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Spinoza on the Mind-Body Problem: Two Questions

CHARLES B. DANIELS

In this paper I shall discuss Spinoza's solution to the perplexing problem of how minds are related to bodies. I shall first present the problem in a form that does, indeed, perplex me and, I hope, fairly represents it as philosophers have traditionally grappled with it. I shall then summarize what I take to be Spinoza's solution to it. Finally I shall raise two difficulties that I have when I put myself into a Spinozistic frame of mind and attempt to appreciate the solution he has given.

I *Independence of Mind and Body*

In his *Meditations on the First Philosophy*, Descartes puts forward three incompatible hypotheses to explain his experiences, to explain, for instance, the fact that on that famous occasion it seemed to him that he was seated by the fire, wearing a dressing gown, holding a piece of paper in his hand, etc. In the first, or what might be called the Reality Hypothesis, things were how they seemed. In the second, or Dream Hypothesis, however, things were not at all how they seemed: Descartes was not seated by the fire; rather he was in bed dreaming that he was seated by the fire. In the third, or Mischievous Demon Hypothesis, things were even less how they seemed, for there was no fire, no bed, indeed, no space at all. A mischievous demon was tampering with Descartes' thoughts so that it seemed to him that there was space, and that he and the fire were in it.

I wish to draw attention to two points one must accept if one accepts Descartes' hypotheses as coherent: (i) the notion that there could be thoughts and experiences, i.e., minds, in the absence of space, that neither the proposition 'Someone is having experiences' nor the proposition 'Someone is having sense experiences', by itself, entails the proposition 'Space exists', that extension is not part of the essence of thought, and (ii) the notion that the occurrence of thoughts and experiences could have a

cause, which might most aptly be termed a 'psychological' (although not behavioural) cause, even in the case that there were no space, for in the third hypothesis the demon does cause Descartes to have certain thoughts and experiences.

Let me embellish these two points by sketching out a series of possible situations:

(A) Let us suppose that space exists and that in it things are much the way they are in our world, save for one or perhaps two features. The first feature is that in this story no thoughts or experiences occur. There are human bodies in space. They do much the same things that human bodies do in our world: they speak, drive automobiles, and even work in labs and do experiments. But there are no thoughts or experiences, no minds. The second feature is that in this story everything that happens, even in the realm of subatomic particles, has a cause sufficient for its occurrence. Nothing happens by chance. And, naturally, the causes of the things that happen in space are themselves things that happen in space.

(A*) This story is quite like (A). Space exists, and everything that happens in it happens precisely the way it did in (A). The difference is that in this story thoughts and experiences also occur, and they occur much as they do in our world. Yet from this story we might conclude that if some particular thought or experience fails to be identical with something in space,¹ it is neither the cause nor the effect of anything that happens in space, since the causes and effects of things that happen in space are, by the hypothetical similarity of this story to (A), fully accounted for by things that happen in space.²

(B) Let us suppose that thoughts and experiences exist and are much the way they are in our world. In this story, however, despite appearances, there is no space. But here, like the world of (A), everything that happens has a cause, a psychological cause, sufficient for its occurrence. Nothing happens by chance. But

1 I shall, in the following section, discuss the epistemological difficulties attending the verification of an identity like this.

2 Here I simply ignore the contention that effects may be overdetermined. If causal sufficiency is transitive, then, in a sense, every effect will be overdetermined. That some non-spatial event can also be the cause of a spatial event that is already caused by a spatial event is the point of mentioning overdetermination in the present context. But since the question to be raised in the following is that of how non-spatial events can cause spatial events and vice versa, I feel justified in ignoring the possibility of overdetermination in the cases I am now describing.

since, of course, there is no space, no cause and no effect of anything that happens is spatial.

(B*) This story is quite like (B). Thoughts and experiences exist, and everything that happens with respect to them happens just the way it did in (B). The difference is that in this story spatial events also occur, and they occur much the same way as they do in our world. Yet from this story we can conclude that if some particular spatial occurrence fails to be identical with some mental occurrence, it is neither the cause nor the effect of any thought or experience, since the causes and effects of mental occurrences are, by hypothesis, fully accounted for by mental occurrences.

(C) This story is quite like (A) again. Space exists, and in it things are much the way they are in our world. No minds exist. The difference between this story and (A) is that some of the things that happen in space fail to have causes sufficient for their occurrence. Some things do happen by chance.

(C*) This story is like (C), save that there also exist some particular thoughts and experiences which occur prior to, or simultaneous with, those spatial occurrences that have no sufficient cause in (C).

I do not plan to bore you by telling stories (D) and (D*) that correspond to (B) and (B*) in the way that (C) and (C*) correspond to (A) and (A*). I invite you to consider, however, what I might have said about (D*) in connection with what I do say about (C*).

First off, when one does, like Descartes, engage in conceptual exploration by considering such stories, there seems to be no obvious reason to suppose that a suitable blend of stories (A) and (B), call this (AB), will result in incoherence, provided, of course, that each of (A), (B), (A*), and (B*) is itself coherent. Indeed, in (AB), if no thought or experience is identical with anything in space and if nothing in space is identical with any thought or experience, then nothing in either realm is the cause or the effect of anything in the other. What we seem to have are two separate realms that march along quite independently, each causally sufficient to itself.

Secondly, if in (C*), however, as opposed to (C), everything that happens does have a sufficient cause, we can conclude that not all of the thoughts and experiences, whose presence in the world of (C*) distinguish it from the world of (C), are identical with spatial occurrences. For if all of them were identical with

spatial occurrences, all spatial occurrences in (C) would have a sufficient cause, contrary to the hypothesis of (C). We can also conclude that some of the thoughts and experiences in (C*) that are not spatial do cause, at least partially, spatial occurrences; for if they did not, those spatial occurrences in (C) that were without sufficient causes would be without sufficient causes in (C*).

Now let me make explicit what we have perhaps already accepted implicitly in entertaining the world of (AB), namely that no thought or experience in (AB) is identical with anything spatial and vice versa. By the hypothesis of (A), everything in space has a cause and that cause is also a thing in space. By the hypothesis of (B), every thought and experience has a cause and that cause is a thought or experience. Under this amplified description of the case, then, it would be a queer and *ad hoc* kind of causation, to my mind at least, by which some thought or experience was even in part the cause of something in space in the world of (AB), or vice versa. Yet if, in the world of (C*), everything has a cause, one is led to suspect that precisely this kind of queer and *ad hoc* causation is at work in (C*).

The difficulty I have with (C*), as did Spinoza, is that of understanding how a thing that is not spatial can be responsible, even partially, for an occurrence that is spatial, how, in Descartes' terms, a thing that is not even the slightest breeze or whiff of animal spirits, a non-spatial thought, can, given space and a prior history of non-sufficient spatial events, move a body, even a body as small and delicate as a pineal gland, or contribute in any way to a change in it or in its spatial environs.

This difficulty really found implicit expression in the beginning, in the description of (A), where all but the extremely wary reader will have taken the sentence, '... in this story everything that happens, even in the realm of subatomic particles, has a cause sufficient for its occurrence', and read it, '... in this story everything that happens *in space*, even in the realm of subatomic particles, has a cause *in space* sufficient for its occurrence'. Yet without the qualifying words, 'in space', we should then expect there to be a cause of the non-occurrence of non-spatial thoughts and experiences in (A). And if we resist the idea that the cause of a particular non-occurrence of a non-spatial thought in (A) might be (another) non-occurring non-spatial thought, i.e., that non-occurring as well as occurring events can be causes, the only candidates left in (A) are spatial occurrences.

What lies behind this easily missed qualification is, I think, the acceptance of a metaphysical presupposition that confines causal relations to holding only among entities of limited realms and the further presupposition that bodies inhabit one such realm and minds, if not identical with bodies, another. The force in this context of Descartes' hypotheses is, then, to make plausible the notion that minds needn't be identical with bodies, i.e., needn't be spatial, and needn't be causally related to them either, even when everything has a cause.

As we shall see, Spinoza does believe that causal relations are confined within realms and that minds and bodies do inhabit, in a sense, different realms. But surprisingly, he rejects the view that minds needn't be identical with bodies!

For my part, while I do, like Spinoza, have difficulty in understanding just how a non-spatial thought could have causal relations with a body, I find that I must also confess the opposite difficulty, one which apparently Spinoza did not have: that of understanding why a thing that is not spatial could *not* be responsible, entirely or in part, for an occurrence that is spatial. In other words, I am in the unenviable position of being neither able to understand how a non-spatial thought could move or change a pineal gland nor able to understand why it could not do so, to understand why minds and bodies, when non-identical, can occupy the same causal realm or why they must inhabit different ones. Spinoza, however, must have understood why a thought could not move a body, in the sense that he at least claimed that it could not do so (S; II; Props. I, II and VI; 217, 218, and 220).¹

2 *Identity of Mind and Body*

It might seem that the problem of how minds are causally related to bodies would be much less difficult if it were true that minds are identical with bodies. After all, we are more or less at ease with the notion that some spatial events causally influence others. If minds were bodies, what would remain then would be merely

1 Textual references will take the following forms: (a) Those to Descartes' *Meditations on the First Philosophy* will be triplets the first member of which is the letter D, the second a Roman numeral that designates the number of the Meditation, and the third the page number(s) in *The Rationalists*, Dolphin Book C82, New York, 1960. (b) Those to Spinoza's *Ethics* will be quadruplets the first member of which is the letter S, the second a Roman numeral that designates the number of the Part, the third an indication of the number(s) of the relevant Axiom, Definition, Proposition, etc., and the fourth the page number(s) in *The Rationalists*.

the matter of determining which minds are which bodies. Knowing this, we could then study how those bodies which happen to be minds influence, and are influenced by, other bodies.

But the matter of ascertaining the identity of minds and bodies, even if they are identical, is not so easy. Consider the following propositions:

(1) the largest object in my refrigerator is the only box of frozen shrimp in my house,

(2) the largest object on my sofa is the only thing that is now thinking about fried mice.

Notice that (2) is not the same proposition as, for instance,

(3) the largest object on my sofa is the only thing that, when asked, will respond by uttering the words 'I am thinking about fried mice'.

I ask my students to verify proposition (1). I do this by dividing my class in half and assigning one group the task of identifying the largest object in my refrigerator and the second group the task of identifying the only box of frozen shrimp in my house. The idea is that when the two groups have completed their respective tasks they will have identified the same object if proposition (1) is true and not the same object if (1) is false.

Next I ask my class to verify proposition (2). I use the same technique, assigning the first group the task of identifying the largest object on my sofa and the second group the task of identifying the only thing that is thinking about fried mice. The first group finds it no more a problem to identify the largest object on my sofa than it did to identify the largest object in my refrigerator. But from the second group issue some complaints, which seem to have their basis in my insistence that it engage itself in the verification of proposition (2) and not something like (3).

Yet the suspicion arises that this entire approach is misconceived. Even if the members of the second group were to succeed in the task assigned them in the way they did in the first task, there would still remain the problem of verifying the proposition:

(4) the object identified by the first group of students is the object identified by the second,

if, that is, we wished to complete our verification of either (1) or (2).

If the identity of x and y consists in x 's having *all* the properties, including relational properties, that y has, and vice versa, and if

some of *x*'s properties (even excluding such impredicative properties as *being identical with y*) are not observable properties, then it can be concluded that identity propositions cannot be verified conclusively on a purely observational basis.

Now the ramifications of this conclusion may be most keenly felt in connection with propositions like

(5) there is an *x* and a *y* such that *x* is bearded and *y* is feeling great and *x* is identical with *y*.

But they also obtain where two spatial sense modes, say, sight and feeling, are involved, for instance, in the proposition:

(6) there is an *x* and a *y* such that *x* is black and *y* is tepid and *x* is identical with *y*,

where the proposition as a whole is verified neither solely by sight nor solely by feeling. And they hold as well in connection with propositions like the following:

(7) there is an *x* such that *x* is bearded and *x* is feeling great,

(8) there is an *x* such that *x* is black and *x* is tepid,

and finally

(9) there is an *x* and a *y* such that *x* is black and *y* is square and *x* is identical with *y*,

where ostensibly, at least, just one sense mode is involved.

This is, I believe, what Descartes was getting at in his wax example when he insisted in conclusion that substance is known only through the understanding and not the senses (D; II, 125).

The points I wish to emphasize here are (i) that in verifying identity propositions, including ones like

(10) seven is the only prime number between five and ten,

we seem to do so not by sense intuition or perception alone, but by understanding the place (or places) the entities occupy in a *realm* of entities and (ii) that while we are at ease doing this in the spatial realm, even in cases where two different senses come into play, we find it difficult, to say the least, to locate thoughts and experiences in the realm in which we locate bodies.

3 *Spinoza's Solution to the Mind-Body Problem*

Spinoza, as I mentioned earlier, believed that causal relations could hold only between entities that inhabit the same realm,

‘plenum’, or, to use Spinoza’s word, ‘attribute’. Such a plenum can be understood in terms of an inclusion relation, *c*, for which the following hold¹:

- (def 1) ‘ $x+c_y = z$ ’ = *df.* ‘ $\forall w((w c x \vee w c y) \leftrightarrow w c z)$ ’
- (def 2) ‘ attr_{c_x} ’ = *df.* ‘ $\forall y(\exists z(y c z) \rightarrow y c x)$ ’
- (def 3) ‘ mode_{c_x} ’ = *df.* ‘ $\exists y(x c y)$ ’
- (c1) $\forall x\forall y\forall z((x c y \ \& \ y c z) \rightarrow x c z)$
- (c2) $\forall x\forall y(x c y \rightarrow \sim (y c x))$
- (c3) $\forall x\forall y(x c y \rightarrow \exists z(x c z \ \& \ z c y))$
- (c4) $\forall x\forall y((\text{mode}_{c_x} \ \& \ \text{mode}_{c_y}) \rightarrow \exists z(x c z \ \& \ y c z))$
- (c5) $\forall x\forall y(((\text{mode}_{c_x} \vee \text{attr}_{c_x}) \ \& \ (\text{mode}_{c_y} \vee \text{attr}_{c_y})) \rightarrow$
 $(\forall z(x c z \leftrightarrow y c z) \leftrightarrow \forall z(z c x \leftrightarrow z c y)))$
- (c6) $\forall x\forall y((\forall z(x c z \leftrightarrow y c z) \vee \forall z(z c x \leftrightarrow z c y)) \rightarrow (x = y))$
- (c7) $\exists !x(\text{attr}_{c_x})$
- (c8) $\forall x(\text{attr}_{c_x} \rightarrow \forall y\forall z((y+c_z = x) \rightarrow (y = x \vee z = x)))$

A ‘field’ I shall understand in terms of an inclusion relation, *c*, for which (c1) through (c6) hold.

Given a plenum at a moment in time, the causal sufficiency relation on that plenum can be thought of as a relation that orders, in terms of dependency, the objects (regions) that the inclusion relation ordered, giving rise to a situation at the particular moment in which certain parts of the plenum can be viewed as nodes of more or less dependency (‘power’, ‘reality’, or ‘perfection’ in Spinoza’s terms). The causal relation, *C_c*, for the plenum generated by *c* has the following characteristics²:

- (def 4) ‘ plen_{c_x} ’ = *df.* ‘ $\text{mode}_{c_x} \vee \text{attr}_{c_x}$ ’
- (C_c1) $\forall x\forall y(C_{c_{xy}} \rightarrow (\text{plen}_{c_x} \ \& \ \text{plen}_{c_y}))$
- (C_c2) $\forall x\forall y\forall z((C_{c_{xy}} \ \& \ C_{c_{yz}}) \rightarrow C_{c_{xz}})$
- (C_c3) $\forall x\forall y((C_{c_{xy}} \ \& \ x \neq y) \rightarrow \sim (C_{c_{yx}}))$
- (C_c4) $\forall x\forall y(C_{c_{xy}} \rightarrow \exists z(C_{c_{xz}} \ \& \ C_{c_{zy}}))$
- (C_c5) $\forall x(\text{plen}_{c_x} \rightarrow (\exists y(C_{c_{xy}}) \ \& \ \exists y(C_{c_{yx}})))$
- (C_c6) $\forall x\forall y(x c y \rightarrow (\forall z(C_{c_{yz}} \rightarrow C_{c_{xz}}) \ \& \ \forall z(C_{c_{zx}} \rightarrow$
 $C_{c_{zy}}) \ \& \ C_{c_{xy}}))$

1 It is understood that the status of two entities with respect to the inclusion relation is not subject to change over time. Also, I have not attempted to insure the independence of these conditions.
 2 The status of two entities in a plenum or field with respect to the causal relation may well change over time.

- (C_{c7}) $\forall x(\text{attr}_{c x} \rightarrow \forall y(\text{plen}_{c y} \rightarrow C_{c y x}))$
 (C_{c8}) $\forall x(C_{c x x} \rightarrow \text{attr}_{c x})$
 (C_{c9}) $\forall x(C_{c x x} \rightarrow \forall y(C_{c x y} \rightarrow y = x))$
 (C_{c10}) $\forall x \forall y((\text{plen}_{c x} \& \text{plen}_{c y} \& \sim (C_{c x y}) \& \sim (C_{c y x})) \rightarrow$
 $(\exists z \exists w(C_{c x z} \& \sim (x c z) \& C_{c y w} \& \sim (y c w) \&$
 $C_{c z w} \& \sim (C_{c w z})) \vee \exists z \exists w(C_{c z x} \& \sim (z c x) \& C_{c w y} \&$
 $\sim (w c y) \& C_{c z w} \& \sim (C_{c w z}))) \rightarrow (\forall z \forall w((C_{c x z} \&$
 $\sim (x c z) \& C_{c y w} \& \sim (y c w)) \rightarrow (C_{c w z} \rightarrow C_{c z w}))$
 $\& \forall z \forall w((C_{c z x} \& \sim (z c x) \& C_{c w y} \& \sim (w c y)) \rightarrow$
 $(C_{c w z} \rightarrow C_{c z w}))))$
 (def 5) 'x \approx cy' = *df.* 'plen_cx & plen_cy & (x = y \vee
 (x \neq y & \sim (C_cxy) & \sim (C_cyx) & $\forall z \forall w(((C_{c x z} \&$
 $\sim (x c z) \& C_{c y w} \& \sim (y c w)) \vee (C_{c z x} \& \sim (z c x) \&$
 $C_{c w y} \& \sim (w c y))) \rightarrow (C_{c z w} \leftrightarrow C_{c w z})))'$
 (def 6) 'x \angle cy' = *df.* '(C_cxy & \sim (C_cyx)) \vee (\sim (C_cxy &
 \sim (C_cyx) & $\forall z \forall w(((C_{c x z} \& \sim (x c z) \& C_{c y w} \&$
 $\sim (y c w)) \vee (C_{c z x} \& \sim (z c x) \& C_{c w y} \& \sim (w c y)))$
 $\rightarrow (C_{c w z} \rightarrow C_{c z w})) \& (\exists z \exists w(C_{c x z} \& \sim (x c z) \&$
 $C_{c y w} \& \sim (y c w) \& C_{c z w} \& \sim (C_{c w z})) \vee$
 $\exists z \exists w(C_{c z x} \& \sim (z c x) \& C_{c w y} \& \sim (w c y) \&$
 $C_{c z w} \& \sim (C_{c w z}))))'$

Let me add a few words in explanation concerning Spinoza's notion of 'plenum' and the 'causal dependency' relation.

One question that arises immediately is that of whether the space we live in is a plenum. Most of us would, I think, agree that there is a spatial inclusion relation that holds between regions of space that satisfies at least (c₁) through (c₆). We might not agree, however, that there is a unique region of space that includes all other regions of space, (c₇), i.e., that space itself exists over and above all its subregions. We also might disagree, even if we did believe in the existence of space itself, that it was not the 'product' of two regions of space put together. For Spinoza, given a region of space and space itself, one cannot 'subtract' the former from the latter, so to speak, and get a third region of space, (c₈), (S; I; Prop. V Proof; r8r).

When I later raise the two questions I have concerning Spinoza's solution to the mind-body problem, what I say then will not, I

think, depend heavily upon these two bits of his ontology, i.e., (c7) and (c8), although at least (c7) is of help in appreciating the elegance of Spinoza's vision.

Space is not the only plenum for Spinoza. There is at least one other, a mental plenum (S; II; Prop. I; 217). This notion is best conveyed, I believe, by the phrase 'the whole truth' or 'the whole body of truth'. Subregions of this plenum can be thought of as the ideas beings have of themselves, complex dense judgements that might be said to take the (inadequate) verbal form 'The world, for me, is like this' (S; II; Props. XI, XII, XIII note; 224-227). The verbal form is inadequate because each being would use the *same* words, or a translation of them, to express the judgment that it had of itself, yet the judgments would be different. A (finite) mind is such a subregion of the whole truth. Within any mind there are infinitely many sub-minds that go to make it up. For Spinoza, thoughts and experiences do not dangle homeless apart from space; they have their own territory to inhabit.

Some subregions of space at any given moment serve as better mirrors of the whole of space than do others (S; II; Prop. XIII note; 226-227). I have in mind here subregions that are filled with human bodies (including central nervous systems) as opposed to subregions that are filled in other ways, by dogs, tables, or just air. The subregions filled with human bodies record much in their brains because of the sense organs and other brain equipment that other subregions do not record, since the recording equipment they contain is much less sensitive. The subregions filled with human bodies also have tentacles of control and power that extend to wider areas of space than do those of the subregions that are filled with other arrangements of material. Indeed, Spinoza can be thought of as holding that at any given moment space is filled with nothing more nor less than nodes of varying degrees of sensitivity and control, of which the nodes we associate with human bodies are just one sort.

I have attempted to convey this abstractly through the notion I presented of the causal dependency relation, C_c . The idea is that the more things that depend upon a given region of space at a given moment, the less it depends upon other regions, the more it 'mirrors' the whole of space, and the more of the whole of space can be 'read' within it. Space itself, if one grants it being, is the only thing that can provide a true 'reading' of the whole of space, so that is the only thing upon which all things, including

itself, depend ((C_c7), (C_c8), (C_c9)). For Spinoza, any two regions of space can, at a given moment, be compared as to the degree of their independence ('power', 'perfection', 'reality'). (C_c10) represents the way in which I attempt to ensure this (on Spinoza's behalf), by putting a constraint upon the causal dependency relation between those regions of plena that share no common subregion.

Clearly some of the ideas that are contained in the judgment that Spinoza would say now constitutes my mind, e.g., 'The world, for me, is like this', are false. How, then, can falsehood be part of a part of the whole truth?

Spinoza believes that he can *prove* that there exists exactly one thing, one substance, that has, or in a sense is, all attributes; and that consequently the substance of the spatial plenum, i.e., space, is the same thing as the substance of the mental plenum i.e., the whole truth (S; I; Props. XI, XIV; 185, 188). From the identity of the spatial and the mental plena it will follow that each subregion of the spatial plenum is the same thing as a subregion of the mental plenum (S; II; Prop. VII; 220). Minds are ideas (judgments), and these in turn are bodies. Spinoza's belief that he can prove the identity of mind and body provides him, then, with a rationale to deny that minds and bodies are, or even could be, independent.

At any rate, if *c* and *d* are the relations that define, respectively, the mental and the spatial plena and C_c and C_d are the respective causal dependency relations on these plena, the following hold for Spinoza:

$$(11) \forall x \forall y ((x \text{ c } y \leftrightarrow x \text{ d } y) \& (C_c x y \leftrightarrow C_d x y))$$

$$(12) \forall x \exists y (y \text{ c } x).$$

Spinoza proceeds to tell us which bodies are which ideas, in such a way that, of course, no bodies fail to be ideas and no ideas fail to be bodies (S; II; Props. XIII note, VIII, XXI, XXVI; 226-227, 221, 236, 239). He then analyses all mental life into four components and tells us what these components are in physical terms.¹ And he does all of this in terms of time, the two relations there are for each plenum, and the relata of these relations.

One part of the beauty of Spinoza's solution to the mind-body problem is that, unlike idealism and physicialism, which deny the problem by denying the existence of, respectivity, bodies and

1 The components are: idea, desire, pleasure, pain; in physical terms the body which is the idea, the state of its power or dependence relations at a given moment, an increase in its power, a decrease in its power.

minds, space and thought, it does accept the problem, and it avoids, to a great extent, the epistemological difficulties I raised earlier. One does not, on Spinoza's view, discover the identity or non-identity of particular minds and particular bodies by a helter-skelter empirical search; one proves it from aptly framed definitions and from axioms that are, if not *a priori* synthetic, certainly not straightforwardly *a posteriori*, e.g.,

Only substances and modes of substances exist, Everything is causally dependent on something, Minds inhabit one plenum, bodies another, Causal relations are defined only within plena.

Aesthetics aside, however, let me now, having filled in more of the background, return to the problem of falsehood and what Spinoza has to say about it. The question was: how can falsehood be part of a part of the whole truth?

Just as the region of space that is now my body, *considered by itself*, fails to mirror or record all the rest of space, so the judgment that now constitutes my mind (and is the same thing as my body), *considered by itself*, fails to contain the whole truth. But space itself, of which the region that is my body is a part, does mirror the whole of space, including the region that is my body; and in the same way the whole truth, of which the region that is the judgment that is my mind is a part, does mirror the whole truth, including the region that is my mind. Falsehood in space consists of the difference between the whole of space and what can be 'read' of the whole of space in a limited portion of it; falsehood in judgment consists of the difference between the whole truth and what can be 'read' of the whole truth in a limited portion of it. False judgments are really incomplete judgments. Speaking physically, if one judges it to be raining when it is not, a signal or state in one's brain isn't, this time, the effect of a situation involving extra-bodily rain, but is the effect of something else, say, a situation involving extra-bodily garden hose sprinkling on the window.

Before finishing my exposition of Spinoza's views on mind and body, let me address myself briefly to one matter that may have troubled the reader: perhaps by introducing what I take to be Spinoza's notion of cause, a special and idiosyncratic notion, I have strayed from the problem I originally posed concerning the relation between minds and bodies.

The relation, C_c , that holds between entities in the plenum generated by c is a dependence relation. The notion of *sufficient cause* is also a dependence relation, in that if the existence of x is a sufficient cause of the existence of y , then y actually depends upon x . When we seek understanding of things in the world, what we seek to know is whether and how these things depend on other things. Spinoza, I would claim, can be read as abstracting the two notions of *sufficient cause* and *understanding*. If his treatment in abstract of these two notions is just, then, to my mind at least, he is squarely addressing the problem I set out in the beginning.

To understand a thing, for Spinoza, one must understand its causes (S; I; Axiom IV; 180). Since to understand its causes one must understand its causes' causes, it seems reasonable to conclude that to understand any given thing one must understand an infinity of things, or not understand it at all. Spinoza touches only very lightly on this consequence of the axiom in which he connects understanding with causation. He quickly proceeds to speak of degrees of understanding.¹

If, for the mental plenum ordered by c , C_cxy and $x \angle_c y$ obtain, then y has greater understanding of x than x has of itself, because y consists of more of the whole truth about x than x does. And since, for Spinoza, the regions of the mental plenum are identical with regions of the spatial plenum, where d is the relation that orders the spatial plenum and C_d is its dependence relation, by (11) C_dxy and $x \angle_d y$ will obtain in the spatial plenum, so more of space itself can be 'read' in y than in x .

Of course the only thing to possess full understanding of a thing as it actually is, is the maximal region of the mental plenum, for it alone is the thing upon which all things mental depend.

4 *Two Questions*

Among Spinoza's beliefs about causation, mind, and body are the following:

- (13) a relation of causal dependence can hold only between entities that inhabit the same plenum (S; II; Prop. VI; 220).
- (14) minds and bodies must inhabit two distinct plena (S; II; Prop. VII note; 220-221).

1 See, for example, (S; II; Prop. XII note; 226-227).

Indeed, Spinoza also holds:

(15) if two entities happen to inhabit different plena, one cannot be causally related to the other (S; III; Prop. 2; 265),

which, because the two entities may also inhabit the same plenum (after all, for Spinoza a mind *is* a body and so inhabits the same spatial plenum as other bodies), commits Spinoza to reject the indiscernibility of identicals.

But (15) aside, I have found no clear discussion of (13) or (14) in Spinoza's writings. I shall not discuss (13) further than I already have in section 1, save to note that I, at least, have great difficulty with the notion of interpersonal, purely psychological causation, unless I put myself into a Spinozistic frame of mind and think of us as psyches inhabiting one all-encompassing mental plenum (or field). What I propose to do is to mention some considerations that might lead one to accept (14).

Let us suppose that there is a super-plenum that contains both non-spatial thoughts and non-mental bodies as parts. A natural way to flesh out this, to me, wholly unintuitive supposition is to suppose further that by some criterion or other certain regions of this super-plenum qualify for the label 'mental and non-spatial', others for the label 'spatial and non-mental'. If in terms of this super-plenum we are trying to express something even remotely like our conception of mind and body, we must provide for some account of Descartes' Mischievous Demon Hypothesis. That is, it must be made plausible that thought could go on in the absence of space, and, indeed, that space could exist and then be annihilated at a certain moment in time.

Now while a plenum as a whole might be said to be annihilated or never exist at all (though not on Spinoza's view), the notion that individual subregions of a plenum could be annihilated or not exist, while the rest remained intact, is, let us grant, metaphysically unacceptable.¹ So in our supposed plenum, the possible annihilation of space must not be thought of as an annihilation of some subregions of the plenum.

Yet the causal dependence relation that, for Spinoza, holds between subregions of a plenum is capable through time of

1 Indeed, there is this advantage to viewing the mental and the spatial as two distinct plena: it is easy, then, to distinguish (i) idealism, (ii) physicalism, (iii) psychophysical identity or parallelism, and (iv) psychophysical nihilism in terms of the various combinations of the existence and non-existence of the two plena.

reflecting change, so perhaps the Mischievous Demon Hypothesis could be put in terms of such a change, in which, say, a region that was originally labelled 'spatial and non-mental' could lose those qualities that made the label appropriate. Thus a body might change into a mind, and vice versa. After all, on Spinoza's view the full panorama of the content of thought is to be analysed in terms of this one relation and the regions it relates to one sub-region of the mental plenum (which Spinoza identifies with a particular mind) and to all the subregions internal to that sub-region. So it is not altogether clear, at least to me, that this relation and its relata could not serve to distinguish two sorts of subregion of our supposed super-plenum, a mental sort of subregion and a spatial sort. The principal difficulty in interpreting Spinoza on this issue is that he takes it to be axiomatic, rather than worthy of discussion and support, that we humans are familiar with *exactly two* plena, a mental one and a spatial one.

It might be suggested here that the super-plenum we have been asked to consider is a wholly arbitrary and artificial construct. The *real* plena, or so the suggestion might continue, will be those aspects of this super-plenum that can themselves be treated as plena. So while we may entertain the notion of a super-plenum that contains in or as its subregions both non-spatial minds and non-mental bodies, we will always get back, by analysis, a mental plenum and a spatial plenum as the *real* plena.

But besides the arbitrariness and artificiality of this suggestion itself, there is a further difficulty with it: it seems at least plausible to think that we might get back, by analysis, more real plena than we bargained for. We might find, for instance, that there is a visual spatial plenum, a tactual spatial plenum, an auditory spatial plenum (*pace* Strawson), an olfactory spatial plenum, and on the mental side, a mental plenum consisting of ideas of the visual spatial plenum, a mental plenum consisting of ideas of the tactual spatial plenum, a mental plenum consisting of ideas of the auditory spatial plenum, and a mental plenum consisting of ideas of the olfactory spatial plenum. The causal dependence relations would, by (13), be particular to each plenum. Indeed, Descartes, at least, did draw upon the notion that imagining and sensory perception are not essential to mind, so for him there could be minds that did have and minds that didn't have these particular capacities (D; VI; 161). A push toward particularization of capacity lands us with a possible plethora of plena; a push toward

unification lands us back with the super-plenum. What justifies Spinoza's belief that humans walk the thin line balancing exactly two plena?

One answer to this question might be that the number of real spatial plena will be determined by the concepts employed in the human endeavour to understand spatial phenomena, in other words, by those concepts employed in the study of physics. If physics comes up with more than one plenum or field, then so be it. On this proposal the *a posteriori* element, or something that from a human perspective looks a lot like it, will enter a Spinozistic ontology in one great lump, a plenum, rather than in a shower of dribbles and dollops, which, in a more common-sense ontology, acceptance of a lot of happenstance individuals would bring.

And given a particular physical plenum or field, there will also, on a Spinozistic view, be an accompanying mental plenum or field that consists of the ideas of it and its 'bodies' or subregions.

When questioned by the acute, widely travelled, and philosophically well-connected Ehrenfried Walter von Tschirnhaus about the possible existence of plena of which humans have no knowledge, Spinoza replied in a letter dated 18 August 1675, 'I say that although each thing is expressed in infinite modes in the infinite understanding of God, yet the infinite ideas by which it is expressed cannot constitute one and the same mind of an individual thing, but an infinity of minds', i.e., each finite thing is a subregion of infinite plena of the mental sort, each one of which is a mind; and the plena of which these minds (regions) are parts constitute jointly the understanding of the one and only substance.

This may provide a clue to Spinoza's response to the problem of the proliferation of spatial plena. As a matter of fact human consciousness does unify spatial phenomena, visual, tactual, auditory, and olfactory. Each human has one mind, not several disparate ununified minds. So human minds inhabit exactly one mental plenum. The ideas of this one mental plenum are consequently ideas of the 'bodies' of, the regions of, exactly one spatial plenum.

How would Spinoza respond to the suggestion that locates both minds and bodies in one super-plenum? Here I find no clues whatsoever in Spinoza's writings. Nor, while I confess that the whole idea of a super-plenum strikes me as somehow wrong, do

I find that I have any critical responses to put forward in Spinoza's behalf.

I close, then, by declaring myself stumped, at bottom, by the two following questions:

Must causal relations, causal in the sense in which we seek to know whether and how things depend on other things to gain understanding, obtain only between entities that inhabit the same plenum or field?

Must the mental and the spatial be two distinct such plena or fields?

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