

SPINOZA'S CAUSAL AXIOM  
A DEFENSE

by

TORIN DOPPELT

A thesis submitted to the  
Department of Philosophy  
in conformity with the requirements for  
the degree of Master of Arts

Queen's University  
Kingston, Ontario, Canada  
September 2010

Copyright © Torin Doppelt, 2010

# Abstract

In the first chapter, I examine the definitions and axioms in Part One of Spinoza's *Ethics*. From there, I discuss five interpretations of Spinoza's notion of 'axiom' in order to strengthen our understanding of the role Spinoza took axioms to play in his work.

In the second chapter, I move from the discussion of what an axiom is to a consideration of the precise meaning of the fourth axiom of the first part (1A4). A key move in this chapter is to show that Spinoza does not separate causation and conception.

In the third chapter, I defend the truth of 1A4 by showing that it follows from the definitions of Substance and Mode. I argue that in virtue of the conclusions of the previous two chapters, the axiom can be regarded as true for its relevant magnitude (in a way akin to the 'common notions' of Euclid's Elements).

# Acknowledgments

*“...only a man plagued by the devil could find the path that angels tread.”<sup>1</sup>*

*Dagobert D. Runes*

\*\*\*\*\*

I wish to extend sincere gratitude and appreciation toward all who have played any role whatsoever in the formation of my philosophical views. Especially Jon Miller for helping to shape my current way of thinking about Spinoza, Paul Franks for introducing me to rigour and systematicity in philosophy, and to the many friends and family who have encouraged, supported, criticized, and otherwise put up with my unwavering interest in philosophy in general, and Spinoza in particular.

---

<sup>1</sup>Dagobert D. Runes, *Spinoza Dictionary*, (Philosophical Library, 1951), p. viii

# Table of Contents

Abstract	i
Acknowledgments	ii
Table of Contents	iii
<b>Chapter 1:</b>	
<b>What is an Axiom?</b> . . . . .	<b>1</b>
1.1 Ethics 1D1-1A3: An Overview . . . . .	2
1.2 Spinoza's Axioms: Modern Views . . . . .	11
1.3 So, What is an Axiom? . . . . .	17
<b>Chapter 2:</b>	
<b>The Meaning of 1A4</b> . . . . .	<b>23</b>
2.1 1A4 in Demonstration . . . . .	24
2.2 What 1A4 Means . . . . .	44
<b>Chapter 3:</b>	
<b>The Truth About 1A4</b> . . . . .	<b>47</b>
3.1 Hobbes' Argument . . . . .	48
3.2 Some Objections . . . . .	51
3.3 1P15, Immanence, and Knowledge . . . . .	56
3.4 Conclusion . . . . .	62

# Chapter 1

## What is an Axiom?

*“I have taken care, whenever the occasion arose, to remove prejudices that could prevent my demonstrations from being perceived. But because many prejudices remain that could, and can, be a great obstacle to men’s understanding the connection of things in the way I have explained it, I considered it worthwhile to submit them here to the scrutiny of reason.”<sup>1</sup>*

*Benedictus de Spinoza*

*“Spinoza is, among the great classical thinkers, one of the least accessible because of his rigid adherence to the geometric form of argumentation, in which form he obviously saw somewhat of an insurance against fallacies. In fact, Spinoza thereby made it difficult for the reader who all too quickly loses patience and breath before he reaches the heart of the philosopher’s ideas.”<sup>2</sup>*

*Albert Einstein*

\*\*\*\*\*

In this chapter I aim to provide some solid ground from which we can proceed to a defense of Spinoza’s fourth axiom of Part One of the *Ethics*<sup>3</sup> (henceforth: 1A4). This

---

<sup>1</sup>1App (Gebhardt pagination: II/77/30). When the location of a quotation is clear, I will use the standard citation practice, e.g., 1A4 for Part 1, Axiom 4; 2P11c for Part 2, Proposition 11, corollary; otherwise I will use the Gebhardt numbers. All English quotations from the *Ethics* are from Benedictus de Spinoza, *The Collected Works of Spinoza*, trans. by Edwin M. Curley (Oxford University Press, 1985).

<sup>2</sup>Runes, *op. cit.*, p. i

<sup>3</sup>“Effectus cognitio a cognitione causæ dependet et eandem involvit.”

foundation will consist of two sections. The first is an overview of the brief material preceding 1A4, which I think is necessary to cover in order to have some idea of the material we are working with in considering the meaning of ‘axiom’ for Spinoza. The second section is a discussion and analysis of some of the relatively recent views concerning the meaning, sense, and purpose of Spinoza’s ‘axioms’. This introductory discussion is intended to guide us through the remaining chapters wherein we seek to both develop an understanding of what 1A4 means and defend its truth.

## 1.1 Ethics 1D1-1A3: An Overview

In this section I will provide a tentative run-through of the axioms and definitions preceding Spinoza’s assertion of the causal axiom at 1A4. This summary will engage in some critique, but is, as I have said, mostly intended to serve as a piece of the foundation upon which we will rest the main goal of understanding and defending 1A4.

### 1.1.1 Definitions

*1D1: By **cause of itself** I understand that whose essence involves existence, or that whose nature cannot be conceived except as existing.*

This first definition provides us with Spinoza’s sense of ‘cause of itself’. The importance of this cannot be over-emphasized. To say, as Spinoza does, that the essence of a self-caused thing is ‘existence’ is to say that a thing’s *being* (what it is, or at all) relies—i.e., is dependent, conceptually and actually—solely on itself, without any connection to anything else. Spinoza takes this to be equivalent to saying that such

a thing, if it can be conceived, cannot be conceived as not existing. This might at first glance appear to build an ontological argument into the definition (rendering the later argument circular), but this is not the case.

The argument for the equivalence of conceptual independence and necessary existence is simple: if a thing's essence (or its very nature as the kind of thing that it is) involves existence, then conceiving of *it* at all is to conceive of it as existing, since to conceive of it as not existing would not be to conceive of it, but something else entirely. This is the case because to conceive of something as self-caused is to understand that it requires nothing else in order to manifest anything which pertains to it as it is defined. In order to more clearly see what this means, consider the contrary: a thing which is caused by something else (to be what it is), i.e., a thing which is dependent on something outside of itself for its being. Such a thing, say, a circle, depends on at least one other thing, in this case, points and lines, in order to be, or be conceived, at all. If points and lines did not exist, or could not be conceived, neither could circles. Whatever a self-caused thing is, it is not like that—it does not depend on anything else for its existence, and therefore cannot be conceived except as existing (since it alone is its cause). If this argument bears any resemblance to Spinoza's later ontological argument in 1P11, it need not entail that his argument is circular, since Spinoza is here only providing us with a definition, not establishing the actual existence of anything which falls under it.

### 1.1.2

*1D2: That thing is said to be **finite in its own kind** that can be limited by another of the same nature.*

1D2 follows clearly from 1D1 as it, arguably, fills in the sense of those things which are contrary to the first definition. There are a few small things to consider here. To be capable of being limited by another thing of the same nature is, at least *prima facie*, a strange way of thinking about finitude. A thing's finitude does not seem to require anything external to it in order to be the case—what could prohibit a thing's being finite solely in virtue of itself? The answer is fairly straightforward: if we understand by 'limit' something akin to a boundary established under a particular measure or comparison, then we see why it requires another of the same nature. To delimit a finite thing we must be able to say why it is not infinite, i.e., why it comes to an end. This is just what it means to be finite.

Spinoza provides us with a rather abstract example to illustrate the sort of limitation he has in mind when he says “a body is called finite because we always conceive another that is greater.”<sup>4</sup> We are, then, to understand finitude as a matter of conceiving of a thing of a specific magnitude or scope (under whatever measure is relevant to the thing we are considering). This specificity in measure<sup>5</sup> is what can allow the possibility of conceiving of a thing of the same kind which is greater—if I take a particular body, say, a sphere with a radius of five centimetres, there is nothing preventing me from acknowledging the possibility (or conceiving) of a sphere with a radius of six centimetres, or ten, or one hundred, and so on, *ad infinitum*. If, on the other hand, I conceived of a sphere with a radius of absolutely unlimited length, I would not be able to conceive of a sphere greater than it, as such. Thus, I would not be conceiving

---

<sup>4</sup>1D2. Readers already familiar with Spinoza might perhaps see a striking connection to the famous ‘determination is negation’ from Letter 50, to Jarig Jelles, wherein Spinoza explains that [geometrical] figure is necessarily finite. (Benedictus de Spinoza, *Complete Works*, trans. by Samuel Shirley (Hackett, 2002), p. 892)

<sup>5</sup>The term ‘property’ may also work here, although the aim here is to avoid any unnecessary extraneous conceptual baggage.



of something finite. In fact, I would not be conceiving of a sphere at all. How could I, given that a sphere is a figure whose surface is created by infinite radii of *equal length* extending from a fixed point? The notion of an 'infinite sphere' disregards the very thing which makes it a sphere and not a cube, that is, a definite form, i.e., the surface of infinite radii of equal length extending from a single point.

### 1.1.3

*1D3: By **substance** I understand what is in itself and is conceived through itself...*

Spinoza's definition of substance at 1D3 should immediately oppose itself in our minds to what was defined in 1D2. That is, by defining substance as conceptually independent, Spinoza is opposing substance to that which is finite in its own kind—that which is dependent on its limitability by other members of its kind. Substance, rather, can have no definite form or limitability by greater members, since this would allow it to be conceived through another thing, e.g., as being of a lesser or greater magnitude than another member of its kind (this is clearly absurd). The phrase 'what is in itself' is particularly tricky because it contains a slight ambiguity between treating what is as a noun, or breaking it apart. The proper sense is, I think, 'what is in itself', since this puts the emphasis on existence, or the independent whole of reality itself. It is important to make sure we avoid this ambiguity, since rendering the phrase alternatively as 'what is in itself' may inadvertently be thought of as denoting particular 'things in themselves', and this cannot be what Spinoza means by substance, though the argument for there being only one substance comes later. To be 'conceived through itself' is less tricky, I think, and we should understand by

this simply conceptual independence.

#### 1.1.4

*1D4: By **attribute** I understand what the intellect perceives of a substance, as constituting its essence.*

Though Spinoza has employed the notion of ‘conceiving’ in all three definitions thus far, this is the first time we see the use of ‘intellect’ and ‘perceives’—two notions which appear technical, but which have not yet been themselves defined. Curley provides us with some useful commentary on this issue:

The meaning of this definition is much disputed. One important question of translation is whether *tanquam* should be rendered ‘as if’ or ‘as.’ The former would favor those who hold the ‘subjective’ interpretation, according to which the differences between the attributes are illusory, all the attributes being identical in substance... The latter would be more congenial to those who think the attributes are really distinct and not merely constructions of the intellect. I think Gueroult, 1 (1: app. 3) has provided us with a definitive refutation of the subjective interpretation...

Arguably the intellect referred to in this definition is the infinite intellect, not the finite...<sup>6</sup>

For our current purposes it should suffice to side with Curley on both issues: attributes are really distinct in substance, constituting its essence, and the intellect which perceives the attributes as such is the infinite intellect, i.e., intellect itself, independent of particular finite things. After all, this part of the *Ethics* is titled “On God”—a good indication that in this definition, the intellect referred to is not the intellect of any particular finite individual.<sup>7</sup>

<sup>6</sup>Spinoza, *Collected Works*, *op. cit.*, p. 409 n. 2

<sup>7</sup>Cf. 2P11c: “the human Mind is a part of the infinite intellect of God.”

### 1.1.5

*1D5: By **mode** I understand the affections of a substance, or that which is in another through which it is conceived.*

The definition of ‘mode’ is, in a way, set up as the contrary of the definition of substance: what is in itself versus what is in another. Thus, we can understand “affections of a substance” as those things which are in a substance which are conceived through the substance. This clearly makes modes (conceptually and actually) dependent on substance—there can be no affections of a substance without a substance for the affections to be in and conceived through, or else, what we called ‘modes’ would really themselves be substances.

### 1.1.6

*1D6: By **God**, I understand a being absolutely infinite, i.e., a substance consisting of an infinity of attributes.*

We come now to Spinoza’s definition of ‘God’. This appears to consist of nothing more than a synthesis of the prior established notions of substance, attribute, and the negation of the notion of finitude given in 1D2. The significance of this is that it provides us with a unification of several notions so that if one plays a role in a later place, we can say something about the others in relation.

### 1.1.7

*1D7: That thing is called **free** which exists from the necessity of its nature alone, and is determined to act by itself alone. But a thing is called **necessary** or rather compelled, which is determined by another to exist...*

1D7 serves the dual purpose of setting up a definition of freedom which is, clearly, not opposed to necessity, but involves it. In addition, we are given a clarification of necessity of a different kind: not of a thing's nature alone, but of the necessity of a thing's causing effects on another—effects which arise not in virtue of the thing's nature alone, but as a result of interaction with external causes. Thus, the distinction between freedom and so-called “necessity” (or, rather, compulsion) is one of degree of independence. We should here be thinking back already to 1D1 and 1D2, and seeing the connection between cause of itself and freedom, and between finite in its own kind and compulsion.

### 1.1.8

*1D8: By **eternity** I understand existence itself, insofar as it is conceived to follow necessarily from the definition alone of the eternal thing.*

This last definition at first seems slightly out of place. Thus far we have been dealing with notions atemporally. The introduction of a temporal definition could plausibly be understood as providing a missing dimension, allowing distinctions to be made within preceding categories along either durational or non-durational lines. However, eternity is non-durational in nature. Spinoza tells us that he takes it to mean the necessary existence of a thing itself. This is a somewhat difficult thing to conceptualize, but I take it we can just think of it as meaning a thing considered in the absence of temporal predication or any of the implications one might derive from that.

### 1.1.9 Axioms

*1A1: **Whatever is, is either in itself or in another.***

1A1 is a self-evident dichotomy. It says nothing about what is the case—only that if a thing exists, it falls necessarily into one of two categories: fully independent existence or existence dependent on something else in some way. This fairly obviously exhausts the possibilities. I say fairly obviously since one need only understand that there can be no third category, nor anything which straddles both possibilities, since this collapses immediately into modification (or, being in something else).<sup>8</sup>

### 1.1.10

*1A2: What cannot be **conceived through** another, must be conceived through itself.*

This axiom seems parasitic on the previous one. 1A1 is a metaphysical axiom; 1A2 is its epistemological counterpart. That is, the possibilities of conceptualization are exhausted in the same manner as the possibilities for the way things can actually be. Either I think of a thing through itself alone, or I must be employing a notion of something external to it in order to conceive of it. Notice that from this it follows that there should be correspondence of a certain sort between a mode of conception and the thing conceived through it, since if this were not the case we would simply be confused, either about the object of our thought, the correct way of thinking about it, or both.

### 1.1.11

*1A3: From a given **determinate cause** the effect follows necessarily; and conversely, if there is no determinate cause, it is impossible for an effect to*

---

<sup>8</sup>Spinoza recognizes that we seem to be prone to place human beings, confusedly, in such a third category, as “a kingdom within a kingdom” (3Pref.), as it were. Cf. 1P8s2.

*follow.*

This axiom may be the most controversial, *prima facie*, of anything we have thus far considered. The first clause asserts the truth of some degree of deterministic necessity, namely, that *determinate* causes entail their effects. The focus on *determinate* is, I think, what allows 1A3 to be asserted axiomatically. If a cause is determinate, then if we understand what this means, we should be required by reason to understand that the determinate nature of the cause implies its effect. Likewise, without a determinate cause, no implication follows. One way we might understand this to be fair game as an axiom is to think of it in terms of logical implication and see that if we were to attempt to assert a modus ponens type argument with an empty antecedent (not merely substantively empty, but formally empty as well), we would not be in a position to assert the consequent. It would look like this:

1. If  $\underbrace{\quad}$ , then Q.
2.  $\underbrace{\quad}$
3. Therefore, ...

Notice that we cannot treat  $\underbrace{\quad}$  as a variable, since it represents the absence of any determinate cause. It cannot even mean ‘the absence of a determinate cause’, since this is itself a determinate cause. That is why we cannot insert  $\underbrace{\quad}$  in the conclusion, since doing so would treat it as a determinate effect, which it is certainly not—it is not anything, nor the negation of anything.

The preceding cursory introduction to the material presented at the outset of Spinoza’s *Ethics* is intended to provide the backdrop for the rest of our discussion.

In the next section we will consider the views of some contemporary Spinoza scholars on the issue of what to make of Spinoza's axioms.

## 1.2 Spinoza's Axioms: Modern Views

I here outline five interpretations of the axioms from five relatively recent major scholars.

### 1.2.1 The Façade (*F*) Interpretation

The subtitle of Harry Wolfson's *The Philosophy of Spinoza*, "Unfolding the Latent Processes of His Reasoning", captures much of Wolfson's view of how to read Spinoza. That is, for Wolfson, the geometrical method in which the *Ethics* is cast is by no means indicative of the way in which the philosophy contained in it is to be understood. Wolfson argues, "Spinoza never meant to imply that by his use of the geometrical form his philosophy, like the geometry of Euclid, is the unfoldment of certain *a priori* self-evident truths. For his axioms, properly understood, are not necessarily self-evident truths, any more than his propositions are necessarily new truths discovered by demonstration."<sup>9</sup> I will call this the 'façade', or *F*, interpretation of Spinoza's axioms, since Wolfson's view is essentially that Spinoza's actual method and the geometrical form of the *Ethics* are distinct enterprises. The former is simply not directly exhibited by the latter: "the form in which the *Ethics* is written, we have reason to believe, is not the form in which it formulated itself in the mind of Spinoza... There is thus behind our present *Ethics*, demonstrated in geometrical order, an *Ethics*

---

<sup>9</sup>Harry Austryn Wolfson, *The Philosophy of Spinoza*, (Harvard University Press, 1983), p. 58

demonstrated in rabbinical and scholastic order.”<sup>10</sup> This ‘rabbinical-scholastic’ order being a way of thinking which shares more with the formative components of Spinoza’s childhood education than with that of the superficial geometrical order in which the *Ethics* is cloaked. Whatever the ‘axioms’ are, then, for Wolfson the fact that they are called ‘axioms’ is nothing more than a façade, the purpose of which, Wolfson thinks, “can be only conjectured”<sup>11</sup>.

### 1.2.2 The Hypothetico-Deductive (*HD*) Interpretation

In Jonathan Bennett’s *A Study of Spinoza’s Ethics* he captures the essence of the issue with typical verve: “Only someone who approaches Spinoza in a spirit of stultifying piety could regard the axioms as immediately certain, or their contradictories as impossible or unthinkable.”<sup>12</sup> That is to say, whatever the axioms are, they cannot be claims which we are meant to accept unconditionally simply having read them. This much seems fairly clear, but in that case, what are we to make of these supposed axioms?

Bennett adduces the following claim in order to support what we might call the *hypothetico-deductive*<sup>13</sup>, or *HD*, interpretation of the axioms. “He is inviting us to adopt and employ a certain way of thinking and talking, and we cannot know whether to comply until we know what we would be getting into. So we, at least, must regard the axioms as something to be accepted provisionally in order to see how they work

---

<sup>10</sup>Wolfson, *op. cit.*, p. 59

<sup>11</sup>Ibid.

<sup>12</sup>Jonathan Bennett, *A Study of Spinoza’s Ethics*, (Hackett Publishing Company Inc., 1984), p. 18

<sup>13</sup>Bennett explicitly uses this term for precisely how we should view the *Ethics*, that is, as “something that starts with general hypotheses, deduces consequences from them, and checks those against the data. If they conflict with the data, something in the system is wrong; if they square with the data, the system is not proved to be right but is to some extent confirmed.” (Ibid., p. 20) adding that “I am implying that Spinoza would have endorsed this.” (ibid., p. 21)



out in the sequel.”<sup>14</sup> In other words, on this holistic picture, we are to begin the *Ethics* with a mindset not of dogmatic or immediate acquiescence of the truth to the principles Spinoza sets before us, but rather of the hypothetico-deductive possibility of their truth. “We are to entertain its definitions and axioms as hypotheses, to follow through their consequences and find that they square with the data, and to finish up in a state of mind where we see them as self-evident.”<sup>15</sup> In order, then, to determine whether what Spinoza says in 1A4 is true, we must see where it takes us and how it hangs together with the rest (i.e., the other claims of the *Ethics*, and, plausibly, ordinary experience as well).

### 1.2.3 The Historico-Holistic (*HH*) Interpretation

Curley describes an axiom as “a proposition suitable for use as a first principle in demonstrations. For this, truth is required, but not necessarily self-evidence (pace Joachim 2, 202n) or indemonstrability.”<sup>16</sup> This view is similar to the *HD* interpretation of Bennett, in that they both agree that the axioms are not, nor intended to be, self-evident. However, *HH* has the further distinction of including a historical component, i.e., “it seems a reasonable strategy to try to penetrate beneath the surface of the *Ethics* and to uncover the dialogue Spinoza was conducting with his predecessors, a dialogue the geometric presentation served to conceal, and was, perhaps, partly designed to conceal”<sup>17</sup>. The last claim is, of course, conjecture regarding Spinoza’s motives, but the idea that Spinoza’s method is best understood through connection

---

<sup>14</sup>Bennett, *op. cit.*, p. 18

<sup>15</sup>*Ibid.*, p. 21

<sup>16</sup>Spinoza, *Collected Works, op. cit.*, p. 627

<sup>17</sup>Edwin M. Curley, *Behind the Geometrical Method: A Reading of Spinoza’s Ethics*, (Princeton University Press, 1988), p. xi

to its predecessors, in combination with the suspension of judgment regarding the veracity of the axioms until we have seen where they lead appears to provide a robust alternative to the purely hypothetical reading in Bennett, or the purely obfuscatory (in the sense of concealing the true meaning and purpose) reading in Wolfson.

Curley concedes that “Wolfson is right to assume that Spinoza’s axiomatic style of presentation does not in fact provide the clarity Spinoza intended. The definitions are typically obscure, the axioms frequently not evident...”<sup>18</sup> This is so, however, because “it is a mistake to suppose that, when Spinoza designates something as an axiom, he really thinks that no one could question it, and is not willing to listen to argument about it.”<sup>19</sup> Curley’s interpretation rather, emphasizes that “it is not true that we must first have a firm grasp of Spinoza’s initial assumptions before we can understand what follows them. Often we can get more of the sense of a formula by seeing what follows from it, or what Spinoza thinks follows from it, than we can by focussing all our attention on the formula itself.”<sup>20</sup> This is the sense in which Curley views the axioms holistically, which, when combined with the idea that they are also to be viewed in a historical context as veiled responses to Spinoza’s predecessors<sup>21</sup> results in an interpretation which combines aspects of the previous two we have considered.

Whether this is the correct way to interpret Spinoza’s axioms is not yet clear, but it is clear that if either the *F* or *HD* views are false, then the *HH* view is at least partially false as well. Conversely, if both *F* and *HD* capture something true of Spinoza’s method, then *HH* is the view we should take on as our own, since it applies the key features of the others in tandem.

---

<sup>18</sup>Curley, *op. cit.*, p. xi

<sup>19</sup>Spinoza, *Collected Works*, *op. cit.*, p. 403

<sup>20</sup>Curley, *op. cit.*, p. 52

<sup>21</sup>By which Curley specifically means Hobbes and Descartes (*Ibid.*, p. xi.)

### 1.2.4 The General Principles (*GP*) Interpretation

In Steven Nadler’s view, we find the axioms described as general principles, or ‘common notions’ (in the Euclidean sense, that is, of applying across an entire domain or magnitude, rather than strictly to particular things). On this view, an axiom really is understood as intended by Spinoza to be “self-evident, indubitable on its own terms. No one who gives proper consideration to an axiom and its constituent items can reasonably deny it.”<sup>22</sup> It is true that the *HD* view (but not *HH*, at least not in the same sense) ends up agreeing that there is a sense in which the axioms are (or at least ought to be) ‘self-evident’, but what distinguishes *GP* from *HD* is that Nadler takes self-evidence to be *foundational*. That is, it matters whether we understand them to be true at the outset.

Nadler contrasts the axioms with the definitions, which “Spinoza concedes in principle may or may not be true”<sup>23</sup>. However, “an axiom must be true... it certainly does make a difference whether or not one sees the truth of an axiom.”<sup>24</sup> On this view, then, it seems that the axioms are to be understood not as hypotheticals, the truth of which could be ascertained, either through deduction, or holistically from an understanding of the whole of the *Ethics*, but rather as genuinely true first principles which serve, along with the definitions (which *can* be treated hypothetically) as the foundation upon which the *Ethics* is built. However, Nadler’s view includes some tentativeness about “whether the distinction between definition and axiom is sometimes arbitrary... Is it because Spinoza regards [definitions] as potentially contentious, and thus not endowed with the self-evidence of an axiom?”<sup>25</sup>

---

<sup>22</sup>Steven Nadler, *Spinoza’s Ethics: An Introduction*, (Cambridge University Press, 2006), p. 49

<sup>23</sup>Ibid.

<sup>24</sup>Ibid.

<sup>25</sup>Ibid., p. 50

Given this, we can conclude that the *GP* view is characterized by an understanding of the axioms as having been intended by Spinoza to be uncontentious in the sense outlined above, as contrasted with possibly contentious definitions which may be treated in a hypothetical manner (as both the *HD* and *HH* views, in slightly different ways, claim). Further, Nadler thinks that “Although the geometric format serves well to capture the rigorously deductive nature of Spinoza’s reasoning, it should not be mistaken for an a priori argument.”<sup>26</sup> That is, although the axioms have the form of a priori principles, their generality does not preclude empirical truths from being cast axiomatically<sup>27</sup> and therefore as self-evident, presupposing some relevant empirical content.

### 1.2.5 The (Euclidean) Emendation (*E*) Interpretation

Aaron Garrett’s view of the axioms, which differs in key respects from the preceding ones (though less with *GP* than with the others), is that “axioms are common features of minds and bodies, and Spinoza treats them as if they are intuitively obvious to all readers. We may, and should, interrogate them. But it is not difficult to see where they come from and why Spinoza thinks them clear (even if he is wrong that these are truly common notions).”<sup>28</sup> The distinguishing feature of this view is that it takes Spinoza’s use of the term ‘axiom’ literally, and in its Euclidean sense. That is, for Garrett the axioms really are intended by Spinoza to be metaphysical (or simply philosophical) parallels to the geometrical axioms of Euclid’s *Elements*.

Garrett provides the following evidence to support his view: “In the 1677 *Ethics*.

---

<sup>26</sup>Nadler, *Ethics: Introduction*, *op. cit.*, p. 51

<sup>27</sup>Cf. 2A2: “Man thinks.”

<sup>28</sup>Aaron V. Garrett, *Meaning in Spinoza’s Method*, (Cambridge University Press, 2003), p. 14

the *Ethics* as we know it, the disputed axioms became 1p2 and 1p3, and were derived from somewhat ‘weaker’ axioms, and ones that Spinoza thought apparently more evident. Thus it was important for Spinoza that his axioms be recognized by reasonable people as obviously true or evident.”<sup>29</sup> This reading has the most prima facie plausibility of all those we are considering because the connection between the *Elements* and the *Ethics* is brought to mind almost immediately by anyone who has any familiarity with the former.

Garrett himself tells us that,

My interpretation of Spinoza’s method will be closer to Gueroult’s and Mathéron’s interpretations than Wolfson’s, although it will also be substantially different from their interpretations. I will claim that the most important function of the *mos geometricus* is tied up with what Spinoza calls “emendation” in the *TIE*, ridding oneself of inadequate ideas so that those adequate ideas that already make up our minds can be better expressed.<sup>30</sup>

Hence, I have called this view the (Euclidean) Emendation view since Garrett combines the view that the geometrical form of the *Ethics* transparently displays Spinoza’s method with the view that this is so because this method is designed to have something of a therapeutic effect on the mind of the reader.

### 1.3 So, What is an Axiom?

Having surveyed five significant interpretations of Spinoza’s notion of ‘axiom’, we will now engage in a brief analysis of them. This analysis will determine a position that will serve as the ground from which we can begin to mount a serious defense of 1A4.

The first thing to note is that the five views summarized above can be placed

---

<sup>29</sup>Garrett, *op. cit.*, pp. 76–77, n. 12.

<sup>30</sup>*Ibid.*, p. 17

on a spectrum with  $F$  at one end and  $E$  at the other (indeed, this spectrum is implicit in the order of the discussion above). That is, the interpretive possibilities for Spinoza's notion of 'axiom' run the gamut from complete structural and functional arbitrariness to functionally/philosophically necessary. The three middle views cover the move from arbitrary to hypothetical to holistic (self-evidence from the top down) to general principles (immediate self-evidence, though either a priori or empirically so), and finally to the view that the axioms display both Spinoza's method and, as such, are instrumental to the point of the *Ethics*.

So, what view should we take? It is not our purpose here to determine which view is absolutely correct, since this would involve an extended digression on the geometrical method. Since our task is, rather, to determine whether 1A4 is true, it is enough to adopt a quasi-veridical stance toward the view which presents itself here with the least interpretive baggage.

A major problem with Wolfson's  $F$ -interpretation is that evidence from Spinoza's correspondence seems to contradict it. As Garrett points out, "These letters are particularly interesting as they give us evidence of Spinoza's attitude toward axioms..."<sup>31</sup> For an example of this attitude we might look to Spinoza's first reply to Simon de Vries (Letter 9) wherein he tells us that...

...a definition is concerned solely with the essences of things or of their affections, whereas an axiom or a proposition extends more widely, to eternal truths as well...and then it also differs from an axiom and a proposition in that it need only be conceived, without any further condition, and need not, like an axiom be conceived as true.<sup>32</sup>

From this it is clear that, at least in writing, Spinoza holds that the distinction

---

<sup>31</sup>Garrett, *op. cit.*, p. 76, n. 13.

<sup>32</sup>IV/43/30-35

between definitions and axioms is real, and not merely a façade applied arbitrarily. If there is evidence to support Wolfson’s contrary claim, finding it would require either conjecture or a more in-depth analysis of the geometrical method as a whole than we can provide in this place. This is, I think, a pretty good reason not to accept the  $F$ -interpretation, at least at the outset. If it becomes apparent at a later point that the evidence for  $F$  is stronger than we have supposed here, then there is no harm in amending our view then.

The  $HD$  and  $HH$  views are sufficiently similar with respect to the prescribed approach for coming to regard the axioms as true. Judging which of the two views is less acceptable for our purposes will essentially come down to whether there is anything possibly important missing in one view which we might find in the other. In this regard, it becomes clear that the  $HH$  view has the added benefit of allowing us the leeway to consider Spinoza’s connection to his predecessors which the  $HD$  does not, at least explicitly, endorse. True, Bennett does not seem, so far as I can tell, to rule out this approach to understanding Spinoza’s axioms. This means that so long as approaching the axioms in the hypothetico-deductive or holistic manner—i.e., not as immediately self-evident upon opening the text, but as truths which may become apparent once we have achieved an adequate understanding of the whole of Spinoza’s system—satisfies the purposes of our main task, then it becomes clear that accepting  $HH$  allows us to accept  $HD$  with the tentative caveat that there may be the added component of a historical dialogue that will provide further insight into the axioms than would the hypothetico-deductive approach alone.

This sets up a dichotomy between the  $HD/HH$  “hypothetico-holistic” views and the  $GP/E$  “functional-principle” views. The distinction is fairly clear. The former

interpretations hold that the axioms need not be thought of as immediately, self-evidently, true to the first-time reader of the *Ethics*; the latter interpretations hold that on the contrary, the axioms really are first principles that should be evident to the considerate first-time reader, and that this structure is of much importance (vital importance in the case of Garrett) to the entire purpose of the *Ethics*. Thus, there seems to be very little compromise to be had, although there may be claims about axioms made on both sides that adequately capture features that are important for our purpose.

One small piece of evidence from Spinoza's quill that may help us decide in which direction to go is the following from Letter 15 to Lodewijk Meyer,

I wish you would point out to them that I demonstrate many things in a way different from the way Descartes demonstrated them, not to correct Descartes, but to retain my own order better and not increase the number of axioms so much, and that for the same reason I demonstrate many things Descartes asserts without any demonstration, and have had to add others Descartes omitted.<sup>33</sup>

This passage subtly hints that Spinoza takes the structure of his demonstrations seriously, not only for others, but so that his own 'order' would be retained. This seems to indicate that Spinoza took the geometrical order in which the *Ethics* is laid out to really mirror, to some degree or other, the order of his own thinking. This is certainly strong evidence for accepting the *GP/E* views—which of the two we accept, as with the hypothetico-holistic views, is not of supreme importance, since in either case we would be committed to axioms as really self-evident in some way, and importantly so.

However, this is not enough to rule out *HD* or *HH* just yet. Even if the evidence above is enough to support the view that Spinoza took the geometrical method to

---

<sup>33</sup>IV/72/25



really mirror the internal order of his ideas, this does not show that the means by which genuinely philosophically-minded readers should approach the axioms is that of either accepting them as obviously true immediately, or immediately rejecting all claims which rely on those axioms which do not seem true. This latter view is the most troubling—it is the thing I intend to fight most against in my defense of one of the key claims in Spinoza’s philosophy. That dichotomy is false. A further possibility is that the geometrical order mirrors Spinoza’s thought, and as such, is fundamental and necessary to understanding the *Ethics* (pace Garrett/Gueroult/Matheron), but also that the axioms need not be immediately self-evident. They can be mediately self-evident (pace Curley and Bennett) in such a way that their status as axioms is significant, and yet their truth need not be ascertained simply by reading them alone and understanding their constituent parts.

We can conclude by accepting that the axioms are intended to be self-evident truths, but this self-evidence need not be immediate, though in some cases it may very well be. The *GP* view has the benefit of clearly stating that the axioms are general principles, although it leaves out the added aspect of emendation which may later come to play an important role. However, the *GP* interpretation fits more or less within the scope of *E*, since the latter shares the Euclidean ‘common notion’ (or general principle) requirement. The most prudent thing to do seems to be to view the axioms as a sort of synthesis of *HH* with *E*, i.e., a coherent combination of Curley’s view with Garrett’s. We end up with the view that the axioms are self-evident general propositions, the truth of which may be known either mediately (i.e., treated hypothetically or holistically) or immediately (i.e., as plainly true), as the case may be. In the next chapter we will see how 1A4 fits into this interpretation,

and how this allows us to defend its truth.

## Chapter 2

# The Meaning of 1A4

*“...there should be one and the same method of understanding the nature of all things whatsoever, namely, through nature’s universal laws and rules.”<sup>1</sup>*

*Benedictus de Spinoza*

\*\*\*\*\*

Our discussion now turns to the fourth axiom itself. *“Effectus cognitio a cognitione causæ dependet et eandem involvit.”* Nearly every term in this sentence is important, which is why I have here repeated the original Latin. There is, especially, an issue regarding the proper English rendering of ‘cognitio’. Margaret Wilson provides a sensible solution: “‘Cognitio’ is normally translated ‘knowledge.’ Although some have raised objections to this practice, I propose to continue it here, but with the understanding that the concept in question may only be loosely connected with the normal connotations of ‘knowledge’ in modern English.”<sup>2</sup> Having noted this, we can deal with this claim in its standard translation, “The knowledge of an effect depends

---

<sup>1</sup>3Pref.

<sup>2</sup>Margaret Wilson, ‘Spinoza’s Causal Axiom’, in: Margaret Dauler Wilson, editor, *Ideas and mechanism: essays on early modern philosophy*, (Princeton University Press, 1999), p. 142

on and involves knowledge of its cause.” We must, however, always keep in mind that ‘knowledge’ here means something much broader. Both Wilson and Bennett emphasize this point, and it should be taken as uncontroversial given, as we shall see, Spinoza’s employment of it using several other terms in place of ‘cognitio’.

In her excellent chapter on 1A4, Wilson concludes that “there is not much point in trying either to explain or to justify the axiom in an off-the-cuff manner, without considering in detail what Spinoza does with it.”<sup>3</sup> Our task in this chapter is to go some distance toward explaining and justifying by doing just that. In order to adequately explain what the terms involved mean, for Spinoza, we must investigate how he uses them.

## 2.1 1A4 in Demonstration

There are nine<sup>4</sup> direct uses of the axiom in demonstrations in the *Ethics*. We will consider each of them.

### 2.1.1

*1P3: If things have nothing in common with one another, one of them cannot be the cause of the other.*

---

<sup>3</sup>Wilson, *op. cit.*, p. 160

<sup>4</sup>This is correct, so far as I can tell. I had originally been certain that there were only eight, having arrived at this number due to the influence of Bennett’s declaration, “that is how Spinoza construes the axiom in his seven other uses of it.” (Bennett, *op. cit.*, pp. 127–128), at which point he notes 1P3, 1P6c, 2P5, 2P6, 2P16, 5P22, and 1P25, along with 2P7 to make eight, but he omits 2P45. I do not know why this is the case in Bennett’s book, but I will not omit it here.

Jonathan Bennett argues, somewhat controversially<sup>5</sup>, for a logical reading of 1A4 in all cases except 2P7. He cites as evidence the following claim: “Although ‘cognition’ can be a term in psychology, Spinoza is also willing to use it to mean ‘concept’, taking the latter to belong to logic. (For evidence of this, see how 1a4 and 1a5 are combined in 1p3d.)”<sup>6</sup> It is unclear from just the text of 1A4 how it is supposed to be read as a logical claim, but perhaps by examining the demonstration of 1P3, we might see what he has in mind.

If they have nothing in common with one another, then (by A5) they cannot be understood through one another, and so (by A4) one cannot be the cause of the other, q.e.d.<sup>7</sup>

The fifth axiom establishes a commonality requirement between a thing and the means by which it is understood or conceptualized. “Things that have nothing in common with one another also cannot be understood through one another, *or* the concept of the one does not involve the concept of the other.”<sup>8</sup> The truth of this axiom is, unlike 1A4, and I think fairly uncontroversially, self-evident.

Some confusion may arise here regarding what it means for a thing to be understood through another. The last clause of 1A5 seems to clarify this point. Take the case of a particular object being understood through the general qualities of a concept it falls under. E.g., one may understand a particular cat (*qua feline*) having understood the biological family *Felidae*.<sup>9</sup> Conversely, in the case of two things which

---

<sup>5</sup>Cf. Wilson, *op. cit.*, pp. 150–151, for some objections to reading 1A4 purely logically. Wilson goes on to agree with Bennett “that, in light of the propositions immediately following it, axiom 4 must be interpreted as indicating connections of some kind between the concepts of the cause and of the effect.” In her view, conceptual involvement and logical entailment are distinguished.

<sup>6</sup>Bennett, *op. cit.*, p. 127

<sup>7</sup>1P3d.

<sup>8</sup>1A5.

<sup>9</sup>Note that via this axiom it seems to follow that anything shared between two things can serve as a means to understand one or the other of the things through the other, though the relation in

share nothing in common (at least, *prima facie*), it is self-evidently the case that trying to understand one of them through the other is futile. Spinoza then connects the commonality requirement for understanding to the conceptual-causal requirement for knowledge in 1A4.

Bennett's claim that 1P3 constitutes a logical use of 1A4 becomes more plausible if we render the move made in the last paragraph as follows.

1. If  $x$  has nothing in common with  $y$ , then the concept of  $x$  does not involve the concept of  $y$ . [By 1A5]
2. If the concept of  $x$  does not involve the concept of  $y$ , then  $y$  cannot be the cause of  $x$ . [By 1A4]
3. Therefore, if  $x$  has nothing in common with  $y$ , then  $y$  cannot be the cause of  $x$ . [By the theorem  $(P \rightarrow Q) \wedge (Q \rightarrow R) \rightarrow (P \rightarrow R)$ .]

The argument is valid, but the second premise, instantiating 1A4, is clearly contentious. Spinoza appears to be claiming that causal connection requires conceptual connection, but precisely what this means is still not abundantly clear. In light of this, 1P3 raises the following questions: 1) why does Spinoza take causal connection to require conceptual connection? 2) why does Spinoza think we will (or at least should) accept his view of causality (and conception)?

The conclusion of the previous chapter—that our approach to the axioms should be that their self-evidence need not be immediate, but may be mediated by the things they allow us to derive—entails maintaining a tentative stance toward the meaning of the axiom and the truth of the propositions as we proceed through the remaining demonstrations.

---

the case of individual cats to the family *Felidae* is clearly somewhat asymmetrical. That is, there is, plausibly, only a very minuscule extent to which one might understand the entire biological family through a particular cat, that is, e.g., through very weak induction.

### 2.1.2

*1P6c: A substance cannot be produced by anything else.*

Spinoza uses 1A4 in the alternate demonstration of the corollary to 1P6—that it follows from the demonstration of the impossibility of one substance producing another that “substance cannot be produced by anything else”. The demonstration, in Spinoza’s words, goes as follows. “if a substance could be produced by something else, the knowledge of it would have to depend on the knowledge of its cause (by A4). And so (by D3) it would not be a substance.”<sup>10</sup> Several interesting things follow from this demonstration.

First, Spinoza moves very quickly from the *production* of substance to *knowledge* of it. This is precisely where the controversy over 1A4 lies—how can Spinoza axiomatize this causal-conceptual connection, and why should we accept it as true? We see some inkling of his motivation for doing this in what he takes to follow from this connection, namely that 1A4 does not apply to substance (at least directly, i.e., to its essence as expressed in the definition). This is evident from the fact that 1D3 excludes it—substance, if there is such a thing, is that which is known (i.e., conceived) through itself alone, by definition (because otherwise one is simply not conceiving of the very thing defined).

It seems, then, that by the fact that we are constrained in what we can truly claim to be thinking about, we can make certain claims about how things are through analysis of their definitions. This provides some support for Bennett’s logical reading, if we take it that the conceptual involvement of the cause in the effect, when combined with 1D3, logically entails 1P6c. However, we must again refrain from hastily

---

<sup>10</sup>II/48/30.

generalizing to the meaning of 1A4 from this apparently logical use of it.

### 2.1.3

*1P25: God is the efficient cause, not only of the existence of things, but also of their essence.*

Here, Spinoza relies on 1A4 to show that the contrary claim is absurd. This absurdity, however, rests on 1P15, the claim that “Whatever is, is in God, and nothing can be or be conceived without God.” This proposition shows us Spinoza’s sense of the ‘in’-relation that may be at play in the ‘involves’ of 1A4. That is to say, the sense in which an effect involves its cause is the same as the sense in which whatever is, is in God, that is to say, involves it (God, or Nature). The argument for 1P25 goes as follows:

1. God is not the [efficient] cause of the essence of things. [Assumption for reductio.]
2. If (1), then the essence of things can be conceived without knowledge of God. [By 1A4.]
3. The essence of things can be conceived without God. [By 1,2 modus ponens.]
4. But, nothing can be conceived without God. [By 1P15.]
5. Therefore, God is the [efficient] cause of the essence of things.

Here 1A4 is used in the conditional second premise, and is as such not the key premise of the argument. Rather, 1P15 plays the key role since it asserts the conceptual dependence of everything on God, but we will not here discuss the truth of 1P15 as this would take us too far astray.

Further help in uncovering the meaning of 1A4 appears in 1P25 scholium, in which Spinoza argues that “God must be called the cause of all things in the same sense



in which he is called the cause of himself.” This is rather puzzling, since the sense of ‘cause’ used here is that of self-causation. This must mean that God is the cause of all things insofar as these things are in God, i.e., are each a part of God. This is made clear in the Corollary to 1P25: “Particular things are nothing but affections of God’s attributes, or modes by which God’s attributes are expressed in a certain and determinate way.” That is to say, the essence of God (i.e., each attribute individually) expresses everything which can fall under it (by 1P16), and this expression is God’s self-causing born out in a determinate manner. If there were some particular thing the essence of which was not caused by God, then it would have to be either a substance, or a modification of some other substance, since it could be conceived without God. But in 1P14, Spinoza has already, purportedly, proven that “Except God, no substance can be or be conceived.” and this, too, without using 1A4.

Even given all of the above, it remains somewhat difficult to see exactly what 1A4 is doing in the argument for God’s being the efficient cause of the essence of things. It is clear that it provides the means by which Spinoza conditionally derives the contrary to 1P15, and that this involves a connection between the conception of the essence of things and their cause. The causal-conceptual connection, explicit, but vague, in 1A4, does seem to be clarified by the logical connection to 1P15 in the argument above. Spinoza takes himself to have established the existential and conceptual (“be or be conceived”) reliance of all things on God (or Nature, i.e., Substance consisting of infinite attributes) without appealing to 1A4, and as such we can safely conclude from this analysis that insofar as 1A4 says that conception of an effect involves (and depends on, in some sense) the conception of the cause (of the effect), the argument for 1P15 might indicate (or perhaps even constitute, in part) an argument for the

truth of 1A4. We will consider this possibility in detail later. This concludes our discussion of the direct uses of 1A4 in Part One of the *Ethics*. We will now consider its uses in Part Two.

### 2.1.4

*2P5: The formal being of ideas admits God as a cause only insofar as he is considered as a thinking thing, and not insofar as he is explained by any other attribute. I.e., ideas, both of God's attributes and of singular things, admit not the objects themselves, or the things perceived, as their efficient cause, but God himself, insofar as he is a thinking thing.*

Spinoza uses 1A4 in the alternate demonstration of this proposition:

The formal being of ideas is a mode of thinking (as is known through itself), i.e., (by IP25C) a mode that expresses, in a certain way, God's nature insofar as he is a thinking thing. And so (by IP10) it involves the concept of no other attribute of God, and consequently (by IA4) is the effect of no other attribute than thought."<sup>11</sup>

1A4 here allows Spinoza to restrict the cause of the formal being of ideas to the attribute of Thought (i.e., as the expression of God's essence as a thinking thing alone). Again we see 1A4 applied causal-conceptually, that is, as the bridge between inter-conceptual involvement and the involvement of a cause in its effect.

Further illumination of 1A4 occurs in the latter half of the proposition, where Spinoza appears to be trying to clarify what he has just said, namely, that the efficient cause of the formal being of ideas is not to be found in the representational content of the ideas or the particular referent of thoughts, i.e., their objects or the things perceived, but rather in the attribute of Thought itself. This illuminates 1A4 by showing it to be the means by which we are to determine the concept by (or through)

---

<sup>11</sup>II/88/30.

which we are to understand an effect, namely, the concept under which the cause of the effect falls in virtue of being the cause of that particular kind of effect.

All this might more readily be seen in a reconstruction of this rather complex argument.

1. “Particular things are nothing but affections of God’s attributes, *or* modes by which God’s attributes are expressed in a certain and determinate way.” [1P25c]
2. If  $x$  is a particular idea, then the formal being of  $x$  is a certain and determinate expression, i.e., a mode, of the attribute (which expresses God’s essence) of thought.
3. “Each attribute of a substance must be conceived through itself.” [1P10]
4. So, conceiving of the formal being of  $x$  requires conceiving of the attribute of Thought alone.
5. The conception of an effect depends on and involves the conception of its cause. [1A4 in its conceptual rendering.]
6. So, the conception of  $x$  depends on and involves the conception of God [qua thinking].
7. So, “the formal being of  $x$  admits God as its cause insofar as he is considered only as a thinking thing”.

One thing which may remain somewhat puzzling is the meaning of ‘formal being’ (or ‘formal essence’), which I have treated up to this point as something akin to ‘kind’ in the general sense. Spinoza speaks of the *essentia formalis* several times, but the best clarification (of both *essentia formalis* and the argument given above) I have found is in 2P7, a proposition we will directly consider shortly.

When I said that God is the cause of the idea, say of a circle, only insofar as he is a thinking thing, and [the cause] of the circle, only insofar as he is an extended thing, this was for no other reason than because the formal being of the idea of the circle can be perceived only through another mode of thinking,

as its proximate cause, and that mode again through another, and so on, to infinity.<sup>12</sup>

This is why Spinoza says that ideas “admit not the objects themselves” as their efficient cause, since this would require the conception of an idea to depend and involve, conceptually, the idea of an extended object. But this cannot be the case, Spinoza has argued, since an attribute must be conceived through itself, so to conceive of the formal being of an idea (that is, of the attribute of which it is a mode) as somehow being caused by the object of the idea is absurd. So, conceiving of the formal being of an idea just is conceiving of God as its cause via the attribute of Thought. 1A4 is the means by which the *conception* of an effect (i.e., the formal essence of an idea) is rendered dependent on (or, to involve) the conception of its cause (i.e., the attribute of Thought).

Recall that in the previous chapter we settled on a tentative reading of the axioms as a combination of the holistic and emendation accounts. Given this, we can start to see how 1A4 may be intended by Spinoza to be treated as true so that our understanding of the connection between causes and effects can be adjusted and improved in order to avoid mistakes such as treating the objects of our ideas as their formal being. That this is a mistake is not obvious, since it seems plausible to treat the kind of thing the idea of a circle is as dependent on or involving the circle itself in some way (after all, it is the idea of a circle). Spinoza clearly has this sort of thinking in mind, and the purpose of this proposition certainly seems to be, at least in part, to correct such misconceptions.

Perhaps now it will be easier to see further evidence of this causal-conceptual emendation taking place.

---

<sup>12</sup>2P7s, II/90/20.

### 2.1.5

*2P6: The modes of each attribute have God for their cause only insofar as he is considered under the attribute of which they are modes, and not insofar as he is considered under any other attribute.*

The content of 2P6, and its demonstration, are very similar to the content and alternate demonstration of the previous proposition (2P5), which we have just considered. However, 2P6 is more general, since it applies to the modes of each attribute rather than just the formal being of ideas. 1A4 is again invoked after 1P10, to show that since attributes must be conceived through themselves, the concepts involved in that attribute's modes must belong only to that attribute. This is fairly obvious if one thinks about what the modifications of an attribute could even be. Since modes are defined as that which is in another through which it is conceived, why would it even make sense to think of the cause of a modification of the attribute of Thought as being a modification of some other attribute? Yet, without 1A4, it is easy to see how we could (albeit, for Spinoza, mistakenly) think that the cause of an idea is a modification of the body (e.g., a brain state). For Spinoza such inter-attribute causation is importantly impossible, and 1A4 is key to his demonstration of this impossibility, as we shall now see.

### 2.1.6

*2P7: The order and connection of ideas is the same as the order and connection of things.*

The proof of this claim is notoriously<sup>13</sup> short. “This is clear from IA4. For the idea of each thing caused depends on the knowledge of the cause of which it is the

---

<sup>13</sup>Cf. Wilson, *op. cit.*, p. 153 and Bennett, *op. cit.*, p. 127

effect.” This is not clear at all. But then, this is because, I think it is fair to say, the axiom itself is not clear (the clearing up of which is the major motivation for the task I have been undertaking here).

Jonathan Bennett suggests the following analysis:

In 2p7d, however, the axiom must be taking ‘cognition’ to stand for something mental: if  $x$  causes  $y$  then a mental item related in a certain way to  $y$  must involve a mental item related in the same way to  $x$ . Otherwise the axiom cannot even be seen to imply a parallelism between the physical and the mental.”<sup>14</sup>

This is in opposition to his claim that the other seven<sup>15</sup> uses of 1A4 are to be understood as logical, a view which has influenced some of the preceding analysis (albeit somewhat more tentatively than the way in which Bennett proceeds in his own analysis). However, Margaret Wilson suggests, “There are a number of reasons to reject Bennett’s view.”<sup>16</sup> These reasons are the following<sup>17</sup>:

1. “Spinoza has just defined an idea as a concept.” [At 2D3.]
2. “it is at best misleading to construe the term ‘idea’ in the *Ethics* as ‘psychological’ or ‘mental’.”
3. “up to *EIIp7* Spinoza has been talking exclusively of ideas *in God*.”

In the first case, I agree with Wilson that “the definition [of idea at 2D3] does rather clearly indicate that Spinoza sees no sharp break between terms that Bennett considers ‘logical’ and those that he considers ‘psychological’.”<sup>18</sup> However, the cause of this distinction in Bennett seems to lie in the fact that he objects to Curley’s “logicising of the attribute of Thought”<sup>19</sup>. Bennett thinks 1A4 must really be read psychologically,

---

<sup>14</sup>Bennett, *op. cit.*, p. 128

<sup>15</sup>Ignoring 2P45. See: n. 3 of this chapter.

<sup>16</sup>Wilson, *op. cit.*, p. 153

<sup>17</sup>All the quotations in the list are from *Ibid.*.

<sup>18</sup>*Ibid.*

<sup>19</sup>Bennett, *op. cit.*, p. 129

as opposed to logically, “so as to make it support a psycho-physical parallelism.”<sup>20</sup> However, he ends up admitting the following (which turns out to be quite useful for our purposes):

I have done nothing to make 1a4 believable on a psychological reading, and that task is too much for me. It is hard even to suggest reasons for Spinoza’s finding it plausible. He may have been influenced by its plausibility when read logically. Perhaps he was also encouraged by the fact that the axiom is reasonable if it is taken to mean that if  $x$  causes  $y$  then a *full* understanding of  $y$  requires *some* understanding of  $x$ ... Or perhaps Spinoza is thinking of some stratospherically high standard of cognitive perfection—some sort of utterly comprehensive knowledge—which we cannot have of a thing unless we have just as good knowledge of its cause. We shall see in §43 that he has a theory about one kind of cognitive process—he calls it ‘reason’—which is like that... and it may be that in advancing 1a4 Spinoza partly has in mind his own theory of ‘reason’.<sup>21</sup>

Having said all this, Bennett concludes that Spinoza may have a case for 1A4, but that reading it in this way will result in several gaps between it and 2P7<sup>22</sup>. Bennett thinks these gaps arise,

from assuming that 2p7 bears the whole burden of the parallelism doctrine... really it is 2p3 that asserts the existence of a mental item corresponding to every physical item... Given 1a4 and 2p3, we can argue pretty well for a strong doctrine of psycho-physical parallelism. But Spinoza gives no reason for 1a4, and I cannot think of any, except... [by which]... even with the aid of 2p3 there is no route to parallelism.<sup>23</sup>

This is not necessarily the case, though. As we noted above, Wilson has already given us three reasons to reject Bennett’s view, notwithstanding the fact that it renders Spinoza’s claims such that Bennett cannot understand how Spinoza is using 1A4 to prove 2P7. Even given the somewhat extensive time Bennett devotes to 1A4,

---

<sup>20</sup>Bennett, *op. cit.*, p. 129

<sup>21</sup>Ibid.

<sup>22</sup>Ibid., p. 130

<sup>23</sup>Ibid., pp. 130–131

this is at least *prima facie* uncharitable, especially given that he himself has already argued that the geometric form, including the axioms, should be treated hypothetico-deductively, and yet he resorts to saying that Spinoza has provided no reason for 1A4. This is surely premature, to say the least.

Wilson's first point, that Spinoza means by 'idea', "a concept of the Mind"<sup>24</sup> serves well to show that Bennett's insistence on a psychological reading, as opposed to a logical reading, of 2P7 is a false dichotomy. It excludes a viable alternative, namely, that since an idea *is* a concept, and if we read Spinoza's concepts as logical, then we can read 2P7 both logically and psychologically, in the sense that ideas are simply the psychological subset of a larger set of concepts, namely all the ideas in the infinite intellect (i.e., all the definite modifications of the attribute of Thought). At any rate, Wilson's caution regarding any insistence "that *EIax4* takes on a new, 'psychological' sense when introduced in the proof of *EIIp7*"<sup>25</sup> is well taken, and she has another, perhaps more important contribution to make in our understanding of the role of 1A4 in 2P7.

Wilson argues that at 2P7,

one should recognize that this application of the axiom also includes a different shift, which is truly important: the switch from 'involves' to 'depends on'. Whereas 'involves' connotes a relation of internal conceptual inclusion, 'depends' connotes a sort of external relation between ideas or items of knowledge. This distinction between internal and external causal and cognitive relationships is in fact the basis for Spinoza's distinction between adequate and inadequate knowledge...That Spinoza is able to make such a distinction shows something important about *EIax4*: that the 'involvement' of cause in effect is somehow limited.

---

<sup>24</sup>2D3

<sup>25</sup>Wilson, *op. cit.*, p. 154



The shift from involvement to dependence in this proposition is certainly important, as it serves to a signpost an expansion of our understanding of the axiom. In the preceding propositions we have considered, a quasi-logical reading has seemed somewhat plausible, since, as it appears Bennett thinks as well, the involvement relation expressed in the axiom serves to embed concepts within one another in logical contexts, e.g., in the preceding arguments for propositions. The dependence relation invoked in 2P7, however, seems to have led Bennett to conclude that the axiom must be read psychologically here, that is, as implying a relation between mental items, each other, and their objects (rather than implying that there is a conceptual link between causes and their effects). But this view is, I think, rather handily rebuffed by Wilson's noting of 2D3. The fact that Spinoza takes ideas to be mental concepts, when combined with 1A4, leads to the following argument for 2P7:

1. An idea depends on the knowledge of its cause. [2P7d, by 2D3 and 1A4.]
2. God is the cause of any mode of an attribute insofar as he is considered under that attribute.[2P6]
3. "the objects of ideas follow and are inferred from their attributes in the same way and by the same necessity as that with which we have shown ideas to follow from the attribute of Thought." [2P6c]
4. Therefore, "The order and connection of ideas is the same as the order and connection of things." [2P7.]

This argument uses several premises that Spinoza does not mention explicitly in his demonstration of 2P7, but the use of 2P6 and 2P6c is meant to serve only as a reminder of what should be understood in the first premise by the dependence of an idea on the knowledge of its cause. That is, the knowledge of the cause upon which an idea is supposed to be dependent is God considered under the attribute of Thought, that is, Nature conceived as essentially thinking. But given that ideas may

be ideas of either other ideas (or ideas of other ideas, and so on, ad infinitum), or of extended things, as the case may be, it follows by 1A4 that whatever the order of ideas is, it is the same as the order of the objects of the ideas, since this is just what it means for the ideas to have a certain order and have as their objects the things which really are their objects. This is why Bennett appeals to 2P3 to construct a stronger argument for 2P7 (as he sees it, psychologically). 2P3 states that “In God there is necessarily an idea, both of his essence and of everything that necessarily follows from his essence.” That is, granting ideas of all the attributes (since these are, after all, “what the intellect perceives of a substance, as constituting its essence”<sup>26</sup>) and of all the things which follow from the attributes (which is to say, all those things which can fall under the scope of an infinite intellect<sup>27</sup>), since the ideas will have as their objects all the things which can be thought of, namely, all the modes of all the attributes, their order and connection must be the same as the order and connection of the things of which they are ideas.

Put this way, it seems to me certainly plausible, and somewhat convincing, provided we accept the earlier claims upon which the demonstration relies. Our approach has been to treat such earlier claims, especially the axioms (but also the definitions, and the things which follow from them) as, when their truth is not immediately self-evident, hypothetico-holistically derivable possible truths, the purpose of which may involve an emendation of our way of thinking. Given this, our attitude toward 1A4 at this point will seemingly depend on whether our way of thinking about things has begun to more closely mirror the way Spinoza seems to want us to see things. This involves: 1) reconceiving of individual objects (i.e., modes) as modifications of an

---

<sup>26</sup>1D4

<sup>27</sup>1P16

infinite, single substance conceived under the attributes which constitute its essence; 2) reconceiving of knowledge of these modes (i.e., effects) as involving God as their cause insofar as the way in which we know the modes is through the attributes, which are God's essence (at least, when we get the attribution correct<sup>28</sup>). Our task here is not to argue for either of these theses, but rather to understand what Spinoza means by 1A4 so that we can consider its truth in the most charitable way possible.

### 2.1.7

*2P16: The idea of any mode in which the human Body is affected by external bodies must involve the nature of the human Body and at the same time the nature of the external body.*

This proposition occurs after the physical digression, in which Spinoza premises the remainder of his discussion with some axioms, lemmas and postulates by which, he claims, he can “easily deduce from them the things I have decided to demonstrate”<sup>29</sup>.

The demonstration of 2P16 goes like this:

For all the modes in which a body is affected follow from the nature of the affected body, and at the same time from the nature of the affecting body (by AI”<sup>30</sup> [II/99]). So the idea of them (by IA4) will necessarily involve the nature of each body. And so the idea of each mode in which the human Body is affected by an external body involves the nature of the human Body and of the external body, q.e.d.

---

<sup>28</sup>This is somewhat problematic, since misconceiving a mode under the wrong attribute would result in being completely wrong about what it is you think you are thinking of, if this is even possible. But this may be the source of Wolfson's ‘subjective’ reading of the attributes, as only being distinct in the intellect, but identical in substance. Cf. Spinoza, *Collected Works*, *op. cit.*, p. 409 n. 2.

<sup>29</sup>2L7s, II/102/15

<sup>30</sup>“All modes by which a body is affected by another body follow both from the nature of the body affected and at the same time from the nature of the affecting body, so that one and the same body may be moved differently according to differences in the nature of the bodies moving it. And conversely, different bodies may be moved differently by one and the same body.” II/99/10.

This demonstration seems to develop a key feature of Spinoza's account of sense perception, that is, the idea of a mode (of extension) constituted by my body as affected by some external object necessarily involves the nature of both my body and the external object. If this is the case, any time I perceive something external to me through the senses (in virtue of my sensory apparatus being affected by the external object(s)) it is fair to say that I will be confused, in Spinoza's sense of the term.<sup>31</sup> From this it is evident that 1A4 plays a crucial role in Spinoza's distinction between adequate and inadequate knowledge, which Wilson further notes, refutes "the view that *EIax4* applies only to 'idées vraies',"<sup>32</sup> or adequate ideas.

So, 1A4 can now be said to apply to both adequate and inadequate knowledge/ideas/concepts in that it shows us what constitutes the true nature of ideas of affections of the human body, namely, necessarily, the ideas of both the human body and the external thing, so that such ideas can never be purely of the objects they purport to represent. Olli Koistinen and Valtteri Viljanen point out that "According to Spinoza's causal axiom *IA4*, the idea of this process [of sense perception] involves the idea of its cause, and, therefore, this idea of the process in [the] body is also an idea of something else. Thus, the mind's spreading itself onto external objects is part of the meaning of the causal axiom"<sup>33</sup> This seems to provide a strong impetus to favour knowledge arrived at through some other means over sensory knowledge, though it does not show that sensory knowledge is useless. On the contrary, it invites

---

<sup>31</sup>Margaret Wilson clarifies this point well: "It is clear, though, that Spinoza does connect the claim that our ideas of external things involve the nature of our own body as well as (indeed, by *EIIp16c2*, more than) the nature of external bodies with the error of confusing our own physiological responses with actual properties of objects. For this is precisely the point of the examples he cites at *EIIp16c2*." Wilson, *op. cit.*, p. 158

<sup>32</sup>*Ibid.*

<sup>33</sup>Koistinen, Olli, editor, *The Cambridge Companion to Spinoza's Ethics*, (Cambridge University Press, 2009), p. 8

us to think about how we might clear up our sensory confusion. We now continue on to the last demonstration that uses 1A4 in Part 2 of the *Ethics*.

### 2.1.8

*2P45: Each idea of each body, or of each singular thing which actually exists, necessarily involves an eternal and infinite essence of God.*

Here Spinoza cites 1A4 in the demonstration, but clarifies it by referring to 1D6. The move goes like this:

But singular things (by IP15) cannot be conceived without God—on the contrary, because (by P6) they have God for a cause insofar as he is considered under the attribute of which the things are modes, their ideas must involve the concept of their attribute (by 1A4), i.e., (by 1D6), must involve an eternal and infinite essence of God, q.e.d.

The involvement of the concept of the attribute to which a mode belongs in the idea of the mode itself is a straightforward implication of 1A4—the idea of a body involves the attribute of which *it* (not the body, but the idea) is a mode, i.e., Thought, and as such, the formal being of the idea (as in 2P5) admits God as a cause, and therefore depends on and involves an eternal and infinite essence, i.e., an attribute, of God. The role of 1A4, both here and in several other demonstrations we have already covered, is beginning to take shape as a sort of guide through which we are to (come to) understand the relationship between substance, its attributes/essence, and its modes. I think it will be useful, and somewhat prescient, to recall the first axiom here, 1A1: “Whatever is, is either in itself or in another.” This, as I said in the first chapter, exhausts the possibilities. Given this, in order to understand anything else Spinoza says, we should be trying to understand whether he is talking

about something that is in itself, or something that is in another. But of course, such a way of thinking is abundantly opaque, and Spinoza cannot possibly expect us to accept this way of thinking immediately upon opening the *Ethics*. I will return to this thought in the next chapter, when I try to show why we should accept it.

The final proposition we will consider occurs much later, in the fifth part of the *Ethics*, though it bears a passing resemblance to the propositions we considered in the second part.

### 2.1.9

*5P22: Nevertheless, in God there is necessarily an idea that expresses the essence of this or that human Body, under a species of eternity.*

Neither Bennett nor Wilson devote much attention to this proposition<sup>34</sup>, but in the interest of undertaking an exhaustive analysis, we will see whether anything useful can be gleaned from it.

The claim that there are ideas of the essence of particular human bodies, which are in a certain way eternal (that is, these ideas of bodies contain no notion of duration), is, to say the least, strange. Yet, Spinoza thinks this claim follows from the fact that God is the the cause of the essence of any particular body, by 1P25, which, by 1A4, is necessarily conceived under the attribute of Extension. Given this, and the fact that, by 2P3, there is “necessarily an idea” in God “of everything that necessarily follows from his essence”, Spinoza claims to have shown that the idea of the essence of any particular human body is in God, and it is there in a certain way, eternally. It looks to me like this eternality stems from the claim at 1P21d, that “God’s idea

---

<sup>34</sup>And Curley does not mention it at all in Curley, *op. cit.*

in thought, or anything else which follows necessarily from the absolute nature of some attribute of God, cannot have a determinate duration, but through the same attribute is eternal.”<sup>35</sup>

Spinoza gives a very difficult, very puzzling, seeming explanation of at least some of what he says in this proposition in the scholium of the next one. There, he says, “we feel and know by experience that we are eternal. For the Mind feels those things that it conceives in understanding no less than those it has in the memory. For the eyes of the mind, by which it sees and observes things, are the demonstrations themselves.”<sup>36</sup> The last sentence is valiantly poetic, but I think we should understand by it something like that the sort of logical proofs Spinoza has given in the *Ethics* are, when understood, also *felt* in a certain way, necessarily, by analogy to the way in which we cannot choose what our eyes see. Likewise, we cannot choose what we believe on the basis of having understood a demonstration. This is made clearer in the concluding sentences of 5P23s, “we nevertheless feel that our mind, insofar as it involves the essence of the body under a species of eternity, is eternal, and that this existence it has cannot be defined by time *or* explained through duration.” Here we see, somewhat clearly, the connection between a particular human mind, the idea of the essence of the body of which it is the idea, and the idea of the essence of our body in God. The idea of the body as actually existing necessarily involves duration, since the actual existence of the body is durational, but this means that the essence of the body is non-durational in some way, since it is conceivable under a species of eternity. It is not at all clear what this means, except that this kind of conceiving involves the essences of particular bodies understood through God’s essence, as singular instances

---

<sup>35</sup>II/66/10

<sup>36</sup>5P23s, II/296.

of the infinitely many things which follow from God's essence in infinitely many ways<sup>37</sup>, without reference to their actual existence.

The role of 1A4 in all of this seems to be to reinforce the necessity of conceiving of the cause of the essence of a particular body through the attribute of Extension. In the next section we will attempt to synthesize an outcome out of the preceding investigation with the aim of settling on the meaning of 1A4 as it is used by Spinoza, and thus, ultimately, we should be able to determine at least some of Spinoza's reasons for accepting it as true.

## 2.2 What 1A4 Means

There is a viewpoint, similar in many respects to a view that has been hinted at throughout our discussion, which has not yet been mentioned, but which is nevertheless useful to consider before we reach any conclusion about what 1A4 means.

Michael Della Rocca argues that:

We can see that Spinoza accepts that causation is just conceptual connection by turning to his claim that a substance cannot be caused by another thing. His reason is that in such a case the substance would (contrary to the definition of substance) be conceived through that other thing (1p6c). Thus, for Spinoza, there must be some conceptual connection between two things in order for them to be causally related. Indeed, it is clear from this passage, together with the way he uses 1ax4 in 1p25d, that, for Spinoza, causation is coextensive with conceptual connection. But Spinoza's point here is more than a claim of mere coextensiveness. For Spinoza, causal connections are grounded in and stem from conceptual connections.<sup>38</sup>

---

<sup>37</sup>1P16. A better way of putting this might be, rather, the essence of singular things which fall within the infinite magnitude of the attribute of Extension.

<sup>38</sup>Michael Della Rocca, *Spinoza*, (Routledge, 2008), p. 44



Admittedly, Della Rocca's assertion about the role of 1A4 in this causal-conceptual unity is not based on the larger picture of 1A4 that we arrived at in the previous section. However, this leads us back to a tentative claim I made in §2.1.3, namely, that the argument for 1P15 might indicate or constitute in part an argument for the truth of 1A4. I will not fully flesh out such an argument just yet, but what I had in mind there is made clearer with the addition of Della Rocca's passage above. That is to say, the argument for 1P25 shows that God is the efficient cause of the essence of things by appealing to the fact that nothing can be conceived without God, and this link between the conceptual and causal is clearly provided through 1A4.

The implicit feature which I think will help justify 1A4 here is the reliance on the definitions of Substance and Attribute in the demonstration of 1P15, which as I said, I take to be the key premise of the demonstration of 1P25. This is a rather complex move, spanning several demonstrations and reaching all the way back to the first axiom of the *Ethics*, and I will not yet cover it in more detail. The purpose of mentioning the move here is that it helps to show that the meaning of 1A4 lies, ultimately, in the deeply embedded causal-conceptual interrelatedness (of involvement and dependence) of the definitions from which it is derived (i.e., 1D3 and 1D5).

Aaron Garrett bolsters this point nicely.

We are used to thinking of axioms, for example, in axiomatic set theory, as fundamental and definitions as of far less importance, but for Spinoza axioms are literally subordinate to definitions insofar as they arise from common features of beings that have essences and definitions.<sup>39</sup>

Given our previous tentative acceptance of Garrett's emendation-based approach to Spinoza's method, it should not be too surprising that we find support for this further

---

<sup>39</sup>Garrett, *op. cit.*, p. 158

implication in his view.

In this light, Della Rocca's focus on the role of 1A4 in the subordination of the causal to the conceptual makes perfect sense.<sup>40</sup> When Spinoza relies on 1A4 for establishing causal connections in the propositions, he is tacitly relying on the fact that 1A4 is a notion common to<sup>41</sup> the substance-mode-attribute magnitude. That is, the very definitions of Substance and Mode *involve* a conceptual component (conceptual independence in the former, conceptual involvement and dependence in the latter), and the fourth axiom is meant to serve as the general law of conception which applies to all things which fall under the definitions. 1A4 *means* when one is conceiving of an effect, one is conceiving of it through its cause, and this is so because, by definition, modes, to be conceived at all, must be conceived through something else, namely, what they are in, which leads inevitably to substance, since to conceive of a mode as in another mode would require conceiving of that mode in another, and so on, ad infinitum, unless one conceived of a more general cause, namely an immanent one.

This immanence is important for understanding causality in Spinoza's system. Without this distinction one would be unable to distinguish the causality which transpires between modes (e.g., one thought leading to the next or one body impinging on another) from the causality by which a thing can be the cause of itself. In the next chapter, the notion of immanence within Spinoza's system will become clearer, and in part guide us as we uncover the truth of Spinoza's causal axiom.

---

<sup>40</sup>It should also be noted that, as we saw in §2.1.1, 1P3d also appears to support this subordination. Our conclusion here answers the first of the two questions I raised in §2.1.1. The second question, about Spinoza's reasons for thinking we will accept his view, is only gestured at here, but will be tackled in the final chapter.

<sup>41</sup>I.e., a *common notion*, meaning, not one which we all already accept as immediately self-evident, but a general principle that applies to a given magnitude, cohering with Euclid's use, and arrived at through a holistic approach to understanding what Spinoza means by 'Substance' and 'Mode', thus vindicating the approach we set out to take in the first chapter.

## Chapter 3

# The Truth About 1A4

Having arrived at a view of both what we are to understand Spinoza to mean by ‘axiom’, and the meaning of 1A4, we can now begin the task of discerning its truth or falsity. One preliminary point which must be mentioned due to its seeming pervasiveness in the modern approach to Spinoza’s philosophy is the following attribution, made by Aaron Garrett. “Steenbakkers remarks, after Jaspers, that ‘whoever is not a convinced Spinozist can simply ignore all the ‘cogently’ deductive proofs.’ ”<sup>1</sup> This is true only if there are no reasons to accept the premises of any of the proofs. If there are such reasons, then simply ignoring what is proved by them would be decidedly unreasonable. I will here provide some reasons for accepting 1A4. The fact that there are other propositions one must accept in order for Spinoza’s proofs to be recognized as true is irrelevant to our task. This is reinforced by the hypothetical (even if foundational) nature of the definitions upon which the axioms lie.

In order to see the truth of 1A4 we need only consider its application within the relevant domain. True, this domain need not be accepted (here and now, at any

---

<sup>1</sup>Garrett, *op. cit.*, p. 161

rate) as corresponding to any actual state of affairs, except as far as it is possible to conceive of it. That is to say, almost truistically, whoever is not a convinced Spinozist may ignore the conclusions of Spinoza's valid proofs, but insofar as they are engaged in considering the proofs at all, cannot simply ignore (or dismiss) the premises.

Steven Nadler tells us that the connection between knowledge and causation is not something peculiar to Spinoza. In fact, explanation (understood as giving us the answer to why a given phenomenon is the case), "has historically and conceptually been linked with the notion of causation. To explain is to explain *causally*."<sup>2</sup> Indeed, the following claim from Hobbes captures the depth of this way of thinking nicely: "Philosophy is such knowledge of effects or appearances, as we acquire by true ratiocination from the knowledge we have of their first causes or generation: And again, of such causes as may be from knowing first their effects."<sup>3</sup> The similarity of this to 1A4 should not go unnoticed.

In *Behind the Geometrical Method*, Curley points out that Spinoza's 1A4 clearly echoes a passage from Hobbes' *De Corpore*, though Curley does not go into any detail about this connection.<sup>4</sup> We shall do this now.

### 3.1 Hobbes' Argument

To begin, let us reproduce the relevant passage from *De Corpore* here in its entirety:

How the knowledge of any effect may be gotten from the knowledge of the generation thereof, may easily be understood by the example of a circle: for if

---

<sup>2</sup>"Doctrines of Explanation in Late Scholasticism and in the Mechanical Philosophy" in Daniel Garber and Michael Ayers, *The Cambridge History of Seventeenth Century Philosophy*, Volume 2, (Cambridge University Press, May 2003), p. 513

<sup>3</sup>Thomas Hobbes, *The Elements of Law Natural and Politic. Part I: Human Nature; Part II: De Corpore Politico: with Three Lives*, New edition edition. (Oxford Paperbacks, April 1999), p. 186

<sup>4</sup>Curley, *op. cit.*, p. 166 n. 31

there be set before us a plain figure, having, as near as may be, the figure of a circle, we cannot possibly perceive by sense whether it be a true circle or no; than which, nevertheless, nothing is more easy to be known to him that knows first the generation of the propounded figure. For let it be known that the figure was made by the circumduction of a body whereof one end remained unmoved, and we may reason thus; a body carried about, retaining always the same length, applies itself first to one radius, then to another, to a third, a fourth, and successively to all; and, therefore, the same length, from the same point, toucheth the circumference in every part thereof, which is as much as to say, as all the radii are equal. We know, therefore, that from such generation proceeds a figure, from whose one middle point all the extreme points are reached unto by equal radii. And in like manner, by knowing first what figure is set before us, we may come by ratiocination to some generation of the same, though perhaps not that by which it was made, yet that by which it might have been made; for he that knows that a circle has the property above declared, will easily know whether a body carried about, as is said, will generate a circle or no.<sup>5</sup>

The form of the argument goes something like the following:

1. There is a figure which resembles a given definition.
2. It is not the case that we can perceive by sense whether the figure is true to the given definition or not.
3. If we know how the figure was made, then we can know, by reasoning from this knowledge, whether the figure is a true circle or not.
4. We know how the figure was made.
5. So, we can know, by reasoning from 4, whether the figure is a true circle.

That is to say, given an effect (e.g., a particular circular figure), it is impossible to know by mere sensory impression of the effect alone whether or not it is exactly what it appears to be (that is, e.g., whether it is a 'true' circle, or is in some way subtly defective). But, if one knows the method by which the effect was produced, it is easy to know whether it is what it appears to be. Thus, knowledge of an effect—that is, the truth value (of the idea one has) of the effect—may be gotten from the knowledge

---

<sup>5</sup>Hobbes, *op. cit.*, pp. 188–189

of its generation. Not only this, but the affirmation of the truth of an effect cannot be, so Hobbes claims, justified without recourse to knowledge of its generation. If we said of a particular effect that we had knowledge of it without any knowledge of its generation, then we could neither reliably reproduce the effect, nor explain how one could reproduce it (or, more generally, we would be unable to explain its production).

The latter claim might be considered contentious. For example, a simple figure is placed in front of a person long enough for them to have a persistent memory of it, and then removed, at which point the person is then asked to reproduce the same figure. It is not inconceivable that it is possible to produce a figure with enough accuracy to count as a generation of the same figure. The question, however, is whether the person has any knowledge of the generation of the original, in any sense.

I think we can reasonably argue that in the example considered above the person must have some knowledge of the generation of the original figure in order to reproduce anything like it. Such knowledge need not be of the exact same form as that given by Hobbes in his example. Take an even simpler figure—a straight line. It would be absurd if a person attempting to reproduce this figure without having witnessed its generation (or told of the means of its generation) drew a noticeably curved line instead.

It is more sensible to assume that reproduction will involve some sort of intuitive inference to how best to replicate the idea one has in one's mind of the original, using concepts which through reason can be associated with the generation of such a figure. That is, a person will employ knowledge they already have, of things which could reasonably be argued to produce an effect akin to the one they wish to reproduce, in order to attempt a reproduction. I.e., they will use knowledge of how to draw straight

or curved lines, or of how hard to press down on the writing implement to produce a line of comparable darkness, thickness, and so on. If a person does not have any idea of (i.e., does not know) how to do these things, then it would be absurd to think that they could reproduce the effect at all. Thus, Hobbes' argument, understood in this way, serves as a quite adequate ground for Spinoza's asserting 1A4.

In this section, we have investigated Hobbes' argument for how knowledge of an effect (a figure) depends on and involves (or, can be gotten from) knowledge of its cause (or generation). Even if this argument is not wholly satisfactory due to Hobbes' focus on geometrical figure, it provides us with a historical precedent from which we can now distinguish Spinoza's own reasons for thinking that 1A4 is a common notion in his system. First, though, we should consider a few objections to Spinoza's causal axiom.

## 3.2 Some Objections

The objections to 1A4 tend to come from those who either objected to broader implications of Spinoza's philosophy (i.e., the rejection of free will, a personal God, etc.) or from those who simply think that knowledge of effects can be had brutally, without requiring knowledge of the cause. Here we will try to cover paradigms of both these sorts of objections, and will show that they result from two things: 1) a misunderstanding of what an axiom is for Spinoza, and as a result, 2) a refusal to assent to Spinoza's identification of causation and conception, even hypothetically, within his own system.

### 3.2.1 Curley / Bayle

Nadler summarizes one of Bayle's objections (the one which pertains directly to our discussion) as follows:

Bayle was offended in particular by what he took to be Spinoza's conception of God and of God's relationship with things... Bayle objected that if things and their properties are nothing but properties of God and therefore predicable of God, then a number of unacceptable conclusions follow. First, there is the logical problem that God would have incompatible properties. The happy person and the sad person would equally be states of God, and thus God would be happy and sad, or a happy person and a sad person, at the same time; this, Bayle insists, is absurd.

If we take Bayle's example and substitute it into 1A4 we get: "The knowledge of a person depends on and involves the knowledge of God." Given Bayle's acceptance of an inherence reading of the relation of modes to God, it would seem to follow that the dependence and involvement of a happy person on God (such that our knowledge of the former depends on and involves the knowledge of the latter) entails that the happy person is a property of God, and thus, it would seem, if there is also a sad person, then God has contradictory properties. It is fairly clear, even on the surface, that Bayle has just misunderstood what it means for things to inhere in anything, let alone in God. It is not absurd for a person to feel both happy and sad at the same time, since people are capable of complex (emotional) relationships. It is entirely plausible for a person to be both happy and sad, e.g., with regard to the fact that a loved one has died. Consider an elderly man who has spent quite a long time taking care of his ailing wife, involving much frustration, confusion, stress, and decline in his own state. When his wife eventually dies, the man may reasonably experience both the apt sadness at the permanent disappearance of a long-term object of love, and yet also a sense of relief that the difficult task he he has more recently been engaged



in to preserve that object has come to an end and allowed him to recoup his own health and state of mind. This latter state may manifest in a feeling of happiness. Admittedly, this may be a source of guilt or confusion for the man, but this does not indicate absurdity in the logical sense (since the duality is a reality), but only that the man is capable of experiencing multiple complex and interwoven emotions. Likewise, there is no reason to think that many modes in God are not just like the emotions of this man.

Even if we interpret Bayle's claim more charitably and try to find a more likely source of absurdity, say, that God is both cubic and spherical, a similar rebuttal follows, namely that this confuses Substance with its modifications (or, in non-Spinozistic terms, it commits a composition fallacy). The fact that the things which are modifications of God are, qua modifications, identical with God, in the same way that the individual buildings and people of a university are identical with the university, allows predications of the whole which otherwise might be absurd.

Indeed, this last example evokes Ryle's notion of 'category-mistake' as a characterization of Bayle's interpretation. Curley's objection to the inherence interpretation of the 'in'-relation rests on just such a notion. As Nadler puts it, "Curley adds his own objection to such an account of the relationship between God and things. It is, he says, simply odd to regard the items that we think of as 'things' and as real individuals (houses, chairs, human souls) as actually being properties or states of something else. That seems to be quite a serious category mistake, one of which Spinoza should not be accused."<sup>6</sup> Nadler's defense of Spinoza is roughly the same as ours, that seemingly incompatible properties are not absurd when predicated of God

---

<sup>6</sup>Steven Nadler, 'Substance and Things in Spinoza's Metaphysics', in: Charles Huenemann, editor, *Interpreting Spinoza*, (Cambridge University Press, 2008), p. 56

precisely because they are predicated “in *different* respects”<sup>7</sup>. In the section on 1P15, immanence, and knowledge, we will see that Curley’s rejection of the inherence view of modes in Substance as a result of this objection is premature, and that his own view cannot do justice to what Spinoza really means the ‘in’-relation to be.

### 3.2.2 An Empiricist Objection

A more serious, direct objection to 1A4 is the view that we simply do not need to have knowledge of the cause of an effect (or event) in order to have knowledge of the effect (or event). The argument goes something like the following:

1. Assume that knowledge of an effect depends on knowledge of its cause.
2. There is an object which appears to be a glass on the table in front of me.
3. I do not know the cause(s) of the glass appearing to my senses.
4. Yet, I know some things about the glass, e.g., that it is a glass, has a fairly determinate apparent shape, a certain hardness, and so on.
5. Therefore, I have knowledge of the effect without knowledge of its cause.

On its face, this argument might seem devastating to those who are accustomed to thinking in empiricist terms, e.g., in terms of brute sense data that admit no possibility of access to their cause(s) in themselves.

The Spinozist can respond, however, that this is to employ different notions of effect, cause, knowledge, and so on, than Spinoza has in mind. Within the context of Spinoza’s system, 1A4 applies to Substance and modes. Recall, 1A1: “Everything is either in itself or in something else.” Given this axiom, which our earlier analysis showed is exhaustive of the possibilities (as a notion common to the magnitude of

---

<sup>7</sup>Nadler, ‘Substance and Things’, *op. cit.*, p. 60

Substance and modes in Spinoza's senses of those terms, of course), we can conclude that conceiving (i.e., the knowledge) of a thing means conceiving of it either in itself or in something else, depending on which of these it actually is. From within Spinoza's system the supposed knowledge the empiricist in our example claims to have of the glass is rendered as knowledge only insofar as it depends on and involves knowledge of the cause. We established what this means in the second chapter—insofar as the glass is a mode of extension, knowledge of it depends on the attribute of extension, i.e., how to employ concepts of extension like position in space, shape, volume, and so on. Insofar as we are conceiving a glass at all, we are conceiving of a definite modification of the infinite attribute of extension.

The third and fourth premises in the above argument are simply spurious. They appear at first to be plausible, but they do not apply within the magnitude to which 1A4 applies. As Spinoza says to Lodewijk Meyer, “if the Modes of Substance are confused with Beings of reason of this kind, *or* aids of the imagination, they too can never be rightly understood. For when we do this, we separate them from Substance, and from the way they flow from eternity, without which, however, they cannot be rightly understood.”<sup>8</sup>

I think we have gone some way to adequately responding to possible objections. If the reader conceives of any others which I have not foreseen, let him or her read on, and perhaps the truth of 1A4 will become clearer through a positive defense of it.

---

<sup>8</sup>Letter 12. IV/58

### 3.3 1P15, Immanence, and Knowledge

There are a few things I earlier said I would return to in this chapter. The first is the importance of emendation in Spinoza's method, which I raised briefly in the first chapter, and again late in the second. The second consideration I wish to return to is the thought that the argument for 1P15 contains in it (at least the seeds of) a latent argument that will help justify 1A4.

#### A Note on Emendation

By 'emendation' I mean that Spinoza intends his method to produce a modification in our way of thinking about things such that we begin to think about them in terms of their causes. Spinoza at times remarks that he does not expect people to be already accustomed to this way of thinking prior to encountering his philosophy, and also that they will not understand him unless they do think this way.<sup>9</sup> Our goal in undertaking a defense of 1A4 is not to defend the broader upshot of this, that we *ought* to think about things only in terms of their causes, i.e., that this is the metaphysico-epistemological reality of our universe. This is, probably, at least one of Spinoza's goals, though. Our goal, however, is simply to show that presupposing the relevant domain of applicability for the axiom, 1A4 is true. The non-spinozist may see this as merely verifying the features of a chimera<sup>10</sup> but for our purposes it does not matter. After all, the argument for the existence of Spinoza's Substance is distinct from whether an axiom governing a certain feature of a hypothetical entity

---

<sup>9</sup>See: 1P8s2 for an extended discussion and clarification of what Spinoza has taken himself to have shown in the first eight propositions, and where he thinks his readers are apt to go wrong in trying to understand him.

<sup>10</sup>I.e., the fact of 1A4's truth in its applicability to a Substance/mode ontology might, to the ontologically unconvinced, be seen as equivalent to showing that unicorn horns grow at a rate of one metre per decade.

is true, in the sense required, or not (i.e., true in the sense of actually representing a feature of the entity, in the way that the axioms for geometrical forms represent features common to even hypothetical shapes).<sup>11</sup>

### 3.3.1 Causal-Conceptual Dependence and Involvement

The second issue mentioned in the introduction to this chapter requires some preliminary analysis, and takes us back to the beginning of the *Ethics*. 1P15 is the proposition that “Whatever is, is in God, and nothing can be conceived without God.” Even on the surface it bears a striking grammatical resemblance to 1A4, connected by 1A1: “Whatever is, is either in itself or in something else.” What is in itself is self-caused, and so knowledge of it depends on and involves only the knowledge of itself; what is in another, by 1A4, depends on and involves on the knowledge of its cause, and its cause is what it is in, since the very essence of it is that it is in something else which is its cause. 1P15 is useful to us precisely because it clarifies the ontological status of finite things in Spinoza’s system (as being in God, or Nature, and, as such, conceptually dependent on God, or Nature), and the primacy of the definitions therein.

1P15 serves as an exemplar of the hypothetical-holistic-emendation approach to the axioms which was the upshot of our earlier investigation. The definitions and axioms which begin the *Ethics* are, in 1P15, given a new twist due to the denial of

---

<sup>11</sup>Of course, Spinoza also has much to say about those who claim that Substance does not exist. E.g., “if someone were to say that he had a clear and distinct, i.e., true, idea of substance, and nevertheless doubted whether such a substance existed, that would indeed be the same as if he were to say that he had a true idea, and nevertheless doubted whether it was false (as is evident to anyone who is sufficiently attentive)... So it must be confessed that the existence of a substance, like its essence, is an eternal truth.” (1P8s2) It is, as I have said, a task for another time to defend such claims, but it seems necessary to note here that the truth of the axiom we are considering rests on conditions which are, for our purposes, hypothetical. The usefulness of this undertaking is that it clarifies a key feature of Spinoza’s system and allows us to shift the linchpin of the system to another place.

the conceivability of any other substance but God in 1P14. The formerly completely general definitions of ‘substance’ and ‘mode’ are, as a result of the developments of the system thus far, collapsed into (i.e., reduced in scope to apply solely to) ‘God’ as Spinoza has defined it. The demonstration of 1P15 runs as follows:

1. “Except God, no substance can be or be conceived.” [1P14 & 1D3]
2. “modes can neither be nor be conceived without substance.” [1D5]
3. So, if  $x$  is a mode, then  $x$  can neither be nor be conceived without God.
4. “Everything is either in itself or in something else.” [1A1]
5. Therefore there is nothing else except God and that which is in God and conceived through God.

The demonstration of 1P15 involves the previous proposition, combined with the definitions of substance and mode, and the first axiom. Given the proposition that God is the only substance conceivable, and the axiom that whatever is, is either in itself or in something else, the definition of substance as that which is in itself and conceived through itself, and finally, the definition of mode as that which in another through which it is conceived, Spinoza takes it to follow that there is only one substance, God, i.e., only one thing which is in itself, and the fact of 1A1, everything else, i.e., all modifications must be modifications of God, i.e., conceived through, and existing in God.

The connection to 1A4 becomes fairly transparent in the conclusion of the demonstration. Given that “nothing can be or be conceived without God”, it follows that for anything that we conceive, or know, or have an idea of (i.e. for the ‘cognitio’ of  $x$ ), knowledge of it will depend on and involve conceiving of God. We must conceive of God in order to conceive of any modification of God precisely because a modification

is ‘in’ God and conceived through it. But what does this ‘in’ relation really amount to?

Steven Nadler describes two possible interpretations of 1P15 which render the ‘in’ relation differently. The first is that “things are in God or substance in the sense of being properties or states or qualities of God. They inhere in God as in a subject or substratum.”<sup>12</sup> This view, Nadler asserts, “makes Spinoza’s account of the substance-mode relationship similar to that of Descartes, for whom the modes of a substance are the properties that inhere in it – or, more precisely, that inhere in its principle attribute or nature – and for that reason are predicable of it.”<sup>13</sup> The second interpretation, attributed by Nadler to Curley, is a causal reading, in which “God’s attributes can be seen as the universal causal principles of everything that falls under them – which is absolutely everything. In short, on Curley’s reading, inherence gives way to causal dependence.”<sup>14</sup> This shift is such that it renders God as the direct cause, not of the modes themselves, but of the laws by which modes interact with each other. The relation of modes to substance is not that of, say, the property of being hard or soft in relation to the particular Aristotelian substance in which it inheres. Instead, in Curley’s view, God’s essence (i.e., the attributes) constitutes the framework or conditions on which modes are dependent for the way in which they interact with each other, and these modes are rendered “but an effect of God’s powers”<sup>15</sup>. This has the effect of making God really distinct from its modifications. In virtue of this, Nadler criticises Curley’s causal interpretation on the grounds that “without inherence, immanence – and a stronger sense of the way in which things

---

<sup>12</sup>Nadler, ‘Substance and Things’, *op. cit.*, p. 54

<sup>13</sup>Ibid., p. 55

<sup>14</sup>Ibid., p. 57

<sup>15</sup>Ibid., p. 65

are ‘in’ God – is practically lost... To end up with Spinoza talking of God acting ‘on things other than God’ seems to me too high a price for an interpretation to pay to avoid inherence.”<sup>16</sup> One reason Nadler may take this view can be expressed in the following argument:

1. If modes do not inhere in God, then God acts on things other than God.
2. If God acts on things other than God, then these things are really distinct from God.
3. But modes are not really distinct from God. [By 1P25s, “God must be called the cause of all things in the same sense in which he is called the cause of himself.”]
4. So, God does not act on things other than itself.
5. So, it’s not the case that modes do not inhere in God.

Key to this argument against the objection to inherence is the third premise. Spinoza’s argument for this is the corollary to 1P25s: “Particular things are nothing but affections of God’s attributes, *or* modes by which God’s attributes are expressed in a certain and determinate way. The demonstration is evident from P15 and D5.” Thus, we can illuminate Spinoza’s sense of ‘in’ in 1P15 in the same way we illuminated the sense of 1A4 in the second chapter — by seeing how he uses it. Here he has used it to assert the univocal sense of God’s causal power with regard to both itself and all things. Given this, it is hard to see what other kind of cause God could be of itself than an immanent cause, i.e., a cause which is not external to its effect(s).

Spinoza’s equating of particular things with the “certain and determinate” expression of God’s attributes (which *are* its essence) seems to imply that particular things simply *are* God expressing itself in a certain and determinate way. Further

---

<sup>16</sup>Nadler, ‘Substance and Things’, *op. cit.*, p. 64



verification that this is how Spinoza intends the relation between modes and God can be seen in the claim at 2P9d, that “the cause of one singular idea is another idea, *or* God, insofar as he is considered to be affected by another idea; and of this also [God is the cause], insofar as he is affected by another, and so on, to infinity.” This clearly suggests that Spinoza does consider modifications to be God, considered one way, rather than another. I take it that this is due to Spinoza’s distinction between *Natura naturans* and *Natura naturata*:

...by *Natura naturans* we must understand that which is in itself and is conceived through itself, *or* such attributes of substance as express an eternal and infinite essence, i.e., (by P14C1) and P17C2), God, insofar as he is considered as a free cause. But by *Natura naturata* I understand whatever follows from the necessity of God’s nature, *or* from any of God’s attributes, i.e., 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.<sup>17</sup>

It is clear from this that *Natura naturans* is Substance *per se*, but it not immediately clear from what Spinoza says about *Natura naturata* whether it is *ontologically* identical with *Natura naturata*. This ambiguity seems to be the source of Curley’s interpretation of ‘in’ as causal rather than inherence. If *Natura naturata* is really distinct from *Natura naturans*, in the sense that only the latter is God, whereas the former is distinct though causally dependent on the latter, then the result is that what follows from the necessity of God’s nature is not God, but something else. But as I argue, in agreement with Nadler, this view is contradicted by Spinoza’s univocal sense of causation in God.

---

<sup>17</sup>1P29s

### 3.4 Conclusion

Michael Della Rocca agrees with the previous analysis that “there is strong evidence that Spinoza does indeed see modes as states of substance... this reading of modes as states emerges from and is required by Spinoza’s naturalism.”<sup>18</sup> As we saw at the end of the second chapter, Della Rocca takes Spinoza to have subordinated the causal to the conceptual (via 1A4). Causal dependence just is conceptual dependence, and conceptual dependence just is the ‘in’ relation—a thing is conceptually dependent on what it is in, i.e., either itself or another thing (via 1A1). Della Rocca articulates this thought nicely when he says “Yes, both inherence and mere causation are kinds of dependence, but, for Spinoza, by virtue of his rationalism, they are ultimately the same kind of dependence, and that is conceptual dependence tout court.”<sup>19</sup> This conceptual dependence is the dependence of the concept of a mode on the concept of substance, since the mode depends for its essence on the essence of substance. That is, recall the equivalence of “whatever follows from... any of God’s attributes” and “modes of God’s attributes” in the explanation of *Natura naturata*, above. Indeed, Della Rocca provides some words from Spinoza himself which sound the death knell for Curley’s interpretation: “in this passage from TTP: ‘knowledge of an effect through its cause is nothing but knowing some property of a cause.’ He seems to be equating an effect of a cause with a property of the cause.”<sup>20</sup> This is precisely why 1A4 is true. The inherence relation and the causal relation are both really the conceptual relation between substance and its modes. The knowledge of an effect (a mode) depends on and involves (is caused by and inheres in) the knowledge of its cause (God), precisely

---

<sup>18</sup>Della Rocca, *op. cit.*, pp. 62–63

<sup>19</sup>Ibid., p. 67

<sup>20</sup>Ibid., p. 69

because this dependence and involvement is the conceptual connection of properties of a cause to the cause. Spinoza provides the following example to illustrate this:

Let us conceive, therefore, some singular volition, say a mode of thinking by which the Mind affirms that the three angles of a triangle are equal to two right angles. This affirmation involves the concept, *or* idea, of the triangle, i.e., it cannot be conceived without the idea of the triangle. For to say that A must involve the concept of B is the same as to say that A cannot be conceived without B. Further, this affirmation (by [2]A3) also cannot be without the idea of the triangle. Therefore, this affirmation can neither be or be conceived without the idea of the triangle. Next, this idea of the triangle must involve this same affirmation, viz. that its three angles equal two right angles. So conversely, this idea of the triangle also can neither be nor be conceived without this affirmation.<sup>21</sup>

Thus, in conceiving of the properties of a cause, we are conceiving of the cause itself, as the thing in which the properties inhere. These properties can neither be nor be conceived without the thing in which they inhere. From this it is quite clear that it is an axiom that the knowledge/idea/cognition/conception of an effect depends on and involves the knowledge of its cause. I end with a proposition from late in the *Ethics*: “The more we understand singular things, the more we understand God.”<sup>22</sup>

---

<sup>21</sup>2P49d.

<sup>22</sup>5P24.

# Bibliography

- Bennett, Jonathan, *A Study of Spinoza's Ethics*, (Hackett Publishing Company Inc., 1984).
- Curley, Edwin M., *Behind the Geometrical Method: A Reading of Spinoza's Ethics*, (Princeton University Press, 1988).
- Della Rocca, Michael, *Spinoza*, (Routledge, 2008).
- Garber, Daniel and Ayers, Michael, *The Cambridge History of Seventeenth Century Philosophy*, Volume 2, (Cambridge University Press, May 2003).
- Garrett, Aaron V., *Meaning in Spinoza's Method*, (Cambridge University Press, 2003), p. 240.
- Hobbes, Thomas, *The Elements of Law Natural and Politic. Part I: Human Nature; Part II: De Corpore Politico: with Three Lives*, New edition edition. (Oxford Paperbacks, April 1999).
- Koistinen, Olli, editor, *The Cambridge Companion to Spinoza's Ethics*, (Cambridge University Press, 2009).
- Nadler, Steven, *Spinoza's Ethics: An Introduction*, (Cambridge University Press, 2006).
- 'Substance and Things in Spinoza's Metaphysics', in: Huenemann, Charles, editor, *Interpreting Spinoza*, (Cambridge University Press, 2008), pp. 53–70.
- Runes, Dagobert D., *Spinoza Dictionary*, (Philosophical Library, 1951).
- Spinoza, Benedictus de, *The Collected Works of Spinoza*, trans. by Edwin M. Curley (Oxford University Press, 1985).
- *Complete Works*, trans. by Samuel Shirley (Hackett, 2002).
- Wilson, Margaret, 'Spinoza's Causal Axiom', in: Wilson, Margaret Dauber, editor, *Ideas and mechanism: essays on early modern philosophy*, (Princeton University Press, 1999), pp. 141–165.
- Wolfson, Harry Austryn, *The Philosophy of Spinoza*, (Harvard University Press, 1983).