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Materialism Does Not Save the Phenomena—and the Alternative Which Does

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Usually, materialism is attacked by way of a priori arguments: deductive arguments that make crucial use of a priori premises. But 'a priori premise' can mean one of two things. An a priori premise in one sense (the strict sense) is a premise that can be shown to be true without recourse to empirical data; an a priori premise in another sense (the loose sense) is a premise that—though true or false—cannot be shown to be false, but cannot be shown to be true either (with or without recourse to empirical data). The anti-materialistic argument of René Descartes (particularly as I construe it1) and the anti-materialistic argument of David Chalmers² are built on a priori premises in the second sense, which means: it cannot be shown to be false that there is a possible world in which I exist without anything physical existing—Descartes' master premise—and it cannot be shown to be false that there is a possible world in which everything physical is just like it is in the actual world, but without anything conscious existing—Chalmers' master premise—but neither is it the case that either Descartes' or Chalmers's master premise can be shown to be true—in such a manner that every rational person had better believe that it is true on taking cognizance of the demonstration, which, by the way, might simply consist in the presentation of what is self-evident. Obviously, a priori arguments that are based on a priori premises in the second sense—one might call them metaphysical premises—are vulnerable to rational doubt. What cannot be shown to be true can be rationally doubted—even if it may so turn out that it cannot be shown to be false either. Materialists, of course, have widely availed themselves of this rational possibility for doubt.

What I will offer here is not another a priori argument against materialism. Rather, my aim is to point out some empirical data—empirical phenomena—that quite strikingly militate against materialistic views regarding human

¹ See Descartes (1985a) and the Neo-Cartesian Argument in Meixner (2004).

² See Chalmers (1996).

nature. But it should be kept in mind from the start that these data, though empirical, are relevant for conceptual decisions (hence for matters that are traditionally regarded as falling within the province of the a priori), as will become rather apparent in the last section of this chapter. These data are of such a fundamental nature that they, unlike the usual empirical data, affect the choice between various conceptual frameworks, not just the choice between various theories within a given conceptual framework.

1. WHERE AM I?

In Philosophical Foundations of Neuroscience (Bennett and Hacker 2003), the two authors attack what they call 'the mereological fallacy' in neuroscience. According to them, psychological predicates can only apply—for conceptual reasons—to human beings as wholes, not to parts of them, in particular not to their brains. I am far from having Bennett's and Hacker's utter self-assurance in adjudicating what is conceptually correct or incorrect. Their judgments seem problematic to me in many cases, even if it is presupposed that the standard of conceptual correctness is to be set by ordinary (or natural) language. What seems absolutely certain to me is that some psychological predicates apply—in their primary, literal, non-analogical, non-metaphorical sense—to me. But what am I? What are we? This is a deep and difficult question, and Bennett and Hacker do not seem to have fully appreciated the full extent of its depth and difficulty, or they would not be so dismissive of the recent materialistic attempts to answer it, as well as of the earlier, dualistic ones. I submit, if these attempts fail, something more than just a neglect of 'conceptual hygiene' (ibid.: 116) is responsible for it.

But rather than dwell on this, I will, first, consider a question that seems much easier to answer than the question of what is the ultimate nature of my (and our) being: Where am I? Well, I am now here, of course. And where is here where I am now, at t_0 , for example? A true answer seems to be this: I am at t_0 precisely where my body is at t_0 . However, this answer is not without difficulties. Prima facie, the further question, 'Where is my body (now, at t_0)?,' is taken to ask for the place in which my body is at t_0 . But there is no such unique place. Places (for three-dimensional objects) are three-dimensionally extended regions in space—located, undivided volumes of space—and hence there certainly are infinitely many places in which my body is a to. In all of these infinitely many places I am, too, if I am a t_0 precisely where my body is at t_0 . This, surely, is much more than I ask for when I ask, 'Where am I?'

It seems that this difficulty can easily be overcome. 'The place in which my body is at to' is, of course, intended to mean the same as 'the smallest place in which my body is at t_0 , or in other words: 'the place which is at t_0 exactly occupied by my body.' Yet, is there any such place? A place l_0 is at t_0 exactly occupied by my body if, and only if, (1) every part of my body is at to in lo, and (2) there is no part of l_0 in which there is at t_0 no part of my body. The first condition alone is certainly satisfied, by many places; but the first and second condition together may easily be unsatisfiable. Suppose my body has at t_0 isolated proper parts: proper parts of it that are surrounded by empty space. Then there is no place which fulfills conditions (1) and (2) together. And is it not true that my body has at t_0 isolated proper parts? It seems otherwise only as long as we do not descend to the micro-level of mereological composition.

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Another difficulty for the idea that I am at t_0 precisely where my body is at to—a difficulty of a quite different nature than the one just described, and a difficulty which remains even if it be decreed that I am at t_0 precisely in what is for all practical purposes the smallest place in which my body is at t_0 (that is, the place where the water would not go if my body, mouth closed, were at to submerged in water)—is the following difficulty: I can look at my feet resting at to on the seat of a chair, and I can look at my hands resting at to on my thighs, and there is a sense in which the following two questions and two assertions make perfect sense (the two assertions being even true in that sense): 'How far away from me is at t_0 the tip of my left big toe?'—'How far away from me is at t_0 the tip of my right pinkie?'—'My hands [or my gloves] are at t_0 nearer to me than my feet [or my shoes].'—'My head [or my cap] is at t_0 nearer to me than my feet [my shoes], and even nearer to me than my hands [my gloves].'3 But how can this be if I am a t_0 precisely where my body is at t_0 ? Obviously, I must be somewhere else at t_0 than my body is. But where am I, then?

Here is an experiment that will determine where I (really) am at a certain time. Its central idea is that I am in the location—place or point in space—from which I am looking at the world (or rather: at whatever it is in the world that I am looking at). Thus, the experiment determines from which location I am looking at the world at a certain moment of time. I am sitting upright on a chair with my head immobilized (for, clearly, the location from which I am looking at the world may change when I move my head). I am looking straight ahead, at a white wall on which there is, at the height of my eyes, a pattern of black dots, like this:

^{....}

³ A few months after I wrote this, I discovered that at least one other philosopher had had such convictions: G. E. Moore. In van Inwagen (1995: 121), Moore is quoted as saying, 'I am closer to my hands than I am to my feet,' and the source of this is indicated to be White (1960). Van Inwagen calls Moore's conviction 'extraordinary' (van Inwagen 1995: 177). The conviction seems commonplace to me, and presumably seemed so also to Moore. Interestingly, Moore also drew a similar conclusion from it. The original passage in White (1960: 806) is this: 'He [Moore] insisted that he was quite distinct from his body, and one day said that his hand was closer to him than his foot was.' White describes Moore as a believer in Cartesian dualism (ibid.).

In front of the white wall, at a certain distance from it and from me—namely, just within my arm's reach—there is a very thin but rigid transparent screen. I am looking at the wall and at the pattern on the wall through that screen. I close my left eye, and with a fine marker I mark the location on the screen where the tip of the marker seems to me to coincide with a dot on the wall. I do this with regard to all sixteen dots. This yields a dot-by-dot projection of the sixteen dots on the wall onto sixteen dots on the screen. Next, sixteen straight lines are drawn, each line being uniquely determined by a dot on the wall and by the dot that corresponds to it on the screen. The point in space where these lines intersect or the region in space where they maximally converge, there I was during the experiment.

Consider also the following, somewhat more exciting way of determining where I am: If I—without non-negligible fault: accurately—aim a rifle at the colored center of a glass ball sitting on a pedestal, then a certain straight line is uniquely picked out: it is determined by the center of the ball and by the point in space where the bead of the rifle is located when it seems to me to coincide both with the center of the ball and with the rifle's rear sight. I—the subject of this action of aiming a rifle and, at the same time, the subject of the visual experience through which, so to speak, that action takes place—am somewhere on that line, or at any rate very near to some point on it. But can my location be known more precisely? Yes, it can. Let the former line be recorded (by measuring the coordinates of its determining points), and let me now aim the rifle accurately at the center of another glass ball sitting on a pedestal, so near to the first one that, in aiming the rifle, I do not need to move my head. Hence there is a second aim-line, which is determined in a way completely analogous to the way in which the first aim-line was determined. I am—as long as the aiming lasts—where the two lines intersect, or at any rate within the region where the two lines—and others generated just like them—come nearest to each other.

There are four possible general results: either my location (at a certain time) that is determined by these experiments—by increasing the number of dots on the walls, or the number of acts of aiming the rifle, the accuracy of my localization can be increased to any desired degree—is entirely inside of my body (though possibly encompassing points of its surface), or merely in⁴ its surface, or entirely outside of my body (though possibly encompassing points of the surface), or partly inside and partly outside of it. In all four cases, I do not spatially coincide with my entire body. Therefore, I am not identical to my body, nor am I identical to a psychophysical unity from which my entire body can be abstracted as its physical constituent (for then, too, I would have to spatially coincide with my body). If I am merely in the surface of my body, or entirely outside of my body, or partly inside and partly outside of it, then it is clear that I cannot be a physical entity. For nothing physical that is

merely in the surface of my body or at least partly outside of that body can be *me*. If I am to be a physical entity, I must be entirely inside of my body. Yet, whatever it is that is physical and occupies the location in my body that the experiments might conceivably determine as my location, it will certainly not be a likely candidate for being *me*. Therefore, wherever I am found to be located by the described experiments, nothing physical located there could with any likelihood be me. I am, therefore, not a physical entity (discounting the possibility that I might be a physical entity that is not located where I am found to be located by the experiments, but somewhere else; regarding this possibility, see below). Hence, since I certainly exist, I exist non-physically (though, of course, *not* independently of my body, not now and, in all likelihood, not ever).

Some, instead of accepting this conclusion, will undoubtedly prefer to conclude that since I am not a physical entity, I do not really exist, but have the same ontological status a center of gravity has: the status of a useful fiction.5 For me, with my subjective certainty of my real existence, this conclusion can hardly be acceptable, of course. But there are some further considerations—which are independent of my physical or nonphysical status—that may also convince other people than me that I really exist. (1) It cannot be denied that it seems to me that I really exist. Hence, if one assumes that I do not really exist, then one must also assume that I am under the illusion that I really exist. But, doubtless, whatever is under an illusion really exists. (2) It is simply not plausible that I do not really exist, since I am operative in carrying out the experiments which determine my location-experiments that depend crucially on how specific aspects in my experimentally prepared environment visually seem to me when I complete doing certain specific things with my instruments (the marker, the rifle), which doings are persistently intended by me to bring about precisely those visual seemings of mine—doings I persistently direct so as to make it really happen that I have these visual seemings (visual seemings that may, moreover, lead to dramatic consequences, as is evident if I aim my rifle—loaded, with the safety catch off—and pull the trigger).

The described experiments are meant to determine my location by determining my eye-point, my center of perspective, assuming that where my center of perspective is, that there, precisely, I am myself. This might be disputed. Perhaps I am not where my center of perspective is (but am a physical entity after all and located somewhere else). However, these doubts can be allayed. Perspective is standardly defined as the art of picturing objects in such a way as to show them as they 'appear to the eye' (with regard to shape). But this definition, taken literally, is faulty, for nothing whatever 'appears to the eye,' just as nothing whatever appears to a camera. The perfect definition of perspective—the literal

⁴ Though unusual, 'in' is more accurate than 'on' here.

⁵ See the views on the self in Dennett (1991).

⁶ Cf. Webster's New World Dictionary, the Second College Edition of 1976.

expression of what is non-literally conveyed by the previous definition—is that perspective is the art of picturing objects in such a way as to show them as they appear to us from where we are in space. (Our eyes are instruments necessary for having objects visually appear to us and they are approximately where we are—this is the basis of the metaphorical expression 'as they [objects] appear to the eye.')

It might, finally, be objected that, as a matter of principle, anything that is literally located in space must be physical. Therefore, either the experiments do not determine where I am literally located in space, or I am, after all, something physical. Anti-materialists, if they were forced to accept this purported dilemma, would still be happy to embrace its first horn. But the objection flies straight in the face of the fact that the experiments do seem to determine where I am literally located in space, and the fact that at this location no physical entity seems to be available that, with any plausibility, might be me. Clearly, one has a choice here: either to stick to the above principle—considering it an a priori premise—or to accept the conclusions which the phenomena, straightforwardly interpreted, strongly suggest. I would advocate the latter—also because there are other phenomena that point to strictly analogous (but not identical) conclusions. These other phenomena are addressed in the next section.

2. WHERE IS THIS ITCH?

Experience is full of illusions. Some of them are actually constitutive of an entire region of experience, of visual experience, say-for example, the allpervasive visual illusion that certain (actually separate) points coincide, of which the illusion that the moon is a luminous disk that is as big as a silver dollar (or smaller) is just one particular outcome. Pervasive illusions—and illusions that result from pervasive illusions under particular circumstances—are not normally taken notice of by us when we have grown up. Hardly anybody but a child, I suppose, would be fascinated by the illusion that, between tracks seen from a fast-moving train, there is a dirt-colored torrent that runs in opposite direction to the train's movement. But some illusions-non-visual ones-are so extraordinary that one can never fail to notice them as long as one labors under them: phantom itch, phantom pain. The designations 'phantom itch' and 'phantom pain' are somewhat amiss, since phantom itches and phantom pains are real enough—and so are their locations: the person who has a phantom itch or pain can tell (and point to) where the itch sits, or the pain. The only thing phantom about phantom itch and phantom pain is this: where these bodily sensations are, there is no human bodily part in which they are (but, usually, just thin air), though there seems to be such a part as long as one does not look or (try to) touch; this alone is what makes phantom itch and pain illusions.

Phantom itches and phantom pains only bring out in a particular striking manner what holds true of all bodily sensations: Since they are where they are, they cannot be physical entities, because, obviously, none of the physical entities (that is, living tissue, cells, nerve-endings—or just molecules of nitrogen, oxygen, and carbon dioxide) that are where the bodily sensations are can be identical with them. (The analogy of this reasoning to the reasoning employed in section 1 should be evident.)

Bodily sensations are nonphysical entities; but, of course, they are not independent of the body: without certain physical things going on in the brain of the person who has them, they would not exist. This, however, should not foster the idea that bodily sensations might be identified with those cerebral goings-on. The former cannot be the latter, because the latter do not have the right location for that. I do not have an itch in my brain, I have it in the middle of the palm of my left hand. And I can make the itch go away by rubbing the palm of my left hand. In this, I am fortunate; there is no such easily obtainable relief for the person who experiences a phantom itch.

I and my itch—both nonphysical—are depending for our nonphysical existence on the body, specifically the brain. The difference between my itch and me—besides the obvious difference (and its consequences in the given setting): that the itch is an event and I a substance—is this: the location of my itch is rather distant from its main causal source (the brain), while my own location is rather near to it. Now, the reality of phantom itches suggests the metaphysical possibility of phantom selves. Like a phantom itch, a phantom self would be real enough—and so would be its location: a phantom self would still see the world (at a time) from where it is (at that time). The only thing phantom about a phantom self would be this: where this self is, there is no human bodily part in which it is (but, say, only thin air).

The ontological coherence of this idea is rather convincingly argued in (Hart 1988). Moreover, if out-of-body experiences really occur—out-of-body experiences in the strong sense, which are such that the person who undergoes them sees (veridically sees) things that it could only have seen from a location, say, a few meters away from her body (such experiences have been alleged by near-death patients)—then the subject that has these experiences is certainly a real (and not only a possible) phantom self as long as these experiences last. Further, if the experiments described in Section 1 located me entirely outside of my body, my everyday existence would be that of a phantom self (in the described sense)—and this would be our common lot (since there is certainly nothing special about me and what the experiments determine with regard to me).

As this last consideration shows, even a phantom self is not *ipso facto* a self that is independent of the body—just as not even a phantom itch is *ipso facto* an itch that is independent of the body. As a matter of fact, phantom itches and phantom pains—to the extent that their real occurrence is indisputable—depend for their existence on a functioning brain. And the same is more than likely to be true of

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phantom selves—if there really are such things—even of the phantom selves in out-of-body experiences (taken in the strong sense, if there be such experiences): they would be selves 'with a long tether,' so to speak, but be causally linked to a functioning brain nonetheless. It must, however, be admitted that the nature of the non-local psychophysical causation that would be involved in such phenomena is quite unknown.

3. WHEN I REMOVE MY GLASSES, WHAT HAPPENS?

For some time, I have been sitting and looking fixedly at a white wall with the black silhouette of a human figure on it. Being told to remove my glasses and to keep looking at the wall as before, I do so. Instantly, the silhouette in front of me looks different to me from what it looked when my glasses were still appropriately positioned on my nose. The silhouette looks *blurred* to me. Before I removed my glasses, in contrast, it looked *sharp* to me, although I did not, then, pay any attention to this. I put on my glasses again. Instantly, the *blurredness* goes away and is replaced by the former *sharpness*.

What is the ontologically correct description of what is going on here? It turns out that this description is surprisingly hard to find, for there are several alternative descriptions, all of them with some initial plausibility:

- (1) Sharpness and blurredness succeed each other as properties of the silhouette I am looking at: first, this silhouette is *sharp*, then it is *blurred*, then it is *sharp* again—However, it is rather unlikely that the mere removal of my glasses from their customary place, and their subsequent restoration to that place, should have such remarkable effects on the silhouette (four meters in front of me). Moreover, the alleged succession of properties is only observed by *me*, while other observers (needing no glasses) do not perceive it.
- (2) It's not that sharpness and blurredness succeed each other as properties of the silhouette, but there is, nonetheless, a succession of properties with regard to the silhouette: looking sharp to me and looking blurred to me succeed each other as (relational) properties of the silhouette—This is certainly correct, but far from answering all the questions. The main question is this: during the whole episode, is there anything that is first sharp (that is, first has the property of sharpness), then blurred (that is, then has the property of blurredness) and then sharp again—or is there not?
- (3) During the whole episode there is *nothing* that first has the property of sharpness, then the property of blurredness, and then, once more, the property of sharpness—However, this does not seem plausible, since it seems to be clearly the case that *something* that is sharp becomes blurred when I remove my glasses, and becomes sharp again when I put them on again.

- (4) During the whole episode *something* has the property of sharpness at first, then the property of blurredness, then the property of sharpness once more. But it is not the silhouette on the wall (cf. (1)); it's my *visual experience*, conceived of as an ongoing process (without an inherent terminus).
- (4.1) Alternatively, the matter can also be described as follows: first (in the order of time), there is a section of my visual experience that is sharp, then comes a section of my visual experience that is blurred, and then again comes a section of my visual experience that is sharp.
- If (4) and (4.1) are correct descriptions, how do they square with the equally correct description (2)? The general relationship that is relevant to answering this question is captured by the following schema:
- (S1) The silhouette looks F_{obj} to me if, and only if, my visual experience⁷ of the silhouette is F_{exp} .

This is correct. But the following, similar schema is incorrect (if taken at face value: with the predicate F meaning the same on the left side of the 'iff' and on the right):

(S2) The silhouette looks F to me if, and only if, my visual experience of the silhouette is F.

But, notoriously, predicates are used homonymously, first with an objectival and then with an experiential meaning, to express an (S1)-relationship, making it seem as if an (S2)-relationship is being asserted. And equally notoriously, philosophers will point out to the conceptually unwary that they are speaking nonsense. Thus, though the silhouette looks black (or colored, or thin, or...) to me, my visual experience of the silhouette is of course not black (or colored, or thin, or...). But this does not refute what was really meant: that the silhouette looks black_{obj} (or colored_{obj}, or thin_{obj}, or...) to me if, and only if, my visual experience of it is black_{exp} (or colored_{exp}, or thin_{exp}, or...). Indeed, 'black' and 'black_{obj}' are synonyms—but not, of course, also 'black' and 'black_{exp}': 'black' and 'black_{obj}' each stand for the property of blackness, whereas 'black_{exp}' stands for that property of my visual experience of the silhouette that makes the silhouette look black to me (that is, makes it seem to me as if the silhouette had the property of blackness—as I have described matters, correctly so, since the silhouette was assumed to be black in fact).

Although (S2) is false, it looks as if it had some true instances, for example, the following two:

(S2.1) The silhouette looks blurred to me if, and only if, my visual experience of the silhouette is blurred.

⁷ Alternatively: 'the current section of my visual experience . . .'

(S2.2) The silhouette looks sharp to me if, and only if, my visual experience of the silhouette is sharp.

But on, closer inspection, it seems more appropriate to say that in these instances of (S2), too, predicates—'blurred,' respectively 'sharp'—are being used homonymously (first in the objectival sense and then in the experiential). Hence, what (S2.1) and (S2.2) are meant to say is more adequately expressed as follows:

- (S1.1) The silhouette looks blurred_{obj} to me if, and only if, my visual experience of the silhouette is blurred_{exp}.
- (S1.2) The silhouette looks sharp_{obj} to me if, and only if, my visual experience of the silhouette is sharp_{exp}.

Two comments (before I come to the conclusion of this section):

- (i) If (S1.1) is to be true, then it is crucial that—other things held constant—we stick to one particular objectival meaning of 'blurred': the one corresponding to the experiential effect of removing one's glasses. For it may easily be that the following is not true: the silhouette looks to me (for example) as if it had a ('physically') smeared outline (that is, looks to me blurred in another objectival sense than the one just mentioned) if, and only if, my experience of the silhouette is blurred in the experiential sense heretofore solely considered and held constant (that is, in the sense of the experiential effect of removing one's glasses).
- (ii) In the case of 'blurred'—in contrast to the case of 'black'—the experiential meaning seems to be the primary one, such that 'blurred' and 'blurred_{exp}' are synonyms and 'blurred_{obj}' is a derived predicate (whereas in the case of 'black,' 'black' and 'black_{obj}' are synonyms and 'black_{exp}' is a derived predicate). For can an object be blurred_{obj} that nobody ever looks at? It seems not. (Note, in contrast, that there is no difficulty in assuming that an object is black_{obj} that nobody ever looks at.)

Now the conclusion: while I sit looking at the white wall with the black silhouette on it and remove my glasses and put them on again, not taking my eyes away from the scene in front of me, something that is sharp_{exp} is caused by this action to become blurred_{exp}, and then to become sharp_{exp} again: my visual experience. But no physical entity is caused by this action of mine to become either blurred_{exp} or sharp_{exp}. In all of space—time nothing could with any likelihood be physical and become blurred_{exp} or sharp_{exp}, brain-events not excluded—although, of course, something physical is happening in my visual cortex that has causally to do with the observed succession of experiential properties and although, indeed, some physical entity—for example, the silhouette—that looks sharp_{obj} to me is caused by the described action of mine to look blurred_{obj} to me and then

to look sharp_{obj} again. Hence, my visual experience, an ongoing process, is not a physical entity. Nor can the successive sharp_{exp} and blurred_{exp} and sharp_{exp} sections of my visual experience be physical entities: these sections are events, but physical events cannot be sharp_{exp} or blurred_{exp}. In consideration of the fact that I, the subject of my visual experience and of any section thereof, exist nonphysically (see section 1), these results can only be considered *befitting*. As a matter of fact, blurredness, and sharpness—or better: blurredness_{exp} and sharpness_{exp} —are straightforward examples of what philosophers have become accustomed to call *qualia*. Nothing physical has qualia. No wonder qualia are denounced as *epistemically inaccessible* ('mysterious') by materialists (implying their ontological dubiousness), but, as I hope the above considerations have shown, quite wrongly so.

Some, rather than accept the nonphysical nature of my visual experience and its sections, will undoubtedly prefer to deny that there is such an ongoing process as visual experience and that there are such events as its sections, which stance is, for example, adopted by Daniel Dennett: see his eliminativist rejection of 'real seemings' in Dennett (1991). But I would urge that straightforward phenomena be not denied. Some philosophers, however, apparently do not wish to deny subjective experiential processes and events—episodes of being appeared to in a certain way—but do not wish to admit their existence either; nor can such philosophers be regarded as being agnostics regarding the matter in question. The attitude described seems to be a rather difficult one (to say the least), an attitude that, in the absence of positive evidence, one would not believe that anyone might be attracted to. But in the following quotation it seems to be adopted:

If A perceives an object O, then there was a perceiving of an O by A, and A had a perception of O. But these nominals introduce no new entities other than those already presented by the simpler sentence 'A perceives O'; they merely introduce convenient façons de parler, abstractions from the familiar phenomena. This does not mean that there are not really any perceptions (or that pains, tickles or twinges do not really exist, or that there are no hopes or fears). It means that there are, but that they are not 'entities' or kinds of things. (Bennett and Hacker 2003: 296)

This, on the face of it, is incoherent, since the statements 'there are perceptions (pains, tickles, . . .) and 'perceptions (pains, tickles, . . .) exist' just means (in ordinary language) that there are entities which are perceptions (pains, . . .), respectively, that entities exist which are perceptions (pains, . . .). However, I take it what Bennett and Hacker—and other Wittgensteinians who, qua Wittgensteinians, believe in the universal sufficiency and/or necessity of behavioral criteria for the mental—really mean to say is simply this: that there really are no such things as Cartesian perceptions and pains—namely, perceptions and pains qua subjective experiential episodes (though there are certain façons de parler that make it seem otherwise). Just like Dennett, they deny the inner or subjective

world (textual evidence for this is ample throughout Bennett and Hacker's book, but can be found especially in chapters 10 and 11).

But one will not be able to do without the assumption of that inner world, since behavioral criteria are neither sufficient nor necessary for perceptions, pains, tickles, twinges, fears, and hopes, while the occurrence of certain subjective experiential episodes is certainly at least *necessary*—that is, at least a *conditio sine qua non*—for all of these things. And this is not an invention of Descartes, but a mere matter of the semantics ('the grammar') of ordinary language. Let me make this plain.

The mind of a solitary woman who lies motionless in the middle of a flowering meadow, deep in the woods, on a sunny day is far from being empty. However, of what is going on in her mind, only the tiniest fraction is shown in her face or posture. She—Lady Jane—sees (the blinding light of the sun when her eyes are open, a uniform redness when her eyes are closed); hears (the voices of the birds and the sound of the gentle wind); smells (the fragrance of flowers and crushed plants); tastes-and-feels (her own spittle); feels tactilely (the texture of the leaves and stalks of grass and herbs pressing into her thinly clad backside); feels bodily (the relative dryness of her mouth, the sun's heat, the relieving instant coolness from the evaporation of her sweat, when one of those light gusts of wind goes over her body); feels bodily-emotively (a sharp sexual yearning for John Thomas); recalls (details of her last being together with John Thomas); fears (that someone might come by and see her who is not John Thomas); hopes (that John Thomas will come to her soon); thinks (fleetingly about what to tell Clifford, later, when she returns home)—all of this, and much more, is manifestly going on in her mind as she lies motionlessly. And she is still lying motionlessly, her heart pounding in her ears, when, on hearing someone approach through the grass, she feels the experiential kick of the adrenaline that is released into her body: feels as if she is falling into herself, into a bottomless pit which exhales a metallic tasting coolness.

This story is told in ordinary English—a story that offers glimpses of a physical environment and of a subjective mental life (of a 'stream of consciousness') in contact with that environment. A description of behavior does not occur in that story (except rudimentarily; there really is nothing properly behavioral there to be described)—and yet every adult English-speaking reader (I trust) perfectly understands the mental descriptions that occur in it, which descriptions refer to complex inner episodes. They perfectly understand them because they have had inner episodes similar to those described, or can easily imagine having them.8

4. A DEEP DIFFICULTY

Straightforward phenomena should not be denied. But perhaps the phenomena are not as straightforward as they seem to be. If my visual experience is nonphysical, it yet remains true that it is experience of physical entities. Physical entities are, as one is wont to say, intentional objects of my (and everyone else's) visual experience. How can this be? Obviously, physical objects cannot literally be parts of something that is nonphysical. But if this tree, for example, is not literally a part of the visual experience in which it appears to me, how, then, am I and, in a more direct way, my experience intentionally (in the philosophical sense) related to it? There is a tempting answer to this question: the tree is not literally a part of my experience, but a representation of the tree is; this is how I am intentionally related to the tree.

From the days of John Locke (at least) to this day, philosophers and scientists have succumbed to the temptation of representationalism, the only modification in the course of time being that representationalism, following the profound change in metaphysical taste during the last century, was adapted to the requirements of materialism. In other words, a neuronal representation of the tree is nowadays held to be a literal part of a certain brain-process, and it is supposed that my seeing the tree—my being in this way intentionally related to it—consists in that tree-representation being a part of this brain-process. But all that can be legitimately held on the basis of the empirical data is this: a neuronal causal trace of the tree—a firing-pattern of neurons—is, at the end of a long and complicated causal chain, a literal part of a brain-process without the occurrence of which I would not be seeing the tree.

As Edmund Husserl has repeatedly emphasized,9 in visual experience we are dealing directly with the visually experienced objects themselves, not with representations of them. Note that we cannot (on pain of epistemological absurdity) adopt the position that we are merely thinking that we are dealing directly with the objects themselves, whereas in reality we are not doing so but are dealing directly only with their representations; for if that were so, the route to total skepticism regarding the physical world would be very short, since we could never, as it were, get behind the screen of representations to check on their veridicality. Representation in some sense—a causal sense, not in the sense of semantic signification—must surely be involved in the causal mechanism that makes visual intentionality possible; but it is not involved in the end-product,

⁸ Further criticism of Wittgenstein's all too influential ideas on psychological language can be found in Meixner (2004).

⁹ A brief account of Husserl's theory of intentionality, and a favorable comparison of it with modern representationalist conceptions (of Fred Dretske and others), can be found in Meixner (2006a).

neither overtly (unless, of course, we are looking at a painting, a photograph, a movie, etc.) nor in a hidden way. But the problem how physical objects can be intentional objects of nonphysical visual experience is still with us. That nonphysical images of physical objects are, in a literal sense, parts of experience fails to do the trick, hardly less so than the idea that the object themselves are, in a literal sense, parts of experience. What else can do the trick?

Husserl, without his ontological idealism, may be our inspiration here. The following ideas are essentially Husserlian. Visual experience is the nonphysical medium through which (by the organization of its hyletic content) the physical objects of vision—normally existent, but sometimes non-existent—are intentionally attained, visually grasped, so to speak. But that grasp is always only partial: the physical objects of vision always transcend the visual experiences, since these experiences give or present (not represent) those objects only in a perspectival, aspectual manner, in other words: always give or present only a moment or side, an abstract part of them (an Abschattung, says Husserl). In perspectival presence and in the transcendence of perspectival presence—a transcendence, indeed, that is implied at each moment by the perspectival presence itself—physical objects are the intentional objects of nonphysical visual experience.

5. I, THE SAME YESTERDAY, TODAY, AND TOMORROW

Yesterday, I did U and felt V; today, I do W and feel X; tomorrow, I will do Y and feel Z. This is shown by experience to be true for many U, V, W, X, Y, and Z, and for many dates of temporal reference. Experience also shows it to be true in the straightforward sense, namely, without a temporal counterpart of me^{11} —of now-me, as it were—or a temporal part (stage) of me^{12} —of me-the-temporal-aggregate, so to say—being required for its truth to do U or Y or feel V or Z. The next question is how the first sentence of this section can be true in this straightforward sense. Clearly, for that sentence to be true in the straightforward sense, I must be able to exist as numerically the same entity yesterday, today, and tomorrow, without needing temporal parts or counterparts for this. What must be my nature if I am to be able to exist in this way?

First, there must be a certain analogy between me and existing universals, for example, the property of being human. Clearly, that property is able to exist—that is: to be exemplified by something existing—as numerically the same entity yesterday, today, and tomorrow, without needing temporal parts or counterparts for this. And in fact, that property existed yesterday, exists today, and will exist tomorrow without having either temporal parts or temporal counterparts—just like me.

12 For advocacy of this approach, see Lewis (1986), for example.

Second, there must be a certain disanalogy between me and existing universals, the example being again the property of being human. That property can be, and is, exemplified (every human being is an exemplifier of it), while I neither am exemplified nor can be. The simple truth of the matter is that the property of being human is a universal, and hence can be exemplified, while I am not a universal but an individual, and hence cannot be exemplified.

An individual that in its manner of existence through time is analogous to existing universals may be called an *endurant*. I am an *endurant*; this has been established in the three previous paragraphs. I am, moreover, a *subject of experience and action*. This, too, has already been established: it is certainly true that yesterday I did U and felt V, that today I do W and feel X. An endurant that is a subject of experience and action has every right to be called a *sentient agent-substance*. Hence, I am a sentient agent-substance—and a nonphysical one at that, as was shown in section 1.

What is the basis of my nonphysical existence as a sentient agent-substance, or in other words: as an endurant that is a subject of experience and action? As is known, no atom in my body is part of my body during the entire span of my existence. Hence the basis of my endurance cannot be purely material. It is known that a certain structure is maintained in my brain during the entire time of my existence; if that structure is no longer there, I have ceased to exist (in all likelihood), even though my body, with outward assistance, may yet go on living for a long time. But that structure is a complex universal that, in principle, is capable of multiple exemplifications. Hence the basis of my endurance—of my being an enduring individual—cannot be purely structural (or formal) either.

Clearly, the basis of my nonphysical existence as a sentient agent-substance is, so to speak, material-formal (or formal-material). But this, by itself, does certainly not answer all the important questions. One would—or at any rate should—like to know the nomological foundation of the causal potential of the basis of my nonphysical existence as an enduring subject of experience and action, in other words: the psychophysical laws that made my existence come about when the world took a singular turn and prepared the basis for this existence. But, so far, that nomological foundation is in its entirety terra incognita.

Moreover, the union of this matter—a certain huge collection of atoms—with this form—a certain mind-bogglingly complex manner of arranging atoms in space—first brought forth the physical object in which my nonphysical existence as a sentient agent-substance was, so to speak, kindled, in accordance with the psychophysical laws of nature. Now, if, say, after a fairly long time but still within my span of existence, those atoms and that manner of arrangement were miraculously brought together again, then, in a sense, 14 the very same physical

¹⁰ See Husserl (1966). ¹¹ Temporal counterparts are explored in Meixner (2002).

¹³ The source of this terminology is Mark Johnston, as is indicated in Lewis (1986: 202).

¹⁴ The emphasis is appropriate: remember the Ship of Theseus. Would the ship rebuilt from the old parts that were collected and safely stored over many years be the Ship of Theseus? In a sense,

object would be reconstituted that had once been brought forth already. But the *soul* that would be kindled in that physical object would certainly not be *me* (since, obviously, it would not be where I am at the time); rather, it would be *comparable* to the soul of a belated identical twin of mine.¹⁵ What, then, *individuates* me? The answer is ready at hand: the place-and-time of my origin is essential for my individuation; equivalently, my temporally specified history is essential for my individuation. Therefore, *this* origin (or *this* history), in addition to *this* matter and *this* form, are needed to differentiate me from every other soul.¹⁶

6. IS THIS CARTESIANISM?

Yes and no. Yes, since what I have been arguing for in this chapter has some, not inessential aspects in common with Cartesianism. No, since (1) Cartesianism makes some substantial claims that are not condoned in this chapter; and (2) some substantial claims are made in this chapter that contradict Descartes or are entirely outside of his ken.

Against (what they regarded to be) the suspicion of being guilty of dualism, various philosophers have reacted—in conversation with me—with the bizarre claim that they are not dualists but pluralists. Presumably, this is directed against the Cartesian dichotomy, according to which every res is either cogitans or extensa. But, in a perfectly straightforward sense, even a dualist like Descartes is a pluralist. For Descartes did not teach that cogitans and extensa are the only subdivisions of the domain of res: doubtless there are, also for Descartes, among the res extensae such that are alive and such that are not. Hence there are, also for Descartes, at least three kinds of res: cogitans, extensa et vivens, extensa et non-vivens. Evidently, Descartes, too, is a pluralist (indeed, how could he not be a pluralist?)—and yet he is a dualist.

This being said on behalf of Descartes, it should be noted that the kind of dualism here advocated is *not* a dichotomous dualism in the Cartesian tradition. It is *not* claimed that every entity is either mental or physical (for this, in my eyes, is obviously false: the number 0 is neither mental nor physical). Nor is it claimed that everything mental is nonphysical, because, for making such a claim,

yes. But in another sense, no. Consider that there is *another* ship, a ship afloat: the ship from which the parts were gradually taken and replaced by new ones. That ship has as at least as good a right to be the Ship of Theseus as the rebuilt ship.

¹⁶ The usefulness of the concept of *soul*, also for scientific purposes, is defended in Meixner (2006c) and in greater depth and detail in Meixner (2004).

the meaning of the word 'mental' is far too fuzzy (in the obnoxious manner that makes every precisification look more or less arbitrary). I claim, however, that some existing mental entities are nonphysical entities (or, a different way to say the same thing, that there exist nonphysical mental entities). And this is the thesis that I stipulate be here referred to by the designation 'psychophysical dualism,' or 'dualism' for short (no other dualism than psychophysical dualism can be meant in the present context). Moreover, in order to dissociate the discussion in the philosophy of mind from misleading historical baggage (which has been a vast disadvantage for dualists in the struggle with materialism), I recommend as a general practice that psychophysical dualism be taken to consist in the thesis that some existing mental entities are nonphysical entities, nothing more and nothing less.¹⁷

This thesis of psychophysical dualism is vague also to the extent that the term 'physical' remains unanalyzed. I will not here offer such an analysis, but proceed on the assumption that the term in question is sufficiently well understood. A few elementary remarks, however, are absolutely necessary in order to avoid confusion:

- (i) 'Physical' may mean (1) entirely (or purely) physical; or (2) at least partly physical; correspondingly, 'nonphysical' may mean (1) at least partly nonphysical; or (2) entirely (or purely) nonphysical. Obviously, nonphysical is the negation of physical, nonphysical the negation of physical. In all purely ontological contexts of this chapter, 'physical' (if occurring without the mentioned modifiers) is to be taken in the sense of 'physical' and 'nonphysical' (if occurring without the mentioned modifiers) in the sense of 'nonphysical'.'
- (ii) 'Physical' is, taken literally, an ontological term, but it can also be used in an analogical sense, for example, as a semantic term when speaking of 'physical predicates.' Interestingly, the distinction made in (i) is also valid for the semantic use of 'physical.' Thus, by saying that a predicate is physical, one can mean (1) that it is a purely physical predicate: that it has a purely physical meaning (this latter phrase containing another analogical application of the term 'physical'); or (2) that it is an at least partly physical predicate: that it has an at least partly physical meaning. Below, 'physical' will be used semantically (hence analogically) with the first of the two meanings just indicated.

Perhaps some may worry that the suggested conception of (basic) psychophysical dualism is, regarding propositional (or logical) content, too weak to be interesting. But it is easily seen that this is not so. The label 'dualism' is well-deserved by the thesis that is proposed to express psychophysical dualism, since that thesis entails that there is a nonphysical side of being—a second and complementary side, since

¹⁵ But note that, normally, even identical twins are built from *entirely distinct* collections of atoms. Clearly, more than just identical twinhood is involved in this doppelganger scenario. In Peter van Inwagen's more dramatic version of the thought-experiment, the man is confronted with the reconstituted boy, each claiming—apparently with equal justification—that he is Peter van Inwagen; see van Inwagen (1997).

¹⁷ A detailed discussion of the question of what is to be understood by the designation 'psychophysical dualism' can be found in Meixner (2004).

it can be taken for granted that there is also a *physical* side of being and that every entity is either physical or nonphysical. Materialists (or, to use the modern term, physicalists), though they take themselves to be opposed to 'dualism,' often do not have a clear idea of what they take themselves to be opposed to. If it turned out, on reflection, that they take their own position *not* to be opposed to the thesis that some existent mental entity is nonphysical, then one may well wonder whether their position can properly (or honestly) be called 'materialistic.'18

That psychophysical dualism consists in the indicated thesis does of course not preclude that it can be *enriched* in all sorts of ways; one such enrichment of psychophysical dualism is Cartesian dualism; another such enrichment is the kind of psychophysical dualism that I have defended in this chapter on empirical grounds. I call this dualism 'empirical dualism.'

Both according to empirical dualism and Cartesian dualism, I am an existent nonphysical mental substance (*mental* I am qua being a subject of experience). And both according to empirical dualism and Cartesian dualism, my experiences are existent nonphysical mental events (although, it must be noted, *event-dualism* is not as explicit in Descartes' work as substance-dualism; event-dualism can, however, be rather effortlessly distilled from his main work, the *Meditations*).

Descartes is notorious for not according the status of (dualistically conceived) mentality to other than human animals. Empirical data show, however, that he was wrong in this: experience—which cannot be without a subject of experience, which subject, in turn, is more than likely to function also a subject of action—is widespread throughout the animal kingdom.¹⁹

Since the time Cartesian dualism made its appearance on the stage of the history of philosophy, many have felt that psychophysical dualism is burdened with a huge load of demands for *explanation*—a load so heavy that psychophysical dualism can only sink under it. For this overly critical attitude, empirical ignorance is in part responsible, and in part philosophical unfairness. Even Descartes himself asserted that the body is very closely joined to the self or soul—*mihi valde arcte coniunctum est.*²⁰ Knowing next to nothing about psychophysical correlations, Descartes was, like everyone else for a long time to come, not in a position to make good on this assertion. But it is true, nonetheless, that body and soul, though distinct, are very closely joined, so closely as to form

a unified entity—still an unum quid (compare the quotation from Descartes in footnote 20), though not the unity that the psychophysical unitarians assume the human person to be (see below). And for the first time in human history we are beginning to be able to show that Descartes' assertion is true. With the increasing amount of knowledge about psychophysical correlations, the feeling that psychophysical dualism unduly separates the mental and the physical—to the point that, absurdly, the two seem to have nothing whatever to do with each other, that there seems to be an unbridgeable gulf between them—is bound to diminish. Of course, this positive effect of increasing empirical knowledge will only be felt by those who give dualism a chance to begin with, and do not safeguard themselves against it by philosophical unfairness.

What is it, in particular, that I mean by 'philosophical unfairness' here? It is philosophically unfair—and misguided—to demand explanations that go beyond the indication of lawful correlations, and then to complain that psychophysical dualism can't provide such explanations, and then to urge that psychophysical dualism must, therefore, be discarded. One might as well demand an explanation of gravity that goes beyond the indication of the precise lawful correlation between the masses of physical objects and their distance from each other on the one hand, and the gravitational force they exert on each other on the other. No such explanation is forthcoming (the general theory of relativity does not provide it). Does this make it incumbent upon us to give up the idea that a physical object and its gravitational field are distinct entities (insofar as they could, metaphysically (not nomologically), each exist, such as they are in themselves, without the other)? Certainly not. And in fact nobody is complaining that physics is making a misplaced mystery out of the relationship between material objects and their gravitational fields just by considering them distinct entities (in the indicated sense). Neither should anyone complain that dualism makes a misplaced mystery out of the relationship between certain living bodies and their mental fields, so to speak, just by considering them distinct entities (insofar as they could, metaphysically (not nomologically), each exist, such as they are in themselves, without the other).

Another frequent complaint against Cartesian-type psychophysical dualism—and empirical dualism, though not Cartesian, is certainly of Cartesian type—is the complaint that it makes the direct and literal ascription of physical predicates to, for example, *me* impossible. But, first, this is not invariably impossible: as we have seen, a predicate of being at a certain spatial location (at a certain time) can be literally and directly ascribed to *me*, although I am a nonphysical entity. Second, with regard to other cases, where indeed a physical predicate cannot be literally and directly ascribed to me, which predicate, however, one would nevertheless want to ascribe to me (for example, 'to have a mass of 85 kg'), it should be remembered that nothing is wrong with the following biconditional:

I [analogically] φ if, and only if, my body [literally] φ s—for all physical predicates φ that cannot be literally and directly ascribed to me.

¹⁸ The point just made is urged in Meixner (2005 and 2008a).

¹⁹ An evolutionary explanation of this is provided in Meixner (2006b) and in greater depth and detail—embedded in a theory of *decision makers*—in Meixner (2004). Objections are answered in Meixner (2008b).

²⁰ See *Meditations*, VI: 9. It is worth mentioning that Descartes explicitly distances himself from that ancient analogy—see Aristotle's query in *De anima*, II: 1; Thomas Aquinas in *S. c. G*, II: 57, connects the analogy doctrinally with Plato—which even to these days is thought to be representative of substance-dualism: *the-navigator-in-the-ship analogy*. Descartes: 'Docet etiam natura, per istos sensus doloris, famis, sitis &c., me non tantum adesse meo corpori ut nauta adest navigio, sed illi arctissime esse conjunctum & quasi permixtum adeo ut unum quid cum illo componam' (*Meditations*, VI: 13; quoted from Descartes (1986)).

The empirical dualist takes this biconditional to formulate a rule of analogical predication, which governs the analogical and indirect (that is, secondary) ascription of physical predicates to me that cannot literally and directly (that is, in the primary way) be ascribed to me, but which one would nevertheless want to ascribe to me. For the empirical dualist, the analogical ascription of such predicates is good enough.

It should be noted that for those materialists who identify me with my body the above biconditional is not a rule of analogical predication, but, for all predicates φ , a consequence of Leibniz's Law: the predicate-ascriptions on both sides of the biconditional are regarded as literal and direct. Those materialists, however, who identify me with my brain or some part thereof are also forced to resort to analogical ascriptions, according to the rule of analogical predication stated above (but now being referred to the context that is created by their hypothesis about my nature); for the predicate 'to have a mass of 85 kg,' which one would want to ascribe to me, obviously cannot be literally and directly be ascribed to me if I am my brain or some part thereof. Finally, for those who take me to be a psychophysical unity, the above biconditional is also not a rule of analogical predication, but nevertheless true for all physical predicates φ , with the predicate-ascriptions being literal and direct on both sides of the biconditional. Like the body-materialist—but unlike the brain-materialist—the psychophysical unitarian21 believes that my mass is as literally and directly 85 kg as the mass of my body is literally and directly 85 kg. This may seem a very attractive option. However, its attractiveness cannot suffice to dislodge empirical dualism, which can speak of my mass being 85 kg only in an analogical and secondary way, but nevertheless can speak of it. It cannot suffice in consideration of the fact that empirical observations (see section 1) show me to be literally where neither body-materialists nor brain-materialists, nor psychophysical unitarians have any means—either analogical or literal ones—of saying truly that I am there.

Besides predicates that are physical—that is: purely physical—there are predicates that are indeed not physical, but not psychological—that is: purely psychological—either; this is just a matter of the semantics of ordinary language. The most important one of these predicates is truthfully ascribed to me in the next sentence. I am a human being. For materialists, 'human being' can only be a physical predicate after all, meaning as much as the predicate 'human body.' Then, 'human being' can be literally and truthfully ascribed to me according to the body-materialist (because it is literally true that my body—which I

am identical to, according to the body-materialists—is a human body), not, however, according to the brain-materialist (obviously). But is it true that 'human being' is a physical predicate, or that it should be taken to be such a predicate? Psychophysical unitarians deny this-rightly. For them, 'is a human being' logically entails 'is a psychophysical unity.' Psychophysical dualists do not quite follow the unitarians in this, although 'human being' is, of course, also for dualists not a physical predicate, and although, normally, it is for them not a psychological predicate either (an exception being Plato and his followers—at least in the eyes of Thomas Aquinas;²² in their own way, such dualists contradict the conceptual framework of ordinary language as much as the materialists do). For dualists (leaving aside Aquinas's Platonic dualists), 'is a human being' logically entails only 'is a unified entity of physis and psyche,'23 and not 'is a psychophysical unity.' However, the dualistic conceptual option does remain within the bounds of the semantics of ordinary language (the naturalness of dualism within natural language is, as a rule, grossly underestimated by unitarian Wittgensteinians, like P. M. S. Hacker). Moreover, the dualistic option seems to be better adapted than the unitarian one to what the empirical phenomena (some of which have been described in this chapter) tell us about us—so much better that we can well accept that 'human being' is only being analogically and indirectly ascribed to me when I say of myself 'I am a human being,' my literal meaning being that I am the nonphysical substantial core of a unified entity of physis and psyche that is of human kind.

²² See S. c. G., II: 57, 'Plato posuit quod homo non sit aliquid compositum ex anima et corpore: sed quod ipsa anima utens corpore sit homo.'

²¹ Modern hylemorphists like to see themselves as psychophysical unitarians—and Thomas Aquinas as well (for example, Klima (2007)), which, however, does not quite seem to do justice to the historical truth. An epitome of modern psychophysical unitarianism, in any case, is P. M. S. Hacker. Psychophysical unitarianism is *not* a monism (since psychophysical unitarians will acknowledge that there also exist purely physical entities), and it is *not* a form of psychophysical dualism either (since psychophysical unitarians will deny that there exist nonphysical—that is, *purely* nonphysical—mental entities).

²³ It should be carefully noted that it is, according to Cartesian as well as empirical dualists, essential (that is, conceptually existence-essential) for a human being to be a unified entity of physis and psyche: it is conceptually (and hence metaphysically) impossible for a human being to exist without being such an entity. This does not mean, however, that it is essential for the physis and the psyche of a human being to be unified and constitute the unified entity which is a human being: according to Cartesian as well as empirical dualists, it is metaphysically (and hence conceptually) possible for the psyche, and for the physis, of a human being to exist without being a constituent of any human being. (For my views on essentiality and on metaphysical and conceptual (im)possibility, see Meixner (2006d).)