclitus. I do, however, attribute to Nietzsche a view about Heraclitean flux that is more radical than Jensen's account would have it.

view is possible. His view must instead be seen as a perspective that he favors on the basis of life and strength. He believes that by assuming a “doctrine of being, of things, of all sorts of fixed unities,” philosophers have made things too easy for themselves (WM, 438/KSA 13:535; cf. also JGB, 24). Taking life on its own terms as becoming is a much more difficult endeavor. Nietzsche also thinks that philosophers have been seduced by the structure of language, which leads them to believe in a doctrine of being. Unfortunately, “linguistic means of expression are useless for expressing becoming,” and when Nietzsche makes claims such as that existence *is* becoming or that the world *is* the will to power, we cannot thereby assume this to be a distinct metaphysical position about the ultimate nature of reality (WM, 715/KSA 13:36). These grammatical necessities do not reflect how things are, and Nietzsche is simply giving the best approximation possible in a linguistic form of representation. So we must keep in mind that our goal is to shed light on Nietzsche’s views by pointing at them with these very same linguistic structures. In doing so, we will have to remain careful not to unduly attribute the kind of metaphysical doctrine to Nietzsche that he so assiduously tried to overcome.

Nietzsche tends to focus his critique of being on the aspects of it exemplified by the canonical rationalist philosophers. Thus he gibes:

You ask me which of the philosophers’ traits are really idiosyncrasies? For example, their lack of historical sense, their hatred of the very idea of becoming, their Egypticism. [...] All that philosophers have handled for thousands of years have been concept-mummies; nothing real escaped their grasp alive. [...] Whatever is, does not *become*; whatever becomes, *is* not [*Was ist wird nicht; was wird ist nicht*]... Now they all believe, desperately even, in what has being. But since they never grasp it, they seek for reasons why it is kept from them. (GD, ‘Reason’ in Philosophy, 1/KSA 6:74; trans. mod.)

There are a few important things to notice about this passage. Nietzsche contrasts the philosophers’ concept of being with that of *life*. All the coming to be and passing away of life – “death, change, old age, as well as procreation and growth” – are to philosophers

“objections, – even refutations” (ibid.). Nietzsche also appears to contrast the becoming of life, of that which is *real* [*Wirkliches*], with being. However, “since there is nothing which is [*Da es aber nichts Seiendes giebt*], all that was left to the philosopher as his ‘world’ was the imaginary” (WM, 570/KSA 13:10; trans. mod.; emphasis added). The realm of that which is, that which has being, is a fiction in much the same way that absolute concepts are. Neither are possible objects of experience; both are posited in opposition to life.

Now that we have seen something of Nietzsche’s understanding of the flux of reality by way of contrast, it would do us well to turn to his positive statements on the matter, which center on two main concepts: the Dionysian and the will to power. Often discussion of these concepts is focused on how they manifest themselves in humans, in the creation of values or in their ways of living. However, Nietzsche also speaks of them as they apply to nature, the world, or life. For example, in his very first book, he writes of “the blissful ecstasy that wells from the innermost depths of man, *indeed of nature*, at this collapse of the *principium individuationis*, we steal a glimpse into the nature of the *Dionysian*, which is brought home to us most intimately by the analogy of *intoxication*” (GT, 1/KSA 1:28; first set of italics added). This life-force involves “the potent coming of spring that penetrates all nature with joy,” where the “earth proffers her gifts” (GT, 1/KSA 1:29) and “yields milk and honey” (GT, 1/KSA 1:30) to the Dionysian reveler. Finally, “in these paroxysms of intoxication the artistic power of all nature reveals itself to the highest gratification of the primordial unity” (ibid.). In these passages, we see that nature itself is understood to be an intoxicating and primordial power that transcends individuation. Much of the vision of the Dionysian Nietzsche presents in *The Birth of*

Tragedy involves art and music from a perspective that is influenced by Schopenhauer and Wagner. However, certain aspects of this early view of a chaotic life-force are retained in his later thought, as evidenced by his 1886 preface to the work, where he claims the goal was to look at “*art in [the perspective] of life*” (GT, Attempt at a Self-Criticism, 2/KSA 1:14). This entails that the overflow of life channeled by the Dionysian artist should be relevant for making sense of Nietzsche’s later thoughts on Dionysian will to power.⁹⁹

His most illuminating (not to mention famous) passage on this topic is in the last note of the collection known as *The Will to Power*:

This world: a monster of force [*Kraft*], without beginning, without end, a firm, iron magnitude of force that does not grow bigger or smaller, that does not expend itself but only transforms itself, [...] a sea of forces flowing and rushing together, eternally changing, eternally flooding back, with tremendous years of recurrence, with an ebb and a flood of its forms, out of the simplest striving toward the most complex, out of the stillest, most rigid, coldest toward the hottest, most turbulent, most self-contradictory, and then again returning home to the simple out of this abundance, out of the play of contradictions back to the joy of concord, [...] as a becoming that knows no satiety, no disgust, no weariness: this, my *Dionysian* world of the eternally self-creating, the eternally self-destroying, this mystery world of the twofold voluptuous delight, my ‘beyond good and evil,’ without purpose [*Ziel*] [...] – *This world is the will to power – and nothing besides!* And you yourselves are also this will to power – and nothing besides! (WM, 1067/KSA 11:610-611)

In this fragment of 1885, we see the early notions of intoxication, primordial force, and terrifying revel exemplified in Dionysian art transformed into the tremendous power of chaotic creation and destruction that is the world. It is questionable practice to depend too heavily on the unpublished notes; yet, many of the important insights made here are supported in published works. In “On Self-Overcoming” of *Thus Spoke Zarathustra*, the will to power is called “the unexhausted procreative will of life” (KSA 4:147)¹⁰⁰ and in *Beyond Good and Evil* Nietzsche says that a “living thing seeks above all to *discharge* its

⁹⁹ See Schutte 1984, chapter 1 for a more extended discussion of the Dionysian in *The Birth of Tragedy*.

¹⁰⁰ The connection with life and especially procreation is made also at JGB, 36.

strength – life itself is *will to power*” (JGB, 13/KSA 5:27).¹⁰¹ At this point we are able to succinctly condense Nietzsche’s “Heraclitean” conception of the world as follows: the world is a perpetual play of dynamic life-forces marked by creation, destruction, procreation, decay, and even contradiction, which can never be captured by or reduced to any notion of unchanging being that exists independent of the world itself.

I wish to call attention to two other important moments from the *Will to Power* text above. Nietzsche says that the Dionysian world is his “beyond good and evil” and “without purpose.” In *Twilight of the Idols* he clarifies his meaning: “Becoming has been deprived of its innocence when any being-such-and-such is traced back to will, to purposes” (GD, “The Four Great Errors,” 7/KSA 6:95; cf. WM, 765). Again we find that the traditional doctrine – in this case, the privileging of being over becoming – is rooted in a God as creator of the world. Becoming can only reclaim its innocence, once we have stopped putting an ultimate value on existence, especially one that is supernaturally derived:

there is nothing which could judge, measure, compare, or sentence our being, for that would mean judging, measuring, comparing, or sentencing the whole. *But there is nothing besides the whole.* That nobody is held responsible any longer, that the mode of being may not be traced back to a *causa prima*, [...] *that alone is the great liberation*; with this alone is the *innocence* of becoming restored. The concept of ‘God’ was until now the greatest *objection* to existence. We deny God, we deny responsibility in God: only *thereby* do we redeem the world. (GD, The Four Great Errors, 8/KSA 6:96-97; cf. WM, 708)

Nietzsche viewed the process of returning innocence to becoming as one of naturalizing existence, i.e. removing the teleological prejudices that come with a religious worldview.¹⁰² This tradition is equally grounded in moral presuppositions that devalue

¹⁰¹ At JGB, 186/KSA 5:107 Nietzsche makes a similar claim, saying the “essence” [*Essenz*] of the world is will to power. And at GM II, 12/KSA 5:316 he equates the “nature” [*Wesen*] of life with the will to power.

¹⁰² This was a recurring theme in Nietzsche’s notes, particularly in 1883 while he was in the midst of writing *Thus Spoke Zarathustra* (KSA 10:245, 323, 341, 475, 514; 11:553; 12:386). The concept was important enough to him at the time to consider the “innocence of becoming” as a possible aphorism title in

the flux of existence (WM, 584-585); in his “contempt for everything that changes,” Descartes is paradigmatic in this regard (WM, 578/KSA 12:430).

The second moment that merits remark is the last line of WM, 1067: “And you yourselves are also this will to power – and nothing besides!” This is the most important upshot of this section because it entails that human beings are in no way excepted from or independent of Nietzsche’s vision of reality. This includes the mind and all of the insights of reason, which forces us to re-consider the status of the realm of ideas, understood by Descartes and others to be our secure, stable source of truth. Nietzsche reinforces this point in *Beyond Good and Evil*, where he writes, “The world viewed from inside, the world defined and determined according to its ‘intelligible character’ – it would be ‘will to power’ and nothing else” (JGB, 36/KSA 5:55).¹⁰³ In JGB, 2 Nietzsche claims that Descartes (and perhaps others) have presupposed a “faith in opposite values” that eludes even hyperbolic doubt. This faith includes the belief that the purity of truth and rationality could never find its origins in error, deception, and flux, but only from “the lap of Being, the intransitory, the hidden god, the ‘thing-in-itself’” (JGB, 2/KSA 5:16).

IV. The Impossibility of Atomism of Thought

Thus far we have not attempted to take up direct critical arguments against Descartes’ positions concerning God, reason, or being, as this pursuit goes beyond the bounds of this

Part IV of *Zarathustra* (KSA 10:528, 599) and he even envisioned the phrase as the title of an entire book (KSA 10:343).

¹⁰³ In this aphorism, Nietzsche begins with a working hypothesis: “Suppose nothing else were ‘given’ as real except our world of desires and passions, and we could not get down, or up, to any other ‘reality’ besides the reality of our drives – for thinking is merely a relation of these drives to each other” (JGB, 36/KSA 5:54). Even though Nietzsche is only operating on a supposition, and we cannot thereby attribute to him a definitive position based on this evidence, other moments in the same aphorism suggest that he takes it to be more than merely an “experiment.” Also, there are other cases of textual support (KSA 11.442).

study. Our goal was not to offer decisive arguments about the existence of God, reason, etc., but rather to expose some of the moral-religious assumptions that underlie Descartes' philosophy, which showed how his understanding of God as non-deceiving played an important role in guiding the rational demonstration of metaphysical truths. This also revealed a privileging of being as static – exemplified by God and the eternal essences he created in our minds – over the flux of becoming – represented by the relegated senses and body. So, it is true that Nietzsche did not give knock-down arguments to prove Descartes' demonstrations for God's existence unsound; this would presuppose that Nietzsche shares a ground of rational discourse to which Descartes appeals, and this is just what we are calling into question. If we could be assured of the existence of the Cartesian God, I think Nietzsche would find the notion that there are sharply individuated ideas innate in our minds much more plausible. If, on the other hand, we adopt a perspective that does not assume such a God, as many modern and contemporary thinkers have done, then the atomism of thought loses much of its force. Nietzsche's direct critique of atomism springs from the perspective of life, and without the moral-religious prejudices that denigrate it.

Commentators have long fretted over Nietzsche's paradoxical claims such as "there is no truth" (WM, 540/KSA 11:498) and "There exists neither 'spirit,' nor reason, nor thinking, nor consciousness, nor soul, nor will, nor truth: all are fictions that are of no use" (WM, 480/KSA 13:301-302). The questions of self-reference abound (are these statements true? if so, does that not make them false? etc.) and so do the attempts to "save" Nietzsche from the peril of blatant self-contradiction. Many of these redemption projects assume that Nietzsche holds a relatively traditional theory of truth, and through

various techniques are able to salvage a consistent Nietzsche (Schacht 1983, chapter II; Clark 1990; Richardson 1996, Introduction, chapter 4). While these interpreters are quite careful in crafting a nuanced version of truth as correspondence, they tend to blithely attribute to Nietzsche a view about the nature of the units of truth – so called truthbearers – without textual support (Schacht 1983, pp. 60-61; Clark 1990, pp. 65-69). Indeed, part of the aim of this chapter is to undermine this type of interpretation. By failing to appreciate Nietzsche’s critique of atomism of thought, this strand of interpretation misses the mark badly.¹⁰⁴

There are two main arguments I wish to discuss in this section. Before I get to these, it will be necessary to make a few remarks about Nietzsche’s various discussions of *physical* atomism and the ego-subject. The form of argument he employs in these cases will prove instructive for the analysis of the others. The first of the primary arguments closely examines the nature of units of thought and determines that these entities are dynamic, diffuse, and in perpetual flux, which precludes them from being atomistic. The second argument shows that language and logic seduce us into believing we have captured snippets of reality in the form of propositions and statements, when in fact this prejudice is merely a result of our grammatical conventions or a false application of logic.

A. The Dynamic Nature of Thoughts

In sections II and III, we saw that Nietzsche eschews any attempt to sharply distinguish reality into any type of dual opposition, whether it be between this world and the “true” world, or between the natural and the supernatural, or even between mind and matter.

¹⁰⁴ Joshua Rayman (2007) offers an interpretation consonant with my own in this regard.

This was shown to have import for Cartesian philosophy on two levels, since we cannot have recourse to God as the ontological ground for all finite being, nor can we accept the division of this world into two distinct substances, whose natures are radically independent. Descartes also makes a distinction within the realm of thought, where he privileges those ideas which are clear and distinct in opposition to those which are obscure and confused. The former are the key to certain knowledge as they can be grasped with reason alone, purified of the elements derived from the fluctuating and deceptive senses. Nietzsche argues that such a distinction cannot hold for reasons similar to those offered against the other divisions of reality.

Many of the remarks Nietzsche makes in this respect concern logic, and it is well known that Descartes was not a proponent of logic, particularly insofar as it was intended to be a method for obtaining knowledge. Nietzsche surely would have shared a similar disdain for the syllogisms of the schools, yet his commentary on logic extends beyond the merely formal to include the fundamental atoms of Descartes' thought. Not only is Descartes' general epistemological strategy of demonstration patterned after the great mathematicians, but he also recognizes mathematical concepts and truths to be paradigmatic examples of clear and distinct perception.¹⁰⁵ Nietzsche considers mathematics to be "applied logic" and thus his critiques of logic should apply in many ways to mathematics (GD, 'Reason' in Philosophy, 3/KSA 6:76). But he would also say that these critiques can be directed at all of Cartesian metaphysics:

Today we possess science precisely to the extent to which we have decided to *accept* the testimony of the senses [...]. The rest is miscarriage and not-yet-science: I mean to say [*will sagen*], metaphysics, theology, psychology, epistemology. Or formal science, a doctrine of signs: such as logic and that applied logic, mathematics. In them reality is not encountered at all, not

¹⁰⁵ Descartes appears to consider mathematical truths to be as certain as the cogito at AT VII, 36, but in other places he considers the demonstration of metaphysical truths to be more certain than mathematical demonstrations (AT I, 144).

even as a problem; even as little as the question of what value such a sign-convention (e.g. logic) has at all [*ebensowenig als die Frage, welchen Werth überhaupt eine solche Zeichen-Convention, wie die Logik, hat*]. (ibid.; trans. mod.)

Although Descartes' project clearly amounts to more than logical "sign-convention," the metaphysical inquiry that takes place completely devoid of the senses is one of those that Nietzsche would say does not "encounter" reality. In the following analyses, we will need to be careful not to mix up Nietzsche's criticisms of formal logic with the more general attacks on abstract, metaphysical concepts, without thereby sacrificing the affinities between the two.

Descartes holds dear the clear and distinct concepts of the understanding because they derive their authority from God. Nietzsche is skeptical about such an origin of concepts:

[Philosophers] have trusted in concepts as completely as they have mistrusted the senses: they have not stopped to consider that concepts and words are our inheritance from ages in which thinking was very modest and unclear. [...] Hitherto one has generally trusted one's concepts as if they were a wonderful dowry from some sort of wonderland: but they are, after all, the inheritance from our most remote, most foolish as well as most intelligent ancestors. This piety toward what we find in us is perhaps part of the *moral element in knowledge*. (WM, 409/KSA 11:486-487)

Nietzsche does not provide much in the way of argument here, as he provides little support for why philosophical concepts are historically inherited. He seems to be relying on the intuition that the notion of a purely rational "dowry" of concepts is the result of an overly optimistic rationalism.¹⁰⁶ This can be clarified by considering a reference Nietzsche makes to Descartes' truth criterion of clarity and distinctness, which he somewhat illegitimately equates with "logical certainty, transparency" (WM, 533/KSA 12:386-387):

How does one know that the real nature of things stands in *this* relation to our intellect? – Could it not be otherwise? that it is the hypothesis that gives the intellect the greatest feeling of power and

¹⁰⁶ Nietzsche frequently appeals to the empiricist tradition in casting doubt on such rationalist precepts: "All our categories of reason are of sensual origin: derived from the empirical world" (WM, 488/KSA 12:391).

security [...]? [...] ‘True’: from the standpoint of feeling –: that which excites the feeling most strongly (‘ego’); from the standpoint of thought –: that which gives thought the greatest feeling of strength [...].

This is a rather cursory note, yet its intention is evidently to displace the surety with which Descartes accepts the concepts obtained in clear and distinct perception. Descartes is notoriously vague about how to distinguish clear and distinct ideas from those that are obscure and confused. Nietzsche is pointing to the fact that what strikes us as “clear and distinct” might actually just be a powerful feeling of strength. Descartes himself even uses the language of the “strength” of a perception as the mark of its clarity (AT VIII-1, 22).

Nietzsche also takes up more direct analyses of the nature of the mental entities that are supposed to serve as atoms of thought. In Book V of *The Gay Science*, he castigates the appeal to “‘a world of truth’ that can be mastered completely and forever with the aid of our square little human reason [*Menschenvernunft*]” (FW, 373/KSA 3:625; trans. mod.). This “world of truth” sounds as though it certainly could be the Cartesian realm of the pure intellect. This supposition is all the more plausible when one recalls that Nietzsche had Descartes on his mind when writing Book V in 1887 (see section I above). He continues the above aphorism as follows: “Do we really want to permit existence to be degraded for us like this – reduced to a mere exercise for a calculator and an indoor diversion for mathematicians? Above all, one should not wish to divest existence of its character of *ambiguity* [*vieldeutigen Charakters*]” (ibid.; trans. mod.). The seemingly perspicuous nature of knowledge modeled after mathematics proves to be an artificial simplification that masks the ambiguity of reality.

Nietzsche provides some insight into what this ambiguity amounts to in the following fragments: “That a world, for which we lack any sensitive organs [sic], so that

we sense a thousandfold complexity as a unity” (WM, 523/KSA 13:329; trans. mod.)¹⁰⁷; “Everything that enters consciousness as a ‘unity’ is already tremendously complex: we always have only a *semblance of unity*” (WM, 489/KSA 12:205); “Everything simple is merely imaginary, is not ‘true.’ But whatever is real, whatever is true, is neither one nor even reducible to one” (WM, 536/KSA 13:478-479). Simplicity is an important component of Cartesian atoms of thought, since that which can be divided is composite while that which is indivisible is simple. In many of Descartes’ important philosophical works, he finds it essential to develop a method for reducing complex problems to their simple, indivisible components (*Regulae*: AT X, 379-387; *Discourse*: AT VI, 18-19).¹⁰⁸ Nietzsche’s claim with respect to this type of simplicity operates on two levels. For one, our ideas as purportedly representative of things could not possibly be simple or unified, since the world as radical flux and ambiguity cannot be captured in indivisible units.¹⁰⁹ Yet in a more fundamental way, these entities of consciousness, as themselves part of the very same world of becoming, are irreducibly complex. On both levels we have no more than the *appearance* of simplicity.

The above reasons led Nietzsche to state unequivocally that “there are no durable ultimate units, no atoms, no monads: here, too, ‘beings’ are only introduced by us (from perspective grounds of practicality and utility)” (WM, 715/KSA 13:36). Often when Nietzsche discusses atoms, he is referring either to traditional theories of physical atomism or the “soul atomism” of Descartes and other philosophers who accept the

¹⁰⁷ “Daß eine Welt, für die uns alle feineren Organe abgehen, so daß wir eine *tausendfache* *Complexität* noch als Einheit empfinden [...]” Kaufmann renders “eine Welt” as “this inner world” presumably because the previous fragment (combined in WM, 523) spoke of “die inneren Phänomene,” though it is not entirely clear that Nietzsche meant this to be a continuation of his previous thought.

¹⁰⁸ Even though Descartes does not propose a method for reducing the complex to the simple in the *Meditations*, it should be clear from chapters 1 and 2 that one of the major goals in that work is to uncover the simple ideas innate in our minds.

¹⁰⁹ This point will be appraised in more detail in section IV.B.

existence of an indivisible soul. In this text, I think he is at least partially speaking of both forms of atomism, and understanding his reasons for rejecting these will prove useful in shedding light on his rejection of atomism of thought. In a note headed “*Against the physical atom,*” Nietzsche writes, “To comprehend the world, we have to be able to calculate it; to be able to calculate it, we have to have constant causes; because we find no such constant causes in actuality, we invent them for ourselves – the atoms. This is the origin of atomism” (WM, 624/KSA 12:314). Nietzsche is, of course, right that scientists are forced to posit the existence of discrete entities that we cannot directly observe (electrons, quarks, etc.). His issue with this is that there is an underlying assumption that, beneath the surface of chaotic flux, reality is homogeneous in its most fundamental building blocks. In a similar way, Nietzsche sees the “metaphysical need” of “soul atomism, [...] which regards the soul as something indestructible, eternal, indivisible, as a monad, as an *atomon*” (JGB, 12/KSA 5:27) as the result of a need for a constant substratum that “does not vanish in the multiplicity of change” (WM, 488/KSA 12:391). In both cases, we notice a compulsion to assert the existence of a stable, enduring ground that transcends perpetual change.

With respect to the nature of the physical world, we have already seen that Nietzsche understands all of reality to be will to power, which would exclude the possibility of an indivisible particle of matter. In the case of soul atomism, Nietzsche reinterprets the subject as follows: “No subject ‘atoms’. The sphere of a subject constantly *growing* or *decreasing*, the center of the system constantly *shifting* [...]. No ‘substance’, rather something that in itself strives after greater strength, and that wants to ‘preserve’ itself only indirectly (it wants to *surpass* itself –)” (WM, 488/KSA 12:391-

392). As should be no surprise, the subject is naturalized in such a way that precludes a stable identity over time. It can only be alluded to metaphorically as a “sphere” that gains and loses power as its “center” overcomes itself in unending transformation.

When Nietzsche says that “there are no durable ultimate units, no atoms, no monads” he does not specify to which kind of atom he is referring. I conjectured that he had both material and soul atomism in mind, but I think that he speaks so generally because he means to reject the possibility of any atoms whatsoever, including atoms of thought. The type of reason he gave for denying the former – a will to stability and calculability – can be invoked in a similar fashion with respect to the latter. Physical atoms are posited in order to enable us to more easily understand surface phenomena that appear more irregular and chaotic. Likewise, atoms of thought allow us to capture pristine, unchanging concepts or to construct arguments that make perfect rational inferences on the basis of statements with distinct propositional content. “Soul atoms” are posited for a variety of reasons – moral (GM I, 13), religious (JGB, 12), grammatical (WM, 484) – all of which involve a subject that persists through time. Similarly, a conceptual atom, such as “triangle,” or an epistemological atom of thought, such as “cogito, ergo sum,” is not understood to be a dynamic entity, but rather one that remains fixed. When we recall Nietzsche’s primary reason for rejecting material and soul atomism, that all of reality exists only as becoming, it is clear that this same line of thought can be applied to thought atomism. A bit later in the note quoted above, Nietzsche says that “‘units’ are nowhere present in the nature of becoming” (WM, 715/KSA 13:36), and I see no reason to exclude units of thought from this statement.

B. Nietzsche's Critique of Language and Logic

There are two main ways that we can view the atoms of thought that Nietzsche critiques. One way is to examine the existing thoughts themselves in what Descartes might call their formal reality. The previous section completed this by showing that atoms of thought exist only as dynamic unfolding just like all of reality. The other way is to understand atoms of thought in terms of their so called sense and reference. This second point of view itself has two levels. We can speak of the propositional content of entire statements or of the representational content of individual concepts (the latter Descartes might refer to as their objective reality). Within the many critiques Nietzsche offers of language and logic, we find the pertinent discussions of the propositional and representational content of atoms of thought.¹¹⁰

Logic serves as a model for clear philosophical thinking, not only by regulating the connections we make between thoughts, but also by illustrating the type of individual thought that can be connected with others to form arguments. Nietzsche thinks that the application of logic to our understanding of the world involves an imposition of a will to comprehensibility:

In order to think and infer it is necessary to assume beings: logic handles only formulas for what remains the same [...]. The fictitious world of subject, substance, 'reason,' etc., is needed –: there is in us a power to order, simplify, falsify, artificially distinguish. 'Truth' is the will to be master over the multiplicity of sensations: – to classify phenomena into definite categories. (WM, 517/KSA 12:382)

The abstraction that Nietzsche refers to here is the assumption of stable entities that logical symbols represent. We take what is multifarious in our perception and fit it into well determined categories that make things seem more homogeneous. The strictures of

¹¹⁰ Although the primary intent of the previous section was to exhibit the dynamic nature of individual thoughts as existing entities, Nietzsche does not always make a clear-cut distinction between this aspect of thoughts and their content. Hence, some of the critiques from the last section apply to the sense and reference of units of thought in addition to their formal reality.

logic do not issue from our desire for knowledge, but from our own need to categorize and simplify: “Not ‘to know’ but to schematize – to impose upon chaos as much regularity and form as our practical needs require. In the formation of reason, logic, the categories, it was need that was authoritative: the need, not to ‘know,’ but to subsume, to schematize, for the purpose of intelligibility and calculation” (WM, 515/KSA 13:333-334). Nietzsche says that this logical impulse does not stem from a will *to know* (*erkennen*) because the categorizer does not confront the richness of reality on its own terms, but instead orders it according to a manageable classification.

Insofar as we take logic to be a purely formal, analytic endeavor, Nietzsche does not find it problematic, even if somewhat trivial.¹¹¹ Within this realm, there are two fundamental laws that Nietzsche takes up in his discussions of logic.¹¹² The first is the principle of identity that states that anything is identical with itself. When employing merely formal arguments, it seems inconceivable to deny this principle. However, when we add content to propositions in making concrete arguments, the fundamental laws of logic are not simply formal constraints on our thinking;¹¹³ they also involve ontological assumptions about the nature of the units of thought out of which arguments are constructed. From our discussion in IV.A, it is fairly obvious that according to Nietzsche the principle of identity cannot be applied to thoughts themselves, since thoughts are fundamentally dynamic and are perpetually self-overcoming. We can always make abstractions to talk about thoughts at a particular moment in time (in which case the principle of identity would be valid), just as one can abstractly speak of the velocity of an

¹¹¹ “Knowledge, strictly speaking, has only the form of tautology and is *empty*” (PT, p. 51/KSA 7:493).

¹¹² Steven Hales (1996) has a thorough account of Nietzsche’s writings on logic that will be a helpful counterpoint throughout our analysis of the topic.

¹¹³ Hales 1996 (pp. 825-826) makes a similar distinction between the syntax and semantics of logic.

object at a static point in time, but these are falsifications of reality – useful fictions, but fictions nonetheless.

The principle of identity likewise cannot legitimately be applied to either sense of units of thought as to their content, propositional or representational. When we make use of concepts modeled after logical terms within categorical statements, we are presupposing certain features of the representatum:

Supposing there were no self-identical 'A', such as is presupposed by every proposition of logic (and of mathematics), and the 'A' were already mere appearance, then logic would have a merely apparent world as its condition. In fact, we believe in this proposition under the influence of ceaseless experience which seems continually to confirm it. The 'thing' – that is the real substratum of 'A'; *our belief in things* is the precondition of our belief in logic. The 'A' of logic is, like the atom, a reconstruction of the thing – If we do not grasp this, but make logic a criterion of true being, we are on the way to positing as realities all those hypostases: substance, attribute, object, subject, action, etc.; that is, to conceiving a metaphysical world, that is, a 'real world' [...]. (WM, 516/KSA 12:389-390)

In making an assertion such as “snow is white” we assume a stable referent for the term “snow,” some self-identical “thing” in the world. This would again be resting on a view about a world of objects that persist through change, enabling us to pick out some “A” identical with itself that transcends becoming. This abstraction of the world is mirrored in the reified constituents of thought, and not coincidentally, Nietzsche makes an analogy to the abstraction that takes place in the invention of the physical atom.

If we now consider full statements and their propositional contents, we discover a similar falsification of reality:

Our usual imprecise mode of observation takes a group of phenomena as one and calls it a fact: between this fact and another fact it imagines in addition an empty space, it *isolates* every fact. In reality, however, all our doing and knowing is not a succession of facts and empty spaces but a continuous flux. Now, belief in freedom of will is incompatible precisely with the idea of a continuous, homogeneous, undivided, indivisible flowing: it presupposes *that every individual action is isolate and indivisible*; it is an *atomism* in the domain of willing and knowing. – Just as we understand characters only imprecisely, so do we also facts: we speak of identical characters, identical facts: *neither exists*. (WS, 11/KSA 2:546)

Just as the invocation of the term “snow” revealed an acceptance of a world of self-identical things, the seemingly ontologically innocuous statement “snow is white” that

can be symbolically represented as “S” within a propositional argument exposes the presupposition of atomistic *facts* in the world. Our own beliefs again purportedly mirror this world of isolated facts in “an atomism in the domain of willing and knowing.”¹¹⁴

The remarks Nietzsche makes about identity help shed light on his equally infamous discussions of another classical principle of logic, the law of contradiction. It is not so much that Nietzsche rejects the law of contradiction; his main concern is to understand what theoretical commitments are behind it:

If, according to Aristotle, the *law of contradiction* is the most certain of all principles, if it is the ultimate and most basic, to which every demonstrative proof harkens back [*auf den alle Beweisführung[en] zurückgehn*], if the principle of every axiom lies in it: then one should consider all the more rigorously what *presuppositions* already lie at the bottom of it. (WM, 516/KSA 12:389; trans. mod.)

Just as in the case of the principle of identity, Nietzsche is uninterested in the law of contradiction with respect to merely analytic relations of logic. He continues by setting up an either-or situation, where both disjuncts (which Nietzsche appears to assume to be exhaustive interpretive options) are concrete: “Either it asserts something about actuality, about beings [*Seienden*], as if one already knew this from another source: that is, as if opposite attributes *could* not be ascribed to it. Or the proposition means: opposite attributes *should* not be ascribed to it” (ibid.; trans. mod.). Nietzsche has been making frequent use of this distinction between descriptive and normative claims about reality. The former possibility seems to imply that we “have a previous knowledge of being [*das Seiende*]” (ibid.) as carved up into self-identical and non-contradictory objects susceptible to being captured by atomistic units of thought.

¹¹⁴ In this aphorism, entitled “Freedom of will and isolation of facts,” the atomism of units of *knowledge* (the target of our study) is not the primary focus. It appears that Nietzsche’s main goal is to undermine the atomism of *willing* in an attack on moral responsibility. Nevertheless, we can largely disregard the moral context, while still extracting some important insights relevant to our concerns. This being said, we notice yet another instance where Nietzsche shows the interconnected nature of moral prejudices with the supposedly unrelated metaphysical and epistemological precepts.

Since we do not have a priori access to the nature of reality as that which has “duration, identity with itself, being” (WM, 552/12:384), we are left with the latter possibility, that we impose such categories upon the world. Contrary to what this illegitimate application of the law of contradiction would lead us to believe, “there are no opposites: only from those of logic do we derive the concept of opposites – and falsely transfer it to things” (ibid.). In many places, Nietzsche points out that the belief in opposites, self-identicals, and persisting beings is a condition of life (JGB, 4; FW, 111; WM, 507, 515). Steven Hales argues that this is proof that Nietzsche did not consider logic to be in tension with his own Dionysian vision of the world (1996, pp. 821-823). In one of the passages Hales cites, Nietzsche writes, “that without accepting the fictions of logic, without measuring reality against the purely invented world of the unconditional and self-identical [...], man could not live – that renouncing false judgments would mean renouncing life and a denial of life” (JGB, 4/KSA 5:18). One can see where Hales is coming from, since Nietzsche gives the harshest of indictments to those ideologies that go against life. However, his view fails to appreciate two important points. First, Nietzsche seems to be appealing primarily to that which is a condition for the *preservation* of biological life, rather than to that which is a condition for the *overabundance* of life (seen in statements such as “the unexhausted procreative will of life” [Z, “On Self-Overcoming”/KSA 4:147]). Second, Hales does not discuss the deeper point of Nietzsche’s entreaty to “recognize untruth as a condition of life” as a means for creating a philosophical outlook that is beyond good and evil (JGB, 4/KSA 5:18). We noted in sections I and II that Nietzsche considered it an unwarranted prejudice to privilege a lack of deception, when in fact deception is in many cases life-promoting. We

can now see that part of this useful deception involves accepting a logical understanding of reality. So, logic turns out to be pragmatically valuable as a means for preserving life, possibly even indispensably so, but ultimately *it is no more than a useful myth*.¹¹⁵

Another origin of our logical compulsion to understand things as existing according to the law of contradiction is in the historically contingent conventions of language:

Even if *language*, here as elsewhere, will not get over its awkwardness, and will continue to talk of opposites where there are only degrees and many subtleties of gradation; [...] here and there we understand it and laugh at the way in which precisely science at its best seeks most to keep us in the *simplified*, thoroughly artificial, suitably constructed and suitably falsified world [...]. (JGB, 24/KSA 5:41-42)

Nietzsche is not careful when it comes to keeping the different formulations of the law of contradiction (ontological, semantic, or even psychological) distinct from one another or from other principles such as the law of excluded middle and the related notion of bivalence. I do not think this is an oversight on his part; it is simply not his intention to make such fine-grained distinctions. Rather, his analysis targets any philosophical outlook that accepts “crude, four-square opposites” (FW, 375/KSA 3:628) that could be captured by logical symbols such as A and $\sim A$. Nietzsche is skeptical of such perfect contradictories, which he believes we are convinced into accepting based on grammatical convention:

Indeed, what forces us at all to suppose that there is an essential opposition of ‘true’ and ‘false’? Is it not sufficient to assume degrees of apparentness and, as it were, lighter and darker shadows and shades of appearance – different *valeurs*, to use the language of painters? [...] Shouldn’t philosophers be permitted to rise above faith in grammar? (JGB, 34/KSA 5:53-54; trans. mod.)

¹¹⁵ I agree with Hales’ chief thesis that “Nietzsche’s critique is really about the applicability of logic and object realism” as opposed to a direct attack on formal logic itself (1996, p. 835). However, there is one deep flaw in the paper that is worth mentioning. In more than one place (p. 823 and p.824) Hales claims that logic, for Nietzsche, is the structural basis of language, yet in both cases offers a promissory note to substantiate on the assertion at a later point. On page 827, Hales assumes that the point has been proven, yet the only evidence he offers comes in the form of an ill supported interpretation of the famous line from *Twilight of the Idols* claiming that “we are not rid of God because we still have faith in grammar” (GD, “‘Reason’ in Philosophy,” 5/KSA 6:78). Rather than thinking of logic as the “deep structure” of language, it is more accurate to say that grammar is the “deep structure” of logic (WM, 484).

In both of the passages above, Nietzsche argues that there are not distinctly individuated essences that come packaged in “essential oppositions.” This is one of the major ontological presuppositions of the application of the law of contradiction (or perhaps more accurately, the principle of bivalence) to concrete units of thought. When Nietzsche says that we have artificially made things oversimplified, he is indicating this tendency to take differences between things which come in degrees and variations as absolutely opposed. Just as our grammatical conventions lead us to posit a subject for any action, “a doer to every deed” (WM, 484/KSA 12:549), linguistic negations enable us to easily represent the opposite of a sentence or concept. These conventions are, of course, exceptionally useful, yet they mask a fundamental richness that cannot be portrayed along binary parameters. The genuine poet is not being needlessly inchoate or pretentiously mysterious; rather, she is trying to transcend the rigid barriers of language to express what can never be fully transparent.

The main thrust of this section has been aimed at exhibiting Nietzsche’s critique of the representational and truthbearing side of atoms of thought. Two points must be reinforced before concluding the analysis and moving on to potential objections. The first is that the moral dimension of the critique that was emphasized at the outset ought not to be forgotten. Indeed, the way in which philosophers have put language and logic to use is mired in the moral imperative against deception:

The intention was to deceive oneself in a useful way; the means, the invention of formulas and signs by means of which one could reduce the confusing multiplicity to a purposive and manageable scheme.

But alas! now a *moral category* was brought into play: no creature wants to deceive itself, no creature may deceive – consequently there is only a will to truth. What is ‘truth’?

The law of contradiction provided the schema: the true world, to which one seeks the way, cannot contradict itself, cannot change, cannot become, has no beginning and no end. (WM, 584/KSA 13:336-337)

We need not get into a full discussion about how this world is abnegated in favor of the “true world.” However, it should now be clear that one important aspect of this invention of a realm of unchanging being is the illegitimate reification of language into atoms of thought that resist the dynamic flux of life.

The second point: one may think the connection between Nietzsche and Descartes has worn thin in this section, since Descartes has been mentioned less frequently with respect to the talk of *language* and the emphasis on *logic* appears to preclude his involvement in the tenets that Nietzsche attacks. One must first recall that Descartes and Nietzsche share contempt for the empty formalism of pure logic. In all of the above discussions, the arguments Nietzsche offers with respect to the use of logic as a model for units of thought would work equally well when replaced with the mathematical model. Furthermore, Descartes counts his own formulation of the law of contradiction as one of the “common notions” innate in our minds (AT VIII-1, 23-24). But the most important piece of evidence comes in the following passage from *Human, All too Human*:

To the extent that man has for long ages believed in the concepts and names of things as in *aeternae veritates* he has appropriated to himself that pride by which he raised himself above the animal: he really thought that in language he possessed knowledge of the world. (MA, 11/KSA 2:30)

The *aeternae veritates* have a long philosophical history, and it is precisely this language that Descartes invokes when discussing the aforementioned common notions, as well as the immutable essences in a less direct way (AT VII 63-64). It is not quite fair to Descartes to say that just knowing the “name” of a thing would constitute knowledge (if AT I, 149-150 is any indication). However, Descartes does think that language is the mark of reason, which proves our superiority over animals (AT VI, 57-59/CSM I, 140-

141), and he understands innate concepts to be eternal truths that can be represented linguistically.

V. A Potential Objection

It would do us well to summarize the main points of the argument of the chapter and to anticipate some possible objections to the interpretation of Nietzsche given here. The background of the critique of atomism involves both an attack on the tradition of absolutes rooted in an ideal of static being and an alternative vision of reality as Heraclitean flux. The important takeaway from this background is that Nietzsche rejects any essential division between realms of existence that quarantine the deceptive undulations of life from a fictive world of reason. This entails that units of thought can be atomistic neither as existing beings in the world, nor as intentional entities. They cannot be *indivisible* because this would assume some set of simple beings that defy the destruction and creation that are essential to the will to power. They cannot be *distinct* because the self-identity and unification required for distinctness are illusory products of a will to impose order on that which is chaotic. They cannot be *isolated* because the world, as a continuum, is not carved up into separated individuals existing between definite boundaries.

However, there are several texts that strain this interpretation of Nietzsche. Consider the following two fragments: “The character of the world of becoming [*Der Charakter der werdenden Welt*] as *incapable of formulation*, as ‘false,’ as ‘self-contradictory.’ *Knowledge* and *becoming* exclude one another. Consequently, ‘knowledge’ must be something else” (WM, 517/KSA 12:382; trans. mod.); “Linguistic

means of expression are useless for expressing becoming” (WM, 715/KSA 13:36). We already know what Nietzsche’s understanding of the world of becoming is like. If our linguistic devices are not able to capture becoming, what does this say about their nature? It would seem that the reason they cannot express becoming is because they are expressions of enduring, self-identical, and distinct beings. Language *falsifies* reality because its modes of assertion are not themselves part of the flux. Therefore, Nietzsche *does* believe in atoms of thought, since these are the very vehicles through which we misunderstand reality.

This objection brings us to the heart of our inquiry. In order to make a response to it, we must consider the ontological status of units of language, and where exactly they fit into Nietzsche’s unorthodox vision of the world. When Nietzsche speaks of linguistic means of expression, to what kind of thing is he referring? Contemporary philosophers of language debate over which of the following entities should serve as the primary bearer of truth: propositions, sentences, beliefs, judgments or statements. Nietzsche certainly did not wish to make such subtle distinctions, as one would in the realm of analytic philosophy of language; yet, we can class the different types into several groups that Nietzsche would have had in mind conceptually, even if he did not use the same terminology. Propositions have proved notoriously difficult to locate ontologically. They are entities that capture the content of “that-clauses.” There is an intuitive appeal to the idea that when I think “Jackson is the capital of Mississippi,” the content of my belief is something that can be the object of others’ beliefs as well. However, it is rather difficult to imagine such entities existing in a realm that was not abstract, mysterious, and rather Platonic sounding. In any event, it is obvious that propositions cannot be the locus of

Nietzsche's discussions on language, given his repeated rejection of any such Platonic entities.

What about sentences, the constituents of theoretical languages? They look promising because they are modeled after the units of logic, and thus would perfectly fulfill the requirement of falsifying reality. Theoretical sentences are also easily individuated into atomistic entities, as we can (and do) stipulate them to be so. So far, so good, but the problem with this possibility is that Nietzsche is concerned with concrete thoughts, that is, ones that actually make contact with the world. If sentences are purely theoretical, then they do not exist in their own right, just like propositions do not. If, on the other hand, they are actual things, with genuine content, then we must look to the final category – statements, judgments, beliefs, etc.¹¹⁶ – as Nietzsche's target. Sentences would only be the target insofar as they are instantiated in a statement, belief, or whatever. If *this* is in fact what Nietzsche is referring to when he says that “linguistic means of expression are useless for expressing becoming,” and it seems we are left with no other possibility, then it is impossible for units of language to be atomistic, since they would exist dynamically as radical flux, if they exist at all.

By process of elimination we have shown that Nietzsche could not have believed in linguistic atoms of thought. How, then, do we make sense of the claim that language falsifies reality? I think it must be something like the following. In language we have word (“tree,” “I,” “is,” etc.) and sentence (“snow is white,” “I think, therefore I am,” etc.) types that remain static over time. These do not exist in some abstract realm, but are maintained by convention in the particular instances of their use. The fixity of the words

¹¹⁶ I do not mean to conflate these distinct types, a group which could also include utterances, assertions, and perhaps others, but Nietzsche's critique will apply equally well to all of them.

and sentences used in speech seduces us into believing that we have thoughts that are similarly atomistic and reified, even though language itself is oversaturated with meaning:

What then is truth? A movable host of metaphors, metonymies, and anthropomorphisms: in short, a sum of human relations which have been poetically and rhetorically intensified, transferred, and embellished, and which, after long usage, seem to a people to be fixed, canonical, and binding. Truths are illusions which we have forgotten are illusions; they are metaphors that have become worn out and have been drained of sensuous force, coins which have lost their embossing and are now considered as metal and no longer as coins. (TL, 1/PT, p. 84/KSA 1:880-881)

The origin of words consists in pretending that what is no more than similar is actually equal (PT, p. 51/KSA 7:493). Our symbols are metaphors for what cannot truly be captured in language (PT, pp. 50-51/KSA 7:490-491).¹¹⁷ When we make use of these enduring metaphors in speech, belief, or judgment, we falsely assume that we are invoking some static meaning: “Fundamentally, all our actions are altogether incomparably personal, unique, and infinitely individual; there is no doubt of that. But as soon as we translate them into consciousness *they no longer seem to be*” (FW, 354/KSA 4:592-593).¹¹⁸ Each instance of symbolic language use is unique, suffused with fresh interpretations of old metaphors, stretching beyond the confines of its linguistic boundaries – this is the very antithesis of atomism of thought.

If the interpretation offered in this chapter is correct, the concerns with self-refutation mentioned at the beginning of section IV do not even arise. When Nietzsche claims “there is no truth” (WM, 540/KSA 11:498) he does not understand this statement to be susceptible to logically symbolic representation – it is not a self-identical atom that

¹¹⁷ For a more detailed analysis of Nietzsche’s early views of language, see Schrift 1985.

¹¹⁸ Earlier in the same aphorism, Nietzsche writes, “Man, like every living being, thinks continually without knowing it; the thinking that rises to *consciousness* is only the smallest part of all this – the most superficial and worst part – for only this conscious thinking *takes the form of words, which is to say signs of communication*, and this fact uncovers the origin of consciousness” (FW, 354/KSA 4:592). Thus, consciousness and language are essentially intertwined, which is why the discussion of atoms of thought requires such extensive analysis of language.

is in essential opposition to a contradictory. Its linguistic constituents do not refer to persisting entities that can be multiply instantiated with equivalent meanings over time. Likewise the meaning of the whole assertion involves metaphor, approximation, and interpretation such that its sense cannot be individuated into a discrete unit. Like all else, it is a manifestation of the will to power, constantly overcoming itself, being oversaturated with meaning. This conclusion has rather radical consequences, the discussion of which will be reserved for the conclusion.

Chapter Four:

Heidegger on the Impossibility of Atomism of Thought

Descartes does not generate as much attention from Heidegger as do Aristotle, Kant or Nietzsche, but he is undoubtedly a central figure in Heidegger's work, particularly in the 1920s and 1930s. In his early writings, Heidegger considered Descartes an obstacle to carrying out genuine phenomenology. The problem was not that many twentieth-century writers continued to subscribe to particular positions that Descartes held, but that certain underlying Cartesian assumptions persisted that had gone largely unrecognized. There are three in particular that are relevant to the current project: (1) the theoretical demand of unprejudiced certainty; (2) the neglect of the question of being, which leads to an uncritical acceptance of Scholastic ontology; (3) an understanding of truth borrowed from medieval theology. These three assumptions provide the groundwork for his attack on atomism of thought, and we will work through them in section I. Heidegger offers different critiques for the two main types of atoms of thought – epistemological atoms of thought (such as the cogito) and conceptual atoms of thought. We will first deal with epistemological atoms by carrying out a full analysis of Heidegger's discussion of the traditional conception of truth (section II). Heidegger's analysis of truth depends on his notion of disclosedness, which can only be made sense of in terms of two primordial features of human being, situatedness and understanding. Explaining these key terms will

enable us to give an account of the circular structure of meaning, which undermines the possibility of conceptual atomism of thought (section III).

I. Heidegger on Descartes: The Theoretical Demand of Certainty

Heidegger's lifelong philosophical aim was to "raise anew *the question of the meaning of being*" (BT, 19/GA 2, 1).¹¹⁹ In order to properly investigate this question, one requires a method. Heidegger is concerned that most philosophical methods since Descartes have obstructed rather than illuminated the path to understanding the meaning of being. These methods are generally already pregnant with ontological commitments without explicit recognition of this fact, and often in total neglect of the question of being. Furthermore, as Heidegger puts it, "the method of ontology remains questionable in the highest degree as long as we merely consult those ontologies which have come down to us historically" (BT, 49/GA 2, 27). Thus, we require a method that allows the ways things are to show up to us without our theoretical commitments determining their manner of being. In this regard, Heidegger follows Husserl in advocating a *phenomenological* method that gets right to "the things themselves" (BT, 50/GA 2, 27). Although the basic method is attributed to Husserl, Heidegger claims that his old mentor violated his own principles by letting his Cartesian ideal of rigorous science distort the objects of inquiry (IPR, pp. 208-211/GA 17, 270-274). In order to overcome this methodological bias, we must understand its roots in Descartes' philosophy.

¹¹⁹ Macquarrie and Robinson capitalize their translation of "Sein." This is a bit misleading, as all nouns in German are capitalized, so I render all such cases "being" without additional notice in the text. Similarly, "Seiend" and its derivatives are translated as "entity" when "what-is" would be more literal. I opt for "being" or "beings" to maintain the etymological connection with *Sein*. These translation decisions occasionally make it difficult to distinguish between *Sein* and *Seiend*; in such cases I include the German in brackets.

Heidegger believes that Descartes is indeed the founder of modern philosophy (BW, p. 296/GA 41, 98) but not for the usual reasons. The standard story (still influential today) sees Descartes as a radical skeptic who liberates the modern age from the dark ages of dogmatic theology (BaT, pp. 30-31/GA 36, 38). In order to effect such an upheaval, epistemology, and with it the method of doubt, must be put at the forefront of philosophy (BW, pp. 296-298/GA 41, 98-100). Heidegger thinks this caricature is mistaken. For one, Descartes' goals in the *Meditations* are metaphysical, rather than epistemological. Furthermore, for all the talk of skeptical doubt, Descartes' deepest metaphysical commitments are derived from scholastic substance ontology and medieval theology (IPR, Part Two/GA 17, Zweiter Teil). What, then, is the break that Descartes makes with his predecessors?

In *Being and Time*, Heidegger emphasizes the radically new way that Descartes understands the world: gone are the substantial forms of the scholastics and with them go the explanations of Aristotelian physics. Instead, the world is understood purely in terms of extension (see also IPR, pp. 169-170/GA 17, 222-223). This is, in fact, a serious break with the tradition; however, it depends on a more fundamental shift in thinking about what gets to count as knowledge. The method of doubt is not merely (or even primarily) an illustration of what qualifies as proper justification of belief in the face of skeptical considerations. It is a means to an end, "carried out with the intention of reaching something indubitable" (BaT, p. 32/GA 36: 40). Heidegger continues this line of thought as follows:

Descartes's doubt is also "methodical" in a completely different and *deeper* sense – namely, insofar as doubting occurs in the sense and *in the service* of what Descartes understands *by method in general*, that is, what we characterized as "mathematical" method. This means that insofar as Descartes subordinates philosophizing to this guiding thought, this sort of method, it is *decided* in

advance through this thought what must be the character of that which alone can come under consideration as the secure basis for any knowledge. (ibid.)

It is due to these background methodological commitments that Descartes ultimately characterizes the world purely in terms of shape, size, and change of geometrical position (motion). The world in its equipmental immediacy is passed over in favor of that which can be understood mathematically. The reasons for this passing over are not phenomenological, since it is precisely what shows up to us in our everydayness that is rejected. The method of doubt has pre-determined what kinds of objects are most real (BT, 128-129/GA 2, 95-96).

Heidegger terms Descartes' method "mathematical," which raises an interpretive difficulty. Heidegger appears to be saying that the kind of certainty Descartes expects from his philosophical demonstrations is derived from the certainty of mathematics. The rigor of mathematics guides the way by example, and the true philosophy must follow its lead. Yet, Descartes is explicit in saying that his metaphysical demonstrations are "more evident" than the proofs given in mathematics (AT I, 144; CSMK, 22; also, AT IX-2, 13-17). This is borne out in the order of the *Discourse*, the *Meditations*, and the *Principles*, as mathematics depends upon the dual metaphysical pillars of the cogito and God. Why, then, does Heidegger insist that Descartes "subordinates philosophizing" to the mathematical method? Is he simply mistaken in his interpretation? Or perhaps Descartes misunderstands his own methods and achievements? It is my contention that neither is the case. What Heidegger means by the "mathematical method" is more subtle than the crude oversimplification above would suggest. Three considerations will ease the tension between the two poles of our dilemma. The first is that Descartes adopts a *geometrical* method for proving metaphysical truths. However, the form that his procedure takes need

not indicate anything about the content of its constituents or conclusions. In this case, the fact that both the order (all demonstrations rely strictly on what has come before) and structure (axioms/principles and definitions/concepts presupposed) are geometrical does not mean that the demonstrations rely on mathematical premises. We have treated this topic fully in chapter 1.

Even if Descartes' metaphysical demonstrations are not dependent on mathematical propositions, there is still a sense in which a high standard of certainty akin to that of mathematics shapes the ensuing meditations. This second consideration reveals Descartes' ontological prejudice in favor of an understanding of beings in terms of substance.¹²⁰ We mentioned above that Descartes neglects the contextual and equipmental aspects of objects in our everyday worldly immersion. Heidegger calls this way of understanding beings the "ready-to-hand" [*zuhanden*], which is our most basic way of dealing with things.¹²¹ The being of the ready-to-hand is bypassed due to the nature of the method. Heidegger writes:

Instead he prescribes for the world its 'real' being, as it were, on the basis of an idea of being whose source has not been unveiled and which has not been demonstrated in its own right – an idea in which being is equated with constant presence-at-hand. Thus his ontology of the world is not primarily determined by his leaning towards mathematics, a science which he chases to esteem very highly, but rather by his ontological orientation in principle towards being as constant presence-at-hand [*ständiger Vorhandenheit*], which mathematical knowledge is exceptionally well suited to grasp. (BT, 129/GA 2, 96)

This passage shows that Heidegger was well aware that it was the ontological privileging of a certain way of being that takes primacy over any mathematical foundation. The "present-at-hand" [*vorhanden*] is Heidegger's term for our way of understanding beings

¹²⁰ This topic was dealt with in chapter 1, section IV.A. We now apply our more general interpretation given there to its more specific relevance with respect to Heidegger's critique of atomism.

¹²¹ See Dreyfus 1991, particularly chapters 4 and 5 for a very thorough and helpful discussion of this theme. Given the strength Dreyfus' interpretation of the ready-to-hand, it is rather disappointing how weak his chapter on Heidegger's critique of Descartes is (chapter 6). Dreyfus does not really engage any of Descartes' arguments, as Heidegger does in the relevant sections of *Being and Time*, but refers instead to more recent "Cartesian" arguments.

when they have lost their relational significance in their normal contexts. This is often the result of a breakdown in our everyday dealings (e.g. the copy machine malfunctions while printing exams for one's class that day). With respect to Descartes, Heidegger has in mind a more radical disengagement with the flow of our daily life. In our theoretical detachment, we are able to see things as mere objects devoid of contextual meaning.

This discussion of the present-at-hand goes some way toward clarifying Heidegger's claim about Descartes' presupposed "mathematical" method. The mathematical must be understood more broadly than that which is quantitatively studied in arithmetic, algebra, or analytic geometry:

Mathematical knowledge is regarded by Descartes as the one manner of apprehending beings which can always give assurance that their being has been securely grasped. If anything measures up in its own kind of being to the being that is accessible in mathematical knowledge, then it *is* in the authentic sense. Such beings are those *which always are what they are*. Accordingly, that which can be shown to have the character of something that *constantly remains* (as *remanens capax mutationum*), makes up the real being of those beings of the world which get experienced. [...] Thus the being of the 'world' is, as it were, dictated to it in terms of a definite idea of being which lies veiled in the concept of substantiality [...]. (BT, 128-129/GA 2, 95-96)

Although Heidegger uses language that may seem foreign to Cartesian terminology, a close look at the various ways Descartes defines substance proves that his understanding is in fact captured by what Heidegger is calling "presence-at-hand." Substance is that which is (1) capable of independent existence (AT VII, 44); (2) a subject in which all that we perceive is (AT VII, 161); (3) an existing thing which depends on no other thing to exist (AT VIII-1, 24). In Meditation III, Descartes admits that while matter and mind differ as greatly as one can imagine, they nevertheless are identical insofar as they are substances (AT VII, 44). In the *Second Replies*, he claims that "a real attribute cannot belong to nothing" (AT VII, 161); and similarly, in *Principles* I, 52: "nothingness possesses no attributes" (AT VIII-1, 25). So, when one strips a thing of all its properties, one is left only with bare existence, substantiality, which is common to all things. Any

property or quality that we can perceive must have an underlying substrate, which itself cannot be perceived: “we cannot initially become aware of a substance merely through its being an existing thing, since this alone does not of itself have any effect on us” (ibid.).

What does all this suggest about the nature of substance for Descartes? All things, insofar as they exist, have the characteristic of persistence through change. To be a substance is to be simply static presence which underlies all change. It is only through the attributes (thought, extension) that we can even acknowledge the existence of substance (AT VIII-1, 25). However, and this is essential for Heidegger’s point, the attributes themselves tell us nothing of the nature of substantiality, or “the being of beings.” Substance itself appears to be an empty subsistence, to which we can get no phenomenological access. As final confirmation for this interpretation of substance as *constant presence*, note Descartes’ claim in the synopsis to the *Meditations*: “First, we need to know that absolutely all substances [...] are by their nature incorruptible and cannot ever cease to exist” (AT VII, 13-14/CSM II, 10). By blithely equating existence with substance, Descartes reveals that his methodological commitments are loaded with assumptions about what qualifies as genuine being. The preference for constant presence-at-hand is grounded neither in phenomenological evidence nor in rational argument.

We have seen that when Heidegger refers to Descartes’ background mathematical method, he is thinking primarily of the tendency to assume that things exist fundamentally as presence-at-hand. However, even if it is true that the uncritical acceptance of substance ontology is not guided by mathematical precepts, one must countenance the fact that Descartes understands particular material objects purely in terms of geometrical properties. This brings us to our third and final consideration: we

must explain why it is that the mathematical understanding of nature followed necessarily from Descartes' method. It cannot have come from the nature of substance itself, since substantiality is common to both material and mental substance, and the essence of thought is non-geometrical. Heidegger argues that both the ungrounded prejudice of substance ontology and the penchant for mathematizing the world stem from Descartes' "*guiding methodical thought*" which takes absolute certainty as the highest aim and requires knowledge to be something "that is *simplest, simplicissima propositio*, and thus something *purely perspicuous (intuitus)*" (BaT, p. 32/GA 36, 40). This final consideration is in fact just a different offshoot from the root of the previous one: the standard of certainty akin to mathematical certainty.

In *What Is a Thing?* Heidegger tries to determine the form of the mathematical that dominated early modern thought. He traces this development back to its Greek sources, where *ta mathēmata* is taken as "what can be learned and thus, at the same time, what can be taught" (BW, p. 274/GA 41, 69). However, Heidegger continues, "What we now take cognizance of is not drawn from any of the things. We take what we ourselves somehow already have. What must be understood as mathematical is what we can learn in this way" (BW, p. 277/GA 41, 75). Heidegger has in mind the doctrine of recollection displayed in Socrates' geometrical dialogue with Meno's servant boy. The mathematical, in this very general sense, is something we have from the start and "according to which we experience them as things at all, and as such things" (ibid.). It must be emphasized that this essence of the mathematical is more basic than the quantitative, which is derivative (if paradigmatic) on the more general form of this way of grasping things.

Heidegger suggests that we look to Descartes' early *Regulae ad directionem ingenii* for a characterization of this guiding mathematical ideal, there labeled *mathesis universalis*.¹²² For our purposes, the most important thing to note comes from the statement of Rule III, where Descartes writes: "Concerning objects proposed for study, we ought to investigate what we can clearly and evidently intuit or deduce with certainty, and not what other people have thought or what we ourselves conjecture. For knowledge can be attained in no other way" (AT X, 366/CSM I, 13; Heidegger quotes this passage at BW, p. 300/GA 41, 102). We are here given a guiding principle as to what kinds of beings are the proper objects of philosophical investigation. This methodological rule holds true in the *Meditations*, where the meditator employs a process of doubt in order to clear away obscurity and arrive at the truths that can be known with absolute certainty: "Descartes does not doubt because he is a skeptic; rather, he must become a doubter because he posits the mathematical as the absolute ground and seeks for all knowledge a foundation that will be in accord with it" (BW, p. 301/GA 41, 104; also see GA 23, 113 and IPR, pp. 171-172/GA 17, 225-226).

The final text we ought to consider in regard to our problematic is Heidegger's discussion of the cogito from *Nietzsche*, vol. IV. The cogito is the clearest example of a metaphysical demonstration that surpasses the certainty of mathematical demonstrations. If this is so, then in what way are we to say that the cogito relies upon a prior mathematical commitment? To repeat, there is no presupposition with respect to the specific quantitative disciplines of mathematics. Heidegger believes there are two ways to interpret the situation: "Does Descartes simply take the already present and practiced

¹²² See IPR, pp. 156-168 (GA 17, 206-221) for a more detailed version of Heidegger's interpretation of Descartes' *Regulae*.

form of ‘mathematical’ knowledge as the model for all knowledge, or does he on the contrary newly define – in fact, metaphysically define – the essence of mathematics?” (N IV, 114/GA 6, 161-162) Heidegger insists on the latter position. Descartes has a guiding principle that is mathematical (in its modernly transformed ancient sense) and underlies the process of doubt. The statement of the cogito serves as the paradigm example of genuine being, perfectly captured in its incontestable form. This moment serves to elucidate the nature of the mathematical as a general way of ascertaining beings. Once the cogito has been established in its place of primacy in the new philosophy, we then understand the criterion of knowledge for any more particular area of being – thoughts, material objects, and of course the specific realm of the mathematical (arithmetic, geometry, etc.).

Thus far we have explained the first two Cartesian assumptions relevant to Heidegger’s critique of atomism, the demand for certainty and the acceptance of substance ontology. An important component of Descartes’ atomism of thought was his conception of truth. Much of his thought in this regard, as is the case with his understanding of being, is derived from medieval and scholastic thought. We have already seen that Descartes does make a break with the latter tradition by tying the true very closely to that which can be intuited with a high level of certainty. Yet, Heidegger argues that there are three main ways in which Descartes follows the traditional notion of truth, especially in its Thomistic formulation. The first way involves the ultimate dependence of truth upon God. This similarity between Descartes and Aquinas itself has two aspects, one obvious and the other less so. The more obvious part is expressed in Descartes’ theory of error from Meditation IV. Anything that exists, i.e. has some

measure of reality, is a being created by God and is thus inherently good. This notion, of course, goes back to Augustine, and is present in altered form in Aquinas. On these grounds, Descartes argues that error cannot have positive existence, but must only be spoken of as a privation. We need not delve further into this topic here.

The less obvious similarity involves the interpretation of the eternal essences offered in chapter 2. There is an immediate divergence concerning the creation of the eternal essences, as Descartes views them as the result of God's free creation, while Aquinas considers them to be part of God's essence. Nevertheless, there is an important convergence insofar as both authors consider God to be the foundation of truth. As Heidegger writes of Aquinas, "In relation to God everything is true insofar as each *res* is only a *veritas* insofar as its being-true is grounded on the fact that it is itself related to the *intellectus divinus*" (IPR, p. 139/GA 17, 184; italics added for Latin terms). The first part of this quote restates the "obvious" similarity from above: a thing *is* only insofar as it is a creation of God. Heidegger explains that "[t]o say 'that it *is so*' is to say that 'it *is true*'" (ibid.). On this basis, for both Descartes and Aquinas, our minds are fashioned so as to be capable of entering into truth-relations with the eternal essences that subsist in God's understanding.

This point leads directly to the second way Heidegger thinks Aquinas anticipates Descartes: the use of the natural light. Again, we must make the relevant caveats to avoid a facile exaggeration of similarity. For Descartes, use of the natural light involves intuition independent of the senses, and cannot have anything to do with apprehending quiddities and the like. However, as we pointed out in chapter 1, section III.B, the

common thread between the Cartesian and the Thomistic uses of the natural light is that it is a God-given faculty that can be used to determine non-revealed truths.

Finally, the third parallel between Aquinas and Descartes is in their conception of the fundamental truth-relation itself. Descartes, along with much of the tradition that succeeded him, follows Aquinas in accepting a model of truth as correspondence, that is, “as agreement of knowledge with beings” (N IV, p. 120/GA 6II, 169).¹²³ This definition in itself does not tell us much about Descartes’ position. It must be understood with respect to the guiding methodological principle we have outlined above. The focus on objects that can be grasped with certainty determines the “beings” side of the correspondence relation. Descartes has also deepened the divide between knower and objects of knowledge, which transforms the focus of the question of truth in the modern age. The question is now centered on the knowing subject, and how its judgments correspond with reality. In order to make sense of Heidegger’s critique of Descartes on this point, we will have to look at his more general assessment of the correspondence theory of truth. This will serve two main purposes. First, the undermining of the priority of the correspondence theory of truth will go some way towards showing that epistemological atoms of thought are dependent upon a background of meaning that is non-atomistic and non-propositional. Second, understanding Heidegger’s line of argument in this regard will serve as a blueprint for how his critique of conceptual atoms of thought will run.

¹²³ It is curious that Heidegger chose to frame the correspondence as relating “knowledge [*Erkenntnis*]” and “beings [*Seienden*]” in his specific discussion of Descartes’ understanding of truth, since knowledge is usually defined partially in terms of truth and not the other way around. Heidegger is more precise in other places, which we shall take up in detail in the next section.

II. The Critique of the Correspondence Theory of Truth

In order to appreciate Heidegger's method of criticism with respect to truth, it will be helpful to point out the ways in which he makes use of a modified form of transcendental argumentation. For example, one can understand *Being and Time* as an extended transcendental argument of sorts. Heidegger uses the method of phenomenology to reveal the type of being of our everyday experience and then inquires into what ontological framework must exist in order for the character of our everydayness to be the way it is. It may sound strange that a philosophical method is needed in order to get clear about everydayness, since this seems to be just what philosophy does *not* need to explain, being already self-evident as that which is closest to us. Philosophy should concern itself with what is really going on, as our naive layman's understanding of the world is precisely what gets in the way of rational inquiry. But Heidegger thinks that what philosophers take to be obvious, our everydayness, is actually a distortion framed by theoretical convictions.¹²⁴ This is why Heidegger gives a full analysis of everyday human experience before making his transcendental argument for the ontological conditions that make human experience possible.

Heidegger employs transcendental arguments at several different levels. We have just mentioned how *Being and Time* as a whole can be understood as just such an argument at the global level. With respect to more particular issues within the extended

¹²⁴ Charles Guignon (1983, pp. 20-38) shows exactly this with respect to Descartes' project in the *Meditations*: "It may be the case that the plain, common-sense description of our lives at the very outset of the Cartesian inquiry is already infected by philosophical assumptions that misrepresent our everyday situations in the world" (p. 30). Compare this with Kant's understanding of "experience" in the *Critique of Pure Reason*. He takes very little time examining what experience is, and even the table of categories of the understanding, the categories through which our sensation are synthesized into meaningful experience, are taken for granted as obvious. The hard part for Kant is not getting clear on what experience is – that much is given – but making the transcendental argument that the categories actually link up with empirical reality in the right way. This is why we should be careful not to make too much of the similarity between Kantian and Heideggerian transcendental argumentation. See footnote 125.

project, Heidegger also uses transcendental argumentation locally. This type of argumentation certainly has its roots in the Kantian critical philosophy, though the similarities only stretch so far.¹²⁵ With respect to truth, our current focus, Heidegger begins with an analysis of the accepted, traditional formulation of truth as correspondence between a truthbearer (judgment, proposition, assertion, etc.) and an independently existing thing, and shows that this understanding passes over the essential issues when it comes to the question of what truth is. Truth as correspondence is uncritically accepted as the locus of truth, when in fact it is merely one particular expression of it, derivative upon a more fundamental understanding of truth. The local transcendental move that Heidegger makes, then, is to expose what is left wanting in the traditional conception and to reveal what conditions make it possible in the first place.

Our reading of Heidegger's discussion of the traditional conception of truth comes from two sources, section 44 of *Being and Time* and the essay, "On the Essence of Truth."¹²⁶ Heidegger focuses on two main features of truth. First, "the 'locus' of truth is assertion (judgment)" (BT, 257/GA 2, 214). What is translated here as "assertion" is the German word *Aussage*, which means testimony (in the legal sense), but is also the word for proposition or statement (in the philosophical sense). We maintain this translation for consistency, despite its potentially misleading specificity; though it is important to note

¹²⁵ The basic point of agreement is, roughly, that both Heidegger and Kant begin with a "given" of some kind and argue regressively to ask what conditions must have obtained in order for the given to have been possible in the first place. A full account of this topic is beyond the scope of our purposes; see Dahlstrom (2001, pp. 407-423) for a more thorough discussion of the similarities and differences between Kantian and Heideggerian transcendental philosophy.

¹²⁶ Heidegger has several lengthy discussions concerning truth in early lecture courses such as *Plato's Sophist* ([1992] 1997), *Logic: The Question of Truth* ([1976] 2010), and *History of the Concept of Time* ([1976] 1985). These are helpful for clarifying Heidegger's understanding of truth, though the focus in these cases is on truth's historical underpinnings, particularly Aristotle. Since our goal is primarily to analyze Heidegger's displacement of the traditional notion of truth in order to make sense of his critique of atomism, we will leave discussion of these lecture courses out of our account.

that Heidegger's usage is intended merely to capture any type of truthbearer. Heidegger also stresses the neo-Kantian connection of assertions to judgment in order to emphasize the modern tendency to associate truth with assertions in the human mind, all of which must be some form of judgment.

The second important feature of truth is one we broached in the previous section: "the essence of truth lies in the 'agreement' of the judgment with its object" (ibid.). Heidegger thinks that there is a basic, everyday sense in which we understand truth as correspondence between different matters in the world. In "On the Essence of Truth," he uses the example of the common distinction between real or genuine gold, and fake or artificial gold: "Genuine gold is that actual gold the actuality of which is in accordance with what, always and in advance, we 'properly' mean by 'gold' " (BW, p. 117/GA 9, 179). This understanding of correspondence is between two different worldly matters (*Sachen*), in this example, the chunk of metal under question and the way we distinguish between real gold and other things. But the way philosophers have traditionally understood truth differs from this everyday notion of correspondence. Heidegger writes, "However, we call true not only [...] genuine gold, and all beings of such kind, but also and *above all* we call true or false our statements about beings, which can themselves be genuine or not with regard to their kind, which can be thus or otherwise in their actuality. [...] Now, though, it is not the matter that is in accord but rather the *proposition*" (ibid.; first italics added). The more mundane understanding of truth (correspondence between a worldly matter and our conventional meanings) gives way to a focus on how the assertion agrees with the worldly matter.

With these two essential features in place, the focus on the assertion and its correspondence with reality, Heidegger says that the traditional definition of truth, following Aquinas, can be simply stated as the *adequatio intellectus et rei*, that is, the accordance or adequation of the intellect and the thing (BT, 257-259/GA 2, 214-217; BW, pp. 117-120/GA 9, 178-181). This definition of truth is so “general and empty” (BT, 258/GA 2, 215) that it has been considered sufficiently obvious to those of the tradition so as to make further investigation needless. Heidegger cites Kant as a paradigm example of this sort of dogmatism with respect to the essence of truth. Though his “Copernican Revolution” shifted the epistemological landscape from a framework of minds set against independently existing worlds to one where the objects of epistemic inquiry require the human understanding to exist at all, it was nonetheless still within the realm of a correspondence theory of truth. What is striking is that for all that fell under the scope of Kantian criticism, the traditional understanding of truth was, as Heidegger points out, “granted and presupposed” (B 82; quoted in BT, 258/GA 2, 215).

Heidegger adds a last feature of the traditional conception of truth: “Under the domination of the obviousness that this concept of truth [truth as correspondence] seems to have but that is hardly attended to as regards its essential grounds, it is considered equally obvious that truth has an opposite, and that there is untruth” (BW, p. 119/GA 9, 181-182). This last aspect is the law of bivalence – that every proposition is either true or false – or, in other words, that truth is in binary opposition to falsity.

After outlining the basic definition of truth as correspondence and showing that the tradition has taken it over uncritically, Heidegger asks, “*what else is tacitly posited in this relational totality of the *adequatio intellectus et rei*? And what*

ontological character does that which is thus posited have itself?" (BT, 258/GA 2, 215; emphasis in original). This question makes two things about Heidegger's approach to the problem of truth clear. For one, he does not think that the model of truth as correspondence is completely transparent as the obvious and self-evident starting point for any investigation of truth. Heidegger would agree that it is certainly one way of understanding truth, yet this goes no way toward validating it as the essence of truth. Second, as innocuous as the traditional definition of truth may seem, it nevertheless only makes sense within an ontological framework that would enable assertions to be meaningful. This claim has two related sides to it, a positive point and a negative one. The positive claim is that the theoretical notion of assertion assumed by philosophers to be the locus of truth is actually a very specific form of asserting, derivative on a more fundamental type of asserting (which itself is dependent on the basic way in which being is disclosed at all). The negative point is that beyond the mere fact that the traditional conception of truth is only possible with respect to a more primordial mode of being, it is also the case that this understanding of truth is at least partially the result of implicit ontological presuppositions. Specifically, Heidegger points to the understanding of being as static presence (discussed in section I) as significant in this regard. The idea that it is even a presupposition at all has been concealed by its supposed self-evidence.¹²⁷

To begin the investigation into the foundations of the correspondence theory of truth, Heidegger asks how it is that an assertion comes into accord with a thing, if the

¹²⁷ This understanding of being gives rise to what Daniel Dahlstrom (1994; 2001) calls the "logical prejudice," that is, that truth is essentially located in the assertion. At the end of a discussion on Aristotle's influence on the West's understanding of being as static presence, Dahlstrom writes, "At the basis of perceptual and propositional truth (and thereby the conception of entities' being as presence) lies the notion that an entity can only be regarded as such and such because it continues to be held onto as something that is present (*hypokeimenon*) and present along with something else" (2001, p. 222).

latter is truly something of a different nature than the assertion (BT, 258-259/GA 2, 215-216; BW, pp. 120-121/GA 9, 182-183). The way that the problem of truth has been viewed since Descartes is through a subject-object model (even if not through full-blown Cartesian dualism). This makes the *intellectus* and *rei* on either side of an ontological divide and it is not at all clear how this essential difference in kind is to be resolved into the appropriate truth-relation.¹²⁸ Heidegger says that to make any progress on this issue at all, we must set aside these prejudices about how a truth-relation must occur and examine the phenomenological facts about how it is that we actually make true assertions.

To get at the phenomenological evidence, Heidegger takes up an example: “Let us suppose that someone with his back turned to the wall makes the true assertion that ‘the picture on the wall is hanging askew.’ This assertion demonstrates itself when the man who makes it, turns round and perceives the picture hanging askew on the wall” (BT, 260/GA 2, 217). On the correspondence model of truth, one might say that the picture on the wall was accurately represented by a mental representation. But is this what we mean when we turn around and confirm that the picture is askew? It seems not. Rather, the picture itself, not a mental representation, presents itself as askew and as such demonstrates that the assertion is true. The assertion itself does nothing more than point out the thing itself, in this case the uneven picture. As Heidegger puts it, “Any interpretation in which something else is here slipped in as what one supposedly has in

¹²⁸ This divide between the knower and the known takes many different forms, though Heidegger appears most concerned with its Kantian formulation. Kant made clear the epistemological problems with trying to know things as they are in themselves, yet, as Heidegger argues, his own project (and that of the neo-Kantians) still embodies a certain kind of epistemic dualism, even if it does not include the realm of the thing-in-itself. On this point, Heidegger asks (BT, 259/GA 2, 217): “Has the question already been perverted in the very way it has been approached – in the ontologically unclarified separation of the Real and the ideal? [...] And with regard to the ‘actual’ judging of what is judged, is the separation of the Real act of judgment from the ideal content altogether unjustified? Does not the actuality of knowing and judging get broken asunder into two ways of Being – two ‘levels’ which can never be pieced together in such a manner as to reach the kind of Being that belongs to knowing?”

mind in an assertion that merely represents, belies the phenomenal facts of the case as to that about which the assertion is made. Asserting is a way of being towards the Thing itself that is” (BT, 260/GA 2, 217-218).

Several commentators (Dahlstrom 2001; Tugendhat 1991, pp. 250-253) are right to point out that at this point in the analysis, Heidegger follows Husserl’s understanding of truth very closely, though, to be sure, with some significant changes. One of these divergences is that for Heidegger, in an assertion that which is pointed out is *uncovered* (a term Husserl does not use with respect to truth). However, Heidegger elaborates on this by saying, “The entity itself which one has in mind shows itself *just as* it is in itself; that is to say, it shows that it, in its selfsameness, is just as *it* gets pointed out in the assertion as being – just as *it* gets uncovered as being” (BT, 261/GA 2, 218). This latter claim is Heidegger’s appropriation of what he considered to be one of Husserl’s decisive breakthroughs beyond the theory of correspondence. In assertions, or any mode of presentation of something, it is not an intermediary representation that points to the being in question, but rather the being itself in one among many ways of presenting itself.¹²⁹

What we have discovered is that an assertion is an uncovering of an entity in its “selfsameness.” But entities can be uncovered in other ways, that is, uncovering is a necessary but not sufficient condition for truth as assertion. The obvious question that arises is: what exactly does Heidegger mean by the uncovering of entities? He does not have much more to say about uncoveredness in section 44 of *Being and Time*, aside from

¹²⁹ Tugendhat makes this point particularly clearly: “By differentiating various modes of givenness of the same object [Husserl] was able to recognize that that which, in accordance with the ‘adaequatio’ doctrine, is supposed to stand in agreement with the thing is neither – as this doctrine erroneously suggests – the subject, nor another thing – say, a sentence as a physical event – but instead the same thing, only in another mode of givenness. [...] This self-sameness of the thing is not something that is transcendent to our experience; rather, it is itself only a corollary of a distinct mode of givenness: the thing as it is itself is the thing as it shows itself if it is self-given to us” (1991, p. 251).

mentioning that the notion goes all the way back to the Greek word for truth, *aletheia*, which Heidegger takes to mean “unhiddenness” or “unconcealment.”¹³⁰ “On the Essence of Truth” however, does give us several hints about how to understand this concept.

There he says:

What is stated by the presentative statement is said of the presented thing in just such manner *as* that thing, as presented, is. The ‘such-as’ has to do with the presenting and its presented. Disregarding all ‘psychological’ preconceptions as well as those of any ‘theory of consciousness,’ to present here means to let the thing stand opposed as object. As thus placed, what stands opposed must traverse an open field of opposedness and nevertheless must maintain its stand as a thing and show itself as something withstanding. This appearing of the thing in traversing a field of opposedness takes place within an open region, the openness of which is not first created by the presenting but rather is only entered into and taken over as a domain of relatedness. (BW, p. 121/GA 9, 184)

In order for us to pick or point out an entity in an assertion, it must show up or present itself to us meaningfully in a certain way (the “as” such and such). “To traverse an open field of opposedness” means that the entity in question must be taken out of its concealment, that is, it must be uncovered as what it is. This can only occur in an “open region” – we must open up or free up a space in which the entity can present itself. This openness is only possible within an already existing “domain of relatedness”; the entity could not show up “as” anything at all unless it existed amidst a set of meaning relations.¹³¹ Therefore, if Heidegger’s analysis of the conditions for the possibility of truth as assertion is correct, this conclusion appears unavoidable: “if the correctness (truth) of statements becomes possible only through this openness of comportment, then what first makes correctness possible must with more original right be taken as the

¹³⁰ Josh Rayman has brought it to my attention that Heidegger is mistaken in his rendering of the Greek term, though this should not affect the present analysis.

¹³¹ This notion of openness leads Heidegger to famously claim that “*The essence of truth is freedom*” (BW, p. 123/GA 9, 187). In order to make sense of this, “freedom” cannot be understood in its traditional philosophical setting. Instead, “That which is opened up, that to which a presentative statement as correct corresponds, are beings opened up in an open comportment. Freedom for what is opened up in an open region lets beings be the beings they are. Freedom now reveals itself as letting beings be” (BW, p. 125/GA 9, 190-191).

essence of truth. [...] Thus the traditional assignment of truth exclusively to statements as the sole essential locus of truth falls away” (BW, p. 122/GA 9, 185).

Assertion has been shown to be possible only as a particular mode of the more general phenomenon of uncovering, yet this notion itself, the uncovering of entities, indicates an even more primordial fact about truth.¹³² Uncovering only takes particular beings out of their concealedness. But as we saw, it is only possible to uncover a being – have it present itself *as* itself meaningfully – given a space (a “domain of relatedness”) where beings can show up in the first place. Thus Heidegger says, “Our earlier analysis [BT, Part One, Division I, Ch. III, particularly sections 14-18] of the worldhood of the world and of the beings within-the-world has shown, however, that the uncoveredness of beings within-the-world is *grounded* in the world’s disclosedness. [...] *With* and *through* it is uncoveredness; hence only with Dasein’s *disclosedness* is the *most primordial* phenomenon of truth attained” (BT, 263/GA 2, 220-221). Since the primary goal of this section is to look at the way atomistic and propositional truth is founded on a more fundamental notion of uncovering, that itself is not necessarily atomistic or propositional, we will only briefly outline Heidegger’s understanding of the “most primordial phenomenon of truth.” Disclosedness will be taken up in more detail in section III.

Disclosedness is not a contingent feature of Dasein¹³³ that occasionally occurs or that is merely one possibility among others. Disclosedness is an essential feature of Dasein’s fundamental structure: “disclosedness is that basic character of Dasein

¹³² “Being-true as being-uncovering [*entdeckend-sein*], is a way of being for Dasein. What makes this very uncovering possible must necessarily be called ‘true’ in a still more primordial sense. *The most primordial phenomenon of truth is first shown by the existential-ontological foundations of uncovering*” (BT, 263/GA 2, 220).

¹³³ This is Heidegger’s term for the being that has an understanding of being and for whom one’s own being is an issue. If we are to get at the meaning of being itself, the being of Dasein must first be investigated.

according to which it *is* its ‘there’. [...] In so far as Dasein *is* its disclosedness essentially, and discloses and uncovers as something disclosed to this extent it is essentially ‘true’. *Dasein is ‘in the truth’* ” (BT, 263/GA 2, 220-221). This rather remarkable statement merits discussion. An investigation into a set of uncovered entities is what Heidegger calls an “ontic” pursuit, meaning one that deals with entities of a particular ontological kind. However, for an entity to be uncovered, it must show up in a certain way because of what kind of being it is, and what kind of being it is can only be understood through the totality of its ontological relations of meaning. One can think of this totality as a background or framework of intelligibility that enables us to make sense of particular entities within the whole. Heidegger calls this horizon through which things have meaning a “world.” Disclosedness, then, does not reveal particular entities themselves, but the character or manner of being that a set of entities within a world takes on. Investigations into ways of being are termed “ontological” and they underlie any ontic pursuit. Thus with respect to Heidegger’s understanding of truth, Dasein’s disclosedness is the condition for the possibility of any uncovering, since entities can only be uncovered *as* having certain ontological characteristics that are determined by the world in which it is presented. This means that disclosedness is the most primordial or fundamental being of truth, being the ground of any kind of truth at all, including truth as assertion.

Given the structures of disclosedness and uncovering we have sketched above, one might wonder how it is that Heidegger is still offering an interpretation of *truth*.¹³⁴ When he discusses the painting that is askew, Heidegger appears to be referring to an account of *confirmation*; doesn’t the “demonstration” of truth by way of turning around

¹³⁴ Ernst Tugendhat (1991) argues that Heidegger’s account fails to capture bivalence, what he calls the “specific phenomenon of truth” (p. 259).

and seeing the painting beg the question? Furthermore, since disclosedness does not obviously have the typical characteristics associated with truth – correspondence, bivalence,¹³⁵ captured in an assertion – why should we equate the two concepts, even calling disclosedness “the most primordial phenomenon of truth”? Just because disclosedness is the condition for the possibility of truth (as correspondence) does not imply that it *is* truth itself. Two responses can be made on behalf of Heidegger. The first is that, for the purposes of our current investigation, it does not necessarily matter whether Heidegger’s account matches up with traditional preconceptions of what truth should be. Our ultimate goal is only to show that atoms of thought are impossible, and if assertions of truth are founded upon structures that are not themselves bivalent, assertive, etc., that still does not take away from the force of the critique against atomism.

This response is not entirely satisfactory, and I think Heidegger does have a case for why disclosedness and uncovering should be considered phenomena of truth, though this case will require some support. Heidegger thinks that the divide between subject and object that has become paradigmatic of the modern age has resulted in a distortion of the original understanding of truth, where skepticism arises concerning how the subject can come to understand the independent object (BT, 257-260/GA 2, 214-217). Yet, as mentioned before, this picture is not essential to an originary understanding of truth, but is only the result of ontological commitments concerning subject and object. A closer look at Heidegger’s use of the term “*aletheia*” will clarify the more primordial notion of truth.

¹³⁵ Dahlstrom (2001) attempts to argue against Tugendhat’s contention mentioned in the previous footnote, and claims that Heidegger’s view can support bivalence. For reasons that will become clear in what follows, I believe that the expectation of bivalence reveals that both scholars have missed Heidegger’s deeper point about the nature of truth. While surely interesting, the topic of bivalence is outside the scope of this study.

In *aletheia* it is beings themselves that are taken out of their concealedness. In an uncovering we ought not expect that we are getting at a *Ding an sich*, for a being is never uncovered purely as it is in itself from the perspectiveless vantage point of nowhere. In order for an entity to show up meaningfully at all, it must be from some perspective. In the case of the tilted painting, we are revealing one aspect of the painting itself from one of its many possible “modes of givenness.” Once we have given up the dualism between knowing subject and radically opposed object, and recognize that we are always already amidst beings, the question-begging concerns with confirmation are annulled. If we are to come to know beings at all, it will be by necessity from some particular perspective.

Thus far we have focused on the ontic uncovering of beings. At this level it has become apparent why it is that Heidegger considers *aletheia* to be a more fundamental conception of truth than that of asserting. Uncovering is our way of accessing beings, and asserting is a more specific form of uncovering. What about disclosedness, which is less obviously related to the traditional conception of truth? Uncovering is rooted completely in disclosedness. Conceptually, we can divorce the ontic notion of uncovering from the ontological notion of disclosedness. But any actual uncovering already presupposes that a space of meaning or clearing has been opened up to allow certain beings to be taken out of their hiddenness. And the particular beings that are revealed in turn alter the way in which ontological modes of disclosedness are opened up. Thus, in actuality there is no way to understand uncovering and disclosedness independently of one another without losing the meaning of both.

There is another fact about *aletheia* worth mentioning. We noticed above that since Dasein *is* its disclosedness, it is “in the truth.” But Heidegger also says, “In its full

existential-ontological meaning, the proposition that ‘Dasein is in the truth’ states equiprimordially that ‘Dasein is in untruth’” (BT, 265/GA 2, 222).¹³⁶ In terms of the uncovering of entities, this text indicates that although assertions are uncoverings of a sort, the structure of uncovering itself essentially involves both uncovering and concealing. Any uncovering reveals the entity in some respects while concealing it in others. Looking at the crooked painting from afar affords us access to certain of its qualities (crookedness relative to its surroundings, beauty of the work seen as a whole), yet blocks our access to others (the signature scrawled at the bottom, its micro-chemical composition). Thus uncovering essentially involves a simultaneous concealing. Disclosedness works in an analogous way. In opening up a space in which things can show up with meaning, we close off other possibilities of meaning.¹³⁷ Perhaps Heidegger’s conception of truth as disclosedness and uncovering has transformed the notion of truth to the point of unrecognizability. Yet it is precisely the modern understanding of truth that was questionable in the first place, given its grounding in dubious ontological presuppositions. Finally, for the purposes of this study, it is atomistic assertions (epistemological atoms of thought) that are at issue; clearly, then, any account of truth that uncritically accepts atoms of thought as its primary bearer of truth shoulders the burden of proof. If Heidegger’s analysis of disclosedness and uncovering is accurate, then we have reason to be suspicious of epistemological atomism, and with it, the modern distortion of the traditional conception of truth.

¹³⁶ See also BW, p. 130/GA 9, 193: “Letting-be is intrinsically at the same time a concealing. [...] Considered with respect to truth as disclosedness, concealment is then undisclosedness and accordingly the untruth that is most proper to the essence of truth.”

¹³⁷ We have only offered a preliminary account of disclosedness with respect to both the clearing of a space of meaning (in contrast with Descartes’ *lumen naturale*) and the fact that Dasein is simultaneously in truth and untruth. The full details of both topics will be offered in section III when the related notions of situatedness, understanding, and being-in-the-world are discussed.

We have reached an important result. In chapter 2, we discussed several different forms of Cartesian atoms of thought. Heidegger's remarks on the traditional conception of truth are certainly relevant for one such form, namely, epistemological atoms. Recall that at least one of Descartes' most fundamental assertions – the *cogito* – is epistemologically indivisible. In the pronouncement of the *cogito*, the meditator uncovers the necessity of her existence in the moment of that thought. In order for this *ontic* discovery to be possible, an *ontological* way of understanding beings must first have been operative. As we have seen, Descartes would agree that there is a background of meaning that makes the *cogito* possible. This background consists of the contents of our rational mind, that which is innate within us, including concepts and principles that God has willed to be there. Heidegger, on the other hand, would emphasize the aspects of Descartes' "guiding methodological principle," which privileges apodictic certainty, views beings essentially as presence-at-hand, and understands truth according to medieval doctrines. These are theoretical presuppositions, rather than innocuous and self-evident philosophical starting points. These background assumptions do not allow beings to show up in the way that they are, but instead only beings that have been constituted in advance by our theoretical prejudices.

More importantly, all epistemological atoms of thought that capture distinct, propositional meanings (but not necessarily first in the order of demonstration), including axiomatic principles and the results of demonstration, are grounded in the structures of uncovering and disclosedness. Neither of these structures include the essential features of epistemological atoms of thought – distinctness of meaning, isolation from other meanings, bivalence, or correspondence. How can something purportedly atomistic arise

from something that is not? If the meaning of a particular assertion, the true focus of atomism, is derived from sources that fundamentally exclude discrete and isolated meaning, it is hard to conceive how epistemological atoms could exist. From the results we have gained thus far, two further aims must be investigated. First, we have seen that assertions depend on uncovering, which itself is founded in disclosedness. Thus, to complete the argument against the possibility of atomistic assertions, we must fully clarify the notion of disclosedness. Second, by illuminating the most basic features of Dasein's constitution that are "equiprimordial" with disclosedness, we will be able to articulate Heidegger's critique of conceptual atoms of thought.

III. Heidegger's Holism and the Undermining of the Atomism of Thought

Most of Heidegger's attack on the traditional model of knowledge in *Being and Time* focuses on the knower's relation to the world. We have seen how this plays out in relations of truth, where the tradition has emphasized the *adequatio intellectus et rei*. The apophantic assertion has been shown to be dependent on an entire framework of meaning that itself cannot be reduced to individual atoms of meaning. This has been shown in a preliminary way, since we have yet to explain the full nature of Dasein's most primordial form of understanding. By adequately capturing the latter notion, we can then show not only the extent to which assertions are derivative, but also why the structure of Dasein's more basic mode of understanding undermines the supposed priority of conceptual atoms of thought. With his focus on the knower's relation to the world, Heidegger says less about this further point, yet from the little he does say coupled with his more general remarks about human understanding, we can reconstruct a complete critique.

As indicated in the previous section, we require an elaboration of Dasein's disclosedness. Heidegger clarifies what such an investigation will amount to: "But in so far as the essence of [Dasein] is existence, the existential proposition, 'Dasein is its disclosedness', means at the same time that the being which is an issue for this being in its very being is to be its 'there'" (BT, 171/GA 2, 133). The very word *Dasein* already suggests a being that is *there* (the German word "da" means both "here" and "there"). In order to understand anything, there must be a space or clearing where meaning is possible:

When we talk in an ontically figurative way of the *lumen naturale* in man, we have in mind nothing other than the existential-ontological structure of this entity, that it is in such a way as to be its 'there'. To say that it is 'illuminated' means that *as* being-in-the-world it is cleared in itself, not through another being [*nicht durch ein anderes Seiendes*], but in such a way that it is itself the clearing. [...] By its very nature, Dasein brings its 'there' along with it. If it lacks its 'there', it is not factually the being which is essentially Dasein; indeed, it is not this being at all. *Dasein is its disclosedness.* (ibid.)

Recall that Descartes understood the *lumen naturale* as our faculty for the pure intuition of concepts and principles. Heidegger, of course, does not have Descartes' conception in mind (hence, the "ontically figurative" use of the term). In fact, he refuses to have recourse to any privileged faculty that would enable the knower to have indubitable access to important metaphysical concepts such as "thought" or "existence." If we are to make sense of Heidegger's concept of the "there" in which a space of meaning is cleared, we must analyze its two equiprimordial¹³⁸ concepts, understanding and situatedness.¹³⁹

¹³⁸ When explaining the basic characteristics of Dasein's being, Heidegger argues that many of these features are "equiprimordial" or in other words, equally fundamental to Dasein's ontological constitution. He explains as follows: "But the fact that something primordial is underivable does not rule out the possibility that a multiplicity of characteristics of being may be constitutive for it. The phenomenon of the *equiprimordiality* of constitutive items has often been disregarded in ontology, because of a methodologically unrestrained tendency to derive everything and anything from some simple 'primal ground'" (BT, 170/GA 2, 131).

¹³⁹ It is notoriously difficult to translate Heidegger's term *Befindlichkeit*, which means "how-one-finds-oneself." To avoid this awkward construction, we follow Guignon (1983) in rendering the term *situatedness*.

We will take up situatedness first. Situatedness is a “fundamental existentielle” of the “there,” which means that it is part of Dasein’s basic ontological structure (BT, 173/GA 2, 134). Situatedness enables the possibility of having various *moods* [*Stimmungen*], which are “*ontically* the most familiar and everyday sort of thing” (BT, 172/GA 2, 134). Since situatedness is ontologically basic, our moods are not something interesting only in a psychological sense. “Dasein always has some mood” and such a “primordial disclosure belonging to moods” is when “Dasein is brought before its being as ‘there’” (BT, 173/GA 2, 134). As usual, Heidegger wants to head off any possibility for misunderstanding by ruling out a conception of moods as some inner mental state: “Having a mood is not related to the psychical in the first instance, and is not itself an inner condition which then reaches forth in an enigmatical way and puts its mark on Things and persons” (BT, 176/GA 2, 137). Our mood is what allows things to matter to us, but not because some subjective meaning has been draped over them from within. It is rather straightforward when we consider moods such as rage or grief; all of our encounters are shaped in advance according to the lost temper or the pervasive mourning. Certain experiences – getting cut off on the interstate, the passive aggressive tone of a co-worker – will show up as significant in the former mood, while hardly being recognized as mattering in the latter.

What is important for our purposes is that even the most detached, cool-minded disposition of theoretical reflection is a mood that enables the possibility of things mattering to us. Our situatedness is not something that ought to be minimized in order to “clear one’s mind” and think in a “rational” way. We *never* escape our situatedness, and the example of detached thinking that affords us unprejudiced intuition is itself a

prejudice, and one that has been particularly influential in Western thought. Heidegger says that in situatedness Dasein's "thrownness" [*Geworfenheit*] is disclosed, which he explains as the "*facticity of its being delivered over*" (BT, 174/GA 2, 135). Our facticity is the complex background of social commitments, cultural heritage, and previous choices that *situate* us concretely, and afford us the ability to make sense of our encounters. We are *delivered over* to our thrownness in that we do not at each moment make a conscious decision to bring this factual background along with us; we are always already situated, even if we usually attempt to escape from facing this fact. Situatedness, then, is the first aspect of the "there" of Dasein.

The other equiprimordial existential aspect of Dasein's "there" is *understanding* [*Verstehen*]: "Situatedness always has its understanding, even if it merely keeps it suppressed. Understanding always has its mood" (BT, 182/GA 2, 142-143). As we did for situatedness, it will be helpful to negatively characterize what Heidegger does not mean by understanding. This is particularly important with such a philosophically loaded term. Many readers of Heidegger find his continual use of neologism an unnecessary obfuscation. Following Nietzsche in this regard, Heidegger believed that the language of contemporary thought presupposed deep philosophical commitments, and that his own insights simply could not be explained in the current nomenclature without serious misunderstanding. One might think of Heidegger's language – and more importantly, his *philosophical paradigm* – as incommensurable with the language – and dominant paradigm – of the tradition. However, it is important not to see this as a radical break with all of Western thought; Heidegger believes that most modern philosophical concepts are rooted in a seed of genuine truth, but have been distorted by the preoccupations with

substance ontology, theoretical certainty, and dualism. Thus Heidegger's break is primarily with thinking that these highly specific, ontic concerns that have dominated modern thinking constitute the ultimate foundations of knowledge, and that their language of commerce ought to enjoy a privileged status.¹⁴⁰ The attempt to interpret Heidegger in the terms of, say, philosophy of mind and cognitive science would be to force his thought into inappropriate categories.

When we encounter a term like *understanding* we must be careful, for the reasons enumerated above, not to fall back on its traditional meanings. Heidegger does not mean "understanding" in the sense of *one* possible kind of cognizing among others," which must "be Interpreted as an existential derivative of that primary understanding" (BT, 182/GA 2, 143). In the course of the following discussion, we will show that the type of understanding that has been presupposed as a distinct faculty of reason is in fact a mode of knowing dependent on the more primordial "understanding as a disclosive potentiality-for-being [*Seinkönnen*]" (BT, 183/GA 2, 144). This does not mean that we actually have a purely rational faculty that underlies our more everyday understanding, and that we ought to strip away the layers of doubtful belief in order to get at our most genuine and uninhibited form of knowing. What is thought of as theoretical understanding is falsely believed to have this unprejudiced nature, when in reality it is subject to all the structural features of understanding as disclosive potentiality-for-being. Heidegger makes it clear that this potentiality-for-being is not simply "empty logical possibility" or "the contingency of something present-at-hand" (BT, 183/GA 2, 143). We must make clear this notion in its positive significance.

¹⁴⁰ See Rorty 1979 (especially chapters VII and VIII) for a more recent view consonant with these sentiments. I would also argue that this is one of Wittgenstein's chief aims in the *Philosophical Investigations* ([1953] 2009).

Heidegger gives us a more complete working definition: “*Understanding is the existential being of Dasein’s own [eigenen] potentiality-for-being; and it is so in such a way that this being discloses in itself what its being is capable of*” (BT, 184/GA 2, 144). We saw that situatedness reveals the factual background of the “there”; understanding is the other side to this coin, disclosing our meaningful possibilities for being. We are always *projecting* teleologically ahead out of a range of definite ways of existing. Heidegger explains this projection as follows: “In its projective character, understanding goes to make up existentially what we call Dasein’s ‘sight’” (BT, 186/GA 2, 146). This sight “corresponds to the ‘clearedness’ [*Gelichtheit*] which we took as characterizing the disclosedness of the ‘there’” (BT, 187/GA 2, 147). Heidegger recognizes that the Western tradition has favored ocular metaphors of understanding, and he wishes to get at the fundamental way in which such a seeing gives us access to things. Recall Heidegger’s resignification of the *lumen naturale* – if we are to understand anything at all, there must be a space of meaning illuminated so that beings can be “encountered unconcealedly in themselves” (ibid.).

In beginning to work out the structures of Dasein’s “there” as *thrown projection*, we have tacitly made reference to a more general way that Dasein is: “understanding [...] pertains rather to Dasein’s full disclosedness as being-in-the-world” (BT, 186/GA 2, 146). Much of what Heidegger writes concerning being-in-the-world in Division I of *Being and Time* is directed at our dealings with everyday things in our environment, and ultimately he is concerned with overcoming a subject-object view about knowledge. This topic may appear somewhat irrelevant to the concerns of the present study, as a distinction is commonly made between knowledge of the world (primarily sensory

knowledge) and knowledge of rational concepts, particularly Cartesian atoms of thought. Yet, since Heidegger argues that being-in-the-world is our most fundamental mode of being, in which all knowledge is founded, this distinction dissolves. We need not enter into a lengthy discourse on being-in-the-world, though we ought to capture some of its essential features in order to complete our analysis of understanding.

Being-in-the-world points to the fact that Dasein is always already *amidst* a totality of involvements that have relational significance. While we are engaged in any human activity, we encounter things in our immediate environment that have varying degrees of meaning for us. It is important that we not attribute philosophically loaded properties to the “environment” or the “things” we encounter within it. Our environment (what Heidegger calls our *Umwelt*) is often a combination of spatial, social, linguistic, political, and historical factors that make it possible for particular things to meaningfully show up to us. Likewise, the particular things that we encounter are themselves material, normative, symbolic, performative, metaphorical, etc. As being-in-the-world, Dasein is immersed in a world of shared meaning. Let us take two contrasting examples. First, imagine you are cleaning the house. You reach effortlessly for the window cleaner while tearing off a sheet of paper towel; clothes are thrown in the laundry basket with all four limbs; you guide the vacuum cleaner into the nooks and crannies behind the furniture; perhaps you shout for your sister to bring you a sponge. All of your encounters show up as things: to be cleaned (the dusty surfaces, clutter), to aid in the cleaning process (dust pan, children), that are irrelevant to the process (the shining sun, your musings about dinner plans), and so on. The beings that you come across have significance because of your know-how concerning the world of cleaning. But your factual background of

cleaning practices is only part of the story; you are also engaged in a purposive, goal-directed activity. Things have the futural character of not-yet-spotless or great-for-scrubbing-the-toilet that point toward the aims of our work.

Now take a rather different example. Suppose you are working through a challenging philosophical argument. Our initial inclination is to think that this situation would be drastically different from the absorbed flow of carrying out an activity as mundane as house cleaning. There are several senses in which this is certainly true. In particular, there is a major difference in the level at which we are explicitly conscious of our actions. In the case of cleaning the house, we are rarely deliberate in carrying out our means-end activity, seamlessly completing tasks while our thoughts are often elsewhere. The analysis of a philosophical argument, on the other hand, appears to involve an intentional withdrawal from everydayness including conscious deliberation from one step to the next. It appears that our encounters are with “things” of a very different nature – concepts, principles, inferences. How can we say that our historical and social facticity is relevant to their current use in the present argument? And what could be *teleological* about a concept or an inference? Heidegger would agree that there is a clear difference between the *thoughtless* way we clean the house and the *reflective* nature of working through a philosophical argument. However, the know-how of everydayness and the knowing of philosophical reflection are nevertheless both grounded in the same structure of understanding:

By showing how all sight is grounded primarily in understanding [...], we have deprived pure intuition of its priority, which corresponds noetically to the priority of the present-at-hand in traditional ontology. ‘Intuition’ and ‘thinking’ are both derivatives of understanding, and already rather remote ones. Even the phenomenological ‘intuition of essences’ is grounded in existential understanding. (BT, 187/GA 2, 147)

This common basis comes out most clearly in Heidegger's discussion of interpretation, to which we now turn.

The explicit understanding of something, whether it be an entity encountered in our everyday dealings or something more philosophically substantive, "has the structure of *something as something*" (BT, 189/GA 2, 149). In our environment, beings do not show up merely as brute meaningless objects, but *as* a broom, *as* a dust pan, etc. Furthermore, we do not receive raw sensory data devoid of content or form that is then characterized as this or that by our mind: "In interpreting, we do not, so to speak, throw a 'signification' over some naked thing which is present-at-hand" (BT, 190/GA 2, 150). The "as-structure" of interpretation is another aspect of Dasein's thrown projection. Given that we are thrown into a totality of pre-given meaning relations, while projecting out of a definite array of possibilities, entities can be grasped as what they are.

Heidegger explains that interpretation also has a three-part "fore-structure." First, we always have a fore-having: "In every case this interpretation is grounded in *something we have in advance*" (BT, 191/GA 2, 150). This is what we already understand beforehand, enabling us to make sense of our situations. In particular, we have an understanding of a "totality of involvements." Second, interpretation is also "grounded in *something we see in advance* – in a *fore-sight*" (ibid.). Our interpretive fore-sight is the attempt we make to articulate what is given over to us out of the background fore-having. We try to push forward towards making sense of our encounter beyond what our facticity will determine. Third, interpretation depends on "*something we grasp in advance* – in a *fore-conception*" (ibid.). Heidegger says that we can either try to inappropriately force a being into pre-conceived categories or let our conception of it come from the being itself.

However, “[i]n either case, the interpretation has already decided for a definite way of conceiving it” (ibid.).

We can illuminate the contrast between Heidegger’s notion of interpretation and that of the tradition by considering what Socrates termed a “debater’s argument” in Plato’s *Meno*. The debater’s argument states that the search for knowledge is either hopeless or useless. It is hopeless if the seeker does not already possess the knowledge of what they are looking for, since there will be no way to determine if the findings are what one was trying to discover all along, having nothing with which to compare. The search is useless if the seeker already does possess the desired knowledge, as there would be no reason to begin the inquiry in the first place. The Socrates of the *Meno*, Descartes, and Heidegger all agree that in some sense we must already have the knowledge we seek, but that this does not make such an investigation useless. Descartes and Socrates (of the *Meno*) both argue that all knowledge possible for a human lies innate within our soul, and that the “discovery” of knowledge is really the clearing away of our shaky opinions based on prejudice and the senses so that we may light upon what is already within us. Heidegger, on the other hand, believes that epistemic investigation is only possible given the above-outlined fore-structure of interpretation. For the same reason that *Meno* introduces the debater’s argument, it is clear that we must have *some* initial understanding of the subject matter in order to have access to it. Heidegger is deeply skeptical about the assumption that this initial understanding indicates a perfect knowledge of all essences or a god-given rational mind. These Platonic or Cartesian conceptions of the human soul would indeed solve the dilemma, but only at the cost of presupposing an entire metaphysical framework supported by little to no

phenomenological evidence. If, from the off, we make substantive theoretical commitments to a high level of certainty, then the existence of a realm purified of doubt and contingency appears more plausible. But this option is to take the path of forcing beings into pre-delineated categories, whether or not they belong there. Heidegger wishes to avoid this route in order to allow beings to show up on their own terms; yet, at the same time, he thinks that the fore-structure of interpretation is inevitable to any inquiry. How can we reconcile these two claims?

Heidegger thinks that all efforts to posit some privileged vantage point from which to conduct philosophical inquiry, free from the prejudices of history, culture, and the senses, are futile attempts at escaping *the hermeneutic circle*. Heidegger's student Hans-Georg Gadamer explains the hermeneutic circle as follows:

A person who is trying to understand a text is always projecting. He projects a meaning for the text as a whole as soon as some initial meaning emerges in the text. Again, the initial meaning emerges only because he is reading the text with particular expectations in regard to a certain meaning. Working out this fore-projection, which is constantly revised in terms of what emerges as he penetrates into the meaning, is understanding what is there. (Gadamer [1960] 2004, p. 269)

Gadamer focuses on the interpretation of a text, though understanding of anything involves the same structure. To have access to some being or set of beings, a nexus of relevant fore-meanings is necessary. Out of our incomplete familiarity with the subject matter at issue, we attempt to complete our understanding of the being or beings. This attempt at rounding out our meaning will be to some degree thwarted by the things themselves. This pushing back on the part of beings will force revision of our projected meaning, but also will alter the original fore-meanings that enabled us to understand things in the first place. Hence the circular nature of understanding.¹⁴¹

¹⁴¹ See Gadamer [1960] 2004, chapter 4 for an illuminating discussion of this topic.

Given that Heidegger believes all forms of understanding, even the most abstract and rigorous cognition, are grounded in the most primordial understanding we have outlined, what can we say about conceptual atoms of thought? Recall that one aspect of Nietzsche's critique of atomism involved calling into question the grounds for believing in a rational mind not subject to the dynamic flux of the rest of material reality. Part of this critique involved a critical examination of God as the ultimate ground of atomism. Heidegger's critique is a more direct analysis of the possibility of atoms of thought themselves, bypassing debates about the existence of God or the nature of material reality. Let us then go through the three main characteristics of Cartesian conceptual atoms – isolatability, distinctness, indivisibility – in light of our account thus far.

We can simultaneously deal with the first two closely related characteristics of conceptual atoms, their isolation and distinctness. Recall that when we say an atom of thought is isolated or distinct, we are primarily referring to its *meaning*. For Descartes, a concept such as thought or existence is isolated insofar as the objective content of our idea captures the nature of its eternal essence, which is separated from all other eternal essences. Our mind has the ability to distinctly grasp the contents of this idea free of the meanings of other concepts. Yet, if we take Heidegger's conception of understanding seriously, we realize that distinct, isolated meanings are impossible. The meaning of an individual concept can only make sense amidst a totality of meaning. This whole cannot be analyzed into discrete parts that are themselves simple and disconnected from the rest. In other words, the whole is not the sum of individual parts, since the priority is with the totality. This is counter to our modern intuition, and the inevitable question that arises is: how could the whole get *its* meaning, if not from its parts?

This is where the hermeneutic circle comes into play. We are always already thrown into a totality of meaning; we need not be explicitly aware of whence the holistic framework of intelligibility comes. But we are able to encounter individuals within the world on the basis of the entire horizon of meaning. These particular parts go some ways toward molding the whole, either by forcing us to readjust our commitments or by reinforcing and articulating them. This holistic background is shaped not only by our own personal experience, but also by our social norms and cultural heritage. So the hermeneutic circle involves this interplay between more general ways of understanding and the more particular encounters with things, influencing one another in a continual evolution. We are wont to think that theoretical cognition is independent of the circle, and perhaps even provides the ultimate foundation for all understanding, while leaving such hermeneutics to art criticism, textual interpretation, and “historiology.” Yet Heidegger makes clear that the world in which philosophers, mathematicians, and scientists work is simply a more restrictive web of meaning relations: “Mathematics is not more rigorous than historiology, but only narrower, because the existential foundations relevant for it lie within a narrower range” (BT, 195/GA 2, 153).

When we consider the concepts Descartes considers to be the most basic building blocks of knowledge, we understand their meaning only within a world that allows for them to show up in the way that they do. In Descartes’ case, we argued in chapters 1 and 2 that this background consisted of some deep ontological presuppositions that were, in many cases, not explicitly countenanced, or at least passed over without clarification. What makes Heidegger’s case quite difficult is that part of the undoubted background to Descartes’ thought is the very assumption that the hermeneutic circle and our most

primordial form of understanding (rooted in thrown projection) are excluded from pure philosophical intuition. This failure to come to terms with the fundamentally circular structure of meaning in fact proves Heidegger's point. It is not that atoms of thought are given and we must simply perceive what is already there; *rather, the holistic framework of philosophical commitments to theoretical certainty and substance ontology determine in advance that units of meaning must be atomistic in order for rigorous science to be possible.* Thus attempts to prioritize atomism of thought are examples of poorly executed phenomenology, where beings are forced into our pre-determined categories, whether or not they are encountered this way.

This last point sheds light on the final, and most essential, characteristic of conceptual atoms of thought: indivisibility. For Descartes, the most important metaphysical concepts have an indestructible meaning that cannot be broken down into smaller parts, nor changed, altered, or re-interpreted in any way. We may incorrectly explain these concepts, but when we intuit them clearly and distinctly, we understand their eternal and indivisible nature. According to Heidegger, such indivisibility of meaning is impossible. If they are to be meaningful at all, concepts must be subject to the as-structure of understanding and the circular nature of interpretation. Particular concepts are not given in a completely a priori way, but show up as what they are out of their contextual totality. This totality is always evolving in light of our experiences, which then transforms the way we make sense of individual concepts. Therefore, the meaningful content of our concepts is a dynamic development, which is continually reinterpreted. There are no indestructible, indivisible meanings that exist statically independent of Dasein's most basic form of temporally dynamic understanding.

Conclusion

In the Introduction, I promised that in my concluding remarks I would apply some of the historical results achieved in the body of this work to contemporary scholarship. In order to do this, I will first distill some of the essential characteristics of Descartes' form of atomism that are still in play today. I will then summarize several key components of Nietzsche and Heidegger's critiques of atomism and bring out the implications of these arguments for twenty-first century philosophers. My remarks will be by necessity brief and insufficient for the task, as it is beyond the scope of this study to carry out a full critical analysis of contemporary atomism of thought. I do hope that my abridged commentary will at the least illuminate some of the pressing issues facing contemporary philosophy and open the door for future commentary thereon.

Few contemporary theorists of truth or concepts would believe that their views are rooted in Cartesian assumptions. Thus I will try to capture a few vital characteristics of Descartes' atomism of thought that maintain influence today. Let us first deal with conceptual atoms of thought. Recall that basic concepts are atomistic insofar as they are indivisible, distinct, and isolated. Descartes gives examples such as *thought*, *existence*, *doubt*, *certainty*, and *truth* as concepts whose meanings we cannot help but understand. These meanings are pristinely carved out by God's free decision to construct them as such, and they are permanently grounded by the immutability of his will. The epistemic

clarity with which we perceive atomistic concepts is matched by the metaphysical distinctness of their eternal dwelling. To the modern day reader, this dependence on God is rather distasteful. On the other hand, the ability to sharply distinguish the precise meanings of concepts remains a central philosophical concern. Indeed conceptual analysis, the chief practice of much recent work, has as its aim the demarcation of distinct conceptual boundaries by way of rigid necessary and sufficient conditions. The meaning that is captured in such a concept ought to be separated from the meanings of other concepts. For these reasons, I believe isolation and distinctness are currently seen as important and essential properties of concepts. The third feature, indivisibility, cannot be said to be to enjoy the same status, since the practice of conceptual analysis indicates a compositional structure, even if a concept's meaning is precisely delineated.

Largely thanks to Wittgenstein's work in the *Philosophical Investigations*, philosophers of mind and language have become skeptical of the classical, definitional structure of concepts. However, I do not think Wittgenstein's insights have been taken radically enough. Even if one sees the structure of concepts to be prototypical or theoretically contextual, as many currently do, there is nevertheless optimism that distinct conceptual boundaries can be drawn. Several considerations taken from chapters 3 and 4 will dampen this optimism. The first point to make is one that will provide the basis for all the others. We mentioned the distaste the contemporary philosopher often has for the dependence the Cartesian model has on God, which acts as cornerstone for the whole system, particularly with respect to atomism of thought. However, if we remove atomism of thought from its original context, that is, if we divorce it from its divine foundation, then a new line of argument is necessary to ground conceptual atoms of thought.

Perhaps the focus must be on the other essential aspect of Descartes' atomism: the rational mind. Even if we have overcome the dogmatic religious presuppositions of the medieval philosophers, we have not thereby given up reason. It appears, in fact, to be due to reason itself that the enlightenment won out over religion. Yet, there is an equally strong commitment to a *naturalist* conception of reality that sees humans as thoroughly biological, bodily, historical beings.¹⁴² We need not believe in Nietzsche's full-blown theory of the will to power in order to accept that we are dynamic beings to the core. From this perspective of naturalism, we must ask the following questions: Is there a space of rational insight within the purely natural world where rigidly distinguished meanings can be grasped? Is it possible for static concepts to exist in a dynamic, bodily being? If not, how and where else could unchanging meanings exist? The problem is that even if we use language that is symbolically ossified, the meaning that is represented by such symbols must be fixed in some way.

I am not calling into question reason generally speaking; I want to qualify just what is meant by such a faculty. This brings us to our next consideration, which is derived from the last section of chapter 4. When we understand concepts, we are not employing some special faculty of reason that affords us the possibility of intuiting perfect essences. The reason we employ in understanding is embodied and historically situated. The meanings of individual concepts are temporally dynamic, arising out of a more fundamental background of significance and simultaneously projecting forward into definite possibilities of interpretation. What is meant by this latter, futural dimension of

¹⁴² Naturalism is a term used in a multitude of ways, most often to denote an understanding of the world as non-supernatural and accessed by way of natural science. Here I restrict myself only to the former characteristic, and leave open the question about whether science is our only, or at least privileged, way of understanding the world.

concepts may not be immediately obvious, so it will require a bit of explanation. In order to understand a concept, we must have some grasp of it in the first place. This involves both a comprehension of the relational context in which our initial understanding makes sense and our formative attempt to complete our knowledge of the concept. Concepts are not, therefore, ever “finished” or innately present; their meanings do not have distinct boundaries since they are intrinsically connected to other meanings, and more importantly, rooted in a holistic horizon of intelligibility. Yet our attempts at fully comprehending concepts stretch beyond what is simply given in our factual background. This temporal dynamism of meaning rules out the possibility of distinct or isolated concepts.

Above I said that the displacement of God as the metaphysical and epistemological foundation of atomism is at the core of our several critical considerations. In the Cartesian model, God is the metaphysical foundation insofar as God is the source for the creation and continued existence of the eternal essences. And God is the epistemological foundation in that our faculty of reason, which enables us to represent these atomistic essences clearly and distinctly, is God-given. If we instead adopt a naturalist view about human beings, both aspects of the foundation for atomism of thought become groundless. Since we discover nothing in the physical world that resembles an atom of meaning (it is hard to imagine what this would even be like), we are forced to posit a rational realm within the mind where discrete concepts can exist. Yet, this tactic appears arbitrary once the divine foundation has been removed. The existence of an “inner” realm distinct from the “outer” world, conveniently immune to the bodily fluctuations of becoming, is the relic of an obsolete worldview. On the contrary, reason is

embodied and subject to all the contingencies of a historically situated being. This is not to say that reason is, in fact, an independent faculty that happens to be embedded within a body. Reason, if it is anything at all, is our ability to work through possibilities of interpretation, rooted in the hermeneutically circular structure of human understanding.

Now that we have dealt with conceptual atoms of thought, let us turn our attention to epistemological atoms of thought. For Descartes, full assertions such as the cogito and the statement that God exists are to be demonstrated on the basis of conceptual atoms of thought and innate principles (e.g. “anything that thinks, exists”). There is an obvious sense in which they are not atomistic, as they are constructed out of more basic concepts. Nevertheless, there are two ways that they are. The first way is based on our epistemic evidence. The cogito, being known with absolute certainty and with reference to no other demonstration, is the paradigmatic case. Since the cogito is understood in a moment of pure intuition, its evidence self-bounded, it is epistemologically atomistic. This line of thinking has been influential in contemporary foundationalism in the theory of knowledge. I do not want to spend time here offering criticisms of a foundationalist view, since I believe enough has been said in chapters 3 and 4 on that issue. Nietzsche’s critique of absolute truth and Heidegger’s argument against the possibility of foundational knowledge depending on nothing else are sufficient.

A look at non-foundational “coherence” theories of knowledge reveals the second way that full assertions are atomistic. Consider the following claim made by Charles Taylor: “Antifoundationalism seems the received wisdom of our time. Almost everyone seems to agree that the great enterprise of Descartes, to build up certain knowledge from undeniable building blocks, is misconceived” (2000, p. 115). This claim is obviously a bit

overblown, since there are plenty of contemporary advocates of foundationalism, and ones worthy of Taylor's critique. Yet Taylor's comment sheds light on a recent trend that tries to overcome perceived pitfalls of Cartesian-inspired foundationalism by adopting a coherentist view of knowledge. Taylor puts this debate in terms of holism and atomism, and argues that grounding the whole of knowledge on isolated elements is impossible, since the knowledge of an element requires a holistic background in order for the element to show up as meaningful. The problem is that many contemporary attempts to avoid foundationalism in this way (following Quine and Davidson) turn out to be holisms of "verification," which consists in the following:

it reflects that propositions or claims cannot be verified singly. It is only derivatively a holism about meaning, insofar as attributions of meaning to terms in the observed agent's speech amount to claims which like most others cannot be verified singly, but only in packages with other claims. In other words, Quinean holism is a thesis which applies even after accepting the classical Cartesian-empiricist doctrine of the atomism of the input [...]. (Taylor 2000, p. 116)

I think what Taylor has in mind is the difference between that which grounds the truth-value of an assertion (the truthmaker) and the meaningful propositional content of the assertion. A coherentist can be holist about the former ("verification"), since the truth-value of a single assertion is determined by the truth-values of other assertions, while still holding an atomism of the latter ("input"). In other words, the meaning of an individual element can be precisely captured independent of the other elements in the set, even if its truth-value depends on these other elements.

With respect to conceptual atoms of thought, I mentioned that their contemporary manifestations involve two Cartesian characteristics, distinctness and isolation, and epistemological atoms of thought share the same features (while also lacking indivisibility). At this point, we are looking at epistemological atoms of thought insofar as they are bearers of truth. Before one can even address the question of foundationalism

versus coherentism, one must have an adequate theory of truth in hand. There has been considerable recent debate about which entity should be the primary bearer of truth. Nearly all accounts fall into one of four basic categories: propositions, mental states, statements, and sentences.¹⁴³ All four categories implicitly assume an atomism of meaning. Propositions uniquely identify the content of that-clauses. For example, if we are inquiring into whether or not “pigs fly” is true, our interest lies in the proposition *that pigs fly*. By carving out that-clauses, propositions isolate a distinct unit of meaningful content that can be assessed for truth-value. Many find the ontological status of propositions to be mysterious. If we have abandoned the context of the Cartesian God, in which meanings are hypostatized in God’s mind, it is difficult to imagine where and how propositions could exist: Is there some existing entity, independent of my thought and the thought of others, that houses the propositional content *that pigs fly*? It is doubtful.

This is why many philosophers opt for either statements or mental states as their preferred truthbearer. Both potential candidates capture the very same that-clauses that were the essential function of propositions while lacking their ontological mysteriousness. We need not get into a full discussion about the natures of mental states and statements; it suffices to say that both entities are intended to distill propositional content. It is very important that truthbearers are atomistic in their meaningful content. Much is at stake here, for the nature of rational inference depends on the possibility of discrete units, whose meanings can be bounded and do not bleed into one another. In logic, we stipulate that meaningless symbols can be manipulated in certain ways so as to

¹⁴³ Sentences are made use of by the other truthbearers. Propositions can be expressed in that-clause sentences. Beliefs and other mental states can be spoken or written down in sentence form. And statements are made using sentences. But the main interest in sentences in their own right lies in their function in theoretical languages. Since our focus here is on truthbearers that capture concrete meaning, theoretical sentences will not be discussed.

express valid structural forms of inference. So far as logic remains a purely formal pursuit, we appear to rest on safe ground, since theoretical sentences are defined to be discrete. Yet, when constructing philosophical arguments with alethic content we make use of the very same forms of inference, assuming this time that it is possible to substitute meaningful assertions into the symbolic notation without loss. We recognize that our assertions may turn out to be false, but rarely do we question our ability to make rigorous, logical connections between them.

All such argumentation implicitly presupposes atomism. However, we have offered what I think to be strong reasons to question the possibility of atomistic structures of meaning. When we pick out an individual assertion, even one that we believe to be as pristinely distinct as possible, its meaning is completely dependent on frameworks of understanding beyond itself. One might think that the correct imagery here is something like a “web of belief,” with individual elements of meaning occurring at the nodes of the web intimately connected with other nodes. I have in mind an image more radically holistic. In a web, we can pinpoint a particular node and then ask what relations it makes with other nodes. But an assertion does not first have standalone meaning, and then consequently enter into relations with other assertions. Each concept within the assertion makes sense only against a horizon of intelligibility; the grammatical structure already presupposes a shared background through which such connections of words can be understood; the entire assertion is not made in a vacuum, but rather has significance as an insult, as a joke, as an innuendo, as a truth-claim, or as a threat. Perhaps more accurate imagery would be a melody in a song that cannot be understood as the sum of its notes,

or the surface of the ocean, whose waves are not entirely distinct, but flow in and out of one another, some standing out more, others less, but never absolutely so.

I am not simply making the point that language is often vague or ambiguous. The point is that it is in the fundamental nature of an assertion, if it is to be meaningful at all, to be rooted in a holistic framework of meaning. Furthermore, it is not possible to break this framework itself down into a set of basic, foundational units, since it is the whole that takes priority, not the part. What implications does my critique have for philosophy? If what I have been arguing for is right, does that mean we are left with a chaotic relativism, where rational argument itself is not even possible? I think that such a conclusion only follows if we have already accepted an impossible standard of certainty, one that sees the study of philosophy as a search for absolute knowledge. If we understand inquiry in such all-or-nothing terms, then the prospects look bleak from the perspective of this essay. If, on the other hand, we lower our expectations of what we hope to achieve in philosophical investigation, the conclusion offered here will not appear all that radical. True, we will never be able to draw absolute and unchanging boundaries around our key concepts; nor will we be able to rigorously identify precise propositional contents of our expressions of truth; nor will we be able to purify our rational inferences to ensure the certitude of logical perfection. Instead, our concepts can be more clear or less clear, and they will gradually evolve and change; likewise, our assertions will carry meaning, not for all time, but within their own historical and cultural context; and finally, we will offer arguments and reasons for such assertions, with some being better and others worse, not from the view of eternity, but from the shared practice of critical philosophy.

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