

# ON THE ALLEGED EXCEPTIONAL NATURE OF THOUGHT IN SPINOZA

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**ABSTRACT:** Since modes of the attribute of thought are ideas of the modes of all the other attributes in Spinoza, the scope of thought appears to be equal to that of all the other attributes combined. This suggests that thought is exceptional, and threatens to upset Spinoza's doctrine of parallelism, according to which thought is just one among an infinity of attributes each expressing the divine essence in its own unique way. After providing an overview of attempts to solve the problem of thought's scope in the literature, I outline two reasons why the problem is not the problem it has been taken to be: (1) quantitative comparisons have no place between attributes, and (2) with knowledge of only two attributes, it is impossible to speak of norms and anomalies. I also explain how my view undercuts debate about where Spinoza lies on the idealism–dualism–materialism spectrum, and refocuses attention on the identity of the order and connection of causes regardless of the attribute under consideration.

THERE is a well-known and long-standing problem in Spinoza's metaphysics about the attribute of thought. It can be summarized as follows: according to Spinoza's doctrine of "parallelism"<sup>1</sup> (the prime statements of which occur in *Ethics* 2p7, c, and s<sup>2</sup>), the attribute of thought is one among an infinity of divine attributes each expressing the divine essence in its own unique way. But the attribute of thought's particular way of expressing the divine essence appears to consist in having ideas of how a mode is expressed in every other attribute.<sup>3</sup> This seems to imply that, in at least one sense, the scope of the attribute of thought is equal to all the other attributes combined. Furthermore, it seems to imply that the attribute of thought is not merely infinite in its own kind, as is characteristic of attributes, but rather infinitely infinite, or even absolutely infinite, a characteristic exclusive to God, and thus indicating a parity between God and the attribute of thought, or, at least, a disparity between thought and the other attributes. Even worse, if thought is more like God than the other attributes, then it would seem that thought is a *better* expression of the divine essence, and thus, the other attributes express God's essence relatively poorly, and perhaps even only partially. In sum, the exceptional nature of thought threatens to upset the parallelism of the attributes—a doctrine central to Spinoza's system—and ultimately, to render the system incoherent.

Recognition of this apparent difficulty dates back to Tschirnhaus's correspondence with Spinoza. Unfortunately, preoccupied with other aspects of Tschirnhaus's dense commentary in Letter 70, Spinoza never addressed his direct objection concerning the exceptional scope of thought. A number of commentators since Tschirnhaus have recognized this omission, and have sought to correct it on Spinoza's behalf.<sup>4</sup> My primary objective in this paper will be to argue that the problem has been overblown to begin with. In the first section of the paper, I explain the alleged problem. In the second section, after a brief overview of some attempts to solve the problem, I outline two reasons why the problem is not the problem it has been taken to be: (1) quantitative comparisons have no place between infinite attributes, since one attribute cannot be more infinite than another; and (2) with knowledge of only two attributes, there is insufficient basis to speak of norms and anomalies in the first place. In the third section, I consider some of the implications of my view regarding the problem of thought in Spinoza for the metaphysical status of thought in Spinoza's system, as well as for the system as a whole. Finally, in an appendix added to the end of the paper, I explain how the claim that one attribute cannot be more infinite than another stands (and in fact receives confirmation) in light of Cantor's theory of transfinite numbers.

Although Spinoza surely did not intend for this, the attribute of thought has come to function as a kind of crucible of interpretation. The problem addressed in this paper of thought's status among attributes is not the only interpretive challenge concerning thought in Spinoza, but it is one of the most consequential. How one handles this problem determines, first, whether or not Spinoza's metaphysics is seen as coherent, and, second, Spinoza's casting as an idealist, a dualist, or something else. The interpretation that follows is deflationary in two principal respects: it deflates the problem concerning thought's scope, and it deflates the enterprise, which has engaged many, if not most, of Spinoza's commentators, of situating Spinoza on the *idealism–dualism–materialism* spectrum.<sup>5</sup> It is not, however, solely deflationary. Two upshots are, first, a coherent picture of Spinoza's metaphysics, at least with regards to thought's place in the system, and, second, a shift of focus away from the *stuff* of Spinoza's reality, as it were, and towards its order and connection.

## I.

The problem of thought's scope arises with Spinoza's statement of his doctrine of parallelism in *Ethics* 2p7. The proposition reads: "The order and connection of ideas is the same as the order and connection of things [*rerum*]." When Spinoza uses 'things' here, he does not mean to designate only physical things, as if he were talking of the attribute of extension only; rather, he means anything that could be an object of thought, including modes of any of the other attributes included in God's "absolutely infinite" nature. By saying that God is "absolutely infinite," Spinoza means (as he states in 1d6) that God is "a substance consisting of an infinity of attributes," although human beings only have knowledge of two of these (thought and extension).<sup>6</sup> (Spinoza's exotic doctrine of the unknown attributes will become significant in the second and third sections of this paper.) As Spinoza goes on to clarify in the Scholium to 2p7, "thinking substance and extended substance are one

and the same [*una eadamque*] substance, which is now comprehended under this attribute, now under that. So also a mode of extension and the idea of that mode are one and the same thing, but expressed in two ways.” The parallelism doctrine is thus best seen through the lens of Spinoza’s attribute identity doctrine: each attribute expresses the same order and connection of causes, the same substance, albeit in different ways.

The alleged problem comes out most clearly when this picture of parallelism is juxtaposed with the corollary of the proposition, which reads: “From this it follows that God’s power of thinking is equal to his actual power of acting. That is, whatever follows formally from God’s infinite nature follows objectively in God from his idea in the same order and with the same connection.”<sup>7</sup> Spinoza is saying that whatever is produced through God’s power of acting and has a formal existence in “God’s infinite nature,” *also* has an objective existence in God’s idea following God’s equally potent power of thinking.<sup>8</sup> This equality of the two powers (acting and thinking) yields the problematic suggestion that there are as many ideas as there are things.

Is the attribute of thought, then, just one way among others of expressing the divine essence? The corollary indicates that there is an idea for each modification of all the attributes produced by God’s power of acting. Thus, the attribute of thought does not include just one expression of, say, a circle, among others. Rather, there is a distinct idea of the way the circle is expressed in each of the infinite attributes. Thus, whereas there is a distinct expression of the circle in each of the infinite attributes, there are infinite ideas of the circle within the attribute of thought, not just one. It seems, therefore, that the attribute of thought does not include just one way of expressing the circle among others, but rather that the attribute of thought is a special, super-expression of the circle in that it includes ideas of all the other expressions from all the other attributes. Tschirnhaus stated the problem as follows: “in this way the attribute of Thought is given a much wider scope than the other attributes. Now since each of the attributes constitutes the essence of God, I fail to see how the one thing does not contradict the other” (Shirley and Morgan 2002, 938).

Tschirnhaus writes to Spinoza on several occasions (either directly or through Schuller) regarding 2p7. On the final occasion, he brings up the just quoted point about the scope of the attribute of thought. Although Spinoza does not directly address this point in his response, preceding correspondence on related issues bears on the question of the scope of thought. In Letter 65 Tschirnhaus writes,

there now arises the question as to why the mind, which represents a particular modification—which same modification is expressed not only by extension but by infinite other modes—why, I ask, does the mind perceive only the particular modification expressed through extension, that is, the human body, and not any other expression through other attributes? (Shirley and Morgan 2002, 920)

In discussing this exchange between Tschirnhaus and Spinoza, Curley writes, “Spinoza’s answer is maddeningly brief, and has widely been regarded as unsatisfactory” (Curley 1969, 149). Spinoza’s response reads as follows:

I say that although each thing is expressed in infinite modes in the infinite intellect of God, the infinite ideas in which it is expressed cannot constitute

one and the same mind of a particular thing, but an infinity of minds. For each of these infinite ideas has no connection with the others, as I have explained in that same Scholium to Proposition 7, Part II of the *Ethics*, and as is evident from Prop. 10, Part I. If you will give a little attention to these, you will see that no difficulty remains, etc. (Shirley and Morgan 2002, 921)

Aside from the maddening brevity of this reply, Spinoza's reference to 2p7s and 1p10, far from removing difficulties, seems to make matters more confusing. Nothing in 2p7s obviously explains Spinoza's point that each of the infinite ideas of the ways in which a single modification is expressed in the infinite attributes has no connection with any other. Instead, what comes through most clearly when 2p7s is read alongside 1p10 is that each attribute can only be understood through itself, and not in terms of any other attribute. This appears only to illuminate a *lack* of connection between the infinite ideas if each modifies a different attribute. If each indeed modifies a different attribute, then something along the following lines is true: while there is an idea under the attribute of thought of, say, a circle under the attribute of extension, there is a different kind of idea under a different attribute, say, thought<sub>1</sub>, of a circle under unknown attribute<sub>1</sub>, and yet a different kind of idea under thought<sub>2</sub> of a circle under unknown attribute<sub>2</sub>, and so on. In this way, there are ideas for the ways in which each mode is expressed in each of the infinite attributes, but instead of the ideas all being modes of the attribute of thought, each idea modifies a different thought-like attribute.<sup>9</sup> If this is what Spinoza means to suggest, then each thought-like attribute would have a single object-attribute, none would extend more widely than another, and the problem of thought's exceptional scope would disappear.

While the many thought-like attributes interpretation would, if right, put to rest the problem of the exceptional scope of thought, it does not work well as an interpretation of thought in Spinoza at all. The biggest problem for this interpretation is what Spinoza says regarding God's thought in the opening propositions of *Ethics* Part 2, including, "there belongs to God *an* attribute [*attributum*] whose concept *all* singular thoughts [*omnes singulares cogitationes*] involve" (2p1dem emphases added); and "a being which can think infinitely many things in infinitely many ways is necessarily infinite in its power of thinking. So since we can conceive an infinite being *by attending to thought alone* [*ad solam cogitationem attendendo*], thought (by ID4 and D6) is necessarily *one* of God's infinite attributes [*unum ex infinitis Dei attributis*]" (2p1s emphases added); and, finally, "God's idea, from which infinitely many things follow in infinitely many modes, must be unique [*unica*]" (2p4). These passages provide strong evidence that God's infinite ideas of the way modes are expressed in each of the infinite attributes modify a *single* attribute, i.e., thought, *not* many different thought-like attributes. Finally, aside from Letter 66, the meaning of which is in question, there is a lack of direct evidence for the many thought-like attribute interpretation. If Spinoza had meant to distinguish between different thought-like attributes, it would not have been difficult for him to do so explicitly. The fact that he never did is a strong indication that he never meant to.

An alternative way to read Spinoza's puzzling reference to 2p7s and 1p10—which does not lead to the many thought-like attributes interpretation—is to see him as insisting that a separate idea is needed for conceiving the way each mode is

expressed in each of the infinite attributes. In other words, *because*, as 1p10 says (and 2p7s echoes this), “[e]ach attribute of a substance must be conceived through itself,” it is impossible for a single idea to conceive modes of multiple attributes all at once. To conceive an attribute *through* itself is to conceive it *by* itself, we might say, without the involvement of any other attribute (except for thought, of course, which is involved in the conceiving itself<sup>10</sup>). Thus, it is first and foremost the *objects* of Letter 66’s infinite ideas that have no connection with one another. As a result of the *objects*’ lack of connection, and *not* as a result of their modifying separate thought-like attributes, Spinoza can say that the infinite ideas have no connection with one another.<sup>11</sup>

I think this is a promising interpretation of Spinoza’s puzzling reference to 2p7s and 1p10 in Letter 66. Since the many thought-like attributes interpretation of Letter 66 is untenable, the problem of the exceptional scope of thought is not put to rest, and it is to addressing this problem that I now want to turn.

## II.

A number of commentators since Tschirnhaus have echoed his concerns regarding thought’s exceptional scope and attempted to solve the problem on Spinoza’s behalf. Lewis Robinson, for instance, proposed that each mode of the attribute of thought has infinitely less reality than the modes of the other attributes of which the modes of thought are ideas, such that the superior scope of the attribute of thought is counter-balanced by the inferior degree of reality of its modes, and the essence (degree of reality) of the respective attributes is maintained on a par.<sup>12</sup> Another example is Gueroult’s proposal (1974), which turns on the duality internal to thought—the fact that an idea has both a formal and an objective reality—and an analogy. Gueroult says that considered according to its formal essence, the attribute of thought is no different from the other attributes—it follows the same order and connection as the others, and it is produced by the same divine power of acting. As for the infinite ideas of the infinite other attributes for every modification of God’s essence, that is, as for the infinity of objective essences included in each modification of the attribute of thought, Gueroult suggests that we think of them as refractions of thought’s formal essence in an infinity of refractors. Just like the refraction of white light through a prism into multiple colors does not increase the quantity of light, Gueroult suggests, so the refraction of the attribute of thought in an infinity of other attributes does not increase the degree of reality of the thinking attribute.<sup>13</sup> More recently, one commentator has attempted to rein in the attribute of thought, as it were, by arguing that “conceiving” in Spinoza need not be a mental affair (Newlands 2012). The alleged propitious upshot of this is that other attributes, such as extension, may be conceived *per se* without thought being involved at all. Each of these solutions to the problem of the “lopsidedness”<sup>14</sup> of thought could be described in the way that Gueroult described Robinson’s: *ingénieuse* (Gueroult 1974, 81). Nevertheless, none of these solutions is necessary, because the problem they pretend to solve is not in fact a problem at all.

I take it that the following assumptions underlie Tschirnhaus’s concern, as well as that of commentators since Tschirnhaus who have echoed his concern:

(1) the degree of reality of the attributes must be equal, and (2) the attribute of thought's quantitative preponderance (the fact that there are infinitely many modes of thought for each mode of each of the infinite other attributes) poses a problem for this equality. To be clear, quantitative preponderance is not a worry per se; the worry is that quantitative preponderance entails a degree of reality preponderance.<sup>15</sup> Presumably, a purely quantitative preponderance that does *not* entail a degree of reality preponderance does *not* pose a problem for attribute parallelism; at least, I see no reason why it should. The reason the problem lies, as I see it at least, in degree of reality preponderance, rather than in quantitative preponderance, stems from the fact that Spinoza defines an "attribute" as "what the intellect perceives of a substance, as constituting its essence" (1d4). This means, as Spinoza explains in the passages from 2p7s that we have looked at already, that attributes (and their modes) are just different expressions of God's essence. If thought were to have more reality than other attributes, then we could not make sense of it as one expression of God's essence among others; since attributes express essence, if thought expressed "more" essence than, say, extension, then thought and extension could not be two expressions of the same thing, as Spinoza's doctrine of attributes demands.

In what follows, I will argue that to the extent that we can make sense of the quantitative preponderance of thought, it does *not* entail a degree of reality preponderance, and for that reason is *not* the troubling problem for Spinoza's system that it has been taken to be. First, I want to look at an important passage from 1p16 that Gueroult cites in support of the thesis that thought's quantitative preponderance *does* entail a degree of reality preponderance. The proposition reads: "From the necessity of the divine nature there must follow infinitely many things in infinitely many modes, (i.e., everything which can fall under an infinite intellect)." The demonstration continues:

This proposition must be plain to anyone, provided he attends to the fact that the intellect infers from the given definition of any thing a number of properties that really do follow necessarily from it (that is, from the very essence of the thing); and that it infers more properties the more the definition of the thing expresses reality, that is, the more reality the essence of the defined thing involves.

Gueroult takes from this demonstration the maxim that the more properties a thing has the more reality its essence involves. This is slightly different from what is being expressed, which is rather the notion that the more reality the essence of something involves, the more properties can be inferred from it. Nevertheless, let us assume that the conditional is convertible, such that Gueroult's inference is valid. The entailment of a degree of reality preponderance from a quantitative preponderance then proceeds as follows: the fact that the attribute of thought has *more* modes than other attributes means that it has *more* properties; per Gueroult's maxim, the more properties a thing has, the more essence it has; therefore, the attribute of thought has more reality or essence than other attributes. I take it that something along these lines is behind the various attempts to resolve the issue we have canvassed. Each commentator takes thought's quantitative preponderance to be a problem that requires a solution for the type of reason Gueroult gives: if there

is *more* of thought, thought must express more *reality* than other attributes, and so is not just one expression *inter alia* of the divine essence.

Given the fact that thought is an attribute, and that each attribute is infinite, can there be *more* of thought than there is of other attributes, as the foregoing line of reasoning appears to presuppose? If all attributes have infinite modes in the first place, how could thought have *more* modes than any other attribute? Can one infinity be greater than another? In fact, in the “Letter on the Infinite” (Letter 12), Spinoza points to kinds of infinite which *can* be conceived to be greater than another, namely, those constrained within finite bounds, such as the inequalities of space between two non-concentric circles in the example Spinoza gives in Letter 12.<sup>16</sup> In pointing to kinds of infinite that can be conceived to be greater than others, Spinoza is attempting to expose the error of those who deny an actual infinite on the alleged grounds that every so-called infinite is merely a multiplicity of parts that exceeds any assignable number. According to the nonconcentric circles example, we conceive twice the number of inequalities in the total space between the circles as we do between half the space; yet, in both cases, the number of inequalities exceeds any assignable number. The absurdity in one number too large to be determined being twice as great as another is supposed to reveal the absurdity in supposing that infinity can be conceived through number. Applying this to the case of the attribute of thought, it would be no less absurd to suppose that thought could be *more* infinite than another attribute on the grounds that it has *more* modes, since this too would be to attempt to conceive infinity through number. Unlike the nonconcentric circles example, moreover, there are no finite bounds within the constraints of which we can compare the discrepancy between thought and other attributes. The infinity of attributes, therefore, falls into the other category of kinds of infinite identified by Spinoza—those that *cannot* be conceived as greater than others.<sup>17</sup>

Having discredited the possibility that thought could be conceived to be *more* infinite than other attributes, the only other way thought could be greater is if it were not merely infinite *in kind*, but *absolutely* infinite, i.e., infinite in an infinity of *qualitatively* distinct ways. The distinction between *infinite in kind* and *absolutely infinite* is implied in the definitions of *Ethics* Part 1, and clarified in the rest of the part, especially in 1p16dem. God is defined as “a being absolutely infinite, that is, a substance consisting of an infinity of attributes, of which each one expresses an eternal and infinite essence” (1d6). In 1p16dem, it becomes clear that Spinoza understands God to be absolutely infinite, since he is composed of infinite attributes that are each infinite in their kinds: “since the divine nature has absolutely infinite attributes (by D6), each of which also expresses an essence infinite in its own kind, from its necessity there must follow infinitely many things in infinite modes.” As we have seen, the worry regarding thought is that it is not merely infinite in one way as would seem to befit an attribute, but is rather infinite in an infinity of ways insofar as there are ideas of the infinite modes of all the infinite attributes. This seems, in at least one respect, to make thought more akin to God than to other attributes. However, what makes God *absolutely* infinite is being infinite in infinite *qualitatively* distinct ways. Thought, we might say, is infinite only in infinite *quantitatively* distinct ways.<sup>18</sup> Even though there are modes of thought multiplied across the spectrum of attributes, those modes are still qualitatively homogeneous;

they are all still modes *of thought*. Thought, therefore, does not ascend from infinity in kind to absolute infinity by virtue of its multiplication across the spectrum of attributes. It remains merely infinite in its own kind.

Curiously enough, Gueroult produces just this argument only to ultimately reject it. For him, even if the superiority of thought over the other attributes is only quantitative, on the basis of the demonstration of 1p16, that quantitative disparity entails an essence disparity, or a degree of reality disparity, and thus cannot be allowed. This is to ignore, however, the point just made—that number cannot add to what is already infinite. Since it is already infinite, the only way that thought could have more essence than the other attributes would be for it to have *qualitatively* more properties. But—and this is the decisive point—that is impossible. As 1p9 says, “The more reality or being each thing has, the more attributes belong to it.” Attributes, not modes, define the measure of qualitative reality or being. God has infinite qualities because he is comprised of infinite attributes. The attribute of thought, by contrast, involves only one kind of being, to wit, thought. The issue has never been one of qualitative superiority of thought over the other attributes, but rather quantitative superiority. As Gueroult himself points out, and as we have seen, this kind of comparison is a matter of introducing number into infinity, which excludes it (Gueroult 1974). Quantitative comparisons of attributes have no place. Moreover, since attributes are defined by qualitative uniqueness, the notion of qualitative preponderance of one attribute over another is even more clearly inadmissible.

If this is right, is there any sense left in which thought could be deemed exceptional? Curley’s assertion that “it is a requirement of any adequate interpretation that it account in some way for the undeniable fact that thought does have a special position among the attributes” (1969, 150) has been a view shared by many commentators, but it is the one that I am arguing should be abandoned. I think the problem stems from a bit of a red herring. Off and running for the wrong reasons, commentators who take up the problem end up getting into quantitative analyses that have no place between attributes. The red herring is the idea that thought is somehow special, and that its exceptional nature must be made to fit with everything else. But the question that should arise is: special in comparison with what? The other attributes? But the only other attribute we know of is extension. Why should we not think that it is rather extension that is behaving so exceptionally? It does not make sense to talk of exceptions when only two cases are provided. The prejudice that leads to the assumption that thought is special is the prejudice that extension is a paradigmatic attribute, and the other attributes would behave just like extension (if *per impossibile* they were ever discovered).<sup>19</sup> They wouldn’t have weird reflective properties (or, for Gueroult, refractive ones) like thought. But, how do we know what weird properties other attributes might have? If they are all *qualitatively* distinct from each other, as they would have to be, they would have to possess all kinds of idiosyncratic characteristics impossible to foresee or predict.

Even if one accepts the notion, which I have been arguing is Spinoza’s, that thought is not exceptional with respect to extension or any of the other attributes, following as it does the same order and connection of causes just in a different ex-

pression, one might wonder why any difference is being preserved between thought and the other attributes at all. Why, one might ask, not simply reduce thought to extension, for example, or vice versa? Why speak of attributes at all and not simply the order and connection of causes? Such questions would take us beyond the purview of this paper and into the other classic problem of the attributes—that of reconciling their distinction with their identity.

We must rest content with returning to the main argument of this paper: that the quantity of thoughts—the fact that there are theoretically infinite thoughts for every link in the order and connection of things—does not alter the fact that thought follows the same order and connection as every other attribute. The refractive feature of thought (to use Gueroult's image) that we have been discussing does not call for a re-examination of thought's status as an attribute among attributes, an expression of God's essence among an infinity of others; in fact, that feature is part of what gives thought the qualitative distinction necessary for being an attribute.

### III.

I have given two reasons to think that the scope of thought does not pose a problem of attribute disparity: (1) quantitative comparisons have no place between infinite attributes, since one attribute cannot be more infinite than another, and (2) in any case, we do not know enough about the attributes to speak of norms and anomalies. In agreement with other commentators, I have claimed that the attribute of thought is *not* in fact a problem for the coherence of Spinoza's system. Where I have differed is in the path to this conclusion. Once it is realized that there is no reason to think that thought's scope poses a problem for attribute parity to begin with, there is no need for ingenious remedies to a problem that does not really exist. Perhaps this explains Spinoza's apparent hand waving to Tschirnhaus in Letter 66.

In closing, I would like to draw out some of the implications of the foregoing deflationary analysis for the status of thought in Spinoza's philosophical system, and also for the system as a whole. In arguing for my claim that thought is not exceptional, I have invoked the infinite attributes besides thought and extension whose existence Spinoza posits, but knowledge about which Spinoza says is impossible for us. The infinite attributes besides thought and extension arguably comprise the most exotic aspect of Spinoza's system. As a result, efforts to domesticate Spinoza's system tend simply to ignore this penumbral feature.<sup>20</sup> Admittedly, there is only so much that can be said and concluded about inherently unknown things; however, as I hope this paper helps to show, ignoring these features of Spinoza's system entirely is to risk a distorted view of the attributes to which we do have access, and, in particular, of thought.

There is a more general point to be made as well. One form that efforts to domesticate Spinoza take (as with efforts to domesticate any philosopher) are attempts to fit Spinoza into any number of *-ism* categories. In principle, I have no objection to this practice, which can often prove valuable in situating Spinoza vis-à-vis other philosophers and philosophies, and in bringing him into dialogue with contemporary thought. However, I think one common form of attempts to place Spinoza in *-ism* categories winds up distorting Spinoza because it fails to take adequate account of

the unknown attributes. In particular, I have in mind attempts to situate Spinoza on the *idealism–dualism–materialism* spectrum (“*i-d-m* spectrum” hereafter). Spinoza is seen to resist any categorization on the *i-d-m* spectrum when due consideration is given to the unknown attributes.

Certain thinkers give weight to the question of what *stuff* reality is made, and it is these thinkers who belong somewhere on the *i-d-m* spectrum. Hobbes, Gassendi, Descartes, and Berkeley come to mind as a few familiar early modern exemplars. If the claims of this paper are right, and thought in Spinoza is not exceptional, but just one unexceptional example out of an infinity of attributes unknown to human beings, then, at the very least, Spinoza has good reason to have *not* given much weight to the question of what *stuff* reality is made, since, for the most part, we cannot know. This might help to explain the difficulties commentators have had in arriving at any consensus on this question. Unsurprisingly, no analogous interpretive difficulties attend the ontologies of the other early modern figures just mentioned. This is not to say that there are not important questions to be raised about the respective roles that thought and extension play in Spinoza’s theory of human nature, for instance, and about the relationship between these two attributes. I have argued elsewhere (Homan 2014) that the tension between the duality and identity of thought and extension is a prominent and vexing feature of Spinoza’s theory of representation. Such issues, however, are primarily endemic to Spinoza’s theory of human nature, and do not pertain in the same way, in my view, to Spinoza’s broader metaphysics. The only ontological categories appropriate at the general metaphysical level regard Spinoza’s twin commitments to substance monism and attribute pluralism, (though even these categories raise well known questions of consistency, into which we shall not delve here). At the general metaphysical level, then, Spinoza should not be categorized in terms of what kind of *stuff* he thinks constitutes reality, but rather in terms of what he thinks obtains *regardless* of the *stuff*, or attribute in consideration.

This brings us back to Spinoza’s central doctrine of parallelism, which is of central concern in this paper. The emphasis of 2p7 and its corollary and scholium is neither the differences between the attributes, nor what kind of *stuff* constitutes reality, but rather the sameness of the order and connection of causes of the modes of thought and extension and all the other attributes that express God’s essence. Spinoza writes, “whether we conceive Nature under the attribute of extension, or under the attribute of thought, or under any other attribute, we shall find one and the same order or one and the same connection of causes, that is, that the same things follow one another” (2p7s). To the extent that we can consider the place of the unknown attributes in Spinoza’s system, doing so dilutes the focus on thought and extension, and shifts attention away (or, at least, I am arguing that it *should* do so) from the *i-d-m* spectrum, since situating Spinoza on that spectrum is a matter of determining the hierarchy (or lack thereof) among the attributes of thought and extension. Instead, what comes to the foreground is the sameness of the order and connection of causes regardless of the attribute in consideration, because that is the feature that we know *all* the attributes share. To think of *all* the attributes, then, is not to think in terms of the *i-d-m* spectrum, since there is no way to place the other attributes in that spectrum, but instead to think in terms of sameness of causal order.

Let me return, finally, to the central topic of this paper: thought in Spinoza. My main contention has been that thought is not exceptional among attributes. In making my case, I considered the nature of attributes in general, and invoked the existence in Spinoza's system of infinite unknown attributes besides thought and extension. In this final section, I have pursued some of the implications of my deflationary analysis for the place of thought in Spinoza's system, and for the system as a whole. In particular, deflating the exceptionalness of thought among the attributes, and adopting a wider view that encompasses the unknown attributes, I argued, serves to pull the rug from under debates about the relative place of thought and extension in Spinoza's system, and therefore, about whether Spinoza was an idealist, a dualist, or a materialist, and shines the spotlight instead on the sameness of the order and connection of causes regardless of the attribute in question.

## APPENDIX: THE ATTRIBUTE OF THOUGHT AND CANTOR'S THEORY OF TRANSFINITE NUMBERS

In section II, I argued that the attribute of thought, for Spinoza, is in the category of infinities that cannot be conceived as greater or lesser since only infinities constrained within finite bounds, such as those in Spinoza's non-concentric circles example, can be so conceived. In the fourth quarter of the nineteenth century, Georg Cantor devised a theory of transfinite numbers according to which some infinities are greater than others even without being obviously constrained within finite bounds. For instance, Cantor held that the infinite set of real numbers (rational and irrational numbers) is greater than the infinite set of natural numbers (whole positive integers). Does Cantor's theory of transfinite numbers retrospectively undermine the claim that the attribute of thought cannot be conceived as greater or lesser? Is it possible to think of the relationship between real and natural numbers as analogous to the relationship between the attribute of thought and the attribute of extension?

The answer to both questions is "No." In order to see why, it is necessary to introduce some key concepts of Cantor's theory.<sup>21</sup> For Cantor, a set is "countable" or "denumerable" if it is possible to establish a one-to-one correspondence between the members of the set and the natural numbers (as illustrated below). The "cardinality" of a set represents the number of members in a set. According to Cantor, all denumerable infinite sets have the same cardinality. One of Cantor's central claims is that while it is possible to establish a one-to-one correspondence between the rational numbers (numbers that can be expressed as the quotient,  $p/q$ , of two integers, where the denominator,  $q$ , does not equal zero) and the natural numbers, this is not the case with the real numbers. Fortunately, it is not necessary to enter into any of the details of Cantor's proof of the nondenumerability of the real numbers. If it is possible to draw any analogies between Cantor's transfinite numbers and the infinity of thought, then it is to the countable rational numbers, not to the uncountable reals, that the analogy must be drawn. This point is illustrated in the following tables.

**Table 1**

1/1, 1/2, 1/3, 1/4, 1/5, ...
2/1, 2/2, 2/3, 2/4, 2/5, ...
3/1, 3/2, 3/3, 3/4, 3/5, ...
4/1, 4/2, 4/3, 4/4, 4/5, ...
5/1, 5/2, 5/3, 5/4, 5/5, ...
...
0, 1, 2, 3, 4, 5, ...

**Table 2**

$I_{A1}, I_{A2}, I_{A3}, I_{A4}, I_{A5}, \dots$
$I_{B1}, I_{B2}, I_{B3}, I_{B4}, I_{B5}, \dots$
$I_{C1}, I_{C2}, I_{C3}, I_{C4}, I_{C5}, \dots$
$I_{D1}, I_{D2}, I_{D3}, I_{D4}, I_{D5}, \dots$
$I_{E1}, I_{E2}, I_{E3}, I_{E4}, I_{E5}, \dots$
...
$B_1, B_2, B_3, B_4, B_5, \dots$

Table 1 provides a schematic representation of the relationship between the rational numbers and the natural numbers. The table of rational numbers extends infinitely both horizontally along its rows, and vertically along its columns (as indicated by the ellipses). Although, by contrast, the set of natural numbers extends infinitely

only horizontally along its rows, it is possible to establish a one-to-one correspondence between each rational number and each natural number,<sup>22</sup> thereby proving, according to Cantor, that both sets are of equal cardinality. In other words, they are of the same order of infinity (in this case, what Cantor called “aleph-null,” the smallest transfinite number). Although it might seem like there should be “more” rational numbers than natural numbers, the one-to-one correspondence shows that the rational numbers are no less “countable” than the natural numbers, and so the two sets are equally infinite.

Now let us turn to Table 2, which represents the relationship between modes of thought (ideas) and modes of extension (bodies). “ $I_{X_n}$ ” represents an idea of a mode ( $\_n$ ) under a given attribute ( $\_X$ ), so “ $I_{A_1}$ ” represents the idea of mode ( $\_1$ ) under attribute ( $\_A$ ). “ $B_n$ ” represents a mode of extension, so “ $B_1$ ” represents extended mode ( $\_1$ ). Tables 1 and 2 show that the modes of thought bear the same relationship to the modes of extension as the rational numbers bear to the natural numbers. As we saw above, the modes of thought are not just infinite in one way, along the horizontal, as it were; they are also infinite along the vertical insofar as there are ideas for each of the modes in each of the infinite other attributes. Since there must be ideas corresponding to each mode of each of the infinite other attributes, a one-to-one correspondence between the modes of thought and the modes of any of the infinite other attributes follows as a natural consequence of the very nature of thought, and its relationship to the other attributes. Therefore, according to Cantor’s theory of transfinite numbers, the modes of thought are “countable,” and so are *not* more infinite than the modes of any of the other attributes. Their respective cardinalities must be identical.

It is anachronistic to speculate as to what Spinoza might have thought about Cantor’s theory of transfinite numbers had he been able to learn about it.<sup>23</sup> We know that Spinoza thought it was impossible to conceive infinity in terms of number. What we do not know is whether Spinoza would have changed his mind in light of Cantor’s theory. The point of this appendix is to show that *even if* Cantor’s theory is accepted, it does not undermine this paper’s interpretation of the relationship between the infinity of thought and the infinity of the infinite other attributes. Since there must be a one-to-one correspondence between the modes of thought and the modes of each of the infinite other attributes, and since any sets for which such a correspondence can be established have the same cardinality, it follows that thought and the infinite other attributes must have the same cardinality. In other words, thought is not exceptional in being more infinite than any of the other attributes.<sup>24</sup>

## ENDNOTES

1. Spinoza himself did not use the term ‘parallelism.’ It is, however, effective in describing the relation that the attributes bear to one another.
2. Quotations from the *Ethics* are taken from Curley 1985. E = *Ethics*; a = axiom; c = corollary; d = definition; dem = demonstration; l = lemma; p = proposition; s = scholium. For example, E2p40s2 refers to *Ethics*, Part 2, Proposition 40, Scholium 2. For the Latin I consulted Gebhardt 1925.

3. This is not the only way to interpret thought's relation to the other attributes, but it is the most prominent in the literature. I discuss alternative interpretations, and provide a defense of this interpretation in section I.
4. See Joachim 1964, 134–8; Robinson 1928; Deleuze 1992, 113–128; Curley 1969; Gueroult 1974; Harris 1977; Newlands 2012; and Melamed 2013.
5. See Pollock 1880, 175–6 (idealist reading); Bennett 1984, 47–50 (dualist reading); Melamed 2013, 677 (dualist reading); and Negri 1999 (materialist reading).
6. I maintain that Spinoza's doctrine of the infinity of the attributes entails that the attributes are not limited to those known to the human mind, viz., thought and extension. Whatever the merits of Bennett's contention (in Bennett 1984, 75–9) that Spinoza *should* have thought there were only two attributes, the textual evidence strongly suggests that Spinoza thought there were more than two attributes. Perhaps the most decisive text in this regard is a passage from Letter 56 to Hugo Boxel (which Bennett neglects to consider): "I do not claim to have complete knowledge of God, but that I do understand some of his attributes—not indeed all of them, or the greater part—and it is certain that my ignorance of very many attributes does not prevent me from having knowledge of some of them" (Shirley and Morgan 2002, 905). See also the end of the penultimate paragraph of 2p7s. A conceptual consideration that tells against Bennett's two attributes view is the fact that Spinoza is clear that there are infinite attributes and, as we will discuss below with reference to the "Letter on the Infinite," Spinoza does not think it is possible to conceive infinity through number. If the infinity of the attributes were consistent with there being only two, it would seem that infinity could be conceived through number. To affirm more than two attributes is not itself to conceive infinity through number, since the affirmation merely insists that there can *not* be only one, or two, or three attributes, etc.; in other words, it affirms that the attributes cannot be *determined* numerically. I think this is the best way to interpret Spinoza's references to "many" and to "other" attributes. Such locutions permit talk of the attributes without determining them numerically, and it is in this sense that I use them in this paper.
7. 'Formally' refers to the manner of being of a thing when it is considered in itself. 'Objectively' refers to the manner of being of a thing when it is considered as an object of thought, in other words, when it is considered as represented in thought.
8. It follows from this that ideas themselves also have both formal and objective existence, yielding Spinoza's well known *idea ideae*. Interpretive matters regarding the *idea ideae* partially overlap those regarding thought's exceptional scope that are the focus of this paper. Insofar as the *idea ideae* poses the problem of the exceptional scope of thought, the substance of this paper will be relevant to interpretation of the *idea ideae*, but other interpretive matters that do not concern thought's exceptional scope will have to be left to the side.
9. For discussion of this interpretation see Curley 1969, 144–53.
10. Newlands (2012) argues that thought need *not* be involved in conceiving other attributes. Apart from its counter-intuitiveness, I do not think that this interpretation is tenable on textual grounds. In 2d3, for instance, Spinoza says that "by idea" he understands "a concept the mind forms *because* it is a thinking thing." I take the "because" in this clause to indicate that concepts are mental, for Spinoza. At points in 2p49s, moreover, Spinoza glosses cognitive categories ("idea" and "perceptions") in terms of concepts and conceiving.
11. Cf. Melamed 2013, 660.
12. Robinson's proposal fails as an acceptable interpretation of Spinoza on two counts. In the first place, there is no evidence that Spinoza accorded less reality to ideas than he did

to things. On the contrary, Spinoza gives every indication that ideas have just as much reality as things. Moreover, the appeal of Robinson's proposal to the common-sense intuition that ideas are parasitic on things only has weight if the ideas of things are somehow effects caused by the things themselves. But, for Spinoza, "modes of each attribute have God for their cause only insofar as he is considered under the attribute of which they are modes, and not insofar as he is considered under any other attribute" (2p6). Thus, ideas can only be causally affected through the attribute of thought, and not through any other attribute. Spinoza's denial of inter-attribute causality rules out the possibility that ideas of things are in any way caused by the things of which they are the ideas, and reinforces the counter-claim that ideas have just as much reality as things.

13. Harris (1977) contends that Gueroult's usage of the formal/objective duality in ideas fails because it cannot be reconciled with Spinoza's assertion in Letter 66 (which we viewed above) that "each of these infinite ideas has no connection with the others." Whatever the merits of this critique of Gueroult, Harris admits that he has no better solution to the difficulty. He appears to acquiesce in Gueroult's treatment of 1p16, an opposing reading of which I argue below is the key to resolving the difficulty. For a more recent proposal very similar to Gueroult's, see Melamed 2013.

14. Newlands quotes the language of "lopsidedness" from Bennett 1984, 62.

15. With respect to the attributes, Spinoza appears to use 'reality' (*realitas*) and 'essence' (*essentia*), and also 'being' (*esse*) interchangeably. See 1d4, 1p9, 1p10s.

16. Gueroult 1979 is a useful guide to Letter 12.

17. The appendix at the end of the paper provides a discussion of this issue in light of Cantor's theory of transfinite numbers.

18. I'm not sure this formulation makes much sense for the reasons addressed above regarding the problem with conceiving infinity through number; I use it purely for illustrative purposes.

19. This point might be compared with Joachim's criticism of commentators who employ spatial terms in articulating what is allegedly exceptional about thought: "how can modes of extension ('wider,' 'narrower,' 'coextensive') apply to the relation of one Attribute to another? The whole criticism rests on the abuse of a spatial metaphor" (Joachim 1964, 136). However, in contrast with my contention that thought should not be viewed as exceptional at all, Joachim thinks the *only* problem with the criticism is the spatial language; he reformulates the familiar point *sans* spatial metaphor thus: "the 'completeness' of the Attribute of Thought is more full than the 'completeness' of any other Attribute" (Joachim 1964, 137).

20. I cited above Bennett's contention that it *should* be ignored.

21. For Cantor's theory of transfinite numbers, I consulted Cantor 1952; and Dauben 1979.

22. There are different ways to prove this on an intuitive level. One way is to imagine matching 0 with 1/1, then 1 with 2/1, then 2 with 1/2, then 3 with 1/3, and so on, moving through the table of rational numbers along back-and-forth diagonals, skipping repetitions (such as 2/2, which repeats 1/1).

23. While we cannot know what Spinoza would have thought about Cantor, we do know that Cantor studied and was influenced by Spinoza. On this see Bussotti and Tapp 2009.

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