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Peter Myrdal & Arto Repo

Ideas and Reality in Descartes

(penultimate version)

Abstract

This chapter explores some key issues within Descartes's theory of cognition. The starting-point is a recent interpretation, according to which Descartes is part of a tradition of theorizing about human cognition, beginning from the idea that we are in principle capable of articulating or grasping the basic order of reality. Earlier readings often take Descartes to question whether we have any cognitive access to reality at all. On the new reading, Descartes instead defends a robust conception of our cognitive relation to reality—our cognition needs to be "determined by reality," as John Carriero puts it. One important element of Carriero's interpretation is that Descartes's notion of idea is to be understood along the lines of the Aristotelian doctrine of formal identity between cognizer and cognized. Here it is argued that retaining the latter doctrine faces some difficulties, given the novel conception of the structure of reality defended by Descartes. This chapter proposes that he needs an alternative account of what it is for a cognizer to be determined by reality. Attending to some important differences between the innate idea of extension and that of God, the chapter concludes that Descartes may not have a fully worked-out account of his own. Considering some of the problems inherent in his views can, however, shed light on the, from our contemporary perspective, peculiar role both Spinoza and Leibniz give to God in accounting for cognition.

Keywords: René Descartes; cognition; ideas; extension; God

The last few decades have seen a sea-change in Descartes scholarship. Important to this shift is a new way of looking at Descartes's theory of cognition.[1] According to a previously widespread reading, he makes central the *skeptical* question of whether we have any cognitive

[1] See e.g. Carriero 2009; Alanen 2003; Brown 2006; Normore 2003. Other important aspects of this shift concern for example Descartes's view of the mind-body union.

access to external reality at all. As a result, he is led to introduce ideas—inner, mental objects, given independently of external reality—notoriously forming a veil between cognizer and world.

On the novel approach, Descartes is instead concerned with the *constructive* question of the nature of our cognitive relation to reality. He is to be seen as part of a tradition of theorizing about human cognition running, roughly, from Plato up to Spinoza and Leibniz (and perhaps even Kant) and starting from the idea that human beings are, at least to some extent, capable of articulating or grasping the basic order of reality. This commitment typically comes with a robust view of our basic cognitive relation to reality—of reality "determin[ing] one's cognition," as John Carriero puts it in his landmark study of Descartes's *Meditations* (2009, 313). A powerful version of this view is the Aristotelian proposal that through sensory cognition we become "formally identical" to the objects cognized.

From this perspective, the skeptical doubt presented in the First Meditation does not mark a new skeptical turn, but is rather just a *tool* that Descartes uses to undermine *some* aspects of the Aristotelian view. Carriero argues that while the Aristotelian sense-based theory is rejected by Descartes, some of the core tenets of the Aristotelian conception of cognition are retained within his new doctrine of innate ideas. On Carriero's reading, ideas for Descartes are not inner mental objects, but are actually to be understood in terms of the Aristotelian notion of formal identity. For Descartes, as for Aristotelians, cognition involves, as Carriero puts it, "the existence of some mind-independent structure, form, in the soul" (*ibid.*, 18); it is a matter of "sameness of structure in the cognizer and the cognized" (*ibid.*, 158).

While we are sympathetic to the suggestion that Descartes retains a traditional conception of cognition as "determination by reality," we also believe that it faces important difficulties. More specifically, we will argue that the claim that Descartes's view is akin to the Aristotelian doctrine of formal identity is problematic. The reason is that it is hard to see how

the notion of formal identity could do the work it is supposed to do—i.e., constitute a robust cognitive connection to reality—given that Descartes's understanding of the basic structure of reality departs radically from the Aristotelian view. Instead of seeing him as retaining the Aristotelian doctrine, we propose that his philosophical project is better framed as an attempt to give a *new* account of what it is for a cognizer to be determined by reality within a world that looks fundamentally different from the Aristotelian one.

We do not want to claim, however, that Descartes has a fully worked out alternative. In fact, by examining his discussion of the innate ideas of extension and of God, we will see that there are important problems left open, partly having to do with differences in how we are cognitively related to extension and God, respectively. What Descartes leaves to his early modern successors is only the beginnings of an account, including some deep difficulties that have to be addressed in order to salvage the conception of cognition as determination by reality. This is important not only for better appreciating Descartes, but also, as we will see, because it offers a novel approach to Spinoza and Leibniz. Some of their—at least from our contemporary perspective—more bewildering views, such as the central role they give to God in accounting for cognition, can be seen as resulting from their attempt to tackle the difficulties inherent in Descartes's theory.

We will proceed as follows. We begin, in section 1, by giving a brief outline of the Aristotelian view of cognition. In section 2, we consider Descartes's relation to the Aristotelian view, and introduce Carriero's sameness-of-structure reading. In section 3, we take up some problems with the sameness-of-structure reading, focusing on the special cognitive role Descartes gives to the innate idea of extension. In section 4, we turn to Descartes's account of the idea of God, stressing the importance of our metaphysical dependence on God for understanding the nature of this idea. Doing so serves to highlight what seems to be an unresolved issue within Descartes's theory of cognition. We end by indicating how bringing

this issue into view can help us to better appreciate the importance of God in Spinoza's and Leibniz's accounts of cognition.

1. The Aristotelian View of Cognition

In order to locate the differences between Descartes's account of our cognitive relation to reality and the Aristotelian one we will here offer a brief sketch of the latter. Since these differences, as we will see in more detail below, have to do with differences in their conceptions of the reality understood, it will be helpful to begin with a reminder of the basic traits of the Aristotelian hylomorphic metaphysics.

For Aristotelians, individual substances are composites of form and matter, where the nature of any individual exemplifies a kind-essence.[2] By 'kind-essence' we mean the idea that individual substances in some sense share a common nature: the respective natures of Fido and Spot are both constituted by caninehood, and similarly the respective natures of Socrates and Plato are both constituted by humanity.[3] To say that a kind-essence constitutes the nature of an individual is to say that that essence is the individual's principle of operation—the ground for

[2] The terms we use here, 'exemplification' and 'instantiation', should not be understood in their most straightforward contemporary sense, as referring to a relation between a particular object (e.g. Fido) and a property (e.g. brownness). The exact relationship between the individual and the kind-essence was of course a vexed matter within the scholastic Aristotelian tradition. Here we present a broadly Thomistic view, drawing on Carriero's detailed, and in our view both plausible and philosophically interesting, account (Carriero 2009, especially 11-21). Our aim is not, however, to take a stand on the details of interpretation of Aristotelian philosophy, but we limit ourselves to engage Carriero's interpretation over the question of whether Descartes shares some of the Aristotelian tenets as presented by Carriero.

[3] As Pasnau notes, the general thrust of Aquinas's position seems to be that "beneath the accidents lie a common kernel, the quiddity of the object, qualitatively the same even if it is not numerically the same," even though working out the details of what this means raises "numerous and deep" difficulties (Pasnau 2002, 301-2).

its *propria*, especially its basic powers. These powers are powers for acquiring various accidents, including the so-called sensible forms, for example colors, heat, and cold.

There is a natural route from this picture of reality to the Aristotelian thesis that understanding has to do with universality or commonality. Understanding is a matter of grasping the causal structure of the world. To understand reality is thus to understand kind-essences, that is, something that is common to several individuals, since kind-essences are the basic causal principles. This means that, for Aristotelians, the importance of commonality or universality does not have to do with categorizing the world so as to make it intelligible to us—it is not, as we may think, primarily a matter of classification, of subsuming individual objects under concepts. The Aristotelian genus-species schema (traditionally expressed in the so-called *Porphyrian tree*) is a consequence of the fact that the causal fabric is constituted by kind-essences.

There also seems to be a rather natural route from the Aristotelian conception of reality to the view of the senses as providing our basic cognitive access to it. Kind-essences are what explain why substances are capable of taking on various sensible forms, the various features of the world that we meet in our sensory experience. By reflecting on the way in which the world appears to us we are thus able to grasp the underlying principles ultimately responsible for those features.

What we are in sensory contact with are particular material things such as Fido, but to understand Fido's basic principles is not to understand something that is particular to Fido, but something that is common to other dogs as well, caninehood *as such*. So how do we get to caninehood from various experiences of particular dogs? The Aristotelian answer famously involves the idea that our sensory cognition of Fido takes place via receiving sensible species, which are retained or stored as phantasms in the common sense. The intellect then abstracts from the material aspects of phantasms, thus producing an intelligible species. Caninehood

exists in one way in Fido, in another way in the sensible species and phantasms, and is finally cognized in its "pure" form, as universal, by the intellect; in understanding the intellect becomes "formally identical" with, or comes to "resemble," the reality understood (Carriero 2009, 137; cf. Pasnau 2002, chap. 10).

To make sense of this line of thought, it is important to keep in mind that the Aristotelian theory is an attempt to work out the traditional view of understanding (*scientia*) as a matter of articulating the basic structure of reality, where doing so involves, as noted, a robust cognitive connection to reality.[4] By this we mean that our cognition is determined by reality in the sense that it involves a *direct* cognitive access to the reality cognized, as opposed to its being mediated by, say, representations or categorizations on the part of the cognizer. From a contemporary perspective, it may not be obvious why this needs to be so: why would it not be possible for us to reach an understanding of the structure of reality even though our cognitive access to it is mediated? Part of the issue here may have to do with the fact that it seems natural for us to think of understanding or theorizing about reality as itself a fairly mediated affair—we access reality via theoretical representations or models. In contrast, on the traditional view, understanding is not just a matter of having lawlike empirical generalizations, but of directly explicating the structure of reality, in the way that for Aristotelians the grasp of an essence allows us to articulate the powers depending on that essence. The view of sensation as the transmission of sensible species, and the related idea of abstraction from phantasms, is then supposed to explain how this direct availability of essence is possible. What makes it at least in principle possible for us to understand the basic structure of reality is that we in cognizing reality become formally identical to the very reality understood.

[4] For a further discussion of the traditional notion of understanding see Carriero 2016, 134ff. Cf. Burnyeat 2012.

2. Descartes's Relation to the Aristotelian Account

Let us now turn to Descartes. We will begin by outlining and motivating the central thesis of the novel approach to his philosophy: that while rejecting many elements of the Aristotelian view, he nevertheless keeps the core idea that our ability to understand is grounded in a robust cognitive connection to reality. We will not, however, attempt a detailed defense of this line of interpretation against a more traditional "internalist" reading. Secondly, we will present Carriero's claim that Descartes even retains something like the Aristotelian notion of formal identity.

It is of course impossible to read the *Meditations* without being struck by Descartes's hostility to the Aristotelian view of the senses and the understanding as working neatly in tandem. For Descartes the senses and the imagination are not necessary first steps in a process leading to an understanding of the nature of things, but rather appear to be primarily sources of error and confusion. Our sensory experience does not, as for Aristotelians, give us immediate access to sensible forms, since such forms simply do not belong to corporeal reality. According to the mechanistic view, all the variety in the corporeal world is a matter of complex variations of the fundamental modes of body: size, shape, and motion. This means that a project such as the Aristotelian one, which takes understanding to be a matter of abstracting from the senses must, from Descartes's perspective, be misguided.

What does Descartes's alternative look like? Real material structures for him are geometric-kinematic structures, and so understanding material things mechanistically means understanding them in geometric terms.[5] This is why, in accounting for our cognition of material things, he focuses on geometrical cognition. For Descartes the latter is innate—not something we acquire through our senses. This means that to get clear about the natures of

[5] For a helpful discussion of the importance of geometry to early modern rationalist metaphysics (in particular Spinoza) see Viljanen 2011.

things, the intellect must rely on the innate ideas it contains, instead of beginning from the senses.

Consider, for example, Descartes's famous case of the two ideas of the sun in the Third Meditation. One idea of the sun is based on the senses and is inadequate, in some sense false. The other one is what provides understanding of what the nature of the sun is. This idea, Descartes says, is "based on astronomical reasoning" and is "derived from certain notions which are innate in me" (AT 7, 39; CSM 2, 27). Similarly, in the Second Meditation wax example, the lesson is that the nature of the piece of wax is something to which we can have cognitive access only by leaving aside the senses and the imagination; it is something that is, as Descartes says, "perceived by the mind alone"; it is a case of "purely mental scrutiny" (AT 7, 31; CSM 2, 21). This is not to say that the senses have no role to play at all. Even if Descartes is not explicit about this, one might think that the point of emphasizing the innate character of the idea of the piece of wax or the sun is *not* to say that we could arrive at a cognition of them entirely through our intellect. The senses may very well be needed so that the understanding can, as Carriero puts it, "lock on to" some particular thing (2009, 112). The point is just that the senses do not contribute to our *understanding* of the thing's nature.

What does the thesis of the innateness of geometry amount to? It is important to avoid the temptation to think that Descartes's emphasis on innate ideas and "pure mental scrutiny" leads to a picture of genuine cognition as based on some sort of conceptual analysis. Descartes's notion of innate idea is very different from the modern notion of concept as something under which several individuals are subsumed.[6] What is important about innate ideas is that they

[6] Here we differ from a tendency in the literature to treat innate ideas as concepts, having general content (see e.g. Newman 2005, 181). Our reading draws on the one developed by Carriero 2009, chap. 5.

provide cognitive access to mind-independent realities, as comes out in the following key passage from the Fifth Meditation:

> But I think the most important consideration at this point is that I find within me countless ideas of things which even though they may not exist anywhere outside me still cannot be called nothing; for although in a sense they can be thought of at will, they are not my invention but have their own true and immutable natures. When, for example, I imagine a triangle, even if perhaps no such figure exists, or has ever existed, anywhere outside my thought, 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. This is clear from the fact that various properties can be demonstrated of the triangle, for example that its three angles equal two right angles, that its greatest side subtends its greatest angle, and the like; and since these properties are ones which I now clearly recognize whether I want it or not, even if I never thought of them at all when I previously imagined the triangle, it follows that they cannot have been invented by me. (AT 7, 64; CSM 2, 44-5)

Notice that for Descartes it is part of the nature of my thinking of a triangle that in having the idea of a triangle, I am immediately related to some *thing* (*res*), something real, something that is independent of myself, and it is my access to this thing that constrains me in my geometrical thinking. Such cognition based on ideas that "I find within me" has substantive character: in seeing that a triangle is a three-sided closed figure on a single plane, I am also able to *demonstrate further properties* of the triangle, such as the property that its internal angles sum to two right angles (Carriero 2009, 300-1).[7] Descartes denies that our ability to cognize essences is possible only through abstracting from the senses. In his view, our access to mind-independent natures is not based on the senses but on the very make-up of our minds. Despite this difference Descartes's discussion of innate ideas of geometry suggests that he still thinks

[7] Note that the fact that the idea of a triangle—or of any other geometrical figure—is something that we construct (as we will discuss in more detail in section 3 below) is compatible with its being innate. In his reply to Hobbes Descartes explains 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 7, 189; CSM 2, 132)

of cognition fundamentally along the same lines as the Aristotelians, as involving a direct cognitive relation to reality.[8]

Support for such a reading can also be found in Descartes's general account of ideas. In the *Meditations*, he introduces the term 'idea' in the course of preparing the reader for his (first) proof of God's existence in the Third Meditation. To do so Descartes thinks it is necessary to say something about how we should classify our thoughts "into definite kinds" (AT 7, 36; CSM 2, 25). He claims, rather notoriously, that he is going to use the term 'idea' to refer to those thoughts that "are as it were the images of things" (AT 7, 37; CSM 2, 25). Yet comparing ideas to images does not seem very helpful: after all, the most important examples of ideas for Descartes are those of myself, God, and extension. The fact that Descartes uses the term 'idea' in classifying "thoughts" suggests that ideas are some kind of mental states, but even this turns out to be far from obvious. Later in the Third Meditation Descartes does say that ideas can be considered as "simply modes of thought", but it is crucial to his proof of God's existence that there is also another way to consider them—besides "formal reality" as modes of thought, ideas also have what Descartes calls *objective reality* or *objective being* (we take Descartes to use these terms more or less interchangeably) (AT 7, 40; CSM 2, 28). Sometimes Descartes even reserves 'idea' for the latter, as in his First Replies:

> The idea of the sun is the sun itself existing in the intellect—not of course formally existing, as it does in the heavens, but objectively existing, i.e. in the way in which objects normally are in the intellect. Now this mode of being is of course much less perfect than that possessed by things which exist outside the intellect; but, as I did explain, it is not therefore simply nothing. (AT 7, 102; CSM 2, 75)

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[8] It is natural to wonder whether the view of geometrical essences as realities commits Descartes to a form of Platonism. We will not be able to address this much-debated question in detail. It seems to us, however, that when we look more closely at Descartes's account of the ontological status of geometrical essences—as we will do in the next section—it turns out to differ in important respects from Platonism, at least as it is commonly understood.

Here my having an idea of the sun is a matter of the sun's somehow existing "in" me. This is not to say that the sun as formally existing—as it exists in the heavens—comes to be in me, but the point is that when I think of the sun it acquires an objective mode of being in addition to its formal being. Perhaps we should then distinguish between two senses of 'idea' in Descartes. In the *wide* sense, an idea would be an act of the mind that has some reality as its object—e.g. in the sun case, the idea would be the act of the mind that has the sun as its object. In the *narrow* sense (which is the one used in the passage just quoted), an idea would be the objective being of the thing cognized.

On the previously widespread internalist interpretation, Descartes was thought to hold that ideas are mental representations that are *independent* of external reality. Yet it is noteworthy that even the notion of a mental representation as something that is *distinct* from, and *through which* we access, external reality does not obviously figure into Descartes's account here.[9] An idea in the narrow sense—the objective reality—is a mode of being of the object cognized, not of the mind. On the face of it then, the way in which Descartes elaborates the notion of idea suggests that he is thinking of cognition precisely along the lines of the traditional conception of cognition as involving a direct relation between the cognizer and the reality understood. Perhaps one can even say that for Descartes to have an idea (in the wide sense) is to be directly cognitively related to some external reality.

[9] Descartes of course talks of ideas as "representing" (e.g. AT 7, 40; CSM 2, 28). It is not clear, however, that this talk is to be understood in the nowadays common sense of involving a distinct mental item. Perhaps 'representing' can be taken in a more literal sense, in line with the notion of objective reality, as simply meaning that the external object is "present again," that is, has another mode of being. While we are not able to elaborate this suggestion here, it seems to us that it would make better sense of the way in which Descartes uses 'representing' in the context of his famous "causal principle" in the Third Meditation. On the other hand, one may still think that Descartes *needs* something like our modern notion of representation to make his theory of cognition work (for discussion of some of the difficulties here see Brown 2006, chap. 4).

What more exactly is then the nature of that relation? According to Carriero, Descartes's view is best understood in terms of something like the Aristotelian notion of formal identity:[10]

> In general the way ideas function for Descartes is that they make reality available to the mind. That is, all ideas—whether purely intellectual (such as my idea of myself or of God) or imaginative (such as my idea of a chimera or my visualization of a triangle) or sensory (such as my idea of greenness)—exhibit or present reality to the mind: the reality contained in the thing that is being thought of exists objectively in the idea. […] In certain respects, this sameness-of-reality assumption functions the way that formal identity or the resemblance thesis does for the Aristotelians. Both understand cognition as a matter of sameness of structure in the cognizer and the cognized [...] (Carriero 2009, 158)

This suggestion of course raises many questions. One has to do with Carriero's claim that also sensory cognition and even imagination can be understood in terms of sameness of structure. Here we want to set these difficult cases aside and focus on understanding. For it seems natural to wonder how it is possible for Descartes to retain an Aristotelian theory of cognition, while, as we saw, abandoning the hylomorphic picture which seems to underpin it. How is it possible to retain something like formal identity without Aristotelian substantial forms?

It is here that the notion of structure is important. This notion seems to be quite naturally at home in Descartes's geometrical picture. There is also an important connection between the case of geometrical structure and the traditional notion of essence, as comes up in Descartes discussion in the Fifth Meditation. The properties of the triangle depend on its true and immutable nature very much in the same the way in which propria were thought to depend on an essence (Carriero 2009, 301). At a more general level, one might think that the notion of structure is quite useful for the present purpose. It is a notion which is not tied to any particular

[10] Sometimes, however, Carriero reserves 'formal identity' for the Aristotelian idea that our sensory cognition "resembles" external reality, a doctrine that Descartes rejects (Carriero 2009, 159). This is to be distinguished from 'formal identity' in the sense relevant here, namely the general sameness-of-structure thesis. When we talk of 'formal identity' it is in the latter sense that we use it.

metaphysics, and it is at the same time not so unnatural to use it in a way that connects it to the Aristotelian forms: a structure is something abstract that can be realized in many different ways, so it seems that we could also say that a structure can in some sense be present both in the world and in the intellect. Thus, there is a sense in which we can say that the cognizer in thinking of a triangle, understood as a geometrical structure, comes to have that structure in her intellect. That is, we can account for the sort of direct cognitive access that a cognizer has to the objects of geometry in terms of the notion of sameness of structure. This is how we understand Carriero's claim that Descartes, while rejecting the abstractionist doctrine, in favor of the doctrine of innate ideas, still can retain something like a conception of cognition as grounded in formal identity.

It is natural to ask whether the notion of sameness of structure really generalizes to other innate ideas, most importantly to that of God. We will return to the idea of God in section 5 below, but first we would like to draw attention to some difficulties with Carriero's sameness-of-structure approach that arise already at the level of our cognition of material things.

3. Problems with the Sameness-of-Structure Reading

According to Carriero's sameness-of-structure reading, Descartes (just as Aristotelians) thinks that human understanding is capable of cognitive access to reality in the sense that the real structures of things come to exist in the understanding. It is, of course, clear that for Descartes the nature of these real structures has to be quite different from Aristotelian kind-essences. The structure, at least in the case of material things, must in Descartes's view be something like geometric-kinetic structure. We will now take up some questions concerning how to explicate this idea.

If structure is something that things "have" and that can also be "had" by the intellect, this might suggest that a structure is something like a universal capable of being instantiated by several things at the same time—in line with how structure is often understood today, for example, in the philosophy of mathematics.[11] Yet for Descartes it is not a universal abstracted from things that is supposed to be present in our mind in cognition. Indeed, in Descartes's discussion of our idea of the sun it is the thing itself, the sun, which exists in the mind, objectively. This in fact reflects a further important difference between the new mechanistic metaphysics and an Aristotelian world-view, emphasized by Carriero. The Aristotelian conception of natures as kind-essences, as common to several particular substances, is replaced by a conception of natures themselves as particular:

> [I]f one thinks of physical beings as complex patterns of extension in motion, as Descartes does, it does not seem at all unnatural that one might focus one's intellectual attention on *this* system and try to understand it, without regard to other similar systems. (Carriero 2009, 124)

It may still be that classifying things—putting them into classes on the basis of similarities—is important for cognizers like us, but in this new picture doing so is not really fundamental to understanding the natures of things. Indeed, a general distrust of the notion of universal is an important theme in all early modern rationalists. Think here, for example, of Spinoza's account of "notions called 'universals'" as arising "when so many images are formed in the human body simultaneously (e.g. of man) that our capacity to imagine them is surpassed" (EII P40s1).

Now, one might wonder how such an emphasis on particularity fits with the discussion of true and immutable natures in the Fifth Meditation (considered in section 3 above). It is easy to get the impression that these natures are precisely something common—the true and immutable nature of a triangle as something that is instantiated by all triangles. Here it is,

[11] For a helpful discussion of the notion of structure in contemporary philosophy of mathematics see Shapiro 2000, chap. 10.

however, important to note that all the true and immutable natures, when we are talking about corporeal reality, depend in a certain way on extension, according to Descartes, as is brought out by Carriero's expression "complex patterns of extension in motion" in the quote above.[12] All different figures (bodies) are ultimately just different ways of being extended, different ways of modifying extension, and to understand any of them is to understand them through the idea of extension. To think of the true and immutable nature of e.g. a triangle is to think of extension as delimited in a certain way, along the lines of a construction within Euclidean space.

This is also the point Descartes makes in the Fifth Meditation in responding to the suggestion that we could have received the idea of a triangle from the senses (via seeing bodies of a triangular shape): "I can think up countless other shapes which there can be no suspicion of my ever having encountered through the senses, and yet I can demonstrate various properties of these shapes" (AT 7, 65; CSM 2, 45). What allows me to think about the true and immutable nature of a triangle is that I have the idea of extension, an idea that also allows me to construe innumerable other figures. The idea of extension is an idea of something *giving rise to* a set of possible structures.

Here we find what we could call an *architectonic difference* between Aristotelian abstractionism and the Cartesian doctrine of innate ideas. For Aristotelians, kind-essences form our "cognitive bedrock:" by acquiring an essence we are able to see how propria follow. There is no further level of construction of essences: we could not start out with matter, because matter itself is pure potentiality, in need of addition of forms. Nor could we start out with something like the highest genus substance and from there construct sub-genera (living and non-living), since moving from genus to species requires adding *differentiae*. In contrast, a

[12] This seems to be part of Descartes's point in his well-known discussion of the piece of wax in the Second Meditation (AT 7, 30-1; CSM 2, 20-1). See Koistinen 2014.

common idea in early modern thought, is that the nature of extension is "rich", something that gives rise to the infinite variety of possible shapes or figures, or possible patterns of motion.

If this is correct, we should ask, what is the status of extension itself and how should we understand our cognitive relation to extension? Descartes explains in a letter to Arnauld that extension is "a nature which takes on all shapes," by which he does not mean that all shapes somehow emanate from extension. The point has rather to do with the *richness* of extension: all the possible shapes are limitations of extension and thinking about some particular shape is to think about extension as limited in a certain way. Extension is, as he stresses, "a particular nature [*naturam particularem*]," in contrast to "some universal which includes all modes" (AT V 221; CSMK 357), i.e., it is not like a genus that includes all shapes as its species, but is rather something particular that has shapes as its modifications. However we are to work out the details here,[13] Descartes's main point seems clear: when we are doing Euclidean geometry, it is natural to think of space not as a universal but as something particular, which constrains the constructions that can be made in it.

This brings us back to the question of how to understand the status of the true and immutable natures—of geometrical structures. Given that these are supposed to be, as we have just seen, ways of modifying (delimiting) extension, and extension itself is something particular, it may be less strange to think of these structures themselves as particular. (Or perhaps the traditional distinction between universals and particulars is actually difficult to apply to Descartes's account of corporeal reality.) In any case, there may not be any deep tension between the idea that understanding is directly of *this* or *that* thing, and the idea that the basis of understanding is sameness-of-structure, along the lines proposed by Carriero. When we understand the sun, what we understand is some very complex pattern of matter in

[13] For further discussion see Pasnau 2011, 152-54. We owe the reference to the letter to Arnauld to Alanen (forthcoming), who discusses the way in which thought is a particular nature.

motion, and for us to have an understanding of it is for that pattern to in some way be replicated in our minds.

But even if we can make sense of this line of thought in the case of cognition of different geometric-kinetic structures, it is not clear that it can hold of all of our ideas, as Carriero suggests that it does (see section 2 above). It seems, for example, problematic to claim that our cognitive access to extension can be construed in terms of sameness of structure. As we saw, the idea that geometrical structures are themselves particulars relies on the idea that they are limitations or modifications of the particular nature of extension. But if extension is to play that role, extension itself cannot be understood as a structure in the same sense as other geometrical structures, but it must have a special status. In that case, it is not clear how our idea of extension, our direct cognitive relation to extension—which is the basis for our understanding of material things—could be explained in terms of sameness of structure.

One possibility is that Descartes could have a sort of two-stage story of our cognition. Given that we can take our cognitive access to one particular, namely extension, as given, we could give an account of our cognitive access to the structures which are grounded in that particular. But that would, of course, leave our cognitive access to extension unexplained. Should we then just say that in the case of the innate idea of extension we have reached a sort of ground level in our cognitive apparatus?

This response would be disappointing if, as Carriero proposes, Descartes is to be interpreted in line with an Aristotelian account of our cognitive relation to reality. For it is central to the Aristotelian view that in understanding we are not only directly related to the object understood, but that there is a ground for, an account of, that relation, which, as we saw, for Aristotelians is given by the intellect's being formally identical to its object. If the latter account is not available to Descartes in the case of the idea of extension—as we have suggested—the only further thing we could introduce here would be something like the

perfection of God which would guarantee that even in the case of the idea of extension we are dealing with something real, something which is not just a peculiar feature of our cognitive apparatus. But it is not clear to what extent this really would count as an account (in the Aristotelian sense) of our cognitive relation to reality—what God's perfection guarantees is *that* there is such a relation, but it does not tell us anything about its ground.

A similar problem arises with respect to another of our basic innate ideas, namely the idea of God. This too is an idea of a particular nature and it seems thus difficult to explain it in terms of sameness of structure. But while it is unclear to us whether Descartes has anything further to say about the idea of extension, his discussion of the idea of God does in fact contain at least some initial suggestions for an alternative account of this idea. Yet rather than a solution to the difficulties with the idea of extension, we encounter here a deep and unresolved problem in Descartes's theory. For the account of our idea of God does not, as we will see, seem to be available in the case of the idea of extension.

4. The Role and Nature of the Idea of God

That we have a clear and distinct idea of God is, of course, extremely important for Descartes's overall project in the *Meditations*. In the Fifth Meditation, Descartes moves from general observations concerning true and immutable natures to his second proof of God's existence by saying that "[c]ertainly, the idea of God, or a supremely perfect being, is one which I find within me just as surely as the idea of any shape or number." (AT 7, 65; CSM 2, 45). The idea of God is rich in the same way as the idea of extension: just as the latter enables us to derive and cognize all kinds of geometrical truths concerning triangles and other figures, the former makes it possible for us to understand, at least to some extent, the nature of God (and thereby the nature of reality).

Carriero emphasizes the way the knowledge of God is required in order to establish "the truth rule," the claim that "whatever I perceive very clearly and distinctly is true." (AT 7, 35; CSM 2, 24). This rule is something we need in order to convince ourselves even of the veracity of our innate ideas of true and immutable natures. Ultimately then Descartes's account of cognition comes to rest on a metaphysical account of God and our relation to God:

> Notice that Descartes bases his argument for these things' being *verae* and "something, and not merely nothing" on the "truth rule," and so on a substantive metaphysical account of the origin of my nature in God. (Carriero 2009, 58)

Referring to God helps us to answer certain fundamental questions that we can raise about our ideas. These questions, such as "Does my idea of extension 'work' as it should?", or in general "Do my innate ideas function so as to make real structure available to the mind?" are possible because there is, as Carriero puts it, "enough distance" between the object and the idea, even in the case of the most fundamental ideas that we have (*ibid*.). This distance allows us to raise what we could, following Kant, characterize as a *quaestio iuris* concerning our ideas: even if some idea seems inevitable for us, we can still ask whether this inevitability is just a peculiar feature of our own faculty of cognition. And we can answer that question, i.e., we can ultimately see that our ideas are doing what they are supposed to be doing, when we, by relying on our idea of God, come to know that our cognitive faculties come from God and that God is not a deceiver.

We believe that Carriero's emphasis on the central role of our origin in God to Descartes's account of cognition is a very important insight. However, we believe that it can also be developed in a somewhat different, less traditional, direction—it is not only relevant to the *quaestio iuris* but also to understanding the nature of the idea of God in the first place. To see this, we need to consider some aspects of Descartes's intricate discussion in the Third Meditation, in connection with his first attempt to prove the existence of God. The proof involves centrally the claim that the reality which exists objectively in our idea of God is of

such a kind that the only possible source of this idea is God, that is, an actually infinite perfect being. It may seem natural to read this along the lines of Carriero's sameness-of-structure account, as he himself also proposes: "our idea of God functions in a manner analogous to the way an intelligible species did for the scholastics" (Carriero 2009, 183). We believe, however, that we can find another strand in the Third Meditation discussion. Consider the following passage:

> I clearly understand that there is more reality in an infinite substance than in a finite one, and hence that my perception of the infinite, that is God, is in some way prior to my perception of the finite, that is myself. For how could I understand that I doubted or desired—that is, lacked something—and that I was not wholly perfect, unless there were in me some idea of a more perfect being which enabled me to recognize my own defects in comparison. (AT 7, 45-46; CSM 2, 31)

Descartes is here concerned with the fact that God is the ultimate infinite reality on which I, as a finite thing, depend, which makes the idea of God prior to the idea of myself. I understand myself *through* the idea of God.[14] Descartes goes on to elaborate as follows on the consequences of this for understanding the nature of my idea of God:

> And indeed it is no surprise that God, in creating me, should have placed this idea [the idea of God] in me to be, as it were, the mark of the craftsman stamped on his work – not that the mark need be anything distinct from the work itself. But the mere fact that God created me is a very strong basis for believing that I am somehow made in his image and likeness, and that I perceive that likeness, which includes the idea of God, by the same faculty which enables me to perceive myself. (AT 7, 51; CSM 2, 35)

This passage raises some important and difficult questions about how to understand the notion of idea. For Carriero, as we have seen, an idea involves the presence of structure in the intellect. This is what explains what it is for the cognizer to have a direct relationship to that reality (in this case God). But it is not obvious to us that this is how we should read the passage. At first sight, one may of course think that what Descartes says here fits with Carriero's proposal. In

[14] This is also something discussed at length in Carriero 2009, chap. 3(II). We differ, however, from Carriero in proposing that this dependence on God serves to *explain* the *nature* of the idea of God.

creating me, God is said to "have placed" the idea of Himself in me; my likeness to God "includes the idea of God." It may seem natural to construe this in terms of "divine structure" coming to exist (objectively) in me.

Yet the passage also contains a qualification that we think is actually quite important and which we take to suggest something different. The qualification comes in Descartes's remark that "the mark" (the idea) need not be "anything distinct from the work itself" (not distinct from the created mind). This suggests that it is not so clear that there is anything more needed to have an idea of God than being created by God. But what is then the nature of the idea? That is, what is it that is supposed to explain my standing in a direct cognitive relation to God?

Somewhat speculatively, we propose that having an idea of God has to do with the sort of *dependence* that Descartes stresses between God and created minds. Instead of thinking of my cognitive relation to God as based on some further "divine structure" in me, what accounts for my being able to directly access God's nature would have to do with the "metaphysical directness" involved in my being created by, originating from, God. The appeal to the origin of our nature in God here differs from the way God is introduced in response to the *quaestio iuris*. What is important in this context is not that God is not a deceiver, but that our origin in God somehow explains our ability to cognize God in the first place.

Note, however, that the new picture of the nature of the idea of God (as based on our immediate metaphysical dependence on God) cannot help us to understand our cognitive relation to extension: it is a key tenet of Descartes's view that as a thinking being the mind does *not* originate from extension. In the case of God I can, as it were, immediately see how the reality cognized—the divine being—is in me, due to my sense of metaphysical dependence on God. But there is no corresponding sense of dependence on extension. That is, in the case of my idea of extension there seems to be some room for skepticism, and a need for what we

characterized as a *quaestio iuris*. Connectedly, we can also see why the idea of God, given its special character, can play a role in answering the *quaestio iuris*.

How exactly to work out the details here may in the end be left open by Descartes. Rather than proposing a definitive account of Descartes's position, we believe that part of the value of attending to the new picture of what it is to be cognitively related to reality that emerges in the Third Meditation, is that it helps to appreciate the way in which Descartes's main rationalist successors, Spinoza and Leibniz, develop the Cartesian framework. By way of conclusion, we would like to briefly indicate how our reading of Descartes may contribute to a better understanding of the—at least from our perspective—alien role they give to God in accounting for the nature of cognition.

5. Concluding Remarks: The Role of the Idea of God in Spinoza and Leibniz

Spinoza famously proposes that "each idea of each body, or of each singular thing which actually exists, necessarily involves an eternal and infinite essence of God" (EII P45). Now, if any singular thing needs to be conceived or understood through God's essence, it seems that our being able to understand anything relies on our having a cognition of God's essence. This is precisely what Spinoza goes on to claim that we have: "the human mind has an adequate knowledge of God's eternal and infinite essence" (EII P47).

Leibniz develops a similar line of thought.[15] In arguing that our cognition bottoms out in irresolvable notions, he identifies these notions with the absolute attributes of God, with the fundamental aspects of God's being:

> I won't venture to determine whether people can ever produce a perfect analysis of their notions or whether they can ever reduce their thoughts to

[15] Malebranche's thesis that we see all things "in" God is another example of this way of developing Descartes's position.

> primitive possibilities or to irresolvable notions or (what comes to the same thing) to the absolute attributes of God, indeed to the first causes and the ultimate reasons for things. (A VI.iv 590; AG 26)

Thus, for Leibniz too conceiving of (having a notion of) God's essence is the basis for conceiving (having a notion of) anything else.[16] While rejecting Spinoza's substance monism, Leibniz shares Spinoza's view that the natures of finite things are to be understood in terms of limitations of God's "absolute being," in analogy with the relation between space and shape: the absolute being, he writes in a 1715 letter, "differs from particular limited beings as absolute and boundless space differs from a circle or a square." (RML 481; W 556)

The idea of God in both Spinoza and Leibniz thus in a way becomes even more central to our cognitive life than it is for Descartes: all our cognition needs to rest on the cognition of God's being. Of course, Spinoza and Leibniz develop this thought in very different ways: Spinoza by making God extended, and Leibniz by arguing that the attribute of extension is not a fundamental attribute.

This "unificatory" move, with the result that a cognitive access to God becomes a precondition for having any cognitive relation to reality, is also what can make the systems of Spinoza and Leibniz seem rather strange from our contemporary vantage point. Here we believe that it helps to keep in mind some of the problems registered earlier about understanding the nature of the innate idea of extension in Descartes. We also saw that in the case of our idea of God Descartes offers the beginning of what looks like an alternative account of the nature of ideas, having to do with the special metaphysical dependence involved in our originating from God. In this way, our reading of Descartes allows us to see why Spinoza and Leibniz would have found the unificatory move philosophically attractive. By making all ideas depend on the idea of God, explained in terms of our metaphysical dependence on God, the distance between ideas and reality—calling for a *quaestio iuris*—seems to vanish. Descartes

[16] We discuss this claim further in Myrdal & Repo 2016.

still felt the need to answer the skeptic by emphasizing that God is not a deceiver. In contrast, Spinoza and Leibniz seem little troubled by skeptical considerations. In fact, it is easy to get the impression that they are more concerned with the opposite problem. For them the acute problem is not how we are able to get onto the truth, but how we can ever be mistaken, that is, how cognitive error is possible.[17]

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