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The Foundation of a Grand Unified Metaphysics

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The Foundation of a Grand Unified Metaphysics

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Philosophy

by

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Abstract

Philosophers from Leibniz to Parfit have tackled the problem of existence and the problem of arbitrariness. I divide the solutions to these two problems into three general categories: (1) infinite regress answers, (2) *ex nihilo* answers, and (3) self-caused cause answers. I show that the first two (infinite regress and *ex nihilo*) categories of answers either fail to answer the problem of existence or the problem of arbitrariness or fail to satisfy one or more reasonable assumptions about said problems. Believing it to be useful to a self-caused cause answer to the problem of existence and the problem of arbitrariness, I explicate Baruch de Spinoza's metaphysics. Finally, I construct a self-caused cause answer to the problem of existence and the problem of arbitrariness using Spinozistic metaphysics.

Acknowledgements

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Dedication

For my parents, who gave me life.

For my teachers, who taught me how to live.

For my friends, who make life worth living.

Epigraph

All things excellent are as difficult as they are rare.

- Baruch Spinoza

Abbreviations

Works of Spinoza

TIE – *Treatise on the Emendation of the Intellect*. Followed by Arabic numeral in superscript to designate which paragraph.

ST – *Short Treatise on God, Man, and His Well-Being*. Followed by Part (Pt.), Chapter (Ch.), and Chapter Name.

MT – *Metaphysical Thoughts*. Followed by Part (Pt.), Chapter (Ch.), Chapter Name, and Section Name.

TTP – *Theological-Political Treatise*. Followed by Chapter (Ch.) and Chapter Name.

E – *Ethics*. Followed by Arabic numeral for Part (E1) and internal references.

L – *Letters* (either to or from Spinoza). Followed by Arabic numeral to designate which letter.

Internal References

Corollary Cor.

Definition D, followed by an Arabic numeral to designate which definition.

Explication E

Proposition P, followed by an Arabic numeral to designate which proposition.

Scholium S, followed by an Arabic numeral to designate which scholium.

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Chapter 1 Introduction

To my mind, there are two great questions in philosophy which stand out amongst the rest: (1) the *problem of existence* (Po \exists), i.e., “Why is there something instead of nothing?”; and (2) the *problem of arbitrariness* (PoA), i.e., “Why does something exist as it does rather than some other way?”¹ Both of these questions concern existence, the first concerns the ultimate origin of existence in general, whereas the second concerns the nature of the ultimate origin of existence in particular. My quest herein is to answer these two great philosophical questions, and in so doing lay the foundation of a grand unified metaphysics.

It is essential to understand from the outset that I am herein concerned exclusively with the *etiology* of existence. With that in mind, note that there are only three (epistemically) possible answers to the Po \exists .

- Infinite Regression
- *Ex Nihilo*
- Self-caused Cause

But before we get into the (epistemically) possible answers, it's important to list the assumptions I make about the Po \exists and the PoA and how those assumptions affect what counts as an acceptable answer to the Po \exists and the PoA.

¹ Leibniz appears to have been of a similar mind about the importance of these two questions. (See, Lloyd Strickland, *Leibniz's Monadology – A New Translation and Guide*, pg. 274, Edinburgh, Scotland, Edinburgh University Press, 2014). The relevant passage is as follows: “Until now we have spoken only as *physicists*; now we must rise to *metaphysics*, by making use of the *great principle*, not commonly used, which holds *that nothing takes place without sufficient reason*, that is, that nothing happens without it being possible for one who has enough knowledge of things to give a reason which is sufficient to determine why it is thus and not otherwise. With this principle in place, the first question we are entitled to ask will be: *why is there something rather than nothing?* For nothing is simpler and easier than something. Moreover, supposing that things must exist, it must be possible to give a reason *why they must exist in this way* and not otherwise.” Italics in original.

The Two Principles Assumptions about the Po \exists and the PoA

A1. Answerable in General – For a problem to be answerable in general is for there to be *an answer* to the problem, even if it is never discovered or is unknowable. Essentially, what’s being assumed is that the Po \exists and the PoA are *answerable, even if never answered*.

A2. Knowable in Particular – For an answer to be knowable in particular is for there to be *a finite individual* capable of understanding the answer, even if it is never discovered. Essentially, what’s being assumed is that the answer(s) to the Po \exists and the PoA are *knowable, even if never known*.

A1 ensures that only responses that consider the Po \exists and the PoA to be legitimate problems are acceptable; whilst A2 ensures that only responses that consider the inquiry into the Po \exists and the PoA to be potentially fruitful are acceptable. The primary function of these two assumptions is to limit the variety of responses to the Po \exists and the PoA, e.g., “deflationary” responses to the Po \exists and the PoA violate A1, and as such are not considered herein. However, there are additional implications of the assumptions. For example, an implication of A2 is that an acceptable answer to the Po \exists and the PoA must end the inquiry—else the answer would be infinite and as such a finite individual would be incapable of understanding it.

Infinite Regress Answers

Infinite regress answers are committed to the claim that the “chain of causes” as it were, extends infinitely backward, or said differently, that “for every cause, there is a cause prior to that cause” (which I refer to as the *axiom of regression*). The obvious problem with infinite regress answers is that if you don’t have a starting point, you cannot *go* anywhere. The best analogy I can think of is someone trying to count backward from the last digit of pi to 3. There is

no last digit of pi, so you obviously can't count back *from* that digit *to* 3 (or any other digit of pi for that matter). Put simply, you can't make progress on something you haven't started, or said differently, progress cannot be made on that which has not begun. If the reader disagrees on this point, consider the following:

Suppose you're a prisoner tasked with moving rocks from Yard A to Yard B.

Suppose further that you've been instructed to begin with the smallest rock and then go to the next largest one and so on. Suppose even further that when you pick up what seems to be the smallest rock in Yard A, call it Rock 1, you discover an even smaller rock underneath it. In accordance with your instructions, you set aside Rock 1 (leaving it in Yard A), and pick up the smaller rock underneath it, call it Rock 2, only to discover that there is yet another smaller rock underneath it.

Suppose this process of finding progressively smaller rocks underneath what seems to be the smallest rock in Yard A continues *ad infinitum*. Will you ever move a rock from Yard A to Yard B?²

I'm inclined to say that the answer is "no", and the reason for this is quite simple. In order to begin your task of moving rocks from Yard A to Yard B you must find the smallest rock in Yard A. There is always a smaller rock underneath what seems to be the smallest rock in Yard A. This makes the task of finding the smallest rock in Yard A an infinite one. So, in order to begin your task of moving rocks from Yard A to Yard B, you must first complete an infinite task. Infinite tasks cannot be completed. Therefore, you cannot begin your task of moving rocks from Yard A to Yard B.

² Note: Ignore the obvious problem regarding the size of rocks.

Now, instead of rocks, imagine that you have been tasked with reciting the decimal expansion of π *backward*. In order to determine where to start, you would have to complete a recitation of the decimal expansion of π *forward*. However, as with the rocks, this is an infinite task. Infinite tasks cannot be completed. So, you cannot ever begin reciting the decimal expansion of π backward.

The basic point I am trying to make here is that the reverse of a task, more accurately a *process* (even an infinite process) shares the same general properties as the original process, while the dispositional properties are reversed. For example, when reciting π forward, one cannot start at the end and work one's way back, but one can start at the beginning (3) and work one's way forward. When reciting π backward, one cannot start at the beginning and work one's way forward, but one can start at the end (3) and work one's way back. The dispositional properties (e.g., what counts as the start/end) are all reversed when the process is reversed, but the general properties (e.g., incompleteness) remain unchanged.³ Which means that just as the decimal recitation of π *forward* cannot be completed because it cannot end, so it is that the decimal recitation of π *backward* cannot be completed because it cannot begin.⁴

Since an infinite regress answer to the Po \exists requires that an infinite process analogous to the decimal recitation of π *backward* be completable, and infinite processes cannot be completed, an infinite regress answer to the Po \exists cannot be true. Said differently, if an infinite regress answer

³ Note: The reader may be tempted to object at this point and bring up some supposed counter-example. For example, the process of an egg rolling off a counter and shattering against the ground. Intuitively, this process cannot be reversed, at least not in the same way that the assembly of a bicycle can be reversed. However, when I say that a process is reversible, I mean simply that it is conceptually reversible. Though I should point out that technically the egg un-shattering and floating back onto the counter *is* physically possible.

⁴ Note: If the reader thinks it necessary in making this point, they may assume that I herein reject the notion of an infinite totality.

to the $Po\exists$ is true, then it is also true that infinite processes can be completed. Infinite processes cannot be completed. Therefore, an infinite regress answer to the $Po\exists$ cannot be true.

Furthermore, even if we assume that the chain of causes is present “all at once” (by-passing the issue of completing infinite processes) and accept that as a sufficient answer to the $Po\exists$, we must then move on to the PoA and ask, “why that particular chain of causes (C_1) is present “all at once” instead of some other chain of causes (C_n)?”. If we are to answer that question, we must appeal to something that necessitates that C_1 is present “all at once” instead of some C_n . The only thing that seems capable of necessitating that C_1 is present “all at once” instead of some C_n is some law(s). However, by appealing to said law(s) in order to solve the PoA , we have added yet another thing which must be explained, i.e., said law(s).

Now, I do not claim to know in what sense, if any, laws “exist”, or how this might be different, if at all, from laws being “true”. As such, I do not know to what extent, if any, it is meaningful to return to the $Po\exists$ with regard to laws, but that need not derail our discussion, for the PoA , *mutatis mutandis*, seems to apply to laws regardless. So, we may still meaningfully ask, “Why this law rather than some other law?”^{5, 6}

⁵ Note: I assume herein that laws *govern* rather than describe.

⁶ Note: To understand the difference between a law which describes and a law which governs, consider, for example, Titius-Bode’s law, which roughly states that proceeding outward from the Sun, each planet is approximately twice the distance from the Sun as the preceding planet. To be more exact, “the modern mathematical form of Titius-Bode’s law (as expressed by Johann F. Wurm in 1787) is: $r_n = 0.4 + 0.3 \times 2^n$, where $n = -\infty, 0, 1, 2, 3, \dots$, and where the distance r_n of the n th planet to the Sun is expressed in astronomical units.” (See, François Graner and Bérengère Dubrulle, “Titius-Bode laws in the solar system. 1: Scale invariance explains everything” *Astronomy and Astrophysics* 282 (1994): 262; Peter Lynch, “On the significance of the Titius–Bode law for the distribution of the planets”, *Monthly Notices of the Royal Astronomical Society*, Volume 341, Issue 4, June 2003, 1174). Titius-Bode’s law is false, as anyone who studies astronomy or astrophysics can tell you. But the reason it is false depends on the *nature of laws*. If laws are merely *descriptive* (i.e., they describe uniform regularities of some kind in the universe), then Titius-Bode’s law is false *because* it is not descriptively accurate (e.g., Neptune is not in the spot predicted by the application of Titius-Bode’s law). However, if laws *govern*, then Titius-Bode’s law is descriptively inaccurate *because* it is false, and as such does not govern the spatial distribution of planets in our solar system! Moreover, presumably there are other (actually true) laws which are responsible (together with the causes they govern) for the actual spatial distribution of planets in our solar system, and it is these laws which are responsible for the falsehood of Titius-Bode’s law.

In order to answer the PoA for a given law, that law (alternatively its truth), must be the necessary consequence of some further law(s) together with certain rules of inference, which I shall call a “chain of laws”. Now, we know that this chain of laws must be infinite (by extension of the axiom of regression), and that the infinite chain of laws for a given law must be present “all at once” (else we face the issue of completing infinite processes). Still, suppose we accept this as a sufficient answer to the question at hand, we must then move again to the PoA and ask, “why that particular chain of laws (C_{L1}) is present “all at once” instead of some other chain of laws (C_{Ln})?”. If we are to answer that question, we must appeal to something that necessitates that C_{L1} is present “all at once” instead of some C_{Ln} . The only thing that seems capable of necessitating that C_{L1} is present “all at once” instead of some C_{Ln} is some further chain of laws. However, this further chain of law(s) must itself be the result of an infinite chain of laws present “all at once”, and we must ask our question, *mutatis mutandis*, of this new chain of laws.

As should be obvious at this point, this line of questioning can be repeated *ad infinitum*. However, if this line of questioning can be repeated *ad infinitum*, then answering the Po \exists and the PoA is impossible, for it requires that an infinite process analogous to the decimal recitation of π *backward* be completable, and infinite processes cannot be completed. Moreover, such a series of answers would be infinite and, as such, unknowable to a finite individual, which violates A2. Therefore, an infinite regress answer to the Po \exists and the PoA cannot be accepted. Thus, either an infinite regress answer to the Po \exists and the PoA cannot be true or cannot be accepted.

Ex Nihilo Answers

Ex nihilo answers are committed to the claim that “something came from *nothing*”, or said differently, that “the ultimate origin of everything is *nothing*”. The obvious problem with *ex nihilo* answers is that they all require that *nothing* possesses at least two properties: (1) the

dispositional property of “beget-ability”, i.e., the ability to beget things and (2) the dispositional property of intelligibility. However, intuitively, *nothing* cannot possess any properties. After all, properties can only be possessed by existing things, so if *nothing* possesses properties, then it must be an existing thing. However, *nothing* is supposed to be that from which existence came, *not* another existing thing.

Assuming that this is in fact a problem for an *ex nihilo* answer, it’s an unsolvable one. This is due to the fact that (1) is necessary to the accuracy and (2) to the intelligibility of an *ex nihilo* answer to the $Po\exists$, for if (1) is removed, then *nothing* cannot beget things and if (2) is removed, then *nothing* cannot be put forward as a solution to the $Po\exists$ at all. Essentially, if *nothing* is to solve the $Po\exists$, then it must be something. But if *nothing* is something, then it is not *nothing*. Therefore, *nothing* cannot solve the $Po\exists$. If the reader disagrees on this point, perhaps the next will have the desired effect.

Suppose something came from *nothing*, or rather (since the relation is a tad clearer this way), suppose *nothing* beget something. We may represent this claim as follows: $N b S$. Suppose further that this is taken as a sufficient answer to the $Po\exists$. We may then move on to the PoA . In which case, the question at hand becomes “Why did *nothing* beget that particular something (S_1), instead of some other something (S_n)?”.

If we are to answer that question, we must appeal to something which necessitates that S_1 was beget instead of some S_n . The only thing that seems to be capable of necessitating that S_1 was beget instead of some S_n , is some law(s). If that’s true, then we have: *nothing* together with some law(s), necessarily beget something ($N + L \square b S_1$). There are two problems with this approach: (1) in doing so, we may have given *nothing* still further properties, namely that of being subject to some law(s) such that *nothing* cannot beget any S_n but must necessarily beget S_1

(if that is taken to be a property); and (2) we have added yet another thing which must be explained, i.e., said law(s).

Whatever else may be the case, we know that this law(s) must be prior to S_1 since it governed S_1 's being beget by *nothing*. So, it must have come from *nothing*, or else been eternal. Of course, if it were begotten by *nothing*, then we may return to the PoA, new question in hand, "Why did *nothing* beget that particular law(s) (L_1) instead of some other law(s) (L_n)?" If we are to answer that question, we must again appeal to something which necessitates that L_1 was beget instead of some L_n . The only thing that seems to be capable of necessitating that L_1 was beget instead of some L_n , is some further law(s), such that we have: *nothing* together with some further law(s), necessarily beget some law(s) ($N + L_f, \square b L_1$). There are two problems with this approach: (1) in doing so we may have given *nothing* still further properties, namely that of being subject to some further law(s) such that *nothing* cannot beget any L_n but must necessarily beget L_1 (if that is taken to be a property); (2) we have added yet another thing which must be explained, i.e., said further law(s).

As should be obvious at this point, this line of questioning can be repeated *ad infinitum*. However, if this line of questioning can be repeated *ad infinitum*, then these laws must infinitely regress. As such, an *ex nihilo* answer to the $Po\exists$, like an infinite regress answer to the $Po\exists$, requires that an infinite process analogous to the decimal recitation of π *backward* be completable (in this case, the completion of the begetting of an infinite hierarchy of laws, each governing the process by which *nothing* beget the subsequent law(s)), and since infinite processes cannot be completed, an *ex nihilo* answer to the $Po\exists$ cannot be true. Said differently, if an *ex nihilo* answer to the $Po\exists$ is true, then it is also true that infinite processes can be completed. Infinite processes cannot be completed. Therefore, an *ex nihilo* answer to the $Po\exists$ cannot be true.

The only alternative is to say that the law(s) governing *nothing*'s begetting of S_1 are eternal, in which case there will be at least one thing the ultimate origin of which is not *nothing*, which is contrary to the original supposition of an *ex nihilo* answer to the $Po\exists$. Therefore, an *ex nihilo* answer to the $Po\exists$ cannot be true.

Furthermore, even if we were to assume that the infinite hierarchy of laws was begotten “all at once” and accept that as a sufficient answer to the $Po\exists$, we must then move on to the PoA and ask, “why was that particular infinite hierarchy of laws (H_{L1}) begotten “all at once” instead of some other infinite hierarchy of laws (H_{Ln})?”. If we are to answer that question, we must appeal to something which necessitates that H_{L1} was begotten instead of some H_{Ln} . The only thing that seems to be capable of necessitating that H_{L1} was beget instead of some H_{Ln} is some law(s). However, this law(s) must itself be begotten by some infinite hierarchy of laws, which must itself be begotten “all at once”, and we must ask our question, *mutatis mutandis*, of this new infinite hierarchy of laws.

As should be obvious at this point, this line of questioning can be repeated *ad infinitum*. However, if this line of questioning can be repeated *ad infinitum*, then answering the $Po\exists$ and the PoA is impossible, for it requires that an infinite process analogous to the decimal recitation of π *backward* be completable, and infinite processes cannot be completed. Moreover, such a series of answers would be infinite and, as such, unknowable to a finite individual, which violates A2. Therefore, an *ex nihilo* answer to the $Po\exists$ and the PoA cannot be accepted. Thus, either an *ex nihilo* answer to the $Po\exists$ and the PoA cannot be true or cannot be accepted.

Now, suppose an *ex nihilo* answer, instead of claiming that nothing *begets* something, simply claims that the series of states of affairs “there was nothing and then there was something”, which we may represent as [nothing – something], is true. There are two problems

with this. First, the Po \exists asks *why* the state of affairs changed from nothing to something. Simply stating that it so changed does not answer the Po \exists . Second, the PoA asks *why* the state of affairs changed from nothing to the something that it did, instead of some other something, i.e., why S₁ instead of some S_n, and there is nothing in the mere description of the series of states of affairs represented by [nothing – something], by which this may be done. Therefore, an *ex nihilo* answer to the Po \exists and the PoA is not an answer to the Po \exists or the PoA.

Self-Caused Cause Answers

Since there were only three (epistemically) possible answers, and we've eliminated two of them, if we are correct in assuming there is a solution to the Po \exists and the PoA, it must be the last (epistemically) possible answer, i.e., a self-caused cause answer. Self-caused cause answers are committed to the claim that “there is something that is self-caused, which caused everything else”, or said differently, “the ultimate origin of everything is something which is the cause of itself”. However, as the only way to learn about a self-caused cause seems to be by deductive reasoning from the fact that it is self-caused to the necessity of its possessing certain properties, it's not clear that much if anything is gained by attempting to generalize about self-caused cause answers. Given that, I think it's best simply to move on at this point.

Chapter 2 Explication of Baruch de Spinoza's Metaphysics

Baruch de Spinoza was not, as far as I can tell, concerned with the Po \exists or the PoA. Despite that, I think Spinoza's metaphysics can be used to construct a self-caused cause answer capable of both solving the Po \exists and the PoA and adhering to our two assumptions. However, Spinoza is *infamously* non-explanatory about, well, just about everything. So, before I can use his metaphysics to attempt a solution to the Po \exists and the PoA, I must first explicate his metaphysics. My approach in explicating Spinoza is largely holistic, a side-effect of which is that more of Spinoza's metaphysics is explicated than is ultimately used for our project. However, as the explication for the parts of Spinoza's metaphysics which are used for our project do not make sense (or at least do not make as much sense) without the explication of those parts which are not used for our project, the explication is included in its entirety.

The reader is instructed to keep the following things in mind during the explication:

1. All references to Spinoza are from (see footnote 7), though for the sake of those who may have alternate translations, the work, section, passage, paragraph, letter number, etc., are included prior to the page number of the reference used herein.⁷
2. The passages in each section of the appendix are presented in chronological order.⁸
3. The "things to note" are ordered based on the passages they are derived from, followed by any "things to note" they may have been derived from. This occasionally results in the reader being forced to look at later "things to note" in order to understand previous "things to note".

⁷ Baruch de Spinoza, *Spinoza's Complete Works*. Ed. Michael L. Morgan, Trans. Samuel Shirley, Indianapolis, IN: Hackett Publishing Company, 2002. Hereafter, Spinoza.

⁸ Note: To the best of the author's ability, given questions concerning the exact dates of authorship and published.

Section I – On *Natura Naturans*, *Natura Naturata* (General), and *Natura Naturata* (Particular)

- I. Here, before we proceed to something else, we shall briefly divide the whole of Nature—namely, into *Natura Naturans* and *Natura Naturata*. By *Natura Naturans* we understand a being that we conceive clearly and distinctly through itself, and without needing anything beside itself (like all the attributes which we have so far described), that is, God.

The *Natura Naturata* we shall divide into two, a general, and a particular. The *general* consists of all the modes which depend immediately on God, of which we shall treat in the following chapter; the *particular* consists of all the particular things which are produced by the general mode. So that the *Natura Naturata* requires some substance in order to be well understood.⁹

From the above passage it is obvious that Spinoza divides Nature into 2 general parts (the *Natura Naturans* and the *Natura Naturata*) and three particular parts (the *Natura Naturans*, the *general Natura Naturata*, and the *particular Natura Naturata*). Since the *Natura Naturans* is identical to Substance (which is obvious both from the above passage and from what is said of the *Natura Naturans* in E1P29S¹⁰), and the body of this work principally deals with Substance, I do not think it important to treat of the *Natura Naturans* here, beyond what I have already said about it—except to say that it is necessarily eternal. A fact which is demonstrated quite clearly in the body of this work and in the section of the appendix on Eternity and the Eternal. Instead, I think it best to focus on the *Natura Naturata*, for an investigation into it reveals things which might otherwise remain unknown, and which may aid in a proper understanding of Spinoza.

- II. Now, as regards the *general Natura Naturata*, or the modes, or creations which depend on, or have been created by, God immediately, of these we know no more than two, namely, *motion* in matter, and the *understanding* in the thinking thing. These, then, we say, have been from all eternity, and to all eternity will remain immutable.

All that specially concerns *Motion*, such as that it *has been from all eternity, and to all eternity will remain immutable; that it is infinite in its kind; that it can neither be, nor be understood through itself*, but only by means of Extension—all this, I say, since it [Motion] more properly belongs to a treatise

⁹ Spinoza, ST, P1, Ch. 8, On *Natura Naturans*, 58.

¹⁰ The passage is as follows: “[B]y “*Natura naturans*” we must understand that which is in itself and is conceived through itself; that is, the attributes of substance that express eternal and infinite essence; or (Cor. 1 Pr. 14 and Cor. 2 Pr. 17), God.” See, Spinoza, E1P29S, 234.

on Natural Science rather than here, we shall not consider in this place, but we shall only say this about it, that it is *a Son, Product, or Effect* created immediately by God.^{11, 12}

There are a number of things of note in this passage. However, I would first like to cut-off any potential concern which the reader might have over the fact that “modes”, “creations”, “motion in matter”, and “the understanding in the thinking thing” have not been defined. We are not herein concerned with those particular aspects of this passage, and so they may remain mysterious without issue. For our purposes, what matters is that the *relation* which the general *Natura Naturata* stands in to the *Natura Naturans* be made clear. And on that point, there are a few things to note:

- (1) The general *Natura Naturata* **is infinite**, but **only in its kind**.
- (2) The general *Natura Naturata* **is not eternal**.
- (3) The general *Natura Naturata* **is not conceived through itself**.
- (4) The general *Natura Naturata* **is created immediately** by the *Natura Naturans* (i.e., God, in the passage above).
- (5) The general *Natura Naturata* **can only be or be understood through an attribute**, (e.g., motion in matter through Extension, in the passage above).
- (6) The general *Natura Naturata* **has been from all eternity and to all eternity will remain immutable**.

We will get into what (1) means in more detail in the Section on the Finite and Infinite (Non-finite), so we’ll leave it alone here. (2) and (3) are derivable from each other, since for everything that can be conceived through another thing, the concept of “before” applies and so, given the definition of eternal, cannot be eternal; and likewise, the other way around, if not

¹¹ Spinoza, ST, P1, Ch. 9, On *Natura Naturata*, 58-59. Brackets and italics in original.

¹² Note: Similar remarks apply to the *understanding*, so I’ve omitted that section for the sake of brevity.

eternal, then not conceived through itself, since if it was conceived through itself, it would then be eternal, given that the only things which can be conceived through themselves are self-caused and that which is self-caused is necessarily eternal. A fact which is demonstrated quite clearly in the body this work as well as in the section of the appendix on Eternity and the Eternal. (4) and (5) are also derivable from each other, since if the general *Natura Naturata* can **only** be understood through an attribute, then it must be the case that it is the first effect/creation of the *Natura Naturans*; and likewise, if it's the first effect/creation of the *Natura Naturans*, then it must be the case that the general *Natura Naturata* can **only** be understood through an attribute. From what we've said about (2) – (5) so far, it should be obvious what (6) means, but I shall explain it nonetheless.

For a thing to “have been from all eternity” is for it to have been the immediate effect/creation of an eternal thing and for a thing to “remain immutable” to “all eternity” is for it to never stop, i.e., for the concept of “after” to be inapplicable to it without contradiction. So, the general *Natura Naturata* is such that the concept of “before” applies to it and the concept of “after” does not apply to it. And since the only way to “have been from all eternity” is to be an immediate effect/creation of the *Natura Naturans* (since otherwise there would be some intermediate cause), anything which can be shown to be such that the concept of “before” applies to it and the concept of “after” does not apply to it, will have been shown to be a general mode, and as such to belong to the general *Natura Naturata*.

Now, as for the particular *Natura Naturata*:

- III. [T]he *particular* consists of all the particular things which are produced by the general mode. So that the *Natura Naturata* requires some substance in order to be well understood.¹³

¹³ Spinoza, ST, P1, Ch. 8, On *Natura Naturans*, 58.

This is fairly straightforward now that we understand the general *Natura Naturata*. The particular *Natura Naturata* is all the implications of the general *Natura Naturata* or, what is effectively the same, all the implications of the *Natura Naturans*, after the general *Natura Naturata*. Some things to note about the particular *Natura Naturata*:

- (1) The particular *Natura Naturata* **is not eternal, nor from all eternity**, but it **does** in a sense remain immutable to all eternity.
- (2) The particular *Natura Naturata* **is not a thing in itself**.
- (3) The particular *Natura Naturata* **is a collection of particular things**.
- (4) Within the particular *Natura Naturata* **no** particular thing remains immutable to all eternity.

As regards (1), the sense in which the particular *Natura Naturata* remains immutable to all eternity is as a collection. Since if the particular *Natura Naturata* ended, then the whole of Nature would be finite and a self-caused cause is necessarily infinite, so it must be the case that the particular *Natura Naturata* remains immutable to all eternity. (2) and (3) are obvious from the above passage. (4) follows from the fact that no particular thing in the particular *Natura Naturata* is infinite, so cannot remain immutable to all eternity. This in turn follows from the fact that it is the general *Natura Naturata* which is infinite in its kind, so nothing produced by it can be greater nor can it produce anything equivalent, for its infinitude comes from the eternal, and cannot be imparted except therefrom (more on that in the Section on the Infinite and Finite). So, the particular *Natura Naturata* consists of everything such that the concept of “before” and “after” applies to it.

- IV. By “*Natura Naturata*” I understand all that follows from the necessity of God’s nature, that is, from the necessity of each one of God’s attributes; or all the modes of God’s attributes insofar as they are considered as things which are in God and can neither be nor be conceived without God.¹⁴

¹⁴ Spinoza, E1P29S, 234.

As should be obvious, both from the above passage and from what has been said about the general *Natura Naturata* and the particular *Natura Naturata*, the *Natura Naturata* considered as the second part of the whole of Nature is simply the general *Natura Naturata* and the particular *Natura Naturata* taken together.

Section II – On Being, Real Beings, Fictitious Beings, Beings of Reason, & Entities of Imagination¹⁵

- I. Let us begin, then, with Being, by which I understand ‘Everything which, when it is clearly and distinctly perceived, we find to exist necessarily or at least possibly.’¹⁶

I think it should be pointed out that when Spinoza talks about Being, he seems to refer to it as a collection in such a way that it is identical to what is more commonly referred to as Existence. The definition, understood this way, is basically “all of the things that exist, either necessarily or possibly”. I’ve removed the clear and distinct aspect from the definition, since I’m not herein concerned with the epistemology, only the metaphysics. At any rate, such an understanding of Being makes the following passage much easier to understand:

- II. And so it is easy to see how absurd is that division whereby being is divided into real being and being of reason, for they are dividing being into being and non-being, or into being and a mode of thinking.¹⁷

Taking Being as a collection, what Spinoza seems to be saying here is that dividing Being into the sub-collections of Real Being and Being of Reason is absurd because he regards those sub-collections as nothing more than Being itself in the case of Real Being and either Nothing or what must of necessity be a proper sub-set of Being in the case of Being of Reason, both of

¹⁵ Note: Real beings, real things, and the real all refer to the same thing. Beings of reason, mental constructs, things of reason, and *Entia Rationis* all refer to the same thing. For simplicity’s sake, I shall only refer to them as real beings and beings of reason.

¹⁶ Spinoza, MT, Part 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*Definition of Being.*], 178.

¹⁷ Spinoza, MT, Part 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*Being is wrongly divided into Real Being and Being of Reason.*], 179.

which are unhelpful divisions. But what exactly Spinoza meant here will become clearer as we progress through this section, so we need not dwell on it any longer. In the next passage, Spinoza lays out what he thinks is the proper division of Being:

- III. From the definition, or, if you prefer, the description of being already given, it is easy to see that being should be divided into being that exists necessarily of its own nature (i.e., whose essence involves existence) and being whose essence involves only possible existence. This last is divided into Substance and Mode [...].¹⁸

What Spinoza seems to be saying here is that Being should be divided into two sub-collections. One for all the things that exist necessarily and another for all the things that exist possibly. Which given the definition/description that Spinoza gave for Being, necessarily add up to the entirety of Being. Moreover, the name for the collection of things which exist necessarily is Substance and the name for the collection of things which exist possibly is Mode.

- I. Therefore, as long as we are engaged in an enquiry into real things, it will never be permissible for us to draw a conclusion from what is abstract, and we shall take great care not to mix the things that are merely in the intellect with those things that are in reality.¹⁹
- II. Hence we can see that it is above all necessary for us always to deduce our ideas from physical things, i.e., from real beings, advancing, as far as we can, in accordance with the chain of causes from one real being to another real being [...].²⁰
- III. Therefore many who are not used to distinguishing mental constructs from real things have ventured to assert that Duration is composed of moments, thus falling into the clutches of Scylla in their eagerness to avoid Charybdis.²¹
- IV. [I]n our investigation of things, we must beware of confusing real beings with beings of reason.²²

¹⁸ Spinoza, MT, Part 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*The division of Being.*], 180.

¹⁹ Spinoza, TIE ⁹³, 25.

²⁰ Spinoza, TIE ⁹⁹, 27.

²¹ Spinoza, L12, 787.

²² Spinoza, MT, Part 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*In the investigation of things Real Beings should not be confused with Beings of Reason.*], 179.

- V. Therefore, it is important to note here how easily we are deceived when we confuse [...] mental constructs [*entia rationis*] and abstract terms with the real.²³
- VI. As to what you add, that from the definition of any thing, considered in itself, we can deduce only one property, this may hold good in the case of the most simple things, [...] but not in the case of real things.²⁴

(1) Real beings and physical things **are one and the same**. [From I and II]

(2) Real beings **are distinct** from beings of reason. [From III, IV, V]

(3) From the definition of any real being (though perhaps **not all** real beings) it **is possible to deduce more than one property**. [From VI]

As regards (1), if I'm correct in thinking that part of the problem with dividing Being into Real Being and Being of Reason is that the collection Being and the collection Real Being are equivalent and we take Spinoza at face value when he distinguishes between those things that are “merely in the intellect” and those that are in “reality” and when he equates physical things with real beings (from physical things, i.e., from real beings), then it seem that by logical implication, the collection Being is equivalent to the collection of physical things. Furthermore, since the collection Being is the collection of everything that exists (either necessarily or possibly), then it must be the case that all the things that exist (either necessarily or possibly) are physical things.²⁵

(2) and (3) are both obvious from their relevant passages.

- I. A Fictitious Being excludes clear and distinct perception, because a man merely according to his fancy—and not unknowingly, as in the case of the false, but knowingly and wittingly—joins together what he wants to join and separates what he wants to separate.²⁶

²³ Spinoza, E2P49S, 276.

²⁴ Spinoza, L83, 958.

²⁵ Note: This appears to conflict with Spinoza's dual-aspect theory, but it's possible that his dual-aspect theory is a later development or that I'm missing something. Either way, we need not concern ourselves with that here.

²⁶ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*The Chimera, the Fictitious Being and the Being of Reason are not beings.*], 178.

- II. [A] fictitious being [...] has no existence outside the mind. [I]f attention is correctly paid to the definitions just given of being of reason and fictitious being, a considerable difference will be found between them [...]. [W]e defined fictitious being as the connecting of two terms by mere act of will without any guidance of reason, and therefore a fictitious being can chance to be true.²⁷

There are a few things to note in this passage:

- (1) Fictitious beings are **caused** by *joining together or separating ideas* by mere act of will without any guidance of reason. [From I and II]
- (2) Fictitious beings **are** *ideas*. [From I and II]
- (3) Fictitious beings **are** *distinct* from beings of reason. [From II]
- (4) Fictitious beings **can** *by chance* be true, i.e., a fictitious being **can** *by chance* correspond to a real being. [From II]
- (5) A Fictitious being **is** *an idea of a being* caused by the joining together or separating of ideas by mere act of will utilizing only the imagination, which can by chance be true. [From (1), (2), and (4)]

As regards (1), it's important to recognize that even though Spinoza uses 'terms' when defining fictitious beings, it is clear that it is ideas, i.e., that to which terms refer, which are being joined together or separated.²⁸ This is obvious from the fact that terms (words) are sequences of symbols or sounds (the joining together or separating of which can only ever cause other sequences of symbols or sounds) and sequences of symbols or sounds cannot be true or false. However, we know from II that fictitious beings can by chance be true and by implication can

²⁷ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*How a Being of Reason and Fictitious Being are to be distinguished.*], 179-180.

²⁸ Note: For Spinoza, ideas are mental narrations, i.e., mental accounts, of nature, which can be true or false depending on if the idea agrees with its object (ideatum), i.e., true or false depending on if there really is in fact an object in nature to which the idea corresponds. See, Spinoza, MT, P1, Ch. 6, Of the One, the True, and the Good, [What is the true and what the false, both in the common acceptance and according to philosophers.], 187. and Spinoza, L60, 912-913.

also be false, so they cannot be caused by terms. As an example of how one might cause a fictitious being, consider Pegasus. Pegasus is a fictitious being formed by the joining of three ideas: (i) of a horse; (ii) of wings; and (iii) of the ability to fly. Joined together these ideas result in an idea of a flying winged horse, i.e., Pegasus. As far as the guidance of reason caveat is concerned, that seems to just be Spinoza's way of saying that this the process of causing fictitious beings takes place solely in the *imagination*, and in no way involves the intellect.

As regards (2), if fictitious beings were not ideas, then Spinoza's pointing out that fictitious beings (i) exclude clear and distinct perception, (ii) do not exist outside the mind, (iii) are caused by the joining together or separating of ideas *by mere act of will* and (iv) can be true, would all be wholly misplaced. The reason for this being that clear and distinct perception regards ideas; ideas do not exist outside the mind; only ideas can be caused by *mere act of will*; and ideas are true or false. None of (i) – (iv) apply to things, but all of them apply to ideas. As such, it is clear that fictitious beings are ideas. Furthermore, from (1) we know that fictitious beings are caused by the joining together or separating of ideas, so unless it's the case that simply joining together and separating ideas can produce something other than another idea, it's obvious that fictitious beings must be ideas.

(3) is obvious from II, though I shall not say anything about the nature of the considerable differences between fictitious beings and beings of reason until the part of this section on beings of reason.

As regards (4), suppose I were to join together the ideas of a Horse and a Narwhal Horn in such a way as to imagine a horse with a narwhal horn on its head, call this imagined being a unicorn. Suppose further that unbeknownst to me, someone had in fact spliced narwhal DNA into a horse, resulting in a horse with a narwhal horn on its head, i.e., suppose further that

someone had in fact created a unicorn. It would then be the case that *by chance* my idea of a being (which I referred to by the term ‘unicorn’) was *true*.

(5) is obvious from (1), (2), and (4).

- I. Some things are in our understanding and not in Nature, and so they are also only our own creation, and their purpose is to understand things distinctly: among these we include all relations, which have reference to different things, and these we call *Entia Rationis* [things of reason].²⁹
- II. Nor again can the Modes of Substance ever be correctly understood if they are confused with such mental constructs (*entia rationis*) or aids to the imagination.³⁰
- III. [A] Being of Reason is nothing but a mode of thinking, which serves the more easily to retain, explain, and imagine things that are understood. Here it should be noted that by a mode of thinking we understand [...] all modifications of thought, such as intellect, joy, imagination, etc.³¹

(1) Beings of reason **include** *all relations*. [From I]

(2) Beings of reason **are** *mental constructs*, and vice versa. [From I and II]

(3) Beings of reason **are** *distinct* from the *modes of substance*. [From II]

(4) Beings of reason **are** *distinct* from *aids to the imagination*. [From II]

(5) A being of reason **is** a *mode of thinking*. [From III]

(6) A being of reason **serves to** either *retain, explain, or imagine*. [From III]

(7) Modes of thinking **are** *distinct* from *beings of reason*. [From III]

(1), (2), (3), (4), (5), and (6) are all obvious from their relevant passages, so I won't go into them. As regards (7), it should suffice to point out that there are modes of thinking other than beings of reason. However, before we move on to the next passage, I'd like to point out that Spinoza categorizes beings of reason as a sub-category of modes of thinking according to their

²⁹ Spinoza, ST, Ch. 10, What Good and Evil Are, 59.

³⁰ Spinoza, L12, 789.

³¹ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*The Chimera, the Fictitious Being and the Being of Reason are not beings.*], 178.

behavior, i.e., by what they *serve to do* (retain, explain, or imagine). Now, while behavioral categorization is perfectly fine in itself (e.g., there's nothing wrong with the classification carnivore), I am herein more interested in the *conceptual structure* of beings of reason, i.e., what they *are*, conceptually speaking. The source of my greater interest is that I believe that the behavior of beings of reason is a product of both their conceptual structure *and* the constitution of one's mind. Such that, for example, what serves to retain for one may not serve to retain for another. Now, while that is not a problem on a structural categorization, on a behavioral categorization either the same being of reason would have to be allowed to be multiply categorized, e.g., categorized as retentive and not categorized as retentive, *or* the conditions of categorization would have to be watered down such that they only need to be met by *someone at some time*. So, if I am right about the cause of the behavior of beings of reason, then a structural categorization seems a less problematic method of categorizing beings of reason. I also think such a categorization will be more informative.

- IV. That there are certain modes of thinking that serve to retain things more firmly and more easily, and, when we wish, to recall them to mind or to set them before the mind, is an accepted fact for all those who make use of that well-known rule of memory. By this rule, in order to retain something that is quite new and impress it on the memory, we have recourse to another thing, familiar to us, that has something in common with it either in name or in actuality. Similarly, philosophers have arranged all natural things in fixed classes, to which they have recourse when they encounter something new. These classes they call genus, species, etc.³²

The example that Spinoza gives of a mode of thinking serving to retain is “a well-known rule of memory”, which I shall henceforth refer to as *mnemonic linking*. The example of biological taxonomy does not involve anything unique to biological taxonomy, or indeed to any

³² Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*By what modes of thinking we retain things.*], 178-179.

taxonomy, but only to *relational grouping*.³³ So, I shall henceforth refer to it as the *relational grouping* example.

The relational grouping example is described as “similar” to mnemonic linking, but it is not entirely clear wherein the similarity lies. It could be that the similarity lies in the fact that when one encounters something new, e.g., a new species, say, *homo erectus*, that the thought of this new species can be retained “more firmly and more easily” by linking it to something else that one is familiar which “has something in common with it either in name or in actuality”, e.g., another species, say, *homo sapiens*, which incidentally has something in common with *homo erectus* both in name and in actuality. But if that is the case, then mnemonic linking and the relational grouping example are not *similar*, the latter is an *example* of the former. In which case, the use of ‘similarly’ seems out of place. So, perhaps there is something else that mnemonic linking, and the relational grouping example have in common.

The process described in the relational grouping example, i.e., of having recourse to a pre-existing grouping of things when encountering something new, does not appear particularly *retentive*. Rather, it seems more organizational, i.e., relational groupings seem to serve to *order* rather than to *retain* or put differently, they answer the question “where does X *fit*?”, not “how can X be *retained*?”. So, the similarity does not appear to lie in what mnemonic linking and relational grouping serve to do. Perhaps it is simply the act of “*having recourse to something*” that is supposed to be similar, with what said recourse serves to do being the point of dissimilarity. Though that doesn’t strike me as particularly plausible since the act of “having recourse to something” hardly seems like it needs an example to be understood. At any rate, let’s

³³ Note: I say relational grouping, to emphasize that the grouping is by some criteria. As I did not want to dismiss out of hand the possibility of arbitrary groupings.

examine mnemonic linking and relational grouping in more detail to see if there is a similarity in their conceptual structure.

To illustrate mnemonic linking, imagine your thoughts as a series of orbs. When one encounters some *neoteric orb* (new thought, call it N_O^1) that one wishes to retain one need only take some *primary orb* (familiar thought, call it P_O^1), find some string with which the two can be tied together (identify some commonality³⁴ between N_O^1 and P_O^1), and tie them together with the string (use that commonality to connect them). The string (commonality) will then be the link (relation³⁵) by which N_O^1 and P_O^1 are connected. Said differently, the choice of string (the commonality chosen) is the *criterion* by which the orbs (thoughts) are linked.³⁶ Then, when one wishes to recall N_O^1 one need only recall P_O^1 and follow the string to N_O^1 . N_O^1 will then be a *secondary orb* (call it S_O^1) unless and until it becomes so familiar that it can be recalled without the use of P_O^1 , at which point it will be a primary orb (call it P_O^2).

The conceptual structure here is the connecting of orbs (thoughts) to other orbs (thoughts) by some string (criterion). Now, while this may often help in retaining things³⁷, that does not appear to be a necessary aspect of the conceptual structure. Rather, the conceptual structure is one which *given the constitution of our minds* may serve to retain things. For it seems easy to imagine some creature for which this process of linking is a *hinderance* to retaining things. If so, then *mnemonic linking* is only mnemonic if it is actually serving to retain things, and otherwise is simply *linking*, i.e., the connecting of thoughts to other thoughts by some criteria.

³⁴ Note: I define a *commonality* as: The thought of a real, perceived, or imagined aspect of one of more things, which themselves may be real, perceived, or imagined, that can be used to connect a thought to itself or to other thoughts.

³⁵ Note: I define a *relation* as: A commonality, when being used to connect thoughts. In other words, a commonality, when being used to connect thoughts, constitutes a *relation* between those thoughts.

³⁶ Note: The choice of commonality matters only on a practical level.

³⁷ Note: I myself frequently make use of this linking process to help remember things.

To illustrate relational grouping, imagine your thoughts as a series of orbs. Suppose you survey some of your orbs (thoughts) and find that some of them have commonalities with each other that they do not have with other orbs (you identify some commonalities between some but not all of your orbs). So, you select an umbrella to place those orbs (thoughts) under (you select one of the commonalities to connect the orbs) and put them all under the umbrella (use that commonality to connect them) The umbrella (commonality) will then be the link (relation) by which your orbs are *grouped*. Said differently, the choice of umbrella (the relation chosen) is the *criterion* by which the orbs (thoughts) are *grouped*. Now, for any orb (thought) that you survey in the future, if that orb (thought) has the same commonality as those orbs grouped under the aforementioned umbrella, then it is placed under said umbrella (placed into the same relation as the aforementioned orbs).

The conceptual structure here, as in linking, is the connecting of orbs (thoughts) to other orbs (thoughts) by some umbrella (criterion). The umbrella is the criterion by which the orbs are connected, just as the string is in linking. Now, as with linking, while this may help in retaining things, that does not appear to be a necessary aspect of the conceptual structure. Rather, the conceptual structure is one which *given the constitution of our minds* may serve to retain things. So, it appears that the process of *linking*, and the process of *relational grouping* have the same *conceptual structure*. I refer to any being of reason with this conceptual structure (i.e., any being of reason formed by the connecting of thoughts to other thoughts by some criteria) as a *Relational Being*.

- V. Again, we have modes of thinking for explicating a thing by determining it in comparison with another thing. The modes of thinking by which we do this are called time, number, measure, and such others as there are. Of these, time

serves to explicate duration, number (discrete quantity), and measure (continuous quantity).³⁸

All the examples of modes of thinking which serve to explicate by determining a thing in comparison to another thing (time, number, and measure) along with the things they serve to explicate (duration, discrete quantity, and continuous quantity) are all treated in another section of the appendix, so they shall be skipped here.

- VI. Finally, because we are also accustomed to depict in our fantasy images of all the things that we understand, it comes about that we imagine non beings positively as beings. For the mind, considered only in itself, because it is a thinking thing, has no greater power to affirm than to deny. But because to imagine is nothing other than to sense those traces found in the brain from the motion of the spirits, which is excited in the senses by objects, such a sensing can only be a confused affirmation. Hence it comes about that we imagine as beings all the modes that the mind uses to negate, such as blindness, extremity or limit, boundary, and darkness.³⁹

Modes of thinking that serve to imagine are relatively simple both in behavior and structure. As it says in VI, they are non-beings imagined positively as beings. In other words, they are nothing more than *absences* thought of as *presences*, or what is the same, they are *negatives* thought of as *positives*. For example, blindness is the absence of sight, darkness of light, and limit, extremity, and boundary of continuation. But we often think about and even refer to, e.g., darkness, *as if* it is a thing. I refer to any being of reason with this conceptual structure (i.e., any being of reason formed by the thought of the absence of one thing as the presence of another) as an *Imaginative Being*.

- VII. Hence it is evident that these modes of thinking are not ideas of things and can in no way be classed as ideas. So they also have no object (*ideatum*) that exists of necessity or that can exist. The reason why these modes of thinking are taken for ideas of things is that they originate and arise so immediately

³⁸ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*By what modes of thinking we explicate things.*], 178.

³⁹ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*By what modes of thinking we imagine things.*], 178.

from real beings that they are easily confused with them by those who do not pay careful attention. Hence they have even given them names as if to signify beings existing outside our mind; and these beings, or rather non beings, they have called beings of reason.⁴⁰

(1) Beings of reason **are not** *ideas of things* (i.e., not ideas of real beings). [From VII]

(2) Beings of reason **are not** *ideas* (because nothing outside the mind to which they correspond).

[From VII]

(3) A Being of reason **does not** *have an object* that exists of necessity or that can exist (i.e., the object of a being of reason does not correspond to anything outside the mind). [From VII]

(4) A mode of thinking **may** be an idea. [From VII]

Before getting into (1), (2), and (3), it's important to note what ideas (of things) are and what it is for an idea to have an object, for Spinoza. For Spinoza, ideas are mental narrations, i.e., mental accounts, of nature. Ideas can be true or false depending on if the idea agrees with its object (*ideatum*), i.e., true or false depending on if there really is in fact an object in nature to which the idea corresponds.⁴¹ All beings of reason *are*, is a way or *method* of thinking about things. For example, the product of connecting thoughts via some commonality (i.e., a relational being) *is* a method of thinking about those thoughts, namely from the prospective of that relation.

Now that we have a general understanding of Spinoza's notion of ideas, it's much easier to see what is meant by (1), (2), and (3). (1) concludes that beings of reason aren't ideas of *things* (which may suggest that you can have ideas of, e.g., states of affairs, not just objects, but that's a topic for another time), and further points out (2), i.e., that beings of reason cannot *in any way* be classified as ideas (which suggests that there is a fundamental distinction between beings of

⁴⁰ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*Why beings of reason are not ideas of things, and yet are taken to be such.*], 178-179.

⁴¹ Spinoza, MT, P1, Ch. 6, Of the One, the True, and the Good, [What is the true and what the false, both in the common acceptance and according to philosophers.], 187; L60, 912-913.

reason and ideas). And, as such, (3), i.e., beings of reason have no object that exists of necessity or that can exist (though they do have an object as will be seen from VIII and IX). As regards (4), it should suffice to point out that VII only explicitly says that *these* modes of thinking (i.e., beings of reason) cannot in any way be classed as ideas, so it is at least epistemically possible that there is some mode of thinking that is also an idea, though I rather doubt there is such a mode of thinking.

VIII. No less absurdly does he speak who says that a being of reason is not a mere nothing. For if he seeks outside the intellect what is meant by those words, he will find it is mere nothing, whereas if he understands them as modes of thinking, they are true real beings. For when I ask what is species, I am only enquiring into the nature of that mode of thinking that is in fact a being and is distinct from another mode of thinking. However, these modes of thinking cannot be termed ideas nor can they be said to be true or false, just as love cannot be called true or false, but only good or bad.⁴²

IX. From all that has been said already, it is obvious that there is no agreement between real being and the objects (*ideata*) of a being of reason.^{43, 44}

X. [I]f attention is correctly paid to the definitions just given of being of reason and fictitious being, a considerable difference will be found between them both from consideration of their cause and also from their own nature without regard to cause. For we defined fictitious being as the connecting of two terms by mere act of will without any guidance of reason, and therefore a fictitious being can chance to be true. But a being of reason neither depends solely on the will nor does it consist of any terms joined together, as is quite obvious from the definition.⁴⁵

XI. As to what you add, that from the definition of any thing, considered in itself, we can deduce only one property, this may hold good in the case of the most

⁴² Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*In what way a Being of Reason can be termed a mere nothing, and in what way it may be termed Real Being.*], 179.

⁴³ Spinoza, MT, Part 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*In the investigation of things Real Beings should not be confused with Beings of Reason.*], 179.

⁴⁴ Note: When talking about the objects of a being of reason, Spinoza uses *ideata* **not** *ideatum*. This may have been done deliberately in order to help maintain the distinction between the objects of ideas and the objects of beings of reason, though I cannot confirm that.

⁴⁵ Spinoza, MT, P1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*How a Being of Reason and Fictitious Being are to be distinguished.*], 179-180.

simple things, or in the case of mental constructs (*entia rationis*), in which I include figures [...].⁴⁶

- (1) Beings of reason **do not** correspond to anything outside the mind, i.e., the object of a being of reason **is not** a real being [From VIII and IX]
- (2) Beings of reason **are** modes of thinking. [From VIII]
- (3) Modes of thinking **are** real beings. [From VIII]
- (4) Beings of reason **are** real beings [From VIII, also from (2) and (3)]
- (5) Beings of reason **are not** ideas. [From VIII]
- (6) Beings of reason **cannot be** true or false [From VIII]
- (7) Modes of thinking **may** be ideas. [From VIII]
- (8) Modes of thinking **may** be true or false. [From VIII]
- (9) Beings of reason **have** an object. [From VIII and IX, also from (1)]
- (10) There **are** considerable differences between fictitious beings and beings of reason from consideration of their cause and from consideration of their nature without regard to cause. [From X]
- (11) Beings of reason **include** *all figures*. [From XI]

(1) is obvious from VIII and especially from IX. (2) and (3) are obvious from VIII. (4) is obvious from VIII and is an implication of (2) and (3). (5) and (6) are obvious from VIII. As regards (6) and (7), it should suffice to point out that VIII only explicitly says that *these* modes of thinking cannot be termed ideas and that *they* cannot be said to be true or false, so it is at least epistemically possible that there is some mode of thinking that is also an idea and likewise for some mode of thinking also being true or false, though I rather doubt there is such a mode of thinking on either point. (9) is obvious from IX. (10) is obvious from what has already been said

⁴⁶ Spinoza, L83, 958.

about fictitious beings and beings of reason, but the most important difference is probably that fictitious beings are *ideas* whereas beings of reason *are not ideas*. Unfortunately, this is not the place for a greater exposition on the differences between fictitious beings and beings of reason, so for now, that shall have to suffice. (11) is obvious from XI.

- I. When men become convinced that everything that is created is created on their behalf, they were bound to consider as the most important quality in every individual thing that which was most useful to them, and to regard as of the highest excellence all those things by which they were most benefited. Hence they came to form these abstract notions to explain the natures of things: Good, Bad, Order, Confusion, Hot, Cold, Beauty, Ugliness; and since they believed that they are free, the following abstract notions came into being: Praise, Blame, Right, Wrong.⁴⁷
- II. All that conduces to well-being and to the worship of God they call Good, and the contrary, Bad. And since those who do not understand the nature of things, but only imagine things, make no affirmative judgments about things themselves and mistake their imagination for intellect, they are firmly convinced that there is order in things, ignorant as they are of things and of their own nature. For when things are in such arrangement that, being presented to us through our senses, we can readily picture them and thus readily remember them, we say that they are well arranged; if the contrary, we say that they are ill arranged, or confused. And since those things we can readily picture we find pleasing compared with other things, men prefer order to confusion, as though order were something in Nature other than what is relative to our imagination.⁴⁸
- III. Other notions, too, are nothing but modes of imagining whereby the imagination is affected in various ways, and yet the ignorant consider them as important attributes of things because they believe—as I have said—that all things were made on their behalf, and they call a thing's nature good or bad, healthy or rotten and corrupt, according to its effect on them. For instance, if the motion communicated to our nervous system by objects presented through our eyes is conducive to our feeling of well-being, the objects which are its cause are said to be beautiful, while the objects which provoke a contrary motion are called ugly. Those things that we sense through the nose are called fragrant or fetid; through the tongue, sweet or bitter, tasty or tasteless; those that we sense by touch are called hard or soft, rough or smooth, and so on. Finally, those that we sense through our ears are said to give forth noise, sound, or harmony. [...] All this goes to show that everyone's judgment is a function of the disposition of his brain, or rather, that he mistakes for reality

⁴⁷ Spinoza, E1, Appendix, 241-242.

⁴⁸ Spinoza, E1, Appendix, 242.

the way his imagination is affected. Hence it is no wonder—as we should note in passing—that we find so many controversies arising among men, resulting finally in skepticism. For although human bodies agree in many respects, there are very many differences, and so one man thinks good what another thinks bad; what to one man is well ordered, to another is confused; what to one is pleasing, to another is displeasing, and so forth.⁴⁹

(1) Modes of imagining **are not** attributes (properties) of things. [From I, II, and III]

As regards (1), I think it will be beneficial to explain a bit more about what's going on in these passages before trying to explain it. The first passage (I) is fairly straightforward.

According to Spinoza, people believe on an individual level that all things that have been created have been so created for their own sake (the individualist interpretation here is borne out in the third passage). Spinoza goes on to claim that this viewpoint has led people to view the qualities of things that are most useful to them as those qualities which are most important and to view those things which most benefit them as those things which are of the highest excellence. The ultimate result of this being the formation of certain abstract notions, e.g., good, bad, order, confusion, etc.

The second and third passages (II-III) detail some of these abstract notions, including how they've come about. The first half of the process is essentially as follows: if the experience of something (P) is found to be a particular way (Q), then the thing which is thought to be the cause of that experience (R) is said to be a certain way or to have a certain attribute/property (S). For example, if the experience of praying (P) is found to be conducive to well-being and conducive to the worship of God (Q), then praying (R), is said to be Good (S). Likewise, if the experience of a diagram of the solar system (P) is found to be such that it can be being readily pictured and can be readily remembered (Q), then the diagram of the solar system (R) is said to

⁴⁹ Spinoza, E1, Appendix, 242.

be Well-Arranged or Ordered (S). Similarly, if the experience of a painting (P) is found to be conducive to well-being (Q), then the painting (R) is said to be beautiful (S).

The second half of the process is essentially as follows: the thing which is thought to be the cause of some experience (R) being a certain way or having a certain attribute/property (S) is explained as the cause of (is used to explain why) the experience of something (P) being found to be a particular way (Q). For example, praying (R) being Good (S), is used to explain why the experience of praying (P) is found to be conducive to well-being and conducive to the worship of God (Q). Likewise, a diagram of the solar system (R) being Well-Arranged or Ordered (S) is used to explain why the experience of the diagram of the solar system (P) is found to be such that it can be being readily pictured and can be readily remembered (Q). Similarly, a painting (R) being beautiful (S), is used to explain why the experience of the painting (P) is found to be conducive to well-being (Q).

In effect, what's happening here is that in the first half of the process people are mistakenly attributing a property (S) to an action, object, etc., (R) based on the fact that their experience of that action, object, etc., (P) was found to be a certain way (Q) and in the second half of the process people are mistakenly using the action, object, etc., (R) having that property (S) to provide a causal explanation for their experience of that action, object, etc., (P) being found to be a particular way (Q). For example, if the experience of touching a 400° stove top (P) is found to be greater than the normal "heat" sense experience of touching things and/or a hinderance to well-being (Q), then the stove (R) is attributed the property "hot" (S). The stove (R) being or having the property "hot" (S) is then used to explain why the experience of touching the 400° stove top (P) was found to be greater than the normal "heat" sense experience of

touching things and/or a hinderance to well-being (Q). It is by this process that Spinoza thinks that mankind “mistakes for reality the way his imagination is affected”.⁵⁰

In actuality, “hot” is not a property of the stove, or of anything for that matter. Moreover, the cause of the sensory experience is not any property of the stove. Or, at least, no property of the stove *alone* is the cause of the sense experience. The property of the stove that is relevant here is the temperature (molecular kinetic energy), but there are other factors which contribute to causing the sensory experience, e.g., the body of the individual experiencing it. For example, the sensory experiences of humans with regard to temperature convey information about the direction and rate of the transfer of molecular kinetic energy. If the direction of transfer is from the object being touched to the individual touching said object, then one will experience the “heat” sensation, and the object will be said to be “hot”. The intensity of the “heat” sensation, and thus the extent to which the object is said to be “hot”, depends on the rate of transfer. If the direction of transfer is from the individual touching an object to the object being touched by said individual, then the individual will experience the “cool” sensation, and the object will be said to be “cold”. The intensity of the “cool” sensation, and thus the extent to which the object is said to be “cold”, depends on the rate of transfer.

As such, the same object can product different sensory experiences depending on the state of the body of the individual sensing it. For example, if an individual places their right hand into a bucket of 50° water and their left hand into a bucket of 150° water, waits for a while, then places both their hands into the same bucket of 100° water, their right hand will experience the “heat” sensation and their left hand will experience the “cool” sensation. Consequently, by the process described above, the bucket of 100° water will be attributed *both* the “hot” property and

⁵⁰ Spinoza, E1, Appendix, 242.

the “cold” property. Similar situations can easily be thought of for the other modes of imagining that Spinoza talks about, e.g., good and bad, beautiful and ugly, ordered and confused, etc., but I shall not spend time on that here. The bucket of water example should suffice (at least for now) to demonstrate that such things as “hot” and “cold” are not properties of objects. Rather they are modes of imagining which have been projected onto objects and given names as if they were entities existing independently of the imagination. Understood in this way, it’s obvious why “we find so many controversies arising among men” and why “one man thinks good what another thinks bad”, etc.

IV. We see therefore that all the notions whereby the common people are wont to explain Nature are merely modes of imagining, and denote not the nature of anything but only the constitution of the imagination. And because these notions have names as if they were the names of entities existing independently of the imagination I call them “entities of imagination” [*entia imaginationis*] rather than “entities of reason” [*entia rationis*].^{51, 52}

(1) Modes of imagining **denote** the constitution of the mind. [From IV]

(2) Entities of imagination **are** modes of imagining. [From IV]

(3) Modes of imagining **are** distinct from entities of imagination. [From IV]

(4) Entities of imagination **are** distinct from beings of reason. [From IV]

(5) Modes of imagining **are** distinct from beings of reason. [From IV]

(1) is obvious from the relevant passage. (2) is obvious from the fact that entities of imagination are just those modes of imagining which “have names as if they were the names of entities existing independently of the imagination” and as such are a proper sub-set of modes of imagining. (3) is obvious from the fact that modes of imagining include entities of imagination and more. (4) and (5) are obvious from what has already been said about entities of imagination,

⁵¹ Spinoza, E1, Appendix, 243.

⁵² Note: The second half of the process described above is the manner “whereby the common people are wont to explain Nature”.

modes of imagining, and being of reason. Though the reasons which can be discovered from what has already been said are different from the reason Spinoza gives (in particular the differences in their respective conceptual structures). Furthermore, we can deduce that modes of imagining are a proper sub-set of modes of thinking from *BoR*_{III}, which helps to differentiate them from Beings of Reason, which are another proper sub-set of modes of thinking.

Section III (a) – On Definition and the Difference Between Spinozistic and Aristotelian Essence

- I. [A] thing be conceived either through its essence alone or through its proximate cause. That is, if the thing is in itself, or, as is commonly said, self-caused, then it will have to be understood solely through its essence; if the thing is not in itself and needs a cause for its existence, then it must be understood through its proximate cause.⁵³

From the above passage (I) it is obvious that Spinoza divides all things into two general categories: (1) self-caused and (2) other-caused. Furthermore, he includes the two ways by which these two kinds of things can be conceived: (1) *solely* through their essence (if self-caused) or (2) through their proximate cause (if other-caused). Since there are two general categories of things and two distinct ways of conceiving of them (one for each general category) there must then be two distinct ways of defining things (for the same method of definition would obviously not work for both). But before we get into the two ways of defining things, it's important to understand what Spinoza says about definitions in general, which brings us to our next passage:

- II. For a definition to be regarded as complete, it must explain the inmost essence of the thing, and must take care not to substitute for this any of its properties. [...] If [a circle] is defined as a figure in which the lines drawn from the center to the circumference are equal, it is obvious that such a definition by no means explains the essence of a circle, but only one of its properties. And although, as I have said, this is a matter of little importance when it is a question of figures and other mental constructs, it is nevertheless a matter of prime importance when it is a question of physical and real beings. For the properties of things are not understood as long as their essences are not known.⁵⁴

⁵³ Spinoza, TIE ⁹², 25.

⁵⁴ Spinoza, TIE ⁹⁵, 25-26.

There are a few things to note about this passage:

- (1) The essence of a thing **is** *distinct* from the properties of the thing. [From II]
- (2) Distinguishing between essence and properties **is** of *little importance* when it comes to beings of reason. [From II]
- (3) Distinguishing between essence and properties **is** of *prime importance* when it is a question of physical and real beings. [From II]
- (4) The properties of beings of reason **can be understood** even if their essences are not known. [From II]
- (5) The properties of things **are not understood** as long as their essences are not known. [From II]

Be aware that Spinoza considers a circle to be a figure, which is a kind of mental construct, and we know from *BoR_{I-II}* that mental constructs are beings of reason.⁵⁵ (1) is obvious from the above passage, but it is essential to understanding that Spinoza's notion of essence and Aristotle's notion of essence are *distinct*. This is apparent from the fact that Aristotle's notion of essence **is** the essential *properties* of a thing, whereas Spinoza plainly distinguishes between the properties of a thing and its essence. (2) is obvious from the above passage. (3) is obvious from the above passage and is explained by (5). As regards (3), the separation of "physical and real beings" is interesting. Elsewhere (*S2, RB*) I claimed that physical things and real beings are one and the same. This understanding can still be maintained here, though the phrasing in this passage is not nearly as supportive of such an interpretation. That being said, if real beings and physical things are not the same, then it is quite difficult to ascertain what exactly real beings are. (4) require some explanation to be made apparent. Given that (5) is used to explain (3), it seems

⁵⁵ Note: This point is also made especially clear in L83, "mental constructs (entia rationis), in which I include figures". See, Spinoza, L83, 958.

reasonable to infer that the reason for (2) is (4), i.e., that the properties of beings of reason can be understood even if their essences are not known. So, (4) is inferred from (5), (3), and (2), and explains (2). As for *how* the properties of beings of reason can be understood even if their essences are not known, I cannot yet be certain, though that does seem to be an implication of the above passage. At any rate, I suspect it is because (or at least has something to do with the fact that) beings of reason are multiply realizable. Sadly, this is not the place for a protracted discussion on that matter. So, we shall have to leave it at that. (5) is obvious from the above passage. As regards (5), presumably one can be aware of the properties of a thing even without knowing their essence, one simply does not *understand* them. Which I presume means one does not see *why* the thing in question has the properties that it has, only that it has them.

Now, for the definition of a created (other-caused) thing:

III. So, if we are to be delivered from this fault, the following requirements must be satisfied in definition.

1. If the thing be a created thing, the definition, as we have said, must include its proximate cause. For example, according to this rule a circle would have to be defined as follows: a figure described by any line of which one end is fixed and the other movable. This definition clearly includes the proximate cause.
2. The conception or definition of the thing must be such that all the properties of the thing, when regarded by itself and not in conjunction with other things, can be deduced from it, as can be seen in the case of this definition of a circle. For from it we clearly deduce that all the lines drawn from the center to the circumference are equal.⁵⁶

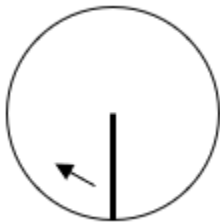


Figure 1.

⁵⁶ Spinoza, TIE ⁹⁶, 26.

There are a few things to note about this passage:

- (1) The definition of a created (other-caused) thing **must include** its proximate efficient cause, but that is not necessarily all it includes. [From III-1]
- (2) The definition of a created (other-caused) thing **must be** such that the thing can be *deduced* from it. [From III-1]
- (3) All the non-relational properties of a thing **must be deducible** from the definition of the thing. [From III-2]

Be aware that when it comes to beings of reason (and perhaps modes of thinking in general), the proximate efficient cause included in the definition need only be a convenient way of forming the concept in question. As such, any proximate efficient cause the inclusion of which is sufficient to produce the concept may be used, even if it is known that nothing has ever been produced in such a manner.⁵⁷ As regards (1), it's important to note that the inclusion of a thing's proximate efficient cause is a necessary *not* a sufficient condition for a complete definition. So, presumably, the definition can include other things, e.g., laws of nature, geometric postulates, rules of inference, etc.⁵⁸ (2) allows the second requirement to be satisfied, for if the thing were not deducible, then its properties would certainly not be. (3) is obvious from the relevant passage.⁵⁹

⁵⁷ Spinoza, TIE ⁷², 20. The relevant passage is as follows: “[T]o form the concept of a sphere, I invent a cause at will, namely, that a semicircle rotates about its center, and a sphere, as it were, is produced by this rotation. [A]lthough we know that in Nature no sphere has ever been produced in this way, this is nevertheless [...] a very convenient way of forming the concept of a sphere.”

⁵⁸ Note: That the proximate cause must be the proximate efficient cause is apparent from L60, “the idea or definition of the thing should express its efficient cause”. That Spinoza’s thoughts on definition here and in L60 are the same is apparent from a reading of L60. See, Spinoza, L60, 912-913.

⁵⁹ Note: Regarding the definition of general things, e.g., circles, it’s interesting to note that Aristotle’s notion of essence is actually a deducible implication of Spinoza’s notion of essence. Since all the properties of general things are the essential properties of those things (in the Aristotelian sense). Though this does not work when it comes to specific things, e.g., a specific circle, since that will have other non-relational properties which are not essential properties (in the Aristotelian sense), e.g., size.

As for the definition of an uncreated (self-caused) thing:

IV. The requirements for the definition of an uncreated thing are as follows:

1. That it should exclude every cause; that is, that the thing should need nothing else for its explanation besides its own being.
2. That, given the definition of the thing, there should remain no room for the question: Does it exist?
3. That, as far as the mind is concerned, it should contain no substantives that can be put in adjectival form; that is, it should not be explicated through any abstractions.⁶⁰
4. And finally (although it is not really necessary to make this observation), it is required that all its properties can be deduced from its definition.⁶¹

There are a few things to note about this passage:

(1) The definition of an uncreated (self-caused) thing **must be** such that the thing explains itself.

[From IV-1]

(2) The definition of an uncreated (self-caused) thing **must be** such that the thing is *necessarily existing*. [From IV-2]

(3) The definition of an uncreated (self-caused) thing **cannot** involve *abstractions*. [From IV-3]

(4) All the properties of an uncreated (self-caused) thing **must be deducible** from its definition.

[From IV-4]

(1) and (2) are obvious from their relevant passages. As regards (3), the reason for this condition is that it is impossible for an uncreated (self-caused) thing to be conceived abstractly.

So, if the definition involves abstracts, then something has gone wrong. The reason for this

⁶⁰ Note: Substantives stand in the place of things (nouns). In this context it seems to be referring to substantive adjectives, i.e., those which replace rather than modify a noun. For example, “the *strongest* always win”. Adjectives modify nouns by attributing properties to them, so a substantive adjective replaces a noun with an adjective/property. It’s not entirely clear to me whether that is the same as being explicated through an abstraction or if the presence of substantive adjectives allows for explication through some abstraction, but that need not concern us here. (See, Janice Siegel, “[Latin Grammar Review Sheets: Substantives](#)”, *Dr. J’s Illustrated Guide to the Classical World*, December 14, 2021).

⁶¹ Spinoza, TIE ⁹⁷, 26.

impossibility is that an uncreated (self-caused) thing is necessarily unique and infinite, i.e., a total being beyond which there is nothing. However, it is necessarily the case that when conceived in an abstract manner, things are extended further in the intellect than they are in nature. But it is impossible for a total being to be extended further in the intellect than in Nature, so a self-caused cause cannot be conceived abstractly.⁶² (4) is obvious from the relevant passage.

- V. 1. The true definition of each thing involves and expresses nothing beyond the nature of the thing defined. Hence it follows that—
 2. No definition involves or expresses a fixed number of individuals, since it expresses nothing but the nature of the thing defined. For example, the definition of a triangle expresses nothing other than simply the nature of a triangle, and not a fixed number of triangles.⁶³

As regards V, the first part (V-1) is consistent with everything said up to this point about definitions and doesn't seem to tell us anything new or interesting. The second part (V-2) is interesting in that it only seems to hold true for the definitions of beings of reason, e.g., circles or triangles (though it may extend to modes of thinking in general). The definition of a specific thing obviously involves or expresses a fixed number of individuals (namely, one), since the definition is of *that specific thing*.

Section III (b) – On Formal Essence, Actual Essence, and Existence

- I. [F]ormal essence is **not self-generated nor** again is it **created**—for both of these would presuppose that it is a thing existing in actuality—but it **depends on the divine essence alone**, in which all things are contained. And so, **in this sense** we agree with those who say that **the essences of things are eternal**.⁶⁴

⁶² Spinoza, TIE ⁷⁶, 21. The relevant passage is as follows: “As for our knowledge of the origin of Nature, we need have no fear of confusing it with abstractions. For when things are conceived in an abstract way (as is the case with all universals), they always have a wider extension in the intellect than is really possessed by their particular exemplifications existing in Nature. Again, since there are many things in Nature whose difference is so slight as to be hardly perceptible to the intellect, it can easily come about that they are confused if they are conceived in an abstract way. But since, as we shall later see, the origin of Nature can neither be conceived in an abstract or universal way, nor can it have a wider extension in the intellect than in reality, nor has it any resemblance to things mutable [...]. For this entity is unique and infinite; that is, it is total being, beyond which there is no being.”

⁶³ Spinoza, E1P8S2, 220.

⁶⁴ Spinoza, MT, Pt. 1, Ch. 2, What Essence Is, What Existence Is, What Idea Is, and What Potency Is, [*A reply to certain questions concerning Essence.*], 181.

- II. Finally, if any philosopher still doubts whether essence is distinguished from existence in created things, he need not toil away over definitions of essence and existence in order to remove that doubt. For if he merely approaches a sculptor or a woodcarver, they will show him how they conceive in set order a nonexistent statue and thereafter bring it into existence for him.⁶⁵
- III. [W]ith respect to the contradiction involved in its essence, a chimera is incapable of existence.⁶⁶
- IV. [F]rom the given definition of any one thing the intellect infers a number of properties which necessarily follow in fact from the definition (that is, from the very essence of the thing).⁶⁷
- V. I say that there pertains to the essence of a thing that which, when granted, the thing is necessarily posited, and by the annulling of which the thing is necessarily annulled; or that without which the thing can neither be, nor be conceived, and, vice versa, that which cannot be or be conceived without the thing [also being or being conceived].⁶⁸

- (1) Formal essence **is not** self-generated (self-caused) or created (other-caused). [From I]
- (2) Formal essence **is not** a part of Being. [From (1)]
- (3) Formal essence **is not** a Substance or a Mode [From (2)]
- (4) Formal essence **depends only** on the divine essence. [From I]
- (5) Formal essence **is** an implication, **but not** a creation of the *Natura Naturans*. [From I and (4)]
- (6) Formal essence **is** eternal. [From I and (5)]
- (7) Formal essence **is** the hypothetical chain of causes which are sufficient to bring about a given thing. [From II]
- (8) Actual essence **is** the actual chain of causes which necessarily bring about a given thing. [From II]

⁶⁵ Spinoza, MT, Pt. 1, Ch. 2, What Essence Is, What Existence Is, What Idea Is, and What Potency Is, [*How the distinction between essence and existence is easily learned.*], 182.

⁶⁶ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*In how many ways a thing is said to be necessary or impossible.*], 183.

⁶⁷ Spinoza, E1P16P, 227.

⁶⁸ Spinoza, E2D2, 244. Items in brackets added.

(9) For a thing to be brought into existence **is** for its formal essence to be actualized.

(10) Existence **is** the effect of the actualization of formal essence. [From II and (6)]

(11) A chimera **has** a formal, **but not** an actual, essence. [From I, II, and III]

(12) A chain of causes **pertains** to the essence of a thing if (a) the chain is sufficient to cause the thing and (b) each link in the chain is necessary to cause the thing. [From V]

(1) is obvious from the relevant passage. (2) is obvious from (1) and from what has already been said about Being. (3) is obvious from (2) and what has already been said about Being with relation to Substance and Mode. (4) is obvious from the relevant passage, though its precise meaning will not become clear until the section of the appendix on Necessity, Impossibility, Contingency, and Possibility. As regards (5), formal essence cannot be part of the *Natura Naturata* for it is not a mode, else it would be created (other-caused), which we know from the first passage (I) is not the case. Therefore, it must be an implication, but not a creation of the *Natura Naturans*.

As regards (7) and (8), consider how the sculptor/woodcarver *conceived* in set order a chain of causes such that when granted *x* (the statue) is necessarily posited, *then* proceeded to *bring about* in set order said chain of causes, thereby bringing the statue into existence. From this we may learn the distinction between formal and actual essence. The formal essence of a thing is the hypothetical chain of causes which are sufficient to bring about the thing. Whereas the actual essence of a thing is the actual chain of causes which necessarily bring about the thing. As regard (9) and (10) it is easy to see from the second passage (II) and from (7) and (8) that for a thing to be brought into *existence* is nothing other than for its formal essence to be made actual, i.e., for its formal essence to be actualized. So, *existence* is the effect of the actualization of formal essence. As regards (11), it should be obvious at this point that the formal essence of a chimera is

a chain of contradictory causes. The contradiction involved in its formal essence means that it is impossible to actualize its formal essence. Hence, it is impossible for it to exist.

As regards the fourth passage (IV), it should be obvious that by conceiving in set order a chain of causes such that when granted x is necessarily posited, one conceives of the existence of x , and from that, one can infer all its properties. For example, the sculptor/woodcarver in the second passage (II) by conceiving in set order a chain of causes such that when granted x (the statue) is necessarily posited, also conceives the existence of x (the statue), and from that can infer all the properties of x (the statue).

As regards (12), we've already determined that Spinoza's notion of essence is *causal*, but it isn't until the fifth passage (V) that Spinoza lays out a method for determining which causes pertain to the essence of a thing.⁶⁹ A chain of causes pertains to the essence of a thing if:⁷⁰

(1a) granting said chain of causes necessarily posits said thing *and* (2a) annulling any link in said chain of causes necessarily annuls said thing.⁷¹

(1b) said thing cannot be or be conceived without every link in said chain of causes [also being or being conceived] *and* (2b) said chain of causes cannot be or be conceived without said thing [also being or being conceived].⁷²

(1b-v2) it is impossible for said thing to be or be conceived without every link in said chain of causes [also being or being conceived] *and* (2b-v2) it is impossible

⁶⁹ Note: The use of *pertains*, rather than *is*, may suggest that the essence of things includes more than causes. The reader may recall that a similar observation was made in Section III (a), regarding the definition of a created (other-caused) thing.

⁷⁰ Note: (1a) and (2a) correspond to the condition listed in the first half of the fifth passage (V), i.e., the part before the semi-colon; (1b) and (2b) correspond to the condition listed in the second half of the fifth passage (V), i.e., the part after the semi-colon; and (1b-v2) and (2b-v2) are simply restatements of (1b) and (2b).

⁷¹ If (1a) granting a given chain of causes necessarily posits a given thing *AND* (2a) annulling any link in said chain of causes necessarily annuls said thing, then said chain of causes pertains to the essence of said thing.

⁷² If (1b) a given thing cannot be or be conceived without every link in a given chain of causes [also being or being conceived] *AND* said (2b) chain of causes cannot be or be conceived without said thing [also being or being conceived], then said chain of causes pertains to the essence of said thing.

for said chain of causes to be or be conceived without said thing [also being or being conceived].⁷³

(1a), (2b), and (2b-v2) set a condition of sufficiency on the proposed chain of causes as a whole to the causation of the thing, while (2a), (1b), and (1b-v2) set a condition of necessity for each link in the proposed chain of causes to the causation of the thing.

Section IV – On Necessity, Impossibility, Contingency, and Possibility

- I. I call a thing impossible if its nature implies that it would be a contradiction for it to exist; necessary, if its nature implies that it would be a contradiction for it not to exist.⁷⁴
- II. There are two ways in which a thing is said to be necessary or impossible, either [1] with respect to its essence or [2] with respect to its cause.⁷⁵
- III. With respect to essence we know that God necessarily exists, for his essence cannot be conceived without existence; whereas, with respect to the contradiction involved in its essence, a chimera is incapable of existence.⁷⁶
- IV. With respect to cause, things (e.g., material things) are said to be either impossible or necessary. For if we have regard only to their essence, we can conceive that clearly and distinctly without existence; therefore they can never exist through the force and necessity of their essence, but only through the force of their cause, God, the creator of all things. So if it is in the divine decree that a thing should exist, it will necessarily exist; if not, it will be impossible for it to exist. For it is self-evident that if a thing has no cause for existence—either than internal or an external cause—it is impossible for it to exist.⁷⁷
- V. 2. Not only the existence of created things but also, as we shall later on demonstrate with the greatest certainty in Part 2, their essence and their nature depend solely on God’s decree. Hence it clearly follows that created things

⁷³ If (1b-v2) it is impossible for a given thing to be or be conceived without every link in a given chain of causes [also being or being conceived] and (2b-v2) it is impossible for said chain of causes to be or be conceived without said thing [also being or being conceived], then said chain of causes pertains to the essence of said thing.

⁷⁴ Spinoza, TIE ⁵³, 14.

⁷⁵ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*In how many ways a thing is said to be necessary or impossible.*], 183. Items in brackets added.

⁷⁶ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*In how many ways a thing is said to be necessary or impossible.*], 183.

⁷⁷ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*In how many ways a thing is said to be necessary or impossible.*], 183.

have no necessity of themselves; for they have no essence of themselves, nor do they exist of themselves.⁷⁸

- VI. Finally, the necessity such as in created things by virtue of their cause is so called either [1] with respect to their essence or [2] with respect to their existence; for these two are distinct in created things, the former [1] depending on the eternal laws of nature, the latter [2] on the series and order of causes.⁷⁹
- VII. This [the lack of any real contingency] is readily apparent from our teaching in Axiom 10 Part 1, to wit, that the same force is required in creating a thing as in preserving it. So no created thing affects anything by its own force, just as no created thing began to exist by its own force. From this it follows that nothing happens except by the power of the all-creating cause—that is, God—who by his concurrence at every moment continues to create all things.⁸⁰
- VIII. Now because nothing happens except by the divine power alone, it is easy to see that those things that happen do so by the force of God's decree and will. But because there is in God no inconstancy or variability (by Prop. 18 and Cor. Prop. 20 Part 1), he must have resolved from eternity to produce those things that he is now producing. And because nothing has a more necessary existence than that which God has decreed should exist, it follows that the necessity to exist has been from eternity in all created things.^{3, 81}
- IX. [T]he essence of the thing, considered in itself, is nothing other than God's decree, or his determinate will. But we are also saying that the necessity of existence is no different from the necessity of essence (Chapter 9 of Part 2); that is, when we say that God has decreed that the triangle should exist, we are saying nothing other than that God has so arranged the order of nature and of causes that the triangle should necessarily exist at a particular time. So if we were to understand the order of causes as established by God, we should find that the triangle must exist at a particular time with the same necessity as we now find, when we attend to the triangle's nature, that its three angles are equal to two right angles.⁸²

⁷⁸ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*Created things depend on God for their essence and existence.*], 183.

⁷⁹ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The necessity that is in created things from their cause is either of essence or of existence; but these two are not distinguished in God.*], 183-184. Items in brackets added.

⁸⁰ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The Possible and the Contingent are only the defect of our intellect.*], 184.

⁸¹ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The Possible and the Contingent are only the defect of our intellect.*], 184.

⁸² Spinoza, MT, Pt. 1, Ch. 3n³, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The Possible and the Contingent are only the defect of our intellect.*], 184.

- X. [I]f men clearly understood the whole order of Nature, they would find all things to be equally as necessary as are the things treated in mathematics. But because this is beyond the reach of human knowledge, certain things are judged by us as possible and not as necessary. Therefore we must say either that God is powerless—because all things are in actual fact necessary—or that God is all-powerful, and that the necessity we find in things has resulted solely from God’s decree.⁸³
- XI. [T]he universal laws of Nature according to which all things happen and are determined are nothing but God’s eternal decrees, which always involve eternal truth and necessity.⁸⁴
- XII. [I]t is solely from the necessity of the divine nature, and not from the necessity of the essence and nature of a triangle, that the nature of a triangle is thus contained in the divine nature—or rather, the necessity of the essence and properties of a triangle, insofar as they are also conceived as eternal truths, depends not on the nature of a triangle but solely on the necessity of the divine nature and intellect.⁸⁵
- XIII. Now since nothing is necessarily true save by the divine decree, it quite clearly follows that the universal laws of Nature are merely God’s decrees, following from the necessity and perfection of the divine nature. So, if anything were to happen in Nature contrary to her universal laws, it would also be necessarily contrary to the decree, intellect and nature of God.⁸⁶
- XIV. [W]hatever occurs does so through God’s will and eternal decree; that is, as we have already shown, all that happens does so in accordance with laws and rules which involve eternal necessity and truth. Nature, then, always observes laws and rules involving eternal necessity and truth although these are not all known to us, and thus it also observes a fixed and immutable order.⁸⁷
- XV. [A]ll things are from the necessity of the divine nature determined to exist and to act in a definite way.⁸⁸
- XVI. Things could not have been produced by God in any other way or in any other order than is the case.⁸⁹
- XVII. All things have necessarily followed from the nature of God (Pr. 16) and have been determined to exist and to act in a definite way from the necessity of

⁸³ Spinoza, MT, Pt. 2, Ch. 9, Of God’s Power, [*All things are necessary with respect to God’s decree. It is wrong to say that some things are necessary in themselves, and other things with respect to his decree.*], 202.

⁸⁴ Spinoza, TTP, Ch. 3, Of the vocation of the Hebrews and whether the gift of prophecy was peculiar to them, 417.

⁸⁵ Spinoza, TTP, Ch. 4, Of the Divine Law, 430.

⁸⁶ Spinoza, TTP, Ch. 6, Of Miracles, 445.

⁸⁷ Spinoza, TTP, Ch. 6, Of Miracles, 446.

⁸⁸ Spinoza, E1P29, 234.

⁸⁹ Spinoza, E1P33, 235.

God's nature (Pr. 29). Therefore, if things could have been of a different nature or been determined to act in a different way so that the order of Nature would have been different, then God's nature, too, could have been other than it now is, and therefore (Pr. 11) this different nature, too, would have had to exist, and consequently there would have been two or more Gods, which (Cor. 1 Pr. 14) is absurd. Therefore, things could not have been produced by God in any other way or in any other order than is the case.⁹⁰

XVIII. A thing is termed "necessary" either by reason of its essence or by reason of its cause. For a thing's existence necessarily follows either from its essence and definition or from a given efficient cause. Again, it is for these same reasons that a thing is termed "impossible"—that is, either because its essence or definition involves a contradiction or because there is no external cause determined to bring it into existence.⁹¹

(1) Necessity or impossibility of essence (conceptual necessity/impossibility) **depends**

only on essence. [From I, III, IV, XVIII]

(2) A thing is necessary or impossible **either** (a) with respect to its essence or (b) with respect to its cause. [From II]

(3) Necessity or impossibility of cause is so **either** (i) with respect to essence or (ii) with respect to existence. [From VI]

(4) Necessity or impossibility of cause with respect to essence (nomological necessity/impossibility) **depends** on the eternal universal laws of Nature. [From VI and VIII]

(5) Necessity or impossibility of cause with respect to existence (causal necessity/impossibility) **depends** on the series and order of causes. [From VI and IX]

(6) The source and force of necessity or impossibility **is** *always* the same regardless of if said necessity or impossibility is conceptual, nomological, or causal. [From V, VII, VIII, IX, X, XII, XIII, XVII, (8), and (9)]

⁹⁰ Spinoza, E1P33P, 236.

⁹¹ Spinoza, E1P33S1, 236.

(7) For all things, essence, properties, and existence **are** *equally* necessary or impossible. [From V, VII, VIII, IX, X, XII, and (6)]

(8) The eternal universal laws of Nature **follow** from the Divine Nature, i.e., the eternal universal laws of nature **are** a logical implication of Substance (i.e., that which is self-caused). [From XI and XIII]

(9) The order of Nature (the series and order of causes) **follows** from the eternal universal laws of Nature, i.e., the order of Nature **is** a logical implication of the eternal universal laws of Nature, and by extension **is** a logical implication of Substance (i.e., that which is self-caused). [From XIV, XV, XVI, XVII]

It's integral to note here that among the eternal universal laws of Nature is one according to which "there must be infinite things in infinite ways". That particular eternal universal law of Nature plays an especially important role in understanding nomological necessity. (1) is obvious from the relevant passages, but its precise meaning is in need of explication. A thing is necessary of its essence if its existence is contained in its essence, i.e., if it's contradictory to suppose that it doesn't exist, e.g., Substance. Whereas a thing is impossible of its essence if its non-existence is contained in its essence, i.e., if its essence contains a contradiction, e.g., a square circle. I refer to this necessity/impossibility as *conceptual necessity/impossibility*. (2) and (3) are obvious from the relevant passages.

(4) is obvious from the relevant passages, but its precise meaning is in need of explication. A thing is necessary of its cause with respect to essence if its essence is not contrary to the eternal universal laws of Nature, i.e., if its formal essence contains nothing which requires that the eternal universal laws of Nature be different in order to be actualized, e.g., a dodo bird (the formal essence of which is obvious not contrary to the eternal universal laws of Nature since

dodo birds did in fact exist). Whereas a thing is impossible of its cause with respect to essence if its formal essence is contrary to the eternal universal laws of Nature, i.e., if its formal essence contains something which requires that the eternal universal laws of Nature be different in order to be actualized, e.g., a perpetual motion machine or a spaceship that travels faster than light (the formal essences of which are plainly contrary to the eternal universal laws of Nature). I refer to this necessity/impossibility as *nomological necessity/impossibility*. It should be noted that because among the eternal universal laws of Nature is one according to which “there must be infinite things in infinite ways”, it is automatically necessary that anything which is not contrary to any of the eternal universal laws of Nature exists. However, it is impossible to determine *solely* from the fact that a given thing is nomologically necessary *where* along the chain of causes said thing will exist, only that it will exist *somewhere* along the chain of causes. So, nomological necessity/impossibility may be thought of as the necessity/impossibility *to* exist, or the necessity/impossibility of existence *in general*.

(5) is obvious from the relevant passages, but its precise meaning is in need of explication. A thing is necessary of its cause with respect to existence if its existence is dictated by the series and order of causes, e.g., the existence of the reader. Whereas a thing is impossible of its cause with respect to existence if its existence is prohibited by the series and order of causes, e.g., the reader being Abraham Lincoln (since the series and order of causes necessitated his death prior to the writing of this work). I refer to this necessity/impossibility as *causal necessity/impossibility*. It should be noted that the existence being dictated/prohibited by the series and order of causes is existence at some *particular* link along the causal chain. So, causal necessity/impossibility may be thought of as the necessity/impossibility of existence *in particular*.

As regards (6), this follows from the fact that the eternal universal laws of Nature and the series and order of causes (i.e., the order of Nature) are implications of Substance, which is conceptually necessary. So, the source and force of nomological and causal necessity is in fact nothing other than the conceptual necessity of Substance.

As regards (7), since the source and force of necessity or impossibility is always the same, it follows that for all things, essence, properties, and existence are all equally necessary or impossible. In other words, that a thing has a particular essence is equally as necessary as that it has a particular set of properties, which is equally as necessary as that it has a particular existence. (8) and (9) are obvious from the relevant passages.

- I. I call a thing [...] possible, if, by its very nature, neither its existence nor its nonexistence implies a contradiction, the necessity or impossibility of its existence being dependent on causes which are unknown to us while we are assuming its existence. So if its necessity or impossibility, which are dependent on external causes, were known to us, it could not then be for us the subject of any fiction.⁹²
- II. There are two ways in which a thing is said to be necessary or impossible, either [1] with respect to its essence or [2] with respect to its cause.⁹³
- III. Finally, the necessity such as in created things by virtue of their cause is so called either [1] with respect to their essence or [2] with respect to their existence; for these two are distinct in created things, the former [1] depending on the eternal laws of nature, the latter [2] on the series and order of causes.⁹⁴
- IV. A thing is said to be possible when we understand its efficient cause but do not know whether the cause is determined. Hence we can also consider it as possible, but not as either necessary or impossible.⁹⁵

⁹² Spinoza, TIE ⁵³, 14.

⁹³ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*In how many ways a thing is said to be necessary or impossible.*], 183. Items in brackets added.

⁹⁴ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The necessity that is in created things from their cause is either of essence or of existence; but these two are not distinguished in God.*], 183-184. Items in brackets added.

⁹⁵ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*What is the Possible, and what the Contingent.*], 184.

- V. But if we attend simply to the essence of the thing and not to its cause, we shall call the thing contingent; that is, we shall consider it as midway between God and a chimera, so to speak, because on the side of essence we find in it no necessity to exist, as in the case of the divine essence, nor again any inconsistency or impossibility, as in the case of a chimera [...].
- VI. [T]hese two [possibility and contingency] are only the defect of our perception, and not anything real.⁹⁶
- VII. If anyone [...] attends to nature and the way it depends on God, he will find nothing contingent in things, that is, nothing that can either exist or not exist on the part of the thing, or is a real contingency, as it is commonly called.⁹⁷
- VIII. Nor can we say that those things [i.e., created things] are contingent because God could have decreed otherwise. For because in eternity there is no when or before or after or any affection of time, it follows that God never existed prior to those decrees so as to be able to decree otherwise.^{3, 98}
- IX. Nothing in nature is contingent.⁹⁹
- X. [I]n things there is absolutely nothing by virtue of which they can be said to be “contingent”, [...] a thing is termed “contingent” for no other reason than the deficiency of our knowledge. For if we do not know whether the essence of a thing involves a contradiction, or if, knowing full well that its essence does not involve a contradiction, we still cannot make any certain judgment as to its existence because the chain of causes is hidden from us, then that thing cannot appear to us either as necessary or as impossible. So, we term it either “contingent” or “possible”.¹⁰⁰
- XI. The essence of man does not involve necessary existence; that is, from the order of Nature it is equally possible that a certain man exists or does not exist.¹⁰¹
- XII. I call individual things *contingent* insofar as, in attending only to their essence, we find nothing that necessarily posits their existence or necessarily excludes it.¹⁰²

⁹⁶ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*What is the Possible, and what the Contingent.*], 184. Items in brackets added.

⁹⁷ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The Possible and the Contingent are only the defect of our intellect.*], 184.

⁹⁸ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The Possible and the Contingent are only the defect of our intellect.*], 184. Items in brackets added.

⁹⁹ Spinoza, E1P29, 234.

¹⁰⁰ Spinoza, E1P33S1, 236.

¹⁰¹ Spinoza, E2A1, 244.

¹⁰² Spinoza, E4D3, 322.

XIII. I call individual things *possible* insofar as, in attending to the causes by which they should be brought about, we do not know whether these causes are determined to bring them about. In Sch. 1, Pr. 33, Part 1, I did not differentiate between possible and contingent because at that point it was unnecessary to distinguish carefully between them.¹⁰³

- (1) Possibility **is** *only* epistemic. [From I, IV, VI, X]
- (2) A thing **is** epistemically possible with respect to ignorance of its cause. [From I, IV, X, and XIII]
- (3) A thing is epistemically contingent or epistemically possible **either** (a) with respect to its essence or (b) with respect to its cause. [From II]
- (4) Epistemic contingency of essence **depends** only on essence or the ignorance thereof. [From II, V, X, and XII]
- (5) Epistemic possibility of cause is so **either** (i) with respect to essence or (ii) with respect to existence. [From III]
- (6) Epistemic possibility of cause with respect to essence **depends** on ignorance of the eternal laws of Nature. [From III]
- (7) Epistemic possibility of cause with respect to existence **depends** on ignorance of the series and order of causes. [From III]
- (8) Contingency **is** *only* epistemic. [From V, VI, VII, VIII, IX, X]
- (9) A thing **is** epistemically contingent with respect to its essence or the ignorance thereof. [From V and XII]

(1), (2), and (3) are obvious from the relevant passages. As regards (4), a thing is epistemically conceptually contingent if its existence or non-existence does not follow *solely* from its essence, or if we are ignorant of the fact that it does, e.g., the existence of

¹⁰³ Spinoza, E4D4, 322.

a dodo bird does not follow *solely* from the formal essence of a dodo bird. (5) is obvious from the relevant passage.

As regards (6), A thing is epistemically nomologically possible if its existence or non-existence depends on the eternal universal laws of nature and we are ignorant of said laws or are otherwise incapable of discerning the necessity or impossibility of the thing, e.g., a dodo bird and a spaceship that travels faster than light are epistemically nomologically possible if we are ignorant of the eternal universal laws of nature, or if we are aware of the said laws but are incapable of discerning that the formal essence of a dodo bird is not contrary to them or that the formal essence of a spaceship that travels faster than light is contrary to them.¹⁰⁴

As regards (7), A thing is epistemically causally possible if its existence or non-existence depends on the series and order of causes and we are ignorant of said causes or are otherwise incapable of discerning the necessity or impossibility of the thing, e.g., a dodo bird walking around the room during my thesis defense after being flung via catapult through the window into said room is epistemically causally possible if we are ignorant of the fact that the series and order of causes necessitated the extinction of the dodo bird prior to my thesis defense, or if are aware of the series and order of causes but incapable of discerning that said series and order of causes necessitated the extinction of the dodo bird prior to my thesis defense.¹⁰⁵ (8) and (9) are obvious from the relevant passages.

¹⁰⁴ Note: A thing must be epistemically conceptually contingent in order to be epistemically nomologically possible.

¹⁰⁵ Note: A thing must be epistemically conceptually contingent and either nomologically necessary or epistemically nomologically possible in order to be epistemically causally possible.

Section V – On the Finite and Infinite (Non-Finite)

- I. [...] God [...] is a being of whom all or infinite attributes are predicated, of which attributes every one is infinitely perfect in its kind. Now, in order to express our views clearly, we shall premise the four following propositions:¹⁰⁶
- II. 1. That there is no finite substance but that every substance must be infinitely perfect in its kind, that is to say, that in the infinite understanding of God no substance can be more perfect than that which already exists in Nature.¹⁰⁷
- III. As regards the first, namely, *that there is no finite substance*, etc., should anyone want to maintain the opposite, we would ask the following question, namely, whether this substance is [1] finite through itself, whether it has made itself thus finite and did not want to make itself less finite; or whether it is thus [2] finite through its cause, which cause either could not or would not give more? The first [alternative] is not true, because it is impossible that a substance should have wanted to make itself finite, especially a substance which had come into existence through itself. Therefore, I say, it is made finite by its cause, which is necessarily God. Further, if it is finite through its cause, this must be so either because its cause could not give more, or because it would not give more.¹⁰⁸
- IV. [O]f Nature all in all is predicated, and that consequently Nature consists of infinite attributes, each of which is perfect in its kind.¹⁰⁹
- V. Now the reasons why we said that all these attributes, which are in Nature, are but one single being, and by no means different things (although we can know them clearly and distinctly the one without the other, and the other without another), are these:¹¹⁰
- VI. 1. [...] there must be an infinite and perfect being, by which nothing else can be meant than such a being of which all in all must be predicated. Why? [Because] to a being which has any essence attributes must be referred, and the more essence one ascribes to it, the more attributes also must one ascribe to it, and consequently if a being is infinite then its attributes also must be infinite, and this is just what we call a perfect (an infinite) being.¹¹¹
- VII. To this we reply: (1) that “part” and “whole” are not true or real entities, but only “things of reason,” and consequently there are in Nature¹² neither whole

¹⁰⁶ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 40. Note: The other three propositions are not germane to our present discussion.

¹⁰⁷ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 40.

¹⁰⁸ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 41. Items in brackets added.

¹⁰⁹ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 42.

¹¹⁰ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 43.

¹¹¹ Spinoza, [ST, Pt. 1, Ch. 2], What God Is, 43. Note: The other three reasons are not germane to our present discussion.

nor parts. (2) A thing composed of different parts must be such that the parts thereof, taken separately, can be conceived and understood one without another. Take, for instance, a clock which is composed of many different wheels, cords, and other things; in it, I say, each wheel, cord, etc., can be conceived and understood separately, without the composite whole being necessary thereto.¹¹²

- VIII. In Nature, that is, in “substantial” Extension; for if this were divided its nature and being would be at once annihilated, as it exists only as infinite extension, or, which comes to the same, it exists only as a whole.

But should you say: is there, in extension, no part prior to all its modes? I say, certainly not. But you may say, since there is motion in matter, it must be in some part of matter, for it cannot be in the whole, because this is infinite; and whither shall it be moved, when there is nothing outside it? Therefore, it must be in a part. My answer is: Motion alone does not exist, but only motion and rest together; and this is in the whole, and must be in it, because there is no part in extension. Should you, however, say that there is, then tell me: if you divide the whole of extension then, as regards any part which you cut off from it in thought, can you also separate it in nature from all [other] parts; and supposing this has been done, I ask, what is there between the part cut off (separated) and the rest? You must say, a vacuum, or another body {e.g., a rock}, or something of extension itself, there is no fourth possibility. The first will not do, because there is no vacuum, something positive and yet no body; nor the second, because then there would exist a mode, which cannot be, since (therefore) {because} extension as extension is without and prior to all modes. Therefore, the third; and then there is no part but only the whole of extension (but extension one and indivisible).¹¹³

- IX. Similarly also in the case of water, which consists of straight oblong particles, each part thereof can be conceived and understood, and can exist without the whole; but extension, being a substance, one cannot say of it that it has parts, since it can neither diminish nor increase, and no parts thereof can be understood apart, because by its nature it must be infinite. And that it must be such, follows from this, namely, because if it were not such, but consisted of parts, then it would not be infinite by its nature, as it is said to be; and it is impossible to conceive parts in an infinite nature, since by their nature all parts are finite!¹¹⁴

- X. Add to this still: if it consisted of different parts then it should be intelligible that supposing some parts thereof to be annihilated, extension might remain all the same, and not be annihilated together with the annihilation of some of

¹¹² Spinoza, [ST, Pt. 1, Ch. 2], What God Is, 44.

¹¹³ Spinoza, ST, Pt. 1, Ch. 2n¹², What God Is, 44. Items in parentheses are from footnotes in the original text. Items in brackets are from original. Items in curly brackets added.

¹¹⁴ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 44.

its parts; this is clearly contradictory in what is infinite by its own nature and can never be, or be conceived, as limited or finite.¹¹⁵

- XI. The question of the infinite has universally been found to be very difficult, indeed, insoluble, through failure to distinguish between [1] that which must be infinite by its very nature or by virtue of its definition, and [2] that which is unlimited not by virtue of its essence but by virtue of its cause. Then again, there is the failure to distinguish between [2] that which is called infinite because it is unlimited, and [3] that whose parts cannot be equated with or explicated by any number, although we may know its maximum or minimum. Lastly, there is the failure to distinguish between [1] that which we can apprehend only by the intellect and not by the imagination, and [2 + 3] that which can also be apprehended by the imagination. I repeat, if men had paid careful attention to these distinctions, they would never have found themselves overwhelmed by such a throng of difficulties. They would clearly have understood [1] what kind of infinite cannot be divided into, or possess any, parts, and [2 + 3] what kind can be so divided without contradiction. Again, they would also have understood [2 + 3] what kind of infinite can be conceived, without illogicality, as greater than another infinite, and [1] what kind cannot be so conceived.¹¹⁶
- XII. Substance is not manifold; rather there exists only one Substance of the same nature.¹¹⁷
- XIII. [I]f you ask why we have such a strong natural tendency to divide extended Substance, I answer that we conceive quantity in two ways: [1] abstractly or superficially, as we have it in the imagination with the help of the senses, or [2] as Substance, apprehended solely by means of the intellect. So if we have regard to quantity as [1] it exists in the imagination (and this is what we most frequently and readily do), it will be found to be divisible, finite, composed of parts, and manifold. But if we have regard to it as [2] it is in the intellect and we apprehend the thing as it is in itself (and this is very difficult), then it is found to be infinite, indivisible, and one alone, as I have already sufficiently proved.¹¹⁸
- XIV. [N]ot only have they [mathematicians] come upon many things inexpressible by any number (which clearly reveals the inadequacy of number to determine all things) but they also have many instances which cannot be equated with any number, and exceed any possible number. Yet they do not draw the conclusion that it is because of the multitude of parts that such things exceed

¹¹⁵ Spinoza, ST, Pt. 1, Ch. 2, What God Is, 44.

¹¹⁶ Spinoza, L12, 787-788. Items in brackets added.

¹¹⁷ Spinoza, L12, 788.

¹¹⁸ Spinoza, L12, 789. Items in brackets added.

all number; rather, it is because the nature of the thing is such that number is inapplicable to it without manifest contradiction.¹¹⁹

- XV. For example, all the inequalities of the space lying between the two circles ABCD in the diagram exceed any number, as do all the variations of the speed of matter moving through that area. Now this conclusion is not reached because of the excessive magnitude of the intervening space; for however small a portion of it we take, the inequalities of this small portion will still be beyond any numerical expression. Nor again is this conclusion reached, as happens in other cases, because we do not know the maximum and minimum; in our example we know them both, the maximum being AB and the minimum CD. Our conclusion is reached because number is not applicable to the nature of the space between two non-concentric circles. Therefore if anyone sought to express all those inequalities by a definite number, he would also have to bring it about that a circle should not be a circle.¹²⁰

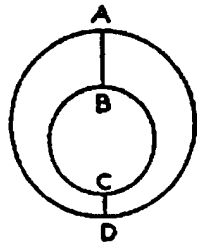


Figure 2.¹²¹

- XVI. From all that I have said one can clearly see that [1] certain things are infinite by their own nature and cannot in any way be conceived as finite, while [2] other things are infinite by virtue of the cause in which they inhere; and when the latter [2] are conceived in abstraction, they can be divided into parts and be regarded as finite. Finally, there are [3] things that can be called infinite, or if you prefer, indefinite, because they cannot be accurately expressed by any number, while yet being conceivable as greater or less. For it does not follow that things which cannot be adequately expressed by any number must necessarily be equal, as is sufficiently evident from the given example and from many others.¹²²
- XVII. A thing is said to be finite in its own kind [*in suo genere finita*] when it can be limited by another thing of the same nature. For example, a body is said to be finite because we can always conceive of another body greater than it. So, too, a thought is limited by another thought. But body is not limited by thought, nor thought by body.¹²³

¹¹⁹ Spinoza, L12, 790. Items in brackets added.

¹²⁰ Spinoza, L12, 790.

¹²¹ Spinoza, L12, 790.

¹²² Spinoza, L12, 790. Items in brackets added.

¹²³ Spinoza, E1D2, 217.

- XVIII. By God I mean an absolutely infinite being, that is, substance consisting of infinite attributes, each of which expresses eternal and infinite essence.¹²⁴
- XIX. I say “absolutely infinite,” not “infinite in its kind.” For if a thing is only infinite in its kind, one may deny that it has infinite attributes. But if a thing is absolutely infinite, whatever expresses essence and does not involve any negation belongs to its essence.¹²⁵
- XX. *Existence belongs to the nature of substance.*¹²⁶
- XXI. Substance cannot be produced by anything else (Cor. Pr. 6) and is therefore self-caused [*causa sui*]; that is (Def. 1), its essence necessarily involves existence; that is, existence belongs to its nature.¹²⁷
- XXII. *Every substance is necessarily infinite.*¹²⁸
- XXIII. There cannot be more than one substance having the same attribute (Pr. 5), and existence belongs to the nature of substance (Pr. 7). It must therefore exist either as finite or as infinite. But it cannot exist as finite, for (Def. 2) it would have to be limited by another substance of the same nature, and that substance also would have to exist (Pr. 7). And so there would exist two substances of the same attribute, which is absurd (Pr. 5). Therefore, it exists as infinite.¹²⁹
- XXIV. Since in fact to be finite is in part a negation and to be infinite is the unqualified affirmation of the existence of some nature, it follows from Proposition 7 alone that every substance must be infinite.¹³⁰
- XXV. Again, if an infinite length is measured in feet, it will have to consist of an infinite number of feet; and if it is measured in inches, it will consist of an infinite number of inches. So one infinite number will be twelve times greater than another infinite number.¹³¹
- XXVI. My statement in my letter concerning the Infinite (L12), that it is not from the multitude of parts that an infinity of parts is inferred, is clear from this consideration: if it were inferred from the multitude of parts, we would not be able to conceive a greater multitude of parts, but their multitude would have to be greater than any given number. This is not true, because in the entire space between the two non-concentric circles we conceive there to be twice the number of parts as in half that space, and yet the number of parts both in the

¹²⁴ Spinoza, E1D6, 217.

¹²⁵ Spinoza, E1D6E, 217.

¹²⁶ Spinoza, E1P7, 219. Italics in original.

¹²⁷ Spinoza, E1P7P, 219.

¹²⁸ Spinoza, E1P8, 219. Italics in original.

¹²⁹ Spinoza, E1P8P, 219.

¹³⁰ Spinoza, E1P8S1, 219.

¹³¹ Spinoza, E1P15S, 225.

half as well as the whole of this space is greater than any assignable number.¹³²

- (1) A thing **is** *divisible* if it **can** be or be conceived as being composed of parts, each of which can be understood by itself. [From VII, VIII, and IX]
- (2) A thing **is** *indivisible* if it **cannot** be or be conceived as being composed of parts, each of which can be understood by itself. [From VII, VIII, and IX]
- (3) Extension **must** be indivisible. [From VIII]
- (4) Divisibility **is** an implication of finitude. [From IX]
- (5) Indivisibility **is** an implication of non-finitude. [From IX]
- (6) A thing **is** *non-finite* **either** (a) in virtue of its essence or (b) in virtue of its cause. [From XI and XVI]
- (7) Non-finitude of essence (*Conceptual Non-Finitude*) **depends only** on essence. [From IX, X, XI and XVI]
- (8) Non-finitude of cause (*Nomo-Causal Non-Finitude*) **depends** on the eternal universal laws of nature and the series and order of causes. [From XI and XVI]
- (9) A thing **is** *numerically inexpressible* if it **cannot** be equated with or expressed by any number, despite knowing its maximum and minimum, but **can** be conceived in abstraction as finite, divisible, and manifold. [From XI, XIV, XV, XVI, and XXVI]
- (10) A thing **is** *manifold* if there **can** be or be conceived multiple things of the same nature. [From XII and XIII]
- (11) A thing **is** *one alone* if there **cannot** be or be conceived multiple things of the same nature. [From XII and XIII]

¹³² Spinoza, L81, 956.

(12) A thing **is** *finite in its own kind* if it **can** be or be conceived as limited by another thing of the same kind (nature), i.e., if it **can** be or be conceived as less than another thing of the same kind (nature), or what is the same, there **can** be or be conceived another thing of same kind (nature) that is greater than it. [From XVII]

(13) A thing **is** *non-finite in its own kind* if it **cannot** be or be conceived as limited by another thing of the same kind (nature), i.e., if it **cannot** be or be conceived as less than another thing of the same kind (nature), or what is the same, there **cannot** be or be conceived another thing of the same kind (nature) that is greater than it. [From XVII and (12)]

(14) A thing **is** *finite* if it **can** be or be conceived as greater or less without thereby impairing or annulling our conception of it. [From XVII, XXIII, XXIV, and (12)]

(15) A thing **is** *non-finite* if it **cannot** be or be conceived as greater or less without thereby impairing or annulling our conception of it. [From XVII, XXIII, XXIV, (13), and (14).]

(16) That a thing has infinite attributes **cannot** be concluded *solely* from the fact that said thing is non-finite in its own kind. [XIX]

(17) A thing **is** *endlessly divisible* if it **can** *always* be or be conceived as being composed of parts, each of which can be understood by itself. [From (1)]

(18) Anything which is one alone **must** be non-finite in its own kind. [From (11) and (13)]

(19) A thing **is** *endlessly finite* (potentially infinite) if it **can** *always* be conceived as greater or less without thereby impairing or annulling our conception of it. [From 14]

(1) and (2) are obvious from the relevant passages. (3) is obvious from the relevant passage, but I shall explain it nonetheless. Suppose extension is divisible. Now imagine the whole of extension (represented by the far left box, see figure 3). Suppose you divide the whole of extension into four equal parts (represented by the middle box, see figure 3). Suppose further that you separate one of these parts from the rest (represented by the far left box, see figure 3). What then is there between the part thus separated and the rest of the parts of extension? There are only three options: (a) a vacuum, (b) a mode of extension, or (c) extension itself. The first and second are impossible (see passage VIII). Therefore, (c), but then extension has not been divided. Therefore, extension must be indivisible. (4), (5), and (6) are obvious from the relevant passages.

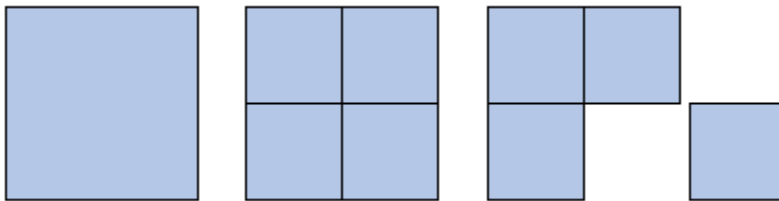


Figure 3.

(7) is obvious from the relevant passages, but its precise meaning is in need of explication. A thing is conceptually non-finite if its non-finitude is contained within itself, i.e., if it is contradictory to suppose that it is finite, e.g., Substance. So, a thing which is non-finite in virtue of its essence (conceptually non-finite) cannot be or be conceived as finite, divisible, or manifold, without thereby annulling our conception of it. For example, when we conceive of Substance as Substance (i.e., as conceptually necessary, self-caused, and one alone), we cannot conceive of it as finite, divisible, or manifold.

(8) is obvious from the relevant passages, but its precise meaning is in need of explication. A thing is nomo-causally non-finite if its non-finitude is contained within its cause, i.e., if it is conceived not in itself, but in connection with its cause, it is contradictory to suppose that it is finite, e.g., modes. So, a thing which is non-finite in virtue of its cause (nomo-causally non-finite) cannot be finite, divisible, or manifold, but can be conceived as such, without thereby annulling our conception of it. For example, when we conceive of modes as a necessary implication of Substance—i.e., when we conceive of the general existence of modes as following from the formal essence of the modes not being contrary to the eternal universal laws of Nature and the particular existence of modes as being dictated by the series and order of causes—we cannot conceive of them as other than they are, without thereby annulling our conception of them. As such, we cannot conceive of them as finite, divisible, or manifold. However, when we conceive *only* of the formal essence of the modes not being contrary to the eternal universal laws of Nature, we can conceive of the modes as finite, divisible, and manifold, without thereby annulling our conception of them.

(9) is obvious from the relevant passages, and while its precise meaning may be in need of explication, said explication is more appropriately addressed in the section on Time, Number, Measure, Duration, and Quantity (Discrete and Continuous). (10), (11), and (12) are obvious from the relevant passages. (13) is obvious from the relevant passage and proceeds by implication of (12). (14) is obvious from the relevant passages and by generalization of (12). (15) is obvious from the relevant passages, by generalization of (13), and proceeds by implication of (14). (16) is obvious from the relevant passage. (17) is obvious by implication of (1). (18) is obvious from the fact that

if something is one alone then there is nothing to limit it, so it must be non-finite in its own kind. (19) is obvious by implication of (14).

Section VI – On Eternity and the Eternal¹³³

- I. By an eternal truth I mean one which, if it is affirmative, will never be able to be negative. Thus it is a first and eternal truth that ‘God is,’ but that ‘Adam thinks’ is not an eternal truth. That ‘there is no Chimera’ is an eternal truth, but not that ‘Adam does not think’.¹³⁴
- II. This [our conceiving the existence of Substance as of an entirely different kind from the existence of Modes] is the source of the difference between Eternity and Duration. It is to the existence of Modes alone that we can apply the term Duration; the corresponding term for the existence of Substance is Eternity, that is, the infinite enjoyment of existence or—pardon the Latin—of being (*essendi*).¹³⁵
- III. What I have said makes it quite clear that when we have regard only to the essence of Modes and not to Nature’s order, as is most often the case, we can arbitrarily delimit the existence and duration of Modes without thereby impairing to any extent our conception of them; and we can conceive this duration as greater or less, and divisible into parts. But Eternity [...] being conceivable only as infinite, cannot be thus treated without annulling our conception of [it].¹³⁶
- IV. [I]n eternity there is no when or before or after or any affection of time [...].¹³⁷
- V. From our previous division of being into being whose essence involves existence and being whose essence involves only possible existence, there

¹³³ Note: A brief explanation of the concept of “before”, “after”, and “when”. The notions of “before” and “after” being used herein are causal notions. So, to be “before” a thing is to be causally anterior and to be “after” a thing is to be causally posterior. As such, the notion of “when” is more accurately understood as a notion of *where* a thing lies along the chain of causes. For example, one tells someone exactly “when” a thing occurs by specifying the immediately anterior cause and the immediately posterior cause. Such that, if one had a visual representation of the chain of causes, then one could literally point out *where* the thing occurred. As such, the concept of “when” can only apply to a thing if the concept of “before” or “after” applies to it. For example, a thing with a beginning but no end can be pointed to along the chain of causes by finding the immediate anterior cause and a thing with no beginning, but which has an end can be pointed to along the causal chain by finding the immediate posterior cause. But if there is no anterior or posterior cause, then it is impossible to point to the thing along the chain of causes. Given this, “when” must be derivative of the concepts of “before” and “after”. So, wherever I use “before” or “after”, the reader is instructed to mentally insert “when” as well, since it is an implication of “before” and “after”.

¹³⁴ Spinoza, TIE, ⁵⁴t, 15.

¹³⁵ Spinoza, L12, 788.

¹³⁶ Spinoza, L12, 788.

¹³⁷ Spinoza, MT, Pt. 1, Ch. 3, Concerning the Necessary, the Impossible, the Possible, and the Contingent, [*The Possible and the Contingent are only the defect of our intellect.*], 184.

arises the distinction between eternity and duration. [E]ternity [...] is the attribute under which we conceive the infinite existence of God.¹³⁸

- VI. The principal attribute that must be considered before all others is God's eternity, whereby [...] we say that he is eternal.¹³⁹
- VII. [N]o one will ever say that the essence of a circle or a triangle, insofar as it is an eternal truth, has lasted longer at this moment than at the time of Adam.¹⁴⁰
- VIII. [B]ecause his being is eternal, that is, there cannot be in it any before or after, we can never attribute duration to God without at the same time destroying the true conception we have of him. That is to say, by attributing duration to him we would be dividing into parts that which of its own nature is infinite and can never be conceived except as infinite.¹⁴¹
- IX. [B]ecause God's existence is of his essence, we cannot attribute future existence to him. For the same existence that he would then have must even now be attributed to him in actuality; or, to speak more properly, infinite actual existence pertains to God in the same way as infinite actual intellect pertains to him. Now this infinite existence I call eternity, which is to be attributed to God alone and not to any created thing, even though, I say, its duration is without beginning or end.¹⁴²
- X. By eternity I mean existence itself insofar as it is conceived as necessarily following solely from the definition of an eternal thing.¹⁴³
- XI. For such existence is conceived as an eternal truth, just as is the essence of the thing, and therefore cannot be explicated through duration or time, even if duration be conceived as without beginning and end.¹⁴⁴
- XII. [T]he eternal does not admit of "when" or "before" or "after," [...].¹⁴⁵

(1) The eternal is that which **does not** admit of "before", or "after", i.e., that to which the concepts of "before", or "after" **cannot** be applied without thereby impairing or annulling the conception of that to they are being applied. [From I, VII, VIII, and XII]

(2) Eternity **applies** only to Substance (i.e., to that which is self-caused). [From II and V]

¹³⁸ Spinoza, MT, Pt. 1, Ch. 4, Of Duration and Time, [*What is Eternity, Duration, and Time.*], 185.

¹³⁹ Spinoza, MT, Pt. 2, Ch. 1, Of God's Eternity, [*Duration does not pertain to God.*], 190.

¹⁴⁰ Spinoza, MT, Pt. 2, Ch. 1, Of God's Eternity, [*Duration does not pertain to God.*], 190.

¹⁴¹ Spinoza, MT, Pt. 2, Ch. 1, Of God's Eternity, [*Duration does not pertain to God.*], 190.

¹⁴² Spinoza, MT, Pt. 2, Ch. 1, Of God's Eternity, [*What is Eternity.*], 191.

¹⁴³ Spinoza, E1D8, 217.

¹⁴⁴ Spinoza, E1D8E, 217.

¹⁴⁵ Spinoza, E1P33S2, 237.

(3) Eternity **is** conceptually non-finite existence. [From II, III, V, and IX]

(4) Eternity **does not** admit of “before” or “after”, i.e., the concept of “before” or “after” **cannot** be applied to eternity without thereby annulling the conception of eternity as infinite. [From III and IV]

(5) A thing with eternity **is** necessarily eternal. [From VI]

(6) An eternal thing necessarily **has** eternity. [From X and XI]

As regards (1) it is obvious from the eighth passage (VIII) and the twelfth passage (XII), but not so obvious from the first passage (I) and the seventh passage (VII). As such, I shall endeavor to explain it as best I can. Consider the following two true propositions: (a) “The Eiffel Tower exists” and (b) “There are no square circles”. (a) has only been true for as long as the Eiffel Tower has existed and will only be true so long as the Eiffel Tower continues to exist. So, the concept of “before” can be applied to (a), since there is a link in the chain of causes anterior to which (a) was not true, i.e., was false. There is also a link in the chain of causes where (a) became true, namely the same link wherein the Eiffel Tower came into existence. Likewise, there is a link in the chain of causes wherein (a) will stop being true, i.e., will become false, namely the same link wherein the Eiffel Tower stops existing. On the other hand, there is no link in the chain of causes anterior to which (b) was not true, i.e., was false. Nor is there a link in the chain of causes where (b) become true. Likewise, there is no link in the chain of causes posterior to which (b) will not be true, i.e., will be false. Moreover, to suppose the contrary, would be to suppose that square circles exist, which is impossible.

(2) is obvious from the relevant passages, but I shall nevertheless prove that eternity does not apply to modes. Suppose eternity applied to modes. It must then be the case that modes are necessarily eternal, for we have established elsewhere that a thing with eternity is necessarily

eternal. But modes are other-caused, so the concept of “before” or “after” necessarily apply to them. So, modes are necessarily not eternal. But that is a contradiction. Therefore, eternity cannot be applied to modes. (3) and (4) are obvious from the relevant passages.

As regards (5), suppose a thing with eternity is not eternal. It must then be the case that the concepts of “before” or “after” can be applied to it without thereby impairing or annulling our conception of it, i.e., there must a link in the chain of causes anterior to which said thing did not exist or there must be a link in the chain of causes posterior to which said thing does not exist. But in either case said thing would not have eternity, which is contradictory. Therefore, a thing with eternity must be eternal.

As regards (6), suppose an eternal thing does not have eternity. It must then be the case that it has duration. But in that case, the existence of said thing can be conceived as greater or less than without thereby impairing or annulling our conception of it. But then the concept of “before” or “after” would apply to it, i.e., then it would not be eternal. But that is a contradiction. Therefore, an eternal thing must have eternity.

Section VII – On Time, Number, Measure, Duration, & Quantity (Discrete and Continuous)

- I. The question of the infinite has universally been found to be very difficult, indeed, insoluble, through failure to distinguish between [1] that which must be infinite by its very nature or by virtue of its definition, and [2] that which is unlimited not by virtue of its essence but by virtue of its cause. Then again, there is the failure to distinguish between [2] that which is called infinite because it is unlimited, and [3] that whose parts cannot be equated with or explicated by any number, although we may know its maximum or minimum. Lastly, there is the failure to distinguish between [1] that which we can apprehend only by the intellect and not by the imagination, and [2 + 3] that which can also be apprehended by the imagination. I repeat, if men had paid careful attention to these distinctions, they would never have found themselves overwhelmed by such a throng of difficulties. They would clearly have understood [1] what kind of infinite cannot be divided into, or possess any, parts, and [2 + 3] what kind can be so divided without contradiction. Again, they would also have understood [2 + 3] what kind of infinite can be

- conceived, without illogicality, as greater than another infinite, and [1] what kind cannot be so conceived.¹⁴⁶
- II. This [our conceiving the existence of Substance as of an entirely different kind from the existence of Modes] is the source of the difference between Eternity and Duration. It is to the existence of Modes alone that we can apply the term Duration; the corresponding term for the existence of Substance is Eternity, that is, the infinite enjoyment of existence or—pardon the Latin—of being (*essendi*).¹⁴⁷
- III. [W]hen we have regard only to the essence of Modes and not to Nature's order, as is most often the case, we can arbitrarily delimit the existence and duration of Modes without thereby impairing to any extent our conception of them; and we can conceive this duration as greater or less, and divisible into parts.¹⁴⁸
- IV. [I]f you ask why we have such a strong natural tendency to divide extended Substance, I answer that we conceive quantity in two ways: [1] abstractly or superficially, as we have it in the imagination with the help of the senses, or [2] as Substance, apprehended solely by means of the intellect. So if we have regard to quantity as [1] it exists in the imagination (and this is what we most frequently and readily do), it will be found to be divisible, finite, composed of parts, and manifold. But if we have regard to it as [2] it is in the intellect and we apprehend the thing as it is in itself (and this is very difficult), then it is found to be infinite, indivisible, and one alone, as I have already sufficiently proved.¹⁴⁹
- V. Further, from the fact that we are able to delimit Duration and Quantity as we please, conceiving Quantity in abstraction from Substance and separating the efflux of Duration from things eternal, there arise Time and Measure: Time to delimit Duration and Measure to delimit quantity in such a way as enables us to imagine them easily, as far as possible. Again, from the fact that we separate the affections of Substance from Substance itself, and arrange them in classes so that we can easily imagine them as far as possible, there arises Number, whereby we delimit them. Hence it can clearly be seen that Measure, Time, and Number are nothing other than modes of thinking, or rather, modes of imagining.¹⁵⁰
- VI. If someone conceives Duration in this abstracted way and, confusing it with Time, begins dividing it into parts, he can never understand how an hour, for instance, can pass by. For in order that an hour should pass by, a half-hour

¹⁴⁶ Spinoza, L12, 787-788. Items in brackets added.

¹⁴⁷ Spinoza, L12, 788.

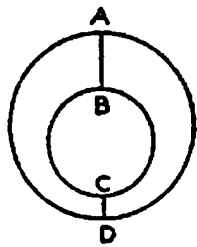
¹⁴⁸ Spinoza, L12, 788.

¹⁴⁹ Spinoza, L12, 789. Items in brackets added.

¹⁵⁰ Spinoza, L12, 789.

must first pass by, and then half of the remainder, and the half of what is left; and if you go on thus subtracting half of the remainder to infinity, you can never reach the end of the hour.¹⁵¹

- VII. Further, it is obvious from the above that neither Number, Measure, nor Time, being merely aids to the imagination, can be infinite, for in that case Number would not be number, nor Measure measure, nor Time time. Hence one can easily see why many people, confusing these three concepts with reality because of their ignorance of the true nature of reality, have denied the actual existence of the infinite.¹⁵²
- VIII. [N]ot only have they [mathematicians] come upon many things inexpressible by any number (which clearly reveals the inadequacy of number to determine all things) but they also have many instances which cannot be equated with any number, and exceed any possible number. Yet they do not draw the conclusion that it is because of the multitude of parts that such things exceed all number; rather, it is because the nature of the thing is such that number is inapplicable to it without manifest contradiction.¹⁵³
- IX. For example, all the inequalities of the space lying between the two circles ABCD in the diagram exceed any number, as do all the variations of the speed of matter moving through that area. Now this conclusion is not reached because of the excessive magnitude of the intervening space; for however small a portion of it we take, the inequalities of this small portion will still be beyond any numerical expression. Nor again is this conclusion reached, as happens in other cases, because we do not know the maximum and minimum; in our example we know them both, the maximum being AB and the minimum CD.¹⁵⁴ Our conclusion is reached because number is not applicable to the nature of the space between two non-concentric circles. Therefore if anyone sought to express all those inequalities by a definite number, he would also have to bring it about that a circle should not be a circle.¹⁵⁵



¹⁵¹ Spinoza, L12, 789.

¹⁵² Spinoza, L12, 789-790.

¹⁵³ Spinoza, L12, 790. Items in brackets added.

¹⁵⁴ Note: That is, the conclusion is not reached due to the parameters being undefined, or (and this maybe the same) that the conclusion is not reached due to the object being an *indefinite integral*, since the upper and lower limits are known.

¹⁵⁵ Spinoza, L12, 790.

Figure 4.¹⁵⁶

- X. From all that I have said one can clearly see that [1] certain things are infinite by their own nature and cannot in any way be conceived as finite, while [2] other things are infinite by virtue of the cause in which they inhere; and when the latter [2] are conceived in abstraction, they can be divided into parts and be regarded as finite. Finally, there are [3] things that can be called infinite, or if you prefer, indefinite, because they cannot be accurately expressed by any number, while yet being conceivable as greater or less. For it does not follow that things which cannot be adequately expressed by any number must necessarily be equal, as is sufficiently evident from the given example and from many others.¹⁵⁷
- XI. Again, we have modes of thinking for explicating a thing by determining it in comparison with another thing. The modes of thinking by which we do this are called time, number, measure, and such others as there are. Of these, time serves to explicate duration, number (discrete quantity), and measure (continuous quantity).¹⁵⁸
- XII. From our previous division of being into being whose essence involves existence and being whose essence involves only possible existence, there arises the distinction between eternity and duration. [...] Duration is the attribute under which we conceive the existence of created things, insofar as they persevere in their actuality. From this it clearly follows that duration is distinguished only by reason from the total existence of a thing. For as much as you take away from the duration of a thing, so much you necessarily take away from its existence.¹⁵⁹
- XIII. Now in order that duration may be determined, we compare it with the duration of other things that have a fixed and determinate motion, and this comparison is called time. Therefore time is not an affection of things, but a mere mode of thinking, or, as we have previously called it, a being of reason; for it is a mode of thinking serving to explicate duration.¹⁶⁰
- XIV. [W]ith regard to duration we should note [...] that it is conceived as longer and shorter and as if composed of parts, and, secondly, that it is an attribute of existence only, not of essence.¹⁶¹
- XV. Again, if an infinite length is measured in feet, it will have to consist of an infinite number of feet; and if it is measured in inches, it will consist of an

¹⁵⁶ Spinoza, L12, 790.

¹⁵⁷ Spinoza, L12, 790. Items in brackets added.

¹⁵⁸ Spinoza, MT, Pt. 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*By what modes of thinking we explicate things.*], 178.

¹⁵⁹ Spinoza, MT, Pt. 1, Ch. 4, Of Duration and Time, [*What is Eternity, Duration, and Time.*], 185.

¹⁶⁰ Spinoza, MT, Pt. 1, Ch. 4, Of Duration and Time, [*What is Eternity, Duration, and Time.*], 186.

¹⁶¹ Spinoza, MT, Pt. 1, Ch. 4, Of Duration and Time, [*What is Eternity, Duration, and Time.*], 186.

infinite number of inches. So one infinite number will be twelve times greater than another infinite number.¹⁶²

- XVI. Duration is the indefinite continuance of existing.¹⁶³
- XVII. I say “indefinite” because it can in no way be determined through the nature of the existing thing, nor again by the thing’s efficient cause which necessarily posits, but does not annul, the existence of the thing.¹⁶⁴
- XVIII. [D]uration, that is, existence insofar as it is considered in the abstract as a kind of quantity.¹⁶⁵
- XIX. My statement in my letter concerning the Infinite (L12), that it is not from the multitude of parts that an infinity of parts is inferred, is clear from this consideration: if it were inferred from the multitude of parts, we would not be able to conceive a greater multitude of parts, but their multitude would have to be greater than any given number. This is not true, because in the entire space between the two non-concentric circles we conceive there to be twice the number of parts as in half that space, and yet the number of parts both in the half as well as the whole of this space is greater than any assignable number.¹⁶⁶

(1) A thing **is numerically inexpressible** if it **cannot** be equated with or expressed by any number, despite knowing its maximum and minimum, but **can** be conceived in abstraction as finite, divisible, and manifold. [From I, VIII, IX, X, XIX, (10), and (14)]

(2) Duration **applies** only to Modes (i.e., to that which is other-caused). [From II]

(3) A thing with duration **is** necessarily not eternal, i.e., duration necessarily **admits** of “before” or “after”, i.e., the concept of “before” or “after” necessarily **apply** to duration. [From II, III, V, XVI, XVIII, (2), and (5)]

(4) Duration **is** existence conceived in abstraction as a kind of quantity. [From II, III, XIV, XVI, and XVIII]

¹⁶² Spinoza, E1P15S, 225.

¹⁶³ Spinoza, E2D5, 244.

¹⁶⁴ Spinoza, E2D5E, 244.

¹⁶⁵ E2P45S, 270.

¹⁶⁶ L81, 956.

- (5) Duration **is** *nomo-causally non-finite*, i.e., it **cannot** be finite, divisible, or manifold, but when conceived in abstraction **can** be conceived as such. [From III, XII, and XIV]
- (6) Quantity **is** *nomo-causally non-finite*, i.e., it **cannot** be finite, divisible, or manifold, but when conceived in abstraction **can** be conceived as such. [From IV]
- (7) Quantity conceived in abstraction is conceived **either** as (a) discrete or (b) continuous. [From V]
- (8) Time, Number, and Measure **are** modes of imagining. [From V, VII]
- (9) Time, Number, and Measure **are** modes of thinking. [From V, VII, XI, XIII, and *BoR_{III}*]
- (10) Quantity conceived in abstraction as discrete **is** explicated by Number. [From V and XI]
- (11) Quantity conceived in abstraction as continuous **is** explicated by Measure. [From V and XI]
- (12) Duration conceived in abstraction as a kind of continuous quantity **is** explicated by Time. [From V, VI, XI, XIII]
- (13) The actually infinite exists in reality. [From VII and XV]
- (14) Time, Number, and Measure **are** beings of reason. [From XI and XIII]
- (15) The duration of a mode **cannot** be determined *solely* from the formal essence or from the properties of said mode. [From XVII]

(1) is obvious from the relevant passages, but what exactly is meant by *numerically inexpressible* is in need of explication. It is obvious from the relevant passages that when Spinoza talks about the third kind of infinite (i.e., the numerically inexpressible), he is talking about what we now commonly refer to as uncountably infinite sets with a definite range, e.g., the set of real numbers between 0 and 1, or to use

Spinoza's example, the inequalities of the space lying between the two circles ABCD in the diagram in Letter 12, or the variations of the speed of matter moving through that area. These are numerically inexpressible because no number can be given that will encompass all the inequalities of the space/variations of the speed of matter. Moreover, as number for Spinoza refers to the *natural numbers*, which are discrete and have a definite and determinate order of succession; whereas the real numbers are not discrete and do not have a definite and determinate order of succession (in fact they *cannot* have a definite and determinate order of succession), the concept of number employed by Spinoza simply cannot apply to the third kind of infinite (the numerically inexpressible). The numerically inexpressible is endlessly divisible and endlessly finite (both as greater and as lesser), as is readily discernable from the nineteenth passage (XIX). (2) is obvious from the relevant passage.

(3) is obvious from the relevant passages, but I shall explicate it nonetheless. Duration is non-finite in virtue of its cause (nomo-causally non-finite). Anything which is non-finite in virtue of its cause must have a cause other than itself (i.e., must be other-caused). The concept of "before" applies to everything that is other-caused. Therefore, a thing with duration is necessarily not eternal. (4) is obvious from the relevant passages.

As regards (5), the general existence of modes follows necessarily from the eternal universal laws of Nature and the particular existence of modes follows from the series and order of causes. So, the existence of modes cannot be other than it is. Thus, duration cannot be finite, divisible, or manifold. Nor can the total existence of a mode, following as it does necessarily from the eternal universal laws of Nature and the series and order of causes be conceived as finite, divisible, or manifold. However, if we

conceive only of the general existence of modes as following necessarily from the eternal universal laws of Nature, then we can conceive of the particular existence of modes as finite, divisible, and manifold, without thereby impairing or annulling our conception of them. In this way, the actual duration of a mode depends on the series and order of causes. (6), (7), (8), and (9) are obvious from the relevant passages.

(10) is obvious from the relevant passages, but what exactly is meant by *number* is in need of explication. When we conceive of the modes of Substance in abstraction from Substance, we can arrange them into classes (groups), e.g., dogs, cats, humans. When we do this, we also conceive of these groups as having units, a dog, a cat, a human. In order that we might imagine these units as easily as possible we created the system of *natural numbers*. Now, discrete quantity is not conceived as endlessly divisible, so neither is the system of natural numbers, e.g., just as there is no such thing as half a dog, cat, or human, so there is no such thing as $\frac{1}{2}$ in the system of natural numbers. Now this is not to say that a dog, cat, or human cannot be divided, just that what results will not also (still) be a dog, cat, or human. On the other hand, discrete quantity is conceivable as endlessly finite (though only insofar as it can always be conceived as greater), and so too is the system of natural numbers. For example, for any discrete quantity of dogs, cats, or humans that may be conceived, a greater discrete quantity thereof can always be conceived, and so too for any given number a greater number can always be conceived.¹⁶⁷

¹⁶⁷ Lawrence Spencer, “[1. Continuous Versus Discrete](#)”, *The Math Page – An Approach to Calculus*, Accessed March 19, 2021; Lawrence Spencer “[4. Continuous Versus Discrete](#)”, *The Math Page – An Approach to Calculus*, Accessed March 19, 2021.

(11) is obvious from the relevant passages, but what exactly is meant by *measure* is in need of explication. Some things, conceived in abstraction from Substance, can only be conceived as continuous, e.g., space. Now, in order that we might imagine these continuous wholes as easily as possible, we created *systems of measurement*. We then applied number to these systems of measurement in order to imagine and utilize these systems as easily as possible. However, number as it is applied to discrete quantity and number as it is applied to measure is not the same. For continuous quantity and so too measure is endlessly divisible. For example, the distance between any two points in space, say the distance between the Earth and Mars at a given time can be divided into any number of parts, and those parts themselves can be divided into any number of parts, and so on. So, in applying number to measure, number was expanded beyond the natural numbers. Moreover, continuous quantity and so too measure are endlessly finite. For example, for any distance, a greater distance can always be conceived; likewise, a lesser distance can always be conceived.¹⁶⁸

(12) is obvious from the relevant passages, but what exactly is meant by *time* is in need of explication. The actual duration of a mode can be given as the series and order of cause from when the mode was brought into existence until it went out of existence. Or what is the same, when referring to the actual duration of a mode, one would reference the link in the chain of causes wherein the mode became actual and the link wherein it ceased to persevere in its actuality, as one might point out on a sheet of music where the first verse begins and ends. However, we cannot see this sheet of music or understand or

¹⁶⁸ Lawrence Spencer, “[1. Continuous Versus Discrete](#)”, *The Math Page – An Approach to Calculus*, Accessed March 19, 2021; Lawrence Spencer “[4. Continuous Versus Discrete](#)”, *The Math Page – An Approach to Calculus*, Accessed March 19, 2021.

imagine it easily when we do, we make reference to something seen, understood, and easily imagined, such as the rising and the setting of the sun (the rotation of the Earth). So, in this way, we say that the duration of a mode was “three days” if while the mode persisted in actuality, the Earth completed three rotations. This comparison is what is commonly referred to as time. Now, in order that we can imagine duration as easily as possible, we applied measure to it, conceiving duration as a continuous whole. We then applied number to measure as already mentioned. Time, thus conceived, is endlessly divisible and endlessly finite (both as greater and as lesser).

(13) is obvious from the relevant passages. According to Spinoza, people mistakenly thinking that number, measure, and time were aspects of reality rather than modes of thinking and that number, measure, and time are only endlessly finite, mistakenly denied that the actually infinite exists in reality.¹⁶⁹ The most obvious example of the actually infinite is extension. However, as this is sufficiently proved in the body, I shall not treat of it anymore here. (14) and (15) are obvious from the relevant passages.

¹⁶⁹ Note: The people Spinoza refers to are likely the Aristotelians and/or those that followed Aristotelian thought on that matter.

Chapter 3 A Spinozistic Answer to the Po \exists and the PoA

Now that we have sufficiently explicated Spinoza's metaphysics, we can construct an answer to the Po \exists and the PoA. I have chosen to do so in the style of Spinoza's ethics, for the simple reason that laying things out in this fashion tends to make it easier to understand.

Definitions:

1. **Attribute of Existence** – A general way of existing, e.g., as extended.
2. **Conceptual Necessity** – A thing is necessary of its essence if its existence is contained in its essence, i.e., if it's contradictory to suppose that it doesn't exist.
3. **Conceptual Non-Finitude** – A thing is conceptually non-finite if its non-finitude is contained within itself, i.e., if it is contradictory to suppose that it is finite. So, a thing which is non-finite in virtue of its essence (conceptually non-finite) cannot be or be conceived as finite, divisible, or manifold, without thereby annulling our conception of it.
4. **Duration** – Existence conceived in abstraction as a kind of quantity.
5. **Eternal** – That which **does not** admit of "before", or "after", i.e., that to which the concepts of "before", or "after" **cannot** be applied without thereby impairing or annulling the conception of that to they are being applied.
6. **Eternity** – Conceptually non-finite existence.
7. **Finite** – A thing is *finite* if it **can** be or be conceived as greater or less without thereby impairing or annulling our conception of it.
8. **Mode** – That which is in something else and is conceived through something else; that is, that the conception of which requires the conception of another thing from which it has been formed.¹⁷⁰

¹⁷⁰ Spinoza, E1D5, 217.

9. **Other-Caused Cause** – That which is caused by something else; that which exists by nomological and causal necessity. That which exists necessarily of another's nature (i.e., whose essence involves only possible existence). That whose essence does not involve existence; or that whose nature can be conceived as not existing.
10. **Self-Caused Cause** – That which is caused by itself; or that which exists by conceptual necessity. That which exists necessarily of its own nature (i.e., whose essence involves existence). That whose essence involves existence; or that whose nature can be conceived only as existing.¹⁷¹
11. **Substance** – That which is in itself and is conceived through itself; that is, that the conception of which does not require the conception of another thing from which it has to be formed.¹⁷²

Axioms:

1. There is a self-caused cause.
2. All things that exist, exist either in themselves (i.e., are self-caused) or in something else (i.e., are other-caused).
3. All things that are conceived, are conceived either through themselves (i.e., are Substances) or through something else (i.e., are Modes).
4. The knowledge of an effect depends on, and involves, the knowledge of its cause.
5. Every aspect of a self-caused cause follows from the fact that it is self-caused.

¹⁷¹ Spinoza, MT, Part 1, Ch. 1, Of Real Being, Fictitious Being, and Being of Reason, [*The division of Being.*], 180; Spinoza, E1D1, 217.

¹⁷² Spinoza, E1D3, 217.

Proposition 1: *A self-caused cause is necessarily a substance, and vice versa.*

First Proof: Suppose a self-caused cause is not a Substance. It must then be the case that it is a mode. But then the conception of a self-caused cause would require the conception of that from which it has been formed. But then a self-caused cause would have been formed from something else, i.e., then it would be other-caused. But that is contradictory. Therefore, a self-caused cause is necessarily a Substance.

Second Proof: Suppose a Substance was not a self-caused cause. It must then be the case that it is an other-caused cause. But then the conception of said Substance would require the conception of that from which it was formed, which is contradictory. Therefore, a Substance is necessarily a self-caused cause.

Proposition 2: *A self-caused cause necessarily exists.*

First Proof: This follows solely from the definition of a self-caused cause.

Second Proof: Existence is a necessary aspect of a self-caused cause. So, if a self-caused cause exists, then it necessarily exists. A self-caused cause exists. Therefore, a self-caused cause necessarily exists.

Proposition 3: *The essence and existence of a self-caused cause are necessarily unified.*

Proof: Suppose the essence and existence of a self-caused cause were distinct. It must then be the case that one can be conceived without the other, i.e., it must then be the case that a self-caused cause can be conceived as not existing. But that's contradictory. Therefore, the essence and existence of a self-caused cause are necessarily unified.

Proposition 4: *A self-caused cause cannot cause another self-caused cause, nor can a substance cause another substance.*

First Proof: Suppose a self-caused cause were to cause another self-caused cause. It must then be the case that the second self-caused cause is both a self-caused cause and an other-caused cause. But that's contradictory. Therefore, a self-caused cause cannot cause another self-caused cause.

Second Proof: Suppose a Substance were to cause another Substance. It must then be the case that the second Substance is both a Substance and a Mode. But that's contradictory. Therefore, a Substance cannot cause another Substance.

Proposition 5: *The ultimate origin of everything that is other-caused is necessarily something that is self-caused; or everything that is other-caused was necessarily ultimately caused by something that is self-caused.*

Proof: Suppose the ultimate origin of everything that is other-caused wasn't something that is self-caused, i.e., suppose there is something that is other-caused that wasn't caused by something that is self-caused. It must then be the case that the ultimate origin of something that is other-caused is something else which itself is other-caused, i.e., it must then be the case that there is something that was ultimately caused by an other-caused cause. But that's contradictory. Therefore, everything that is other-caused was ultimately caused by something that is self-caused.

Proposition 6: *A self-caused cause is necessarily unique (there is necessarily only one distinct self-caused cause).*

Proof: Suppose a self-caused cause were not unique (i.e., suppose there were multiple distinct self-caused causes). It must then be the case that not every aspect of self-caused cause follows from the fact that it is self-caused. But that's contradictory. Therefore, a self-caused cause is necessarily unique (there is necessarily only one self-caused cause).

Proposition 7: *A self-caused cause is necessarily conceptually non-finite.*

Proof: Suppose a self-caused cause was not conceptually non-finite. It must then be the case that it can be or be conceived as finite. But a self-caused cause is conceptually necessary. So, a self-caused cause cannot be or be conceived other than it is. That which cannot be or be conceived as other than it is, cannot be or be conceived as finite. Thus, a self-caused cause cannot be or be conceived as finite. But that's contradictory. Therefore, a self-caused cause is conceptually non-finite.

Proposition 8: *A self-caused cause is necessarily eternal.*

Proof: Suppose a self-caused cause was not eternal. It must then be the case that the concept of "before" or "after" apply to it. But then a self-caused cause could be conceived as not existing. But that's contradictory. Therefore, a self-caused cause is necessarily eternal.

Proposition 9: *A self-caused cause necessarily has eternity. [Tier 1, 2]*

First Proof: Suppose the existence of a self-caused cause was not conceptually non-finite. It must then be the case that a self-caused cause can be or be conceived as finite. But then not every aspect of a self-caused cause would follow from the fact that it is self-caused. But that's contradictory. Therefore, a self-caused cause necessarily has eternity.

Second Proof: Suppose the existence of a self-caused cause was not conceptually non-finite. It must then be the case that a self-caused cause is not conceptually non-finite, for as the essence and existence of a self-caused cause are necessarily unified, what applies to its existence must also apply to its essence. But that's contradictory. Therefore, a self-caused cause necessarily has eternity.

Proposition 10: *Every effect of a self-caused cause is an other-caused cause.*

Proof: Suppose an effect of a self-caused cause was not an other-caused cause. It must then be the case that it's a self-caused cause. But then a self-caused cause could cause another self-caused cause, which is contradictory. Therefore, every effect of a self-caused cause is other-caused cause.

Proposition 11: *There is necessarily only one self-caused cause of a given essence.*

First Proof: Suppose there were two self-caused causes of a given essence. By supposition, the essences of the two self-caused causes are identical, $x_n = y_n$ and $y_n = x_n$. By supposition, the self-caused causes are distinct, $x \neq y$ and $y \neq x$. The essence and existence of a self-caused cause is necessarily unified, so $x_n = x$ and $y_n = y$. But then $x = y$ and $y = x$. But that's contradictory. Therefore, there is necessarily only one self-caused cause of a given essence.

Proposition 12: *Everything that exists is either a self-caused cause or an implication thereof and cannot be or be conceived without said self-caused cause.*

Proof: Everything that is other-caused was ultimately caused by something that is self-caused. There is necessarily only one unique self-caused cause of a given essence. Therefore, everything that exists is either a self-caused cause or an implication thereof and cannot be or be conceived without said self-caused cause.

Proposition 13: *Every attribute of existence belongs to a self-caused cause.*

First Proof: Suppose not every attribute of existence belonged to a self-caused cause. It must then be the case that the existence of a self-caused cause is finite. But that's contradictory. Therefore, every attribute of existence belongs to a self-caused cause.

Second Proof: The existence of a self-caused cause is conceptually non-finite. So, all that expresses existence belongs to a self-caused cause. From this it follows that no attribute of existence can be denied of a self-caused cause, i.e., every attribute of existence belongs a self-caused cause.

Proposition 14: *Each attribute of existence is conceptually non-finite.*

Proof: Suppose an attribute of existence were finite. It must then be the case that an aspect of Substance is finite. But that's contradictory. Therefore, each attribute of existence is conceptually non-finite.

Proposition 15: *Every mode of every attribute of a self-caused cause is necessarily always actual.*

Proof: Suppose a mode of some attribute of a self-caused cause is not actual. Suppose also that the mode then becomes actual. It must then be the case that a self-caused cause is finite, for some aspect of it will have thus increased. But that's contradictory. Suppose a mode of some attribute of a self-caused cause is actual, but stops being so. It must then be the case that a self-caused cause is finite, for some aspect of it will have thus diminished. But that's contradictory. Therefore, every mode of every attribute of a self-caused cause is necessarily always actual.

Proposition 16: *There exists conceptually non-finite things in conceptually non-finite ways.*

Proof: Suppose there does not exist conceptually non-finite things in conceptually non-finite ways. It must then be the case that the existence of a self-caused cause is finite. For if the existence of a self-caused cause is conceptually non-finite, then all that expresses existence belongs to it, and as such must also exist. Therefore, there exists conceptually non-finite things in conceptually non-finite ways.

Proposition 17: *Extension is necessarily actually infinite.*

First Proof: Suppose extension is not actually infinite. It must then be the case that extension has a necessary end or limit. But extension cannot be conceived as having an end or limit, nor is there anything whereby it might be so limited. Therefore, extension is necessarily actually infinite.

Second Proof: Extension is conceptually non-finite, so cannot be or be conceived as finite. Extension cannot be conceived as having an end or limit, nor is there anything whereby it might be so limited. Therefore, extension is necessarily actually infinite.

Proposition 18: *Every attribute of existence is necessarily actually infinite.*

Proof: This follows by parity of reasoning from the previous proposition.

Proposition 19: *Nothing can ever be other than it is.*

Proof: Suppose something could be other than it is. It must then be the case that a self-caused cause is not conceptually necessary, for everything exists is either a self-caused cause or an implication thereof. But that's contradictory. Therefore, nothing can ever be other than it is.

Proposition 20: *Energy cannot be created or destroyed.*

Proof: Suppose energy could be created. It must then be the case that a self-caused cause is finite, for some aspect of it was thus increased. But that's contradictory. Suppose energy could be destroyed. It must then be the case that a self-caused cause is finite, for some aspect of it was thus diminished. But that's contradictory. Therefore, energy cannot be created or destroyed.

Chapter 4 Conclusion, and some implications thereof.

There are many more propositions which could be proved, but the twenty above are sufficient for our purposes. We have an answer to the $Po\exists$, namely that there is something because it is conceptually necessary that there be something. We also have an answer for the PoA , namely that things exist as they do rather than some other way because things cannot be any other way than they are. Neither A1 nor A2 was violated. So, it appears that a self-caused cause answer to the $Po\exists$ and the PoA based on Spinozistic metaphysics works!

Now that the $Po\exists$ and the PoA have been solved, a would like to take a moment to consider a few of the other problems a self-caused cause based on Spinozistic metaphysics could be fruitfully applied to. The following five come to mind:

1. Problems in the philosophy of science regarding explanation
2. Problems in the philosophy of science regarding what laws of Nature are.
3. Hume's problem of induction.
4. Problems in metaphysics regarding overdetermination.
5. Problems in mathematics regarding probability, especially what it is for something to be probable.

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