Spinoza and Consciousness

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Most discussions of Spinoza and consciousness—and there are not many—conclude either that he does not have an account of consciousness, or that he does have one but that it is at best confused, at worst hopeless. I argue, in fact, that people have been looking in the wrong place for Spinoza's account of consciousness, namely, at his doctrine of 'ideas of ideas'. Indeed, Spinoza offers the possibility of a fairly sophisticated, naturalistic account of consciousness, one that grounds it in the nature and capacities of the body. Consciousness for Spinoza, I suggest, is a certain complexity in thinking that is the correlate of the complexity of a body, and human consciousness, for Spinoza, is nothing but the correlate in Thought of the extraordinarily high complexity of the human body in Extension. In this respect, Spinoza anticipates the conception of mind that is presently emerging from studies in the so-called 'embodied mind' research program. Moreover, this research program, in turn, may hold out hope for a clearer understanding of some of Spinoza's more difficult claims.

There are three heroes in the story of consciousness in the seventeenth century, at least before Leibniz comes on the scene and introduces his distinction between perception and apperception: Descartes, Arnauld, and Spinoza. The first two may appear to be obvious candidates for this honour, and with good reason. But it is generally believed that Spinoza, while he has much to say of value regarding the nature of the mind itself and its relationship to the body, even foreshadowing contemporary neuroscientific accounts of certain types of mental states,[1] none the less fails miserably to offer a coherent account of consciousness.

In fact, while I am not willing to say that Spinoza has an explicit and perfectly consistent account of consciousness, I shall argue that he was, still, well ahead of his time in this domain as well. Spinoza does indeed have an explanation of consciousness, a rather sophisticated one that depicts consciousness, like all elements of the mind for Spinoza, as deeply grounded in certain functional aspects of the body. In this respect, I shall suggest, Spinoza anticipates the conception of mind that is presently emerging from studies in the so-called 'embodied mind' research program. Moreover, this research program, in turn, may hold out hope for a clearer understanding of some of Spinoza's more difficult claims.

[1] See Damasio 2001.

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1.

Descartes' contribution to the understanding of consciousness, at least according to the familiar story, consists in recalling philosophical attention in the early modern period to consciousness itself, isolating it as a datum for investigation. He identifies consciousness or awareness through the formulation of the *cogito* and proceeds to examine its properties and its scope. First, he shows that consciousness is a phenomenon that is independent of the body. While there are many conscious states that bear an intimate causal connection to bodily states, the conscious states themselves are modes of the mind, of thinking substance; and there are many conscious states that bear no relationship to the body whatsoever. This means that an explanation of consciousness has no grounding in the body itself. Second, Descartes recognizes that conscious states are distinguished by intentionality, or their directedness toward an object. This is reflected in what he famously calls the 'objective reality', or representational content, of our ideas. Third, Descartes claims that consciousness is a universal feature of mental states. Whatever is a mode of thought, whatever belongs to the mind as a thinking substance, is conscious. Thus, in the geometrical demonstration appended to the 'Second Set of Replies', Descartes defines 'thought' as 'everything that is within us in such a way that we are immediately aware of it' (Descartes 1974–83, Vol. 7, p. 160; Descartes 1985, Vol. 2, p. 113).

From the phenomenological point of view, it is Antoine Arnauld, Descartes' Jansenist disciple in philosophical matters and for a long time known (at least in the Anglo-American philosophical world) mainly for being the author of the 'Fourth Set of Objections' to the *Meditations* and the so-called Port Royal Logic, who takes the study of consciousness to a deeper level. He, more than his mentor, is interested in the structure and function of conscious states, and especially the way in which they are both known in consciousness and make known external objects. He begins by noting that 'thought or perception is essentially reflective on itself, or, as it is said more aptly in Latin, *est sui conscia*. For I am never thinking without knowing that I am thinking. I never know a square without knowing that I know it' (Arnauld 1775, p. 204). He then distinguishes between what he calls 'virtual reflection' and 'express reflection'. Virtual reflection is the individual mental act's awareness of itself, and is found essentially in every mental act. This is the locus of consciousness per se. Express reflection, on the other hand, is what happens when one mental act is made the explicit object of

another, second-order mental act. Virtual reflection explains why, when I think about x, I know I am thinking about x; express reflection explains why I can think about my thinking about x and make it the primary object of my attention (Arnauld 1775, pp. 203–5). Moreover—and contrary to his philosophical arch-nemesis Malebranche, and possibly even Descartes—Arnauld also insists that intentionality or object-directedness is not only a feature of all mental states, but is in fact the defining mark of the mental, of conscious states generally (Arnauld 1775, p. 184).[2]

All of this is important and interesting from a phenomenological point of view. But what all this descriptive work really does is set the challenge, one that has been haunting the philosophy of mind ever since: how is one to explain consciousness? What gives rise to it? And why are some beings conscious while others, apparently, are not? While contemporary philosophers and neuroscientists continue to wrestle with these questions, they were, in fact, first raised directly for Descartes by Gassendi, in his tedious but, it must be said, sometimes insightful objections to the *Meditations*. Gassendi wants to know what exactly is that thing that thinks, and what is the nature of its substance that allows it to be a thinking thing?

> When you go on to say that you are a thinking thing, then we know what you are saying; but we knew it already, and it was not what we were asking you to tell us. Who doubts that you are thinking? What we are unclear about, what we are looking for, is that inner substance of yours whose property is to think. Your conclusion should be related to this inquiry, and should tell us not that you are a thinking thing, but what sort of thing this 'you' who thinks really is. If we are asking about wine, and looking for the kind of knowledge which is superior to common knowledge, it will hardly be enough for you to say 'wine is a liquid thing, which is compressed from grapes, white or red, sweet, intoxicating', and so on. You will have to attempt to investigate and somehow explain its internal substance, showing how it can be seen to be manufactured from spirits, tartar, the distillate, and other ingredients mixed together in such and such quantities and proportions. Similarly, given that you are looking for knowledge of yourself which is superior to common knowledge (that is, the kind of knowledge we have had up till now), you must see that it is certainly not enough for you to announce that you are a thing that thinks and doubts and understands etc. You should carefully scrutinize yourself and conduct a kind of chemical investigation of yourself, if you are to succeed in uncovering and explaining to us your internal substance. If you provide such an explanation, we shall ourselves doubtless be able to investigate whether or not you are better known than the body

[2] For an examination of Arnauld on consciousness and intentionality, see Nadler 1989.

> whose nature we know so much about through anatomy, chemistry, so many other sciences, so many senses and so many experiments. (Descartes 1974–83, Vol. 7, pp. 276–7; Descartes 1985, Vol. 2, pp. 192–3)

It might seem easy to accuse Gassendi of making a category mistake here. After all, Descartes' point is that, because of the essential differences between mind and body, we cannot possibly provide a mechanistic or 'chemical' investigation of the mind's activities. But this would be to miss Gassendi's point. What he wants is not a mechanistic account of consciousness. Rather, he wants an account of consciousness that makes the cause and origin of consciousness and its properties as clear as a mechanistic or chemical account does for wine and its properties. Such an account of consciousness need not be framed in terms of matter and motion, but it must do the same kind of explanatory work and incorporate the study of consciousness into the domain of the natural (but not necessarily the physical) sciences. It is an important challenge that Gassendi issues here, a request for the scientific basis of consciousness, and it is a shame that Descartes does not take it more seriously.[3] Spinoza, I believe, does take this challenge seriously, more so than anyone else of his time.

2.

First, let me offer a brief review of Spinoza's conception of the nature of the human mind itself and its relationship to the human body. In Spinoza's metaphysics, there is, of course, the one, infinite, eternal, necessarily existing substance ('God, or Nature'); this substance has infinitely many attributes, but we have knowledge of only two of them: Thought and Extension. Whatever else exists is either an infinite or a finite mode of substance—or, more specifically, an infinite or finite mode of one of the attributes of substance.

Every finite mode of every attribute has a corresponding mode under the attribute of Thought. This is the upshot of IIP3:[4] 'In God, there is necessarily an idea, both of his essence and of everything that necessarily follows from his essence.' For our purposes, what this means is that for every finite mode of the attribute of Extension—that is, every individual material body—there is a corresponding finite mode—or

[3] Descartes does, it seems, miss Gassendi's point and accuses him of making a category mistake; see Descartes 1974–83, Vol. 7, pp. 359–60; Descartes 1985, Vol. 2, pp. 248–9.

[4] My references to the *Ethics* employ the standard notation, with the following abbreviations: P=proposition, Dem=demonstration, s=scholium, d=definition, a=axiom, NS=*Nagelate Schriften*.

'idea'—in Thought. That idea has that body as its object, and is its 'mind'. This is true of macro-bodies and their corresponding ideas, but it is also true of the constituent material parts of any macro-body, each of which is itself a body and thus will have a corresponding idea within the macro-idea (or mind) of the macro-body. (Note that this doctrine also implies that for every finite mode of the attribute of Thought, there is a corresponding finite mode or idea in Thought; or, in other words, for every idea, there is an idea that has that first idea as its object.) The explanation for this correlation between bodies and states of bodies, on the one hand, and minds and states of minds, on the other hand, is, of course, Spinoza's monism: 'a mode of extension and the idea of that mode are one and the same thing, but expressed in two ways ... For example, a circle existing in nature and the idea of the existing circle ... are one and the same thing, which is explained through different attributes' (IIP7s).

What this means is that every single body in nature has a corresponding idea or mind. As Spinoza says, referring to the propositions he has established about the basics of the human mind–body relationship, 'the things we have shown so far are completely general and do not pertain more to man than to other Individuals, all of which, though in different degrees, are nevertheless animate. For of each thing there is necessarily an idea in God' (IIP13s). And any events in any particular body will be expressed modally by affections in that body's mind. Or, to paraphrase Spinoza, whatever happens in the object of the idea constituting a mind will be perceived by that mind, or there will necessarily be an idea of that thing in the mind. All bodies, in other words, have representational states associated with them; and what those representational states are of, at least in the most immediate sense, what they are expressions or reflections of, are the corresponding states of the correlative body.[5]

It follows from this that the human mind is nothing but the mode in Thought that corresponds to the mode in Extension that is the human body. Or, more simply, the human mind is nothing but the idea of the human body (IIP11; IIP13). It is constituted by being the idea of a particular kind of extended entity, one that is generically—as a parcel of extension and a certain relatively stable ratio of motion and rest among its parts—no different from any other kind of extended entity. And given the parallelism, what is true of the individual considered as a

[5] There has been much debate in the Spinoza literature on the differences and relationship between what an idea is 'of' (what it represents) and what is its 'object'; see, for example, Radner 1971 and Della Rocca 1996.

body under Extension will also be true of that individual considered as an idea or mind under Thought.

We thus have the following setup: all physical bodies in nature are animate in the sense of having associated minds or representational states. And the human mind is simply an expression in Thought of the same thing that expresses itself in Extension as a human body.

Here is where our troubles begin.

3.

There are two main schools of thought when it comes to the question of Spinoza's philosophy and the problem of consciousness. One school says that Spinoza has an account of consciousness, but that it is deeply flawed, even a failure.[6] The other school says that there is no account of consciousness in Spinoza, or at least nothing coherent enough to qualify as an account of consciousness.[7] Thus, one scholar insists that there is 'not a trace' of a theory of consciousness in the *Ethics* (Bennett 1984, p. 191). I do believe that this latter school is wrong. Although I am not prepared to argue that there is a single coherent and fully detailed and totally successful account of consciousness in Spinoza, I do believe that Spinoza does have at least a program for explaining consciousness, although it may be difficult to see how its various elements cohere. I also believe that it is not, in fact, the program that is most often identified in his philosophy as such.

For my purposes, I shall understand the notion of a 'conscious being' to mean a being who has conscious states. And I am going to purposefully leave the notion of 'conscious state' as ambiguous between two different meanings: the first meaning is that of a phenomenal state, a raw qualitative awareness or subjectivity akin to what Thomas Nagel has called 'what it is like to be'.[8] The second meaning is that of a mental state that one is at the same time aware of being in, thus importing an element of *self*-consciousness. I intend my discussion of Spinoza on consciousness to apply to consciousness understood in either or both of these senses. This is an ambiguity in Spinoza's text itself. For example,

[6] Curley 1969, pp. 126–29; Curley 1988, pp. 71–3; Matheron 1994; and Wilson 1999. What is particularly interesting is how few contributions to the question of consciousness in Spinoza there really are.

[7] See Bennett 1984, pp. 184–91; Della Rocca 1996, p. 9; Matson 1971; and Miller forthcoming.

[8] Tyler Burge (2007, pp. 383–4), following Ned Block, calls this 'phenomenal consciousness' (to distinguish it from what he calls 'access consciousness'), and insists that it is 'the core notion of consciousness'.

when Spinoza explains that 'desire can be defined as appetite together with consciousness of the appetite' (IIIP11s), he seems to understand consciousness in the phenomenal or qualitative sense. But elsewhere, he clearly has self-consciousness in mind (VP39s).

Now the first thing I would insist upon as a working assumption is that being conscious for Spinoza is not identical to simply having or being an idea.[9] Merely having an intentional state is not *ipso facto* to have a conscious state. This is true even if, for Spinoza, all intentional states, all mental states are indeed conscious states; even if they are all *necessarily* conscious states; and even if every individual in nature is, by virtue of having a mind corresponding to its body, not only animate but also conscious. Many things that Spinoza says appear strongly to support this distinction between idea and conscious idea.[10] However, be that as it may, my main point in this paper does not depend on the truth of this claim, although, as we shall now see, it *is* an essential premiss for what seems to be the more popular way of understanding what consciousness consists in for Spinoza.

The most natural reading of Spinoza's view of consciousness—the one that is almost unanimously found in the secondary literature (or at least among those writers who do think that Spinoza does indeed have an account)—is that according to which consciousness is tantamount to having an idea of an idea.[11] Given the terms of Spinoza's ontology, this aspect of his system does indeed seem perfectly well-suited for making sense of the awareness of ourselves and of our mental states (as well as the awareness of the objects of those mental states) in which consciousness consists.

Spinoza first introduces the notion of ideas of ideas (*ideae idearum*) in IIP20d and IIP21 as yet another consequence of the universal parallelism. It is something that follows from the fact that (according to IIP3) there is an idea in God for every affection or mode of every attribute, including the attribute of Thought. Just as there is an idea for every mode of Extension, every body, so too is there an idea, or a mode of Thought, for every idea or mode of Thought, with the former having the latter as its object.

[9] Wilson (1999, pp. 134–5) agrees with this; so does Curley (1969, p. 128). On the other hand, that being conscious *is* identical to having an idea for Spinoza has been argued for by Garrett 2008.

[10] For example, in IIIP11s, where it is suggested that an affect in the mind (i.e. an idea) may, at least in principle, not be attended by consciousness.

[11] This is the view adopted by Curley, Wilson, and Matheron, in the works cited above. Bennett (1984, p. 188), on the other hand, insists that the 'idea of idea' doctrine is a theory of self-knowledge, but not a theory of consciousness or awareness.

> IIP20: There is also in God an idea, or knowledge [*cognitio*], of the human mind, which follows in God in the same way and is related to God in the same way as the idea, or knowledge, of the human body.
>
> Dem.: Thought is an attribute of God (by IIP1), and so (by IIP3) there must necessarily be in God an idea both of [NS: thought] and of all its affections, and consequently (by IIP11) of the human mind also. Next, this idea, or knowledge, of the mind does not follow in God insofar as He is infinite, but insofar as He is affected by another idea of a singular thing (by IIP9). But the order and connection of ideas is the same as the order and connection of causes (by IIP7). Therefore, this idea, or knowledge, of the mind follows in God and is related to God in the same way as the idea, or knowledge, of the body, q.e.d.

In the scholium to IIP21, after demonstrating that 'this idea of the mind is united to the mind in the same way as the mind is united to the body', Spinoza notes that 'the idea of the mind ... and the mind itself follow in God from the same power of thinking and the same necessity. For the idea of the mind, i.e., the idea of the idea, is nothing but the form of the idea insofar as this is considered as a mode of thinking without relation to the object'. And what is true of the mind qua idea of the body is also true of every idea within (or constitutive of) the mind: each is also attended by an idea of an idea (i.e. an idea of itself). In IIP22, we are told that 'the human mind perceives [*percipit*] not only the affections of the body, but also the ideas of these affections'; but the ideas of the affections of the body just are the constitutive ideas of the mind, and so for the mind to 'perceive' them is just for each of them to be the object of an idea. Finally, IIP23 states that 'the mind does not know itself, except insofar as it perceives the ideas of the affections of the body'.

Sometimes the 'ideas of ideas' doctrine is interpreted as meaning that every idea is the object of a distinct, second-order idea. But this, I believe, cannot be right. Spinoza claims that there is, at some level, an identity between the idea of an idea and the idea that is its object. Just as an extended body and the idea of that extended body are one and the same thing conceived under two different attributes, so too the idea of the mind or of any other idea and the idea that is its object 'are one and the same thing [*una eademque*] which is conceived under one and the same attribute, viz. Thought' (IIP21s). This does not necessarily mean that the idea of an idea and its idea-*ideatum* are numerically identical as modes of thinking. But Spinoza does explicitly say that an idea of an idea and its idea-*ideatum* are 'united'; the idea of an idea is nothing but the 'form of the idea', and thus is in one sense inseparable from it. This is certainly an obscure element of Spinoza's thought, but

it seems to mean that the occurrence of an idea of an idea is part of the same event as the occurrence of the idea, that one cannot exist without the other in so far as they both constitute essential elements of the idea-event—in short, there cannot be an idea without an idea of an idea. By contrast, a second-order idea would presumably be distinct from the idea that is its object, with the latter capable in principle of existing without the former. Perhaps, if Spinoza's ideas of ideas are to explain consciousness—although I shall argue that they are not—it will have more in common with what Arnauld means by 'virtual reflection'—namely, the self-reflexivity that is intrinsic to and accompanies every idea—rather than the 'explicit reflection' that requires a second-order idea directed at the first. However, according to the 'ideas of ideas' doctrine, there presumably still is a second idea involved,[12] albeit one that occurs at the same level or order as the original idea and is inseparable from it (just as the mind and the body, while identical and inseparable, are still two different modal expressions).

There is some highly suggestive evidence that Spinoza sees the 'ideas of ideas' doctrine as an account of consciousness. Perhaps the most explicit of these appears in IVP8. In this proposition, Spinoza argues that 'the knowledge of good and evil is nothing but an affect of Joy or Sadness insofar as we are conscious of it [*ejus sumus conscii*]'. The affects of joy or sadness are, respectively, increases or decreases in an individual's striving or power of acting; and we call an external thing 'good' or 'evil' in so far as we perceive that it affects us with joy or sadness. Knowing that something is good or evil, then, is a matter of cognizing the affect that it brings about—or, in Spinoza's words, having an idea of the joy or sadness in the mind that is the correlate of the affect in the body caused by the external thing. To explain what this idea of a mental affect is—which he here identifies with being *conscious* of the affect—he refers the reader back to IIP21, where he explains the notion of an idea of an idea.

Much of the discussion over Spinoza's 'ideas of ideas' doctrine as an account of consciousness has orbited around the question of the extent of consciousness for Spinoza. Whether one is willing to accept the 'ideas of ideas' doctrine as his account of consciousness has often depended on whether one is also willing to attribute to Spinoza two particular theses: first, the thesis that every thing in nature is a conscious being, or that all minds or all ideas correlated with all bodies are

[12] In fact, there will be an infinite number of ideas involved, since an idea of an idea, because it is a mode of Thought, will itself be the object of an idea, and so on ad infinitum.

conscious minds; and second, the thesis that all states or ideas in the human mind are conscious states or ideas. Descartes, we know, rejects the first thesis but accepts the second. But what about Spinoza?

There is a great deal of debate on this set of issues. Some commentators believe that Spinoza does indeed intend to distinguish between conscious and non-conscious minds and between conscious and non-conscious ideas in the human mind; and some of these further believe that Spinoza successfully establishes that distinction, while others think that, while he intends to maintain it, he fails to offer a coherent way of doing so.[13] Others argue that Spinoza does not intend any such distinction, and is perfectly willing to accept the universality of consciousness.[14]

The reason why this is relevant to the issue at hand is that if Spinoza does indeed want a distinction between conscious and non-conscious minds, and between conscious and non-conscious ideas in the human mind, then the 'ideas of ideas' doctrine will not serve him well as an account of consciousness.[15] The 'ideas of ideas' doctrine is universally valid: it applies equally to all ideas in Thought, regardless of whether the corresponding bodies of these ideas are human bodies or some other variety. Every idea in Thought is associated with an idea for which it is the *ideatum*.

If one believes that the 'ideas of ideas' doctrine is the closest that Spinoza comes to offering an account of consciousness, then one must accept that for Spinoza all minds, all beings in nature, are conscious, and that all ideas or mental states in the human mind are conscious. But perhaps this conclusion, as odd as this may seem, can be given an acceptable and harmless interpretation, similar to the way in which Spinoza's claim about everything in nature having a mind and therefore being animate is often rendered palatable.

However, there is a further, more serious problem for this approach to consciousness in Spinoza. For even if Spinoza *is* willing to recognize consciousness throughout all of nature, well beyond the human domain, surely he will want at least to distinguish between degrees of consciousness, at least among different kinds of individuals. Not only

[13] Curley (1969, pp. 126–8), for example, initially argues that Spinoza does successfully make the distinction. However, recognizing the validity of Wilson's critique of his explanation of this distinction (Wilson 1999), he later realizes that such a reading is untenable (Curley 1988, p. 72). Wilson thinks that Spinoza intends to uphold such a distinction, but has no coherent way of doing so.

[14] For example, Garrett 2008.

[15] In fact, this is precisely why Bennett (1984, p. 188) rejects the 'ideas of ideas' doctrine as Spinoza's account of consciousness, just because it leads to an 'absurdly excessive' conclusion about the extent of consciousness in nature.

would it be extremely counterintuitive to deny such differences in consciousness—could he really want to say that a tree is *as* conscious as a human being?—but that Spinoza wants such a distinction is clear from VP31s and VP39s, where he speaks of individual human beings achieving a greater or lesser degree of self-consciousness; and surely if there can be a difference in degree of self-consciousness within and among human beings, there will be an even greater difference in degree in consciousness between human beings and other things. Indeed, Spinoza does speak of the human mind 'surpassing' other minds (IIP13s), and presumably one of the ways in which it does so is because of the nature of its consciousness. Thus, it would seem that if any interpretation of Spinoza's account of consciousness leads to the conclusion that all beings are equally conscious and in the same way, and that all ideas in the human mind are equally conscious, then I say so much the worse for that interpretation.

But that is precisely where the 'ideas of ideas' account leads. Just as every body in Extension has a corresponding idea in Thought in the same way and to the same degree, so every mind, in so far as it is an idea, is accompanied by an idea of an idea, equally and to the same degree, as is every idea in every mind. I do not see how the 'ideas of ideas' doctrine can account for differences in degrees of consciousness throughout nature; but this would seem to be precisely one of the things it must do.[16]

In the light of these problems and confusions, a number of scholars have been driven to conclude that there is simply no coherent account of consciousness in Spinoza, and especially that he does not distinguish between being conscious and simply having an idea.[17]

4.

Does Spinoza have a consistent and coherent, full-blown account of consciousness? Probably not. I am inclined to agree with Jon Miller (forthcoming) when he writes that 'the prospects for a robust and coherent Spinozistic theory of consciousness [are] dim'. One of the difficulties relates to that ambiguity in the notion of 'conscious state' that I mention above. It is often not clear whether Spinoza means by

[16] Garrett (2008), for one, rejects the 'ideas of ideas' doctrine as an account of consciousness in Spinoza just because it is unable to account for differences in degrees of consciousness.

[17] Thus Wilson (1999, p. 133) denies that 'Spinoza's theory of "minds" can admit of rational distinctions between conscious and non-conscious entities, or between conscious and non-conscious states of a particular individual'; and Bennett (1984, p. 189) insists that while Spinoza 'urgently needs a theory of [conscious] awareness ... unfortunately the *Ethics* does not contain one'.

consciousness simply the raw phenomenal awareness that characterizes so much of human mental life, or also self-awareness, and this obscurity in what exactly he would be trying to account for makes it hard to identify what the account is.[18]

However, despite such problems, there is something that, in their despair, almost all commentators on Spinoza seem to have missed—namely, the path that Spinoza opens to a true science of consciousness. What we find in Spinoza, in fact, are some very suggestive remarks for a particular kind of project, one that represents a naturalistic account of consciousness that is precocious in so far as it points the way to just the kind of empirical, scientific inquiry into consciousness that characterizes contemporary neuroscience and (some) recent philosophy of mind.

To make sense of Spinoza's understanding of consciousness, one must look beyond the 'ideas of ideas' doctrine, I argue, and toward a couple of remarks scattered in various parts of the *Ethics*. Two passages, especially, are crucial. The first occurs at IIP13s, and takes as its starting points the already established parallelism between the human body and the human mind—which guarantees that in so far as the human body has certain properties and capacities, so does the human mind—and the additional claim that the human body is indeed 'more excellent' than any other kind of body in nature. Here is what Spinoza says in the first passage:

> In proportion as a body is more capable [*aptius*] than others of doing many things at once, or being acted upon in many ways at once, so its mind is more capable than others of perceiving many things at once. And in proportion as the actions of a body depend more on itself alone, and as other bodies concur with it less in acting, so its mind is more capable of understanding distinctly. (IIP13s)

This, Spinoza concludes, will help us understand the way in which the human mind 'surpasses' other minds in nature and the 'excellence' of this one kind of mind over all others.

The second passage is at VP39s:

> Because human bodies are capable [*apta*] of a great many things, there is no doubt but that they can be of such a nature that they are related to minds which have a great knowledge of themselves and of God … He who, like an infant or

[18] It might be suggested that the 'ideas of ideas' doctrine is intended to explain self-consciousness rather than mere phenomenal consciousness; after all, when he introduces the doctrine, he explains that 'as soon as someone knows something, he thereby knows that he knows it …' (IIP21s). But when Spinoza later appears to relate consciousness to bodily complexity, as I discuss below, it is also clear that what is at stake is a person (or, rather, a mind) being 'conscious of itself' (VP39s).

> child, has a body capable of very few things and very heavily dependent on external causes, has a mind which considered solely in itself is conscious [*conscia*] of almost nothing of itself, or of God, or of things. On the other hand, he who has a body capable of a great many things, has a mind which considered only in itself is very much conscious of itself, and of God, and of things.

The second passage tells us that not only is the human mind 'more excellent' than other minds because its body surpasses other bodies in its own aptitudes or capacities, but that the mind of any individual human being becomes more excellent as its body becomes more active and develops greater aptitudes or capacities.

But what exactly is this higher 'excellence' of the mind that so depends on the greater capabilities of the body? The second passage itself tells us: it is consciousness or self-awareness; or, rather, a higher degree of consciousness. Here, and not in the 'ideas of ideas' doctrine, is where we are going to find Spinoza's account of consciousness. Or, more accurately, these texts offer us the seeds or outline of an account. To be sure, these particular passages are rather cryptic. Moreover, they have been noted by others in connection with the question of consciousness, but usually only to be dismissed as unhelpful or puzzling.[19] But I want to suggest that, in fact, they hold the key: human or higher consciousness for Spinoza is nothing but the mental correlate of the superlative complexity of the human body.

Any body for Spinoza is individuated by the particular and stable ratio of motion and rest among the particles and collections of particles of matter composing it. It is the body it is because its parts, while perhaps in motion relative to each other (or to groups of each other), none the less maintain the same basic kinetic relations.

> Definition: When a number of bodies, whether of the same or of different size, are so constrained by other bodies that they lie upon one another, or they so move, whether with the same degree or different degrees of speed, that they communicate their motions to each other in a certain fixed manner, we shall say that those bodies are united with one another and that they all together compose one body or individual, which is distinguished from the others by this union of bodies. (Spinoza 1925, Vol. 2, pp. 99–100; Spinoza 1984, p. 460)

The human body is no different from any other kind of body in this regard. However, as the passages above indicate, it does surpass other bodies by its superior capacities. And I suggest that these greater capacities of the human body are to be understood as (or reducible to) that

[19] Thus, Wilson (1999, p. 137) insists that 'Spinoza offers us no way at all of understanding why the adult body's fitness for many things should be linked to consciousness in the adult mind'. Garrett (2008, p. 9) similarly notes that these passages '[do] not seem to offer a promising approach to distinguishing degrees of consciousness in the imagination'.

body's greater number of kinds of parts and greater number of kinds of motion/rest relationships among those parts—in short, greater complexity—relative to other kinds of body.

The human body is a magnificent machine with a wide variety of parts and motions. And this variety goes deep, since the body's largest parts are themselves richly and intensively composite, constituted out of further composite parts, and so on. 'The human body is composed of a great many individuals of different natures, each of which is highly composite' (IIPost.1). Above all, the human body is endowed with a brain and neurological system more intricate, multi-faceted, adaptable, active, and responsive than what is found in any other physical existent. In short, the human body is simply a more complex parcel of extension than any other finite mode of that attribute. Or, at least, this is how I think Spinoza regards it.

Now the passages quoted above (IIP13s and VP39s) make no direct mention of complexity; they refer primarily to what a body is 'more apt' or 'more capable' of. But for Spinoza, a body's aptitudes are a function of the constitutional makeup of the body: its material parts and the ratios of motion and rest between them (that is, their structures and motive relationships). Thus, what the human body's greater aptitude relative to other types of body amount to is its greater complexity. This is why Spinoza insists in introducing the so-called 'Physical Digression' of Part Two that to understand the difference between the human body and other kinds of body and just *how* the former surpasses the latter, it is necessary to investigate its greater aptitudes, and that to understand *these* it is above all necessary to understand what body is, and what it is about one kind of body's extended nature that distinguishes it from another kind of body. In the *Short Treatise*, he says that 'the differences between [one body and another] arise only from the different proportions of motion and rest, by which this one is so, and not so, and this and not that' (Spinoza 1925, vol. 1, p. 52; Spinoza 1984, p. 95). In the *Ethics*, this approach is subtly manifest in Spinoza's insistence that an individual body 'retains its nature ... so long as each part retains its motion, and communicates it, as before, to the others', adding—in a clause that seems to draw a direct connection between the constitutive complexity of a body and its passive capabilities—that 'by this we see how a composite individual can be affected in many ways, and still preserve its nature' (II, Lemma 7). The upshot, then, is that the references of IIP13s and VP39s to the human body's superior aptitudes or capacities should be understood as references to its superior complexity as a parcel of extension.

Turning now to consciousness: on the account I am suggesting, consciousness is simply the reflection within thought of a body's internal relations in extension (just as the mind itself is the reflection in thought of the body's basic reality). It is a matter of complexity, flexibility, and responsiveness in an individual's thinking—in essence, the thinking turned upon itself and its objects in a particular way—reflecting or expressing (in a different attribute) the complexity, flexibility, and responsiveness of that individual's body. More to the point, the human being's greater degree of consciousness (relative to other finite beings), in turn, is nothing but the correlate within a finite mode of Thought (i.e. the human mind) of the greater complexity, flexibility, and responsiveness in Extension of the human body. Just as the human body is composed of a rich diversity of parts and relations among those parts—compositionally deeper and relationally richer than what is found in any other kind of body—so the human mind is composed of a rich diversity of ideas corresponding to those bodily parts and motions, and an equally rich diversity of relations among those ideas also corresponding to the relations among the bodily parts. And any individual idea in that mind holds within itself a superbly rich concatenation of sub-ideas and relations (corresponding to the body's subparts and their relations). Consciousness, on this view, just *is* that rich tangle of idea-relationships found within the human mind and within any particular idea in the mind, a mental reflection of the rich tangle of material relationships found in the human body. This complexity that makes an idea conscious occurs within the first-order idea itself; it does not require a second-order idea directed at the first. While the 'ideas of ideas' account does not, as I have mentioned, require a second-order idea either, the approach for which I am arguing does not even require an 'idea of an idea', that is, an idea that has another idea as its object. The complex of ideas and of idea-relationships that I am attributing to Spinoza as an explanation of consciousness is not necessarily the relationship of intentionality that characterizes the 'idea of an idea' relation (although that may indeed be one of the many kinds of relationships among ideas that make up consciousness).

Admittedly, this is all very vague and sketchy. But here is one way of cashing it out. Consider what Spinoza says in the passage from IIP13s: the more capable the body is the more 'capable [the mind is] than others of perceiving many things at once'. One way of looking at this is that the mind's increased ability to perceive many things at once *is* consciousness in the sense that consciousness is a kind of perceiving many things at once. Take my conscious awareness of an apple, for example.

Is it not, at the same time and through the same act, both the perception of the apple and an awareness of the perception of the apple? It is a way in which thinking is turned upon itself. Or, if what is in question is self-consciousness, 'thinking many things at once' can be construed as perceiving both the apple and myself perceiving the apple.

Notice that this account does not require that only human beings are conscious for Spinoza. All bodies have some degree of complexity, and this will be reflected in the corresponding complexity of their correlate minds. So if consciousness is just the correlate complexity in thought of the body's complexity in extension, then there may certainly be a continuum of consciousness among minds in nature and a sense in which all minds have some degree of consciousness. But the increased consciousness that Spinoza must—and does—admit characterizes mature human minds is a function of the increased complexity, initiative, motions, and activity and responsiveness that characterizes the mature human body. So unlike the 'ideas of ideas' account, this interpretation, while possibly implying that all minds are conscious to some degree, does not imply that all minds are conscious to the same degree.

On the other hand, maybe Spinoza, while he is willing to attribute minds to all things in nature, does not want to attribute consciousness to them as well. In this case, we can regard consciousness as an emergent property that certain mental systems take on only when their correlate bodies possess a particular minimal level of complexity and activity. Perhaps there is a threshold level of complexity in the body that, once reached, the corresponding level of complexity in the mind is consciousness. In this way, Spinoza can consistently claim that only human beings have consciousness without violating either the parallelism or the universality of animateness in nature. This, however, would not fit well with what Don Garrett has called Spinoza's 'incremental naturalism', or the view that there are no leaps in nature, that important explanatory properties and relations are not simply present-or-absent, but rather are pervasively present throughout all of nature in greater or lesser degrees (Garrett 2008, p. 18). For that reason, I believe any talk of emergence for Spinoza should ultimately be rejected.

Note, too, that the account I am suggesting also explains Spinoza's remark about infants having lesser degrees of consciousness of self than adults, since their bodies, while possessing much of the right neurological hardware, have not yet quite activated all of the human body's motions and capacities or realized all of its relational potentialities. In this way, there may indeed lie here a reply to Margaret Wilson's challenge for any Spinozistic account of consciousness that relies on the

remarks about bodily complexity, when she insists that 'Spinoza offers us no way at all of understanding why the adult body's fitness for many things should be linked to consciousness in the adult mind' (Wilson 1999, p. 137).

Just to be clear on what I am claiming: the greater complexity of the human body does not *causally* explain consciousness in the mind. This would violate the causal and explanatory separation that exists between the attributes of Thought and Extension in Spinoza's parallelism; no mode of Thought can be causally affected by a mode of Extension, and no state or property of a mode of Thought has its causal explanation in a state or property of a mode of Extension. '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' (IIP6). Rather, what I am claiming is that for Spinoza, human consciousness just *is* the greater complexity of the human body as this is manifested under the attribute of Thought.

5.

There has been only one other attempt seriously to relate consciousness to Spinoza's remarks on bodily capacity, but it results in a Spinozistic account of consciousness different from what I offer above. Garrett, relying on precisely the same passages I have cited, argues that for Spinoza consciousness is to be identified with the power of an idea. He notes that, according to IIIP6, 'each thing, insofar as it is in itself, strives to persevere in its being', and that this striving to persevere that characterizes every singular thing—its *conatus*—represents that thing's power as well as its perfection. 'The degree of a singular thing's power', Garrett says, 'is the degree of its perfection, which is also the degree of its reality', and different singular things have different degrees of perfection/reality/power/*conatus* (Garrett 2008, pp. 13–14). Moreover, what is true of different things—whether they be minds or bodies—is also true of the same thing over time. The power or perfection of any individual varies as that individual experiences increases or decreases in its *conatus*. These changes in *conatus* just are, according to Spinoza (in IIId3 and IIIpost.1), the passive and active affects (depending, respectively, on whether the change in power is brought about by external things or comes from an individual's own causal resources).

According to Garrett, the passage from IIP13s cited above is to be understood in terms of these differences and variations in power. What it means to say the human mind is 'more excellent' than other minds,

and that it is 'more capable than others of perceiving many things at once' (just because its body 'is more capable than others of doing many things at once, or being acted upon in many ways at once') is that it has a greater power of thinking than other minds; it also follows that its own power of thinking can undergo an increase or a decrease. Moreover, he notes, this is true of particular ideas within the human mind. 'The more power an idea has to determine how the singular thing whose idea it is does or does not exercise its power or *conatus* at a given time, the greater will be the power of thinking of that idea in that particular mind at that particular time' (Garrett 2008, p. 15).

Garrett concludes that degrees of power of thinking are to be identified with degrees of consciousness, an identification that, he says, is 'almost irresistibly implied' by IIP13s and VP39s. If (as IIP13s says) a mind's degree of reality or perfection or power of thinking increases in proportion as its body is more capable of doing many things at once; and if (as VP39s says) an individual's mind is more conscious of itself and of other things to the extent that it has 'a body capable of a great many things', then, on Garrett's view, consciousness must be the same as the perfection or power of an idea (Garrett 2008, p. 23). This interpretation, he insists, can explain why some minds in nature enjoy a higher degree of consciousness than others and what distinguishes human consciousness from the kinds of consciousness that must be found elsewhere in nature (the human mind, because of its body's superior capabilities, has a greater power of thinking); why any particular mind can be more or less conscious at different times (as its power of thinking varies); and why some ideas are more conscious than others in a given mind.

Although both Garrett and I, relying on the same passages, relate consciousness for Spinoza to the body's constitution, the difference between our two accounts should be clear. For Garrett, consciousness is a function of (because identical with) a mind's power of thinking (which is an expression in Thought of its body's power of persevering), whereas I argue that consciousness is a function of (because identical with) a mind's internal complexity (which is an expression of its body's complexity). Moreover, on Garrett's account (but not on mine) it follows that every idea in the mind is conscious simply by virtue of being an idea (and thus in so far as it represents some finite expression of the power of thinking).

Strictly speaking, all that Garrett is warranted in concluding from his argument and the central passages in question is that degrees of consciousness and degrees of power of thinking in a mind vary proportion-

ately, but not that consciousness is itself *identical* to power of thinking. Simply because *a* and *b* are both shown to vary directly according to variations in *c*, it does not follow that *a* is identical to *b*; rather, their correlated variations are due to their having a common cause or foundation. If I have a case of poison ivy, an increase or decrease in the redness of my rash will invariably be accompanied by a proportionate increase or decrease in itchiness; but it does not follow that the rash's colour and its itchiness are identical. These just happen to be two concomitant symptoms of one underlying state of affairs (the infection). Similarly, all that seems implied by the conjunction of IIP13s and VP39s is the conclusion that an increase or decrease in consciousness and an increase or decrease in power of thinking are both a reflection (in Thought) of an increase or decrease in something in the body (in Extension), but not the conclusion that consciousness is the same thing as power of thinking.

Things are, of course, complicated by Spinoza's parallelism, which implies that if *a* and *b* in the mind are both parallel to *c* in the body, then both *a* and *b* are identical to *c*, and thus (by the transitivity of identity) *a* and *b* are themselves identical. If both consciousness and power of thinking are parallel to one and the same bodily feature, then Garrett is right and consciousness and power of thinking are the same thing. However, on my reading, for Spinoza there are two relevant things in the body (a *c* and a *d*, if you will): one parallel to consciousness (bodily complexity) and one parallel to power of thinking (bodily power of persevering); and increases or decreases in these bodily features are reflected by parallel increases or decreases in, respectively, consciousness and power of thinking. But because the degree of the body's power of persevering—its ability to initiate action and respond effectively to external forces—is determined by the degree of its complexity (that is, an increase in *c* determines an increase in *d*), there will be a proportionate variation or correlation (but not an identity) between an increase in *a*, the mind's consciousness (as *c*, bodily complexity increases) and an increase in *b*, the mind's power of thinking (as *d*, bodily power increases). The same thing (bodily complexity) whose increase brings about a *directly* correlated increase in consciousness also *indirectly* brings about an increase in the mind's power of thinking (understood as the mind's ability to resist the power of outside forces—the passions—and its causal autonomy as it 'depends more on itself alone' (IIP13s)), by giving rise to an increase in the body's power of persevering.

What this shows is not only that, on the basis of those passages, Garrett concludes more than he is justified in concluding, but also that his account does not go deep enough in explaining what consciousness *is* for Spinoza and what constitutes its grounding in the body. I agree with Garrett that where there is an increase in a mind's perfection or power of thinking, there is an increase in consciousness; and that this increase in the mind's power is a reflection of an increase in its body's power. This correlation follows from IIP13s and VP39s. But the question is, *why* is there this correlation between consciousness and power of thinking? My account provides an explanation without making the logical leap (from correlation to identity) that I believe Garrett makes. An increase in a body's power (relative to other bodies and relative to the same body's condition at another time—for example, as an infant) is the result of an increase in that body's structural complexity and in the complexity's activation. In the mind, there will, for that increase in bodily complexity, be a direct corresponding increase in the complexity of thinking (i.e. consciousness); there will, for that increase in bodily complexity, also be an indirectly corresponding increase in the power of thinking that directly corresponds to the increase in the body's power of persevering, which itself is brought about by the increased bodily complexity. Complexity in the body explains[20] a parallel complexity in the mind (consciousness); higher complexity in the body also brings an increase in the body's power, which explains a parallel increase in the mind's power (resistance to passions). Thus, the more conscious a mind is, the more active and powerful it is, not because consciousness is identical with power but because both of these features of the mind are grounded (directly, in the case of consciousness; indirectly, in the case of power of thinking) in the same fact about the body, namely, its complexity.

It might be objected on Garrett's behalf that, as we have seen, in VP39s Spinoza draws the direct line from consciousness not to bodily complexity, but to the body's being 'capable [*aptum*] of a great many things' (and similarly in IIP13s, from the superiority of the human mind to the human body's being 'more capable than others of doing many things at once'). But what exactly Spinoza is referring to here by 'capability' is ambiguous. Garrett believes that it is bodily power and perfection. But, as should be clear from my analyses above, I claim that in these passages the notion of the body's capability or aptitude is, in fact, a reference to intricacy of structure and flexibility of activity and

[20] Given Spinoza's elimination of causal relations across the attributes, the type of explanation here cannot be a causal one.

response (understood most plausibly as neurological complexity). This is further supported by Spinoza's claim in IIP13s that the superiority of the human body consists not only in its higher capability of doing many things at once, but also in its higher capability of being acted on in many ways at once. It is difficult to see how, on Spinoza's terms, something has more power or perfection by virtue of being more capable of being acted upon or suffering passive affects; by contrast, it is easy to understand how a more structurally complex individual is capable of being affected in a greater variety of ways by outside influences.[21]

6.

Of course, many questions remain—questions for which there may not be clear and ready answers. Among these, there is the question of how the account of consciousness that I am attributing to Spinoza relates to the 'ideas of ideas' doctrine. It seems hard to believe that Spinoza's talk of ideas of ideas has nothing whatsoever to do with his understanding of consciousness, so natural seems the fit between the two. This incredulity is only strengthened by texts such as IVP8, examined above. But since every idea is equally endowed with an idea of an idea, there can be no direct connection between this doctrine and bodily complexity, which comes in degrees.

It may be that the solution to this question lies in a subtle feature of Spinoza's language. Notice that when he introduces ideas of ideas in the passages quoted above from IIP20–22, Spinoza speaks not of awareness or consciousness, but knowledge and perception. (The same could be said, in part, of IVP8, although here he also explicitly uses the word 'conscious'.) Through an idea of an idea, the mind 'knows' itself and it 'perceives' the ideas of the affections of the body. Perhaps, in Spinoza's mind, there is a difference between consciousness or conscious awareness (whether self-consciousness or conscious awareness of one's states and of things), on the one hand, and a cognition of oneself and of one's mental states.[22] What that difference is, however, seems very hard to articulate.[23]

An even more intractable question arises at the heart of my account of consciousness in Spinoza. Suppose we know what bodily complexity

[21] The rest of the paragraph of IIP13s suggests that what *is* a function of increased power in the body ('as the actions of a body depend more on itself alone ...') is not consciousness, but adequate understanding or knowledge (' ... so its mind is more capable of understanding distinctly').

[22] My thanks to Dan Garber for suggesting this approach to the question.

[23] Bennett (1984, p. 188) tries to do something along these lines, but not, as far as I can see, very clearly.

is, since (according to Spinoza) it can be understood clearly in terms of extended parts, relations of distance, and degrees of motion and rest. But what exactly *is* that mental complexity that is its correlate? Can we say anything more about it than that it *is* consciousness, or are there identifiable relations among our ideas (and especially among the sub-ideas of any conscious idea) that provide its proper analysis? The idea of an idea represents one kind of relationship that can exist among ideas—a relationship of intentionality—but what may be the others? Conversely, once we have identified the relevant relations among our ideas, it is a further question how exactly they constitute that qualitative state of experience we recognize as consciousness.

This latter issue is, of course, Chalmers's 'hard question' about consciousness transposed to the realm of Spinoza's attribute of Thought. It is one thing to refer to the structures and dynamics that obtain among ideas that are a reflection of structures and dynamics of the body; it is another thing entirely to understand how these amount to conscious awareness (Chalmers 1995). In response to Chalmers, Spinoza might, on my reading, reply that the question is misconceived. To ask how certain structural relations among our ideas—a reflection of correlative structures in the body (the brain and the nervous system)—'give rise' to consciousness would, Spinoza might insist, be to fail to grasp his reductive move.[24] Consciousness is not generated or caused by or otherwise related to complexity in thinking. Rather, it just *is* that complexity among and within our ideas—'perceiving many things at once'—and nothing more. The adequacy of this response, however, will depend not only on whether Spinoza can specify what exactly is the complexity and relations among our ideas that constitute consciousness, but also—and perhaps more problematically—whether he can use those persuasively to explain the qualitative feel of consciousness.

Yet another question emerges in connection with VP31, which directly relates self-consciousness to what Spinoza calls 'the third kind of knowledge'—an intuitive understanding through adequate ideas of the essences of things and how they relate to God—and an increase in self-consciousness to an increase in such knowledge: 'The more each of us is able to achieve in this kind of knowledge, the more he is conscious of himself and of God, i.e., the more perfect and blessed he is.' How can degrees of consciousness have any relationship to the degrees of clarity and distinctness or adequacy among our ideas?

[24] Chalmers, in turn, would likely reply by denying the plausibility of Spinoza's reductionism and insisting that it, like other varieties of reductionism, fails to capture exactly the intuitive features of our conscious lives that an account of consciousness is supposed to capture.

7.

Consciousness, for Spinoza, is, like anything else in nature, a perfectly natural phenomenon. It is not, as he complains others would have it, a 'dominion within a dominion', bearing only a contingent relationship to what happens in the physical world around it. Human consciousness is deeply embedded in the nature of the human body. It is not, of course, reducible to bodily events. Spinoza was clearly not a thoroughgoing materialist about the mind. The mental is a real category of things, necessary for making sense of an entire aspect of reality. But as Curley (1988) has argued, Spinoza does have materialist tendencies in so far as the nature of the human mind and its functions are grounded in the nature of the human body. Perhaps we can call it an explanatory materialism, without thereby implying that mental phenomena or events are *causally* explained by physical phenomena or events.

Even more helpful here, however, might be Garrett's notion of incremental naturalism. As he puts it, Spinoza's project is to treat such crucial elements of human life as desire, belief, and consciousness as already present in more rudimentary forms throughout all of nature, so that human beings can be seen as particularly complex and sophisticated expressions of nature rather than as something arising from the introduction of non-natural elements.

If I am right, then Spinoza does have the beginnings of an account of consciousness. More accurately, given the limitations of what Spinoza appears to offer us, his naturalism about the mind opens the way to a science of consciousness that is more than just phenomenology. Understanding consciousness will, in a crucial way, require understanding just those features of the body of which it is the mental correlate. In particular, it will involve understanding what are the specific complexities in the human body's makeup that are the ground of human consciousness. Spinoza's great contribution to the study of consciousness would thus be his belief that the key to understanding the nature of consciousness lies in the investigation of the body, and particularly in what I see as his suggestion that there is a neurobiological basis for consciousness.

These features of Spinoza's philosophy of mind allow us to see a way in which Spinoza anticipates some of the approaches to mental phenomena that contemporary philosophers of mind, and especially embodied mind researchers, take—approaches that, in turn, might help to resolve some questions raised by Spinoza's sometimes cryptic remarks about the mind and consciousness.[25]

[25] I am indebted to Larry Shapiro for discussing these issues with me.

Although the claim that the mind is embodied is subject to various interpretations,[26] the common assumption seems to be that minds and bodies are so thoroughly integrated that the hope that one might study the mind independently of the body begins to lose coherence. This is not merely an epistemological concern generated by limitations that confront empirical scientists. Rather, the point is that the mind is something like the reflection of the body. Our thoughts, perceptions, and states of conscious awareness have the properties they do not just because of the occurrence of certain events in our nervous systems, but—if researchers like Damasio (1994) and Lakoff and Johnson (1999) are correct—because of the form our body has (for example, the fact that our posture is vertical, that we have four limbs, two eyes, etc.) and because of certain conditions of systems in our body that one ordinarily would never have connected with our mental lives (for example, our viscera). In short, according to the thesis of embodied cognition, human minds and human consciousness are what they are because human bodies are what they are. Like Spinoza, embodied mind theorists reject what has been called 'body neutrality', or the idea that the nature of the mind and consciousness can be explained without any reference to the hardware with which it is connected.[27] Of course, the challenge for proponents of this theory, as it was for Spinoza, is to defend the claim that any such integration of mind and body is not just a matter of causal interaction—a position with which even Descartes would have had no complaint.[28]

Of present interest is how Spinoza's philosophy of mind might contribute to and in turn benefit from research in embodied mind. Some of Spinoza's claims (for example, that minds and bodies are simply finite modes of two of God's infinitely many attributes) would obviously have no place in the contemporary study of mind. But his suggestion that minds and bodies are two expressions of a single substance might provide embodied mind researchers with a conceptual apparatus from which they can begin to articulate more exactly the nature of the relationship between mind and body and in a way that makes clearer how, on their view, the connection goes beyond a simple causal one.

[26] See Shapiro 2004.

[27] The term 'body neutrality' was coined by Shapiro (2004) to describe a thesis held by certain functionalists.

[28] Ned Block (2005), for example, has charged some embodied mind advocates with confusing the radical idea that bodies are in some sense constitutive of minds with the less exciting idea that bodies causally influence minds.

Reciprocally, Spinoza scholars might find within embodied mind research the tools to evaluate some of the elements of Spinoza's philosophy of mind. With respect to the topic of this paper, for instance, how exactly is bodily complexity to be measured? By the number of limbs? Number of cells? Number of neurons? Spinoza says that for every part of the human body there is a corresponding idea in the mind. But do all parts of a body make an equally relevant contribution to the complexity that determines the degree of consciousness of that mind, or are some parts more important than others? I have conjectured that for Spinoza the primary complexity is neurological, but recent work in embodied cognition holds a much more extensive position. Moreover, to what extent should the bodily complexity relevant for the sophistication of mind and consciousness take into account a body's interaction with its environment? Are a body's external relations to other bodies a part of its complexity?[29] Spinoza's remarks about the relations between body parts in terms of a ratio of motion and rest are very abstract and go hardly any distance toward answering such questions. But these are just the kinds of questions for which one should expect answers if Spinoza's account of consciousness, as well as the embodied mind research program, is to bear fruit.

However successful Spinoza's account of consciousness is, and however relevant to the embodied mind program it proves to be, the fact that that program might well offer empirical support for some elements of Spinoza's philosophy of mind suggests that Spinoza intended his philosophy of mind—sketchy as it is—to make contact with the methods of natural science. Does this mean that Spinoza provides an answer to Gassendi's challenge? Not quite. There are still too many questions left unanswered. But my reading of Spinoza implies that he at least took the challenge seriously—unlike Descartes, who dismissed it as a misguided expression of Gassendi's materialist ways.[30]

[29] I am very grateful to Maria Seidl, Stefanie Grüne, and Julia Borcherding for this insight (and others) in their commentary on my presentation of this paper to the Leibniz Prize Research Project's workshop in Berlin.

[30] My thanks to Larry Shapiro, Don Garrett, Michael Della Rocca, Elliott Sober, and two anonymous referees for this journal for their helpful comments on earlier versions of this paper. I am also grateful to Ed Curley, Dan Garber, and Jon Miller for sharing their thoughts on the issues; and to audiences at the conferences 'Spinoza and the Sciences', held at the Royal Netherlands Academy of Sciences, Amsterdam (June, 2007); 'Transformations of the Mind: Philosophical Psychology from 1500–1750', held at Humboldt University, Berlin (June, 2007); and 'Spinoza Day', held at Princeton University (May, 2007).

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