Chapter 2
Materialism and Its Critics

2.1 Bennett and Hacker's Criticism of Dennett

My objections to Dennett's view in Chapter 1 resemble the criticism we find in *Philosophical Foundations of Neuroscience*, by neuroscientist Maxwell Bennett and philosopher Peter Hacker.[1] I have two reasons for dedicating this section to their view. Firstly, Bennett and Hacker deserve credit for their apt critique of Dennett. Secondly, there is an important difference between their starting point and mine: whereas my approach is phenomenological, theirs is ordinary language philosophy. Consequently, the similarity between their criticism of Dennett and mine is not as great as may seems at first sight, which offers a good occasion for a brief comparison between ordinary language philosophy and phenomenology.

Bennett and Hacker's main objection to Dennett's view is that Dennett would commit what they call the "mereological fallacy". Mereology is the logical theory of parts and wholes. Dennett's fallacy would be that he attributes "psychological"[2] predicates (thinking, consciousness, judgment, perception),

1 Parts of this section have previously been published in van Buuren, "The Philosophical-Anthropological Foundations of Bennett and Hacker's Critique of Neuroscience".

2 The word "psychological" in Bennett and Hacker does not refer to the psyche as separate from the body, but rather to Aristotle's "psuchē" which refers to the human being as a whole. Bennett and Hacker explicitly criticize Cartesian dualism. Consequently, Robinson is mistaken when he suggests that Bennett and Hacker embrace a "discursive dualism" after the fashion of Descartes: "Bodies do not cogate, persons do . . . It is the person as *res cogitans* and not some extended property of that entity, such as its brain." (Robinson, "Review of *Philosophical foundations of neuroscience*", 144.)

that are normally applied to the person as a whole, only to a "part" of the person: the brain. "Given Dennett's conception of the intentional stance, it is unclear what precisely he means by claiming that the brain gathers information, anticipates things, interprets the information it receives, arrives at conclusions, etc. Presumably *he* is 'adopting the intentional stance' towards the brain, and is treating it as if it were a rational agent that believes what it ought to believe and desires what it ought to desire and acts on its beliefs and desires."[3]

According to Bennett and Hacker, Dennett is certainly not the only philosopher or scientist to commit the mereological fallacy. A broad variety of examples is discussed in their book. In some cases psychological properties are attributed to the brain, in others to *parts* of the brain, for instance to one of the two hemispheres after "split-brain" operations: "After such 'split-brain' operations, patients exhibit dramatic forms of malfunctioning. This is commonly explained (e.g. by Crick) by reference to the alleged fact that 'one half of the brain appears to be almost totally ignorant of what the other half saw'. When the patient is asked to explain why he moved his left hand as he did, 'he will invent explanations based on what his left (speaking) hemisphere saw, not what his right hemisphere knew'."[4]

We do not need to go into the details of split-brain operations in order to understand Bennett and Hacker's point. They do not object to the particulars of Francis Crick's theory, but rather to its presuppositions: the left hemisphere does not see anything, nor does the right hemisphere know anything. Instead we should say that *I* see or know something, and that this is rendered possible by specific functions located in the right or left hemisphere of the brain. Neuroscience sometimes ascribes psychological attributes to even smaller parts of the brain, including, in the most extreme case, individual neurons. Bennett and Hacker quote Colin Blakemore, who says that neurons "have knowledge", "have intelligence", and "present arguments to the brain".[5] According to Bennett and Hacker, this goes against the mereological principle of neuroscience, which in sum purports that "psychological predicates which apply only to human beings (or other animals) as wholes cannot intelligibly be applied to their parts, such as the brain".[6]

I agree with the general purport of Bennett and Hacker's criticism of Dennett and neuroscience and -philosophy in general. As regards their objection to

3 Bennett and Hacker, *Philosophical Foundations of Neuroscience*, 426.

4 Ibid., 153. Bennett and Hacker are quoting Francis Crick.

5 Ibid., 69.

6 Ibid., 73.

projecting psychological predicates to parts of the brain, including the tiniest parts, it is interesting to note that, already in 1872, Du Bois-Reymond criticized this way of thinking:

> What conceivable connection exists between, on the one hand, certain movements between certain atoms in my brain, and on the other hand these facts which are to me original, which I can neither further define nor deny: 'I feel pain, feel *like* something, taste something sweet, smell the scent of roses, hear the sound of the organ, see red', and the certainty ensuing from this: 'And therefore I am'? It is precisely completely and forever incomprehensible that a number of carbon, hydrogen, nitrogen, oxygen etc. atoms would not be indifferent about how they are positioned and move around, how they were positioned and moved around, and how they will be positioned and will move around. In no way can it be understood how their being together could produce consciousness. If they were not indifferent to their way of being positioned and moving around, then we would need to conceive of them as individually equipped with consciousness, like monads. This would not explain consciousness as such, nor would it contribute the least to the explanation of the unified consciousness of the individual.[7]

The passage shows that both Bennett and Hacker's and my own criticism are part of a tradition which is much older than one might be inclined to think. In addition, the passage demonstrates that already Du Bois-Reymond recognized a logical *tendency* inherent to the reductionist approach: the materialist assumes that the brain is conscious and seeks the explanation for this capacity in *partial* processes, which easily leads to the ascription of consciousness to these parts, which in turn leads to the ascription of consciousness to even smaller parts of the nervous system. Bennett and Hacker and I are both historically and systematically speaking in the same camp, but there are also some important differences between their view and mine. From my point of view their approach raises some pressing questions.

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7 Du Bois-Reymond, *Über die Grenzen des Naturerkennens*, 458.
Cf. G. H. Lewes's *The Physical Basis of Mind* (1877), 441: "it is the man and not the brain, that thinks; it is the organism as a whole and not one organ that feels and acts". Quoted by Hacker in "Before the Mereological Fallacy: A Rejoinder to Rom Harré", 143.

One question is whether, from a philosophical perspective, human beings are animals, as Bennett and Hacker presuppose.[8] This may seem like a side-issue but in fact it is not: our shared criticism of Dennett also targets the primacy of the scientific perspective, and it is precisely from this perspective that the difference between human beings and animals appears to be non-existent or merely gradual. I argue that the assumption that human beings are animals goes against Bennett and Hacker's own aspiration to make explicit the habitual rules of ordinary language. From a *biological* perspective human beings are animals, but in our everyday lives we start from the assumption that human beings are different from animals. If somebody says "I like animals", she does not mean to include human beings in this assertion (although she might also like people). And if someone says that farmer John treats his animals badly, we know that she is referring to his cattle, not to his wife and children (although he might also treat them badly). It has become something of a habit in philosophy, and gradually also in everyday forms of "theoretical" self-reflection, to regard oneself from a biological perspective and to adopt, without reservations, the presupposition that there is no essential difference between animals and human beings. There are, as far as I can see, two reasons why we are inclined to do so:

(1) Over the past few centuries biology and natural science in general have been extremely successful in producing a vast amount of empirical knowledge about the human being and the world. This tempts us not only to accept these results as truths about *some* aspect of our existence, but to think that the presuppositions of biology are applicable to *all* aspects of our lives, regardless of the question whether they are in tension with our normal assumptions about what we are.[9] Science is accepted as the ultimate source of truth about the human being and the world, and the problem of whether a specific question is a *scientific* question in the first place is neglected. Although Bennett and Hacker criticize reductionism in neuroscience, scientism is not without influence on their view.

(2) Many of us, late-moderns, feel we should do more justice to animal well-being than we have in the past. We think that we have not taken animals se-

8 This presupposition is apparent in the quotation above, but also e.g. in Bennett and Hacker, *Philosophical Foundations of Neuroscience*, 209, where Bennett and Hacker refer to animals as "*non-human* animals" (italics mine).

9 This issue is more complicated than it seems: I do not mean that there are *areas* in our lives which science does not explore. Science can in principle explore *everything*: the word "one aspect" here designates that it explores everything in a single, one-sided way, which certainly has its value but is not the only truth about human existence. This will be discussed more extensively in the chapters to come.

riously enough. This moral judgment, which is in itself legitimate, leads to a form of overcompensation: we think we should take animals just as seriously as human beings. And so we speak of the "non-human animal", and say it has "rights" like we, "human animals", do. Although I wholeheartedly agree with the moral agenda of treating animals better than we have been doing, I think this should not cause us to blur the distinction between human beings who are persons and have rights, and animals, which do not have rights but which nonetheless deserve a good life without unnecessary suffering. (The difference between human beings and animals will be further explored in Chapters 4 and 5.)

The second question evoked by Bennett and Hacker's criticism of Dennett concerns the term "mereological fallacy" and what it implies. Bennett and Hacker say that "perception, thought, and feeling, *are attributes of human beings*, not of their parts—in particular, *not of their brains*." They continue that "[a] human being is a psychophysical unity, an animal that can perceive, act intentionally, reason and feel emotions".[10] Other passages suggest that the brain is "a part of the *person*".[11] I agree with the general purport of this criticism, but I have some trouble with the assumptions implied in these formulations. It seems awkward to say that the brain is a part of the human being or the person. John Searle makes this very point: "The relation of the brain to the rest of the *body* is indeed part-whole. The brain is a part of my body. [Bennett and Hacker] say only a *person* can be the subject of psychological attributions, not just a brain. But the person is not related to the brain as whole to part."[12] I agree with Searle: the brain is not a part of the human being or the person, but rather of his (organic) *body*. But does the body not belong to the person? I will return to this question shortly.

In their response to Searle, Bennett and Hacker give in somewhat to this objection, distinguishing between person and human being. The brain would be part of the human being, indeed not of the person:

> Human beings are persons—that is, they are intelligent, language-using animals—are self-conscious, possess knowledge of good and evil, are responsible for their deeds, and are bearers of rights and duties. To be a person is, roughly speaking, to possess such abilities as qualify one for the status of a moral agent. We would probably not say that the brain is part of the person but rather that it is part of the person's body, whereas we would not hesitate to say that Jack's brain is part of Jack, part of *this* human being, just as his legs and

10 Bennett and Hacker, *Philosophical Foundations of Neuroscience*, 3.

11 Ibid., 112 (italics mine); cf. 81-85.

12 Searle, *Putting Consciousness Back in the Brain*, 107. Cf. Rom Harré, "Behind the Mereological Fallacy", 336-339.

arms are parts of Jack. Why? Perhaps because 'person' is, as Locke stressed 'a forensic term', but not a substance name. So, if we use the term 'person' in contexts such as this, we indicate thereby that we are concerned primarily with human beings qua possessors of those characteristics that render them persons, in relative disregard of corporeal characteristics.[13]

I agree with Bennett and Hacker that "person" and "human being" are somewhat different concepts. Hacker rightly states that personhood could in principle also exist as the mode of being of another organism than the human being.[14] This implies that the extensions of "human being" and "person" do not necessarily coincide.[15] But does the distinction solve the problem at hand? I argue that it does not, because although not all persons are necessarily human beings, we consider all (healthy, adult) human beings to be persons. Jack is a human being, for sure, but this implies that he is a person. I do not understand why the authors presuppose that a proper name like Jack would refer to anything less than the *person* Jack. If one would want to clarify the claim that Jack's brain is part of Jack, one would probably add something to it: "Jack's brain is part of Jack, *that is: of his body*." So Searle's point remains valid: The brain is not part of the person Jack, but of the person Jack's body.

But the case is a little more complicated. Bennett and Hacker's expression "the person's body" from the quotation above implies that the person *has* his body. This is certainly part of the way we relate to the body, which is illustrated by everyday life expressions such as "I like (or dislike) *my* body" or "I hurt *my* finger." But at the same time we *are* this body that we have. In the same manner, Jack from the example above not only *has* his body, which includes the brain, he also *is* that body. The claim that the brain is part of Jack is therefore true in one particular respect. It is true insofar as Jack *is* the body that he (also) has. Insofar as Jack simply coincides with his objective body, each part of that body is part of Jack. The reason the claim is problematic, then, is that its truth is only partial. It suggests that Jack is *nothing more* than the objective body, because that is

13 Bennett and Hacker, *The Conceptual Presuppositions of Cognitive Neuroscience*, 134-135; cf. Hacker, "Before the mereological fallacy: A rejoinder to Rom Harré", 142-143. I am assuming continuity between Hacker and collaborative work by Bennett and Hacker.

14 Hacker, *Human Nature: The Categorial Framework*, 313; cf. Plessner, *Stufen*, 293.

15 Since "human being" and "person" have *in fact* the same extension (as there are, as far as we know, no other organisms than the human being which are persons), I will often use these terms more or less as equivalents.

what the brain is a part of. The formulation evokes a reductive-materialistic picture of the human being, which is precisely what the authors want to avoid. So although it is tempting to accept that Jack's brain is a part of Jack, or that the brain is a part of the human being, these claims are just as problematic as "the brain is a part of the person."[16]

I am anticipating the discussion of Plessner in Chapter 5. According to Plessner, we should distinguish between my own body as a thing, i.e., as an object, including the brain, and my body as a *subject*, i.e., as a sensorimotor unity, open to the world. Subject and object are not parts of the body, but two *modes of being*, two *aspects*, of one and the same body. In the case of human beings, who also have a structural awareness of the subjectivity and the objectivity of the body, this unity is called a "person".

So, according to Plessner, the human body not only has different parts; there are also different *aspects* to the body. Using this vocabulary we can say that the brain is a part of the objective body and that the objective body is only one of two aspects of our bodily existence as a whole. The objective body is a *partial aspect* of our being in the world. This is a more differentiated mereology than Bennett and Hacker's, because we distinguish between two kinds of part-whole relationships: (a) the relationship between a part of the body and the body as a whole, (b) the relationship between a partial aspect of our bodily existence and this existence as a whole, whereby the whole is the person. The person is herself embodied and she is more than the sum of the partial aspects which make up her existence. Since "person" describes the whole Plessner does not call it the "third aspect" of human existence. Searle's objection to Bennett and Hacker that the brain is not a part of the person is correct, because (a) and (b) are fundamentally different kinds of part-whole relationships. They should not be conflated. Instead of saying that the brain is part of the person (or human being), we should

16 Rom Harré also argues that the brain is not part of the person but, in my view, he mistakenly concludes from this that we are not dealing with a mereological problem at all. The real mistake would be the violation of "the radical disjunction of moral and factual judgments" (Harré, "Behind the Mereological Fallacy", 339). I think Harré overlooks the possibility of a different interpretation of the mereological relationship between brain and person, namely the interpretation presented here. In my view, the mereological fallacy goes together with the reduction, addressed by Harré, of the moral domain to mere facts. I do not understand why Harré assumes that these two kinds of fallacy exclude one another.

say: The brain is part of the objective body and the objective body is only one of two aspects of the person.[17]

The third and final question raised by Bennett and Hacker's critique of materialism has to do with method. I want to show that the similarity between my objections to Dennett's view and Bennett and Hacker's criticism of that view is not as great as may seem at first sight.

Bennett and Hacker argue from a Wittgensteinian background: they say that all they do is analyze the rules for the correct use of words. These rules constitute the conceptual contents of the words and their relations to other words. "To have a concept is to have mastered the use of a word (or phrase)."[18] And: "Conceptual problems . . . are problems that result from misinterpreting the forms of our language, using words in ways that appear to make sense, but do not."[19] Bennett and Hacker insist that philosophy can only decide whether sentences make sense or need to be disqualified as nonsense. In their view, philosophy does not judge about the truth or falsity of propositions. Questions of truth and falsehood would be restricted to the empirical realm: "Scientific theories must be testable in experience. They may be true (or false); but equally they may be only approximations of the truth. Philosophy, by contrast, clarifies what does and does not make sense. Determinations of sense antecede experience, and are presupposed by true and false judgments alike."[20] Let us explore what this means by looking at two examples.

Bennett and Hacker say that it makes no sense to speak of "the east of the North Pole".[21] There are rules to the use of the words "east" and "North Pole", and these rules prevent us from saying something like: "I am organizing an expedition to a location just east of the North Pole." I agree with Bennett and Hacker that this is a conceptual mistake on the basis of (at least *also*) considerations concerning the correct use of language. It is simply illogical to utter the sentence mentioned. But is this conclusion based *only* on a reflection on language?

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17 As we will see, the situation is actually still more complicated. In Chapter 6 I will distinguish between two senses of "objective body": the body as a phenomenal object and the body as a physical object. The brain is only part of the body as an "object" in the second sense, because it is not a member of our everyday prescientific phenomenal world.

18 Ibid., 340.

19 Ibid., 401.

20 Ibid.

21 Ibid., 6.

I argue that the diagnosis of this nonsensical use of words presupposes that we know what the words "North Pole" and "east" *mean*. It is not clear to me why Bennett and Hacker want to reduce this meaning to a set of rules for the right use of the word. "North Pole" refers to a real location on earth. It is true that our use of the word "North Pole" is based on linguistic life forms or habits, but these forms are at least partly founded on the special character of this particular location *in reality*. We can say that the North Pole is real for us on three levels. Firstly, the rules involved in the use of the word "North Pole" are based on scientific knowledge of physical reality, notably that the North Pole is one of the two places on earth located at the pivot of the earth's rotation. Secondly, and in direct connection to that, these rules are based on *geometrical* knowledge of the properties of a sphere. It is a priori (without physical knowledge) clear that the surface of a sphere which rotates around a stable virtual axis can be divided by evenly placed straight lines from one pole to the other, i.e., by what we call degrees of longitude. East and West define positions relative to these degrees. Since the degrees of longitude converge at the North Pole (and the South Pole), the North Pole is not a position *in relation to* any degree of longitude. I am, of course, not saying this because the reader would not already know this or because he would not be able to make these observations. I am illustrating that the use of language points to various aspects of reality which are not linguistic.

Thirdly, then, the North Pole is a *phenomenon* because it is a place we can experience from the first-person perspective, and it has a meaning for us which cannot be reduced to the scientific knowledge we have of it. To make an even stronger point, our physical and geometrical knowledge of the North Pole becomes meaningful only because, and insofar as, we integrate this knowledge in our phenomenal conception of the North Pole. An example of such integration is the planning of a Pole expedition. Our scientific knowledge concerning the North Pole is put to the use of an enterprise which we anticipate and live through as first persons and which can only in this way be meaningful to us. Even if the goal of the expedition would *itself* be the collection of scientific data, our *fascination* with the reality that we explore cannot be fully understood in third-person terms, because fascination is not part of the technique of science: it joins it, and motivates it, and therefore alone must transcend the mere goal-oriented production of scientific results.

This basic relationship between us and reality we call "phenomenality": it is our relationship to anything that appears in the world or anything that we have in mind when we are focused on or anticipate something, or when we have vivid thoughts or conversations about it. The analysis of language is empty without the perspective which focuses on phenomena. Ordinary language philosophy de-

pends on phenomenology, just like phenomenology depends on language for its expression.

Let us take a look at a second example of Bennett and Hacker's ordinary-language approach. They argue that it makes no sense to speak of a "conscious chair" because the two concepts involved ("consciousness" and "chair") are not combinable in this way.[22] It would go against the rules of the use of language to claim or presuppose that chairs can be conscious. I agree, of course, that chairs are not conscious, but again I think the ordinary-language approach needs to be complemented by a phenomenological perspective. The main reason why we do not believe chairs are conscious is that the *appearance* of a chair gives us no perceivable indications of life, let alone of consciousness. These indications are partly generalizable, partly context-dependent. Imagine that there is an old, worn-out armchair in the room. Suddenly our attention is drawn to the chair because something is moving in the chair's stuffing. Something seems to want to get out. The light shock we experience (even before we express this shock in language) is motivated by the subtle indications that a mouse is in the stuffing of the chair, seeking its way to out. Our surprise marks the transition from one mode of experience to another, i.e., from the experience of inanimate use-objects to the experience of living things, more specifically animals, mammals, rodents, mice.

The example demonstrates that our familiarity with things like "consciousness" and "chair" is not only based on the rules for the correct use of words, but also on the ways things appear to us categorially, for instance, as living rather than non-living. Such categories constitute little frameworks of experience. I am here drawing on Plessner's view that categories of experience are not the same as concepts.[23] According to Plessner, categories do not in themselves have a linguistic structure. We recognize an animal by essence indicating characteristics which are perceptual and intuitive at the same time. They evoke in us an attitude which is attuned to the kind of being we are dealing with. Our attitudes do not (primarily) have a linguistic form: we *embody* them. For instance, animals evoke a readiness in us to play with them, to chase them, or to run away from them. Our attitudes thus correlate with the kind (category) of being over against us. Our linguistic concepts are based on these *preexisting* correlations between phenomena and our embodied attitudes towards them. This does not mean that we do not *shape* these correlations through language: we do, to a great extent even.

22 Ibid., 245.

23 Plessner, *Stufen*, 116-117/169.

But there remains a prelinguistic level of experience beneath mediation through language.[24]

The example also illustrates that the phenomenological intuiting of an essence, as carried out by the philosopher engaging in eidetic variation and reduction, is a continuation of something we already do in our pre-philosophical lives: we recognize the essence of things by their appearing characteristics. According to Plessner, "Each original confrontation with what is given and is conceived in words happens in categorial intuition. In the table in front of me, which is perceived by the senses, I 'see' *a* table. In a contract with the landlord I grasp that which gives it the character of a contract. Each human being is capable of such a seeing (intuition) of the essence, especially when he rejects the wrong expression for something (which can be given perceptually or otherwise) and searches the right expression for it."[25]

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24 Cf. Richard Shusterman, *Vor der Interpretation: Sprache und Erfahrung in Hermeneutik, Dekonstruktion und Pragmatismus*, 65-98.

25 Plessner, *Lebensphilosophie und Phänomenologie*, 247.
There are some important differences between my use of the term "category" and Plessner's use of the term—differences which indicate that Plessner in some passages envisages a more restricted role for phenomenology than I do. I am using "category" as the word for both a *kind* of entity and the *way* we essentially relate to this entity. This does not contradict Plessner, but Plessner more generally equates categories with all properties which constitute the essence of a being or a relationship (Plessner, *Stufen*, 114/167). In addition, according to the *Stufen*, categories can only be partly revealed by phenomenology. Plessner sometimes even contemplates whether phenomenology can really go further than revealing essence indicating characteristics (ibid., 115/168). He speaks of an intuition of categories, but then, at least in the *Stufen*, he prefers to call the theory which makes use of this intuition "dialectics" (ibid.). I understand that Plessner wants to emphasize the dynamical character of the analysis as well as the internal relationships between different essences, and I agree with the term "dialectics", but I do not see why philosophy cannot be phenomenological and dialectical at the same time. Plessner argues that the categories of life have to be gained through "deduction", because a phenomenological, "static description of essences" (ibid., 115/168) would not be the appropriate means. Again, I do not see why phenomenology and dialectics are contradictory: why would a phenomenological description necessarily be "static", i.e., not be able to let one level of life "organically" follow from the previous one? I also do not see why there should be a distinction between one part of the category (e.g. of the living) which can be phenomenologically described, and a part which can only be logically deduced. In my view, all logical rea-

Summing up this point, I agree with Bennett and Hacker that we cannot decide what consciousness is on the basis of empirical research. We already know what consciousness is on the basis of a certain familiarity with it, before we reflect on this philosophically. Bennett and Hacker explain this familiarity by referring to knowledge of the rules for the use of the word concerned. This knowledge consists of an indefinite range of concepts. I say that our knowledge of words goes together with knowledge about the *world* we refer to when we use these words. We are familiar with *consciousness* and with *chairs*, i.e., with what they are/ how they appear to us, not only with the use of the *words* "consciousness" and "chair". We can also have the experience of a chair, or of another consciousness, without, at that very moment, using language. The presence of beings in the external world is primarily perceptual and categorial.

It might be objected that consciousness does not appear to us, or that it does not appear to us in the way that a chair appears to us. I would need to anticipate too much of what is to come in the rest of this book to argue that the objection does not hold. Let me restrict myself to the following remark. The example of the mouse in the chair demonstrates that we recognize in the outer world indications of life, in this case of animal life. In the specific case of mammals this already implies consciousness—albeit not the kind of consciousness of human beings. Let us assume for the moment that mammals and other higher animals indeed have consciousness, in that they are a sensorimotor center of perception and action. The surprise we experience when we recognize animal life crawling through the stuffing of the chair is occasioned by the sudden and unexpected recognition of a conscious being in the external world. In this sense consciousness *does* appear in the world, although it can only appear as embodied by a living thing.

More challenging is the example of my *own* consciousness. Since we, human beings, can distance ourselves from our own being in the world, even our own consciousness is a phenomenon that can be explored through eidetic variation and reduction. How is this possible? Although phenomenology traditionally

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soning about essences is at the same time a matter of trying to see, i.e., intuit, the ground structure of the phenomenon at hand and of testing one's insight by repeated eidetic variation and reduction. Although I agree with Plessner that phenomenology depends on questions borrowed from life itself, and is only possible under hermeneutical conditions (cf. Sections 3.3-3.4), I think the phenomenological scope is wider than Plessner suggests. Just as hermeneutics does not start where phenomenology begins, phenomenology does not stop where dialectics begins. I think these approaches are different aspects of one and the same philosophical discipline.

starts from the givenness of physical objects in perception, it is not limited to describing the structure of the appearance of external objects to (perceptual) consciousness.[26] Consciousness can also be a phenomenon to itself. We can explore it by eidetic variation. Is it a physical thing? No. Does it depend on some kind of embodiment? Yes. Is that embodiment necessarily organic? Yes. (Here Dennett would say: No.) I am leaving out the arguments and I am also leaving open further questions as to what kind of phenomenon consciousness is. I call it a phenomenon because *any* truly philosophical topic is at some point subjugated to eidetic variation and reduction—even though the method of eidetic variation and reduction is often not explicitly mentioned.[27]

Consequently, I think it is possible to be *wrong* about the essential properties of whatever is at issue in a philosophical discussion. This means that philosophy is not only about sense and nonsense, as Bennett and Hacker suggest, but also about truth and falsity.[28] Since philosophy has these very real subject-matters, which are "material" in the sense that they are richer than formal logic can describe, philosophy in my view not only strives for consistency and coherence, but also attempts to produce adequate descriptions of phenomena. The example of the chair makes clear that we need eidetic variation and reduction to argue that chairs are not conscious.

Bennett and Hacker's *Philosophical Foundations of Neuroscience* targeted a range of scientists and philosophers, but especially Searle and Dennett. After the book came out, the American Philosophical Association in 2005 organized an "Authors and Critics" session in New York, with Bennett, Hacker, Dennett, and Searle. The debate led to a new book, *Neuroscience and Philosophy*, which I already quoted from a couple of times. In this book Bennett and Hacker restate their point, and Searle and Dennett respond to the critique aimed at them. Dennett rejects Bennett and Hacker's criticism because their objections would be based on a false reading of his work. This response is also relevant to my criticism, because Dennett *denies* that he ascribes properties like thinking, perceiving, drawing conclusions, or deciding to the brain. As noted, Bennett and Hacker

26 My starting point is now the wider sense of "phenomenal" and "phenomenological", which I distinguished in Section 4 of the Introduction.

27 I am not implying that we could ever arrive at some absolute or definite understanding of consciousness. Cf. Sections 3.3-3.4.

28 I agree with Dennett about this (Dennett, *Philosophy as Naive Anthropology: Comment on Bennett and Hacker*, 79-80).

criticize Dennett for committing the mereological fallacy. In their view, we should not say "the eye sees", but "I see *with* my eyes", not "the brain has experiences, knows and believes things", but: "*I* experience, know and believe things". Bennett and Hacker think these are *psychological* modes of being, that cannot be ascribed to processes in the brain: they can at best be *correlated* with such processes. Referring to his early work, *Content and Consciousness*, Dennett replies: "This is at least close kin to the point I made in 1969 when I distinguished the personal and subpersonal levels of explanation. *I* feel pain; my brain doesn't. *I* see things; my eyes don't."[29] This is a surprising response. As we have seen, Dennett *does* attribute first-person concepts like "assuming" and "deciding" to the brain and other parts of the nervous system, and he *does* say that autophenomenological texts like "I see X" should be heterophenomenologically neutralized by turning them into "he *seems* to see X". Dennett's claim that he has long acknowledged that persons, not brains, think, perceive, have pain, etc., cannot disprove this criticism. It simply means that he is inconsistent.[30]

29 Dennett, *Philosophy as Naive Anthropology: Comment on Bennett and Hacker*, 76.

30 Some time before *Neuroscience and Philosophy* came out, Jennifer Hornsby argued that there is a great difference between *Content and Consciousness* and Dennett's later work. (Hornsby, "Personal and Sub-Personal: A Defense of Dennett's Early Distinction", and: *Simple Mindedness: In Defense of Naive Naturalism in the Philosophy of Mind*, 158, 175-177, 184.) In *Content and Consciousness*, Dennett would defend a distinction between a personal level of explanation, which takes seriously first-person experience, and a subpersonal level of explanation, which turns to the functionality of the objective body. In Hornsby's view, Dennett changed his mind about his early personal/subpersonal distinction, abandoning it in *Brainstorms* and everything thereafter. Responding to this suggestion, Dennett denies that there is a difference between his early and his later work: "Among the philosophers who have taken my personal/subpersonal level to heart, at least one—Jennifer Hornsby—has surmised that I might have abandoned it in my later work. Did I in fact turn my back on this good idea? No." (Dennett, *Philosophy as Naive Anthropology*, 77.) I do not have the space here for an extensive discussion of *Content and Consciousness*, but I do want to refer to Thomas Nagel's review of the work ("Dennett: Content and Consciousness", reprinted in *Other Minds*, 82-85), which argues that *Content and Consciousness*, despite some red herrings, advances a reductionist agenda.

2.2 THE CHURCHLANDS' ELIMINATIVISM

Dennett regards himself as a reductionist and not an eliminativist. Eliminativism denies the existence of anything other than physical reality, which means that it also denies the reality of intentional relationships such as beliefs or desires. Below I return shortly to the question whether Dennett is indeed a reductionist rather than an eliminativist. First I want to take a closer look at the latter branch of materialism by discussing the view of Paul and Patricia Churchland, who are without doubt its most important advocates.[31] Since there is great similarity between the Churchlands' view and Dennett's,[32] I will keep this discussion relatively short in order to avoid unnecessary repetition.

The Churchlands do not enter into a discussion with phenomenological views, but their critique of folk psychology targets certain ideas which are kin to phenomenology. The term "folk psychology" here refers to our everyday common sense conceptions about why people behave the way they behave. The eliminativist critique of folk psychology attempts to consistently explain our behavior on the subpersonal level of the physiological body, notably the brain, and physical reality, with a view of ultimately eliminating all folk-psychological concepts.

Folk psychology is not the only target of the Churchlands' neuroscientific critique. We can distinguish three targets. Firstly, folk psychology is part of the more encompassing folk *theory*, which also includes folk physics, biology, etc., i.e., all of our everyday presuppositions about how the world works. Secondly, there is psychology as an academic discipline, which according to the Churchlands overcomes many false hypotheses of folk psychology, but which still depends on basic "phenomenal" conceptions like belief, desire, the ego, qualia, etc. Thirdly, both folk and academic psychology try to explain the domain of subjective experience. But in this view subjective experience is itself theory-laden. The perception of a chair, for instance, would depend on my "theoretical" knowledge of what chairs are and what one can do with them.[33] This means that experience is not clearly distinguished from folk theory. The domain of experience is the

31 I will assume that Patricia and Paul Churchland defend one and the same philosophy, but I do not exclude that there are subtle differences between their views. John Bickle promises that he sets out to explore such differences, but he ends up addressing only differences in style (Bickle, *The Neurophilosophies of Patricia and Paul Churchland*).

32 Cf. Dennett, *Two Steps Closer on Consciousness*, 193.

33 Paul Churchland, *The Ontological Status of Observables*, 36-37.

target of neuroscientific critique in the sense that the specific, autonomous character of experience (its relative independence from the physical) is denied: all subjective phenomena *are* in the end nothing other than neurophysiological and physical mechanisms. Thus, the mind *is* nothing but the brain.[34] Light is not that which makes things visible, but rather a set of electromagnetic waves.[35] And there is no room for qualia in our understanding of experience.[36] So the target of elimination is not only folk theory, but also the qualities we experience first hand. The basis of this eliminativism is a physical realism that affirms the reality of entities or properties which can be observable or non-observable, as long as they are validated by scientific theory.[37]

Although the Churchlands have the name of being "eliminativists", they often speak of the "reduction" of theories or phenomena, and sometimes it is hard to figure out what their agenda is. The Churchlands are more or less clear about their goal of eliminating folk psychology. However, their relationship to *academic* psychology is more ambiguous.[38] In *Neurophilosophy* Patricia Churchland first argues in favor of a "co-evolution" of psychology and neuroscience.[39] Psychology would still have a role to play in the description of behavior, but this description would then be "reduced" in the sense of explained by neuroscience. Only when she turns to folk psychology does she embrace a clear eliminativist program. The question what this means for our non-neuroscientific concepts of things like consciousness, free will, color perception, and so forth, is not explained. How can you *eliminate* such concepts when they occur as elements of a folk psychology but only *reduce* them when they are part of academic psychology? Is it not thinkable that our folk-psychological concepts would be informed and shaped by psychology and could thus be preserved?[40] This question remains unanswered. I will assume, for the sake of argument, that the answer the Churchlands would offer would not detract from the core of their eliminative materialism.

The fact that the Churchlands leave no room for a philosophical perspective that connects with first-person experience and its correlates, such as perceived

34 Patricia Churchland, *Neurophilosophy*, ix.

35 Paul Churchland, *Consciousness and the Introspection of 'Qualitative Simples'*, 41.

36 Ibid., 55.

37 Paul Churchland, *Scientific Realism and the Plasticity of Mind* (Chapter 1) and *The Ontological Status of Observables*.

38 Cf. Kitcher, *From Neurophilosophy to Neurocomputation*.

39 Patricia Churchland, *Neurophilosophy*, 362-376.

40 I think that this is what Brian Keeley also has in mind (Keeley, *Paul Churchland*, 22).

qualities (qualia) leads to a number of problems. Firstly, as with Dennett, there is the problem of consistency. In *Plato's Camera*, Paul Churchland explains that the eye creates "a representation" of the "*spatiotemporal particulars* currently displayed before its lens".[41] The brain, says Churchland, constructs a representation more slowly. This is a representation of "the *abstract universals*, the *temporal invariants*, and the *enduring symmetries* that structure the objective universe of its experience".[42] What kind of representations are we talking about on this higher level? Churchland insists that they are non-propositional and non-sentential: this is what would distinguish them from the beliefs of folk and academic psychology. The higher-order representations, Churchland tells us, are spaces or "maps": "Not the two-dimensional maps that grace your automobile's glove compartment, but *high-dimensional* maps—maps with three, or a hundred, or even a million distinct dimensions, maps with extraordinary resolution and structural detail."[43] As an example Churchland discusses the "map of the space of possible colors".[44] There are many such maps or spaces, each defining a certain variable of our experience. In Churchland's view, the unit of cognition is thus not a representation with a propositional content, but rather "the *activation pattern* across a propriety *population* of neurons. It is the activation *point* within any one of the many hundreds of representational *spaces* urged above."[45] This one point activates other pointlike activations, ultimately in motor spaces, leading to motor behavior.

Speaking of maps in the brain raises the question regarding their relationship to the brain itself as a collection of neurons. Churchland says that these maps are "embodied" by "one's neuronal populations"[46] and he promises that his book *Plato's Camera* will explain how they are thus embodied. However, the book only explains the details of this theory; it does not go into the fundamental question of how a materialistic theory can account for something like maps in the brain in the first place. The phrase that neurons "embody" these maps is simply never elucidated. At the same time the notion of a map, for instance the "space of possible colors", seems to fulfill an *Ersatz*-function for the eliminated phenomenal world. The rhetorical move is quite similar to Dennett's: first Churchland claims that qualities have no place in any solid theory of perception,

41 Paul Churchland, *Plato's Camera*, vii.

42 Ibid.

43 Ibid., vii-viii.

44 Ibid., plate 1 opposite page 134.

45 Ibid., 4.

46 Ibid., ix.

but then he reintroduces those qualities in a color map which supposedly can be found in the brain. As long as the Churchlands do not explain how there can be maps in the brain, and how this does not result in a dualism of neurons and maps, their view cannot be convincing. As noted above, the alternative philosophical approach to these questions is that you retain the distinction between our experience of the phenomenal world on the one hand, and the brain and physical reality on the other hand, then to establish as many correlations as you can between brain processes and experience.[47]

Secondly, the reason why the Churchlands reject the importance of first-person experience is that they lack any sense of the distinction between the first- and the third-person perspective in the first place. I will show this by turning to (a) Paul Churchland's discussion of qualia, and (b) Patricia Churchland's discussion of folk psychology.

(a) In a recent debate Paul Churchland defended materialism against some classic arguments from, respectively, Thomas Nagel, Frank Jackson, and David Chalmers. I will only go into two arguments (from Nagel and Jackson), and I will ignore the fact that there are significant differences between their views and my own view. Their key point, which I agree with, is that there are qualities that we experience which cannot be reduced to neuronal processes and thus be eliminated. This, of course, is the point Churchland disagrees with.

Nagel famously argued that if you would know everything about a bat's neurophysiological state, you would still not know what it is like to be a bat. His point is that there is "something that it is like to be a bat",[48] or a human being for that matter, and that this "something that it is like" cannot be grasped by the objectifying perspective of natural science. According to Churchland, Nagel fails to appreciate the difference between the situation where I know the theory of something and the situation *where this theory holds true of me*. I can know everything about superconductors, but this does not turn me into a superconductor, he says. And returning to the example of the bat: "Nagel is implicitly demanding or expecting that mere possession of a certain body of *theoretical* knowledge should *constitute* (as opposed to describe or explain) a quite *distinct form* of

47 You can then also create "maps" in the sense that you correlate certain areas in the brain with certain cognitive functions, thus "mapping" the former to the latter. But this is a completely different use of the word "maps": in this case the spatial configuration of the brain is identical to the spatial configuration of the map. The same cannot be said of, for instance, the color map introduced by Churchland. Cf. Bennett and Hacker, *Philosophical Foundations of Neuroscience*, 76-77.

48 Nagel, "What Is It Like to Be a Bat?", 438.

knowledge: bat-style subjective cognition."[49] According to Churchland, this is an "unreasonable" demand on the materialist.[50]

I think that Churchland misinterprets Nagel's intentions. Nagel is not at all demanding or expecting that scientific knowledge would initiate us into the subjective experience concerned. His point is precisely that this transition from third-person knowledge to first-person experience cannot be made. So he would be the last person to demand or expect this from science or materialism. Churchland's response is quite astonishing, as he implicitly agrees with Nagel that there is a discontinuity between scientific and subjective knowledge. By insisting that the demand is unreasonable, he is in fact affirming Nagel's point: that there are two kinds of knowledge with a certain discontinuity between them. Churchland is only one step short of understanding that this is a valid objection to his own materialism.

Churchland repeats his argument in relation to Jackson's example of Mary who lives and works in a totally black-and-white room. In this example, Mary is in possession of all possible neuroscientific and physical knowledge about seeing colors, but she has never in fact seen colors.[51] The question Jackson asks is this: when Mary leaves her room and finally sees the colorful world, does she then learn anything new about colors? Jackson concludes that she does, and that this proves that materialism is untenable. Churchland responds in the same vain as to Nagel: "But here again, Jackson is expecting, quite wrongly, that one form of knowledge should *constitute* a quite different form of knowledge. He is expecting that explicit/discursive/scientific knowledge should somehow *constitute* subjective knowledge of visual experiences."[52] Again, I think that Churchland completely misses the point. Jackson is not expecting at all that scientific knowledge should have given Mary the actual experience of colors. Quite the opposite, he says that this is impossible and that this impossibility proves that there are two kinds of knowledge. Again, ironically, Churchland here seems to *concede* that there are two kinds of knowledge: in his resistance to the "unreasonable" expectations of neuroscience, he admits that objective knowledge cannot be turned into subjective knowledge.

(b) The distinction between our prescientific first-person perspective and the third-person perspective of science indeed constitutes the appropriate framework for a critical examination of the Churchlands' materialism. Their failure to

49 Paul Churchland, *Consciousness and the Introspection of 'Qualitative Simples'*, 45.

50 Ibid.

51 Jackson, "Epiphenomenal Qualia".

52 Paul Churchland, *Consciousness and the Introspection of 'Qualitative Simples'*, 46.

appreciate that the first-person perspective possesses truth-disclosing characteristics of its own right is probably most evident in their critique of folk psychology. So I will end the discussion of the Churchlands by examining this critique. The crux of the concept of a folk psychology, I argue, is that it is based on a projection of the theoretical attitude of the scientist onto our prescientific way of being in the world. It is a form of what Merleau-Ponty calls "intellectualism", which prevents us from understanding life as we live it before (or after) we engage in scientific endeavors.[53]

According to Partricia Churchland, folk psychology is "that rough-hewn set of concepts, generalizations, and rules of thumb we all standardly use in explaining and predicting human behavior".[54] This definition already betrays the limitations of the view under discussion. By speaking of folk psychology, and of folk physics, biology, and so forth, the Churchlands pretend to have covered the entire domain of our everyday prescientific conceptions about the self and the world. The basic characteristics of this domain are defined in terms of the human aspiration to explain and predict things that happen *within* the world we live in. This restriction should justify the claim that folk psychology is an *empirical* theory.[55] Even if we agree with the Churchlands that a subcategory of our everyday thoughts and assumptions concern explanations and predictions of events within the world, this does not mean that we have to accept the claim that folk psychology, complemented by other folk theory, covers the entire domain of our prescientific conceptions about ourselves and the world.

I argue that there are many forms of knowledge which belong to our everyday prescientific attitude which fall beyond the concept of folk theory. Connecting with the discussion of Jackson above, we can observe that our knowledge of what red looks like is perhaps "empirical" in the sense that it is not a priori knowledge, but it is not knowledge of a causal mechanism which allows us to predict events in the world. As noted, it is also not reducible to neuroscientific theory because there remains a discontinuity between our experience of red and our analysis of the physical and physiological processes with which this perception is correlated. Another example is listening and getting to know a piece of music. When we listen to a piece of music several times we get to know the different melodies, rhythms, and so forth, but although we anticipate what comes next, this anticipation is not a prediction on the basis of causal conditions. And

53 Cf. Carman's critique of Dennett in terms of Merleau-Ponty's concept of intellectualism: Carman, *The Inescapability of Phenomenology*.

54 Patricia Churchland, *Neurophilosophy*, 299.

55 Paul Churchland, "Eliminative Materialism and the Propositional Attitudes", 68.

yet it is completely unproblematic to speak of "knowing the music" in this context. If the materialist counters that this is a very limited kind of knowledge, we can extend the example to the knowledge of various composers, their styles, the evolution of certain melodies or sequences of chord in the course of the history of music. This is all knowledge but it is not a knowledge of cause-and-effect relationships and it does not allow us to predict events. A third example is my life story, of which I tell parts to others if the situation seems suited to do so. This is a very important sort of knowledge that I have about myself; it is essential to my sense of identity, but it cannot be formulated in terms of a chain of causes and effects, although some such relationships might now and then be involved. Fourthly, my knowledge of the philosopher Hegel enables me to tell someone not familiar with Hegel about his philosophy, but this knowledge which I am then passing on is not a knowledge of mechanisms which allow me to predict an event in the world or a person's behavior. The list of examples can be extended indefinitely.[56]

The Churchlands defend the possibility of a complete theoretical reduction of folk theory to natural science. But some of their examples raise pressing questions. A much discussed case is the phlogiston theory of combustion.[57] Why can things catch fire and burn, and why does the burning stop when we put a sealed cover over a burning object, like, for instance, a candle? According to the phlogiston theory, the richness in "phlogiston" determines that an object easily burns and when the air is saturated with phlogiston, the combustion process would stop. This theory is now obsolete. Compare this example to Paul Churchland's example of the reduction of our theory of light: "We used to think that Light was essentially that-which-made-things-visible. But the vast majority of kinds of light—i.e., all wavelengths outside the tiny 'optical window'—do no such thing, at least for humans. And even within that tiny window, making environmental information available to terrestrial creatures is an extremely peripheral feature of light, hardly its essence."[58] Both cases are meant to show that theoretic reduction

56 Some or even all of these examples belong not only to the domain of prescientific experience but also to the domain of those academic disciplines, like history, which concern themselves with the human being as an *expressive* being. I will return to the difference between science and other academic disciplines (which in German are called the *Geisteswissenschaften*) in Section 3.3.

57 Patricia Churchland, *Neurophilosophy*, 281; Patricia and Paul Churchland, *Intertheoretic Reduction: A Neuroscientist's Field Guide*, 22; Paul Churchland, *Matter and Consciousness*, 75.

58 Paul Churchland, *Consciousness and the Introspection of 'Qualitative Simples'*, 41.

is a good thing. Everybody would agree with the first case, but are these really the same *type* of cases?

The phlogiston theory is indeed a theory: it is a view which tries to answer a scientific question: what are the physical principles underlying combustion? We can all agree that science has progressed and that the phlogiston theory of combustion is false. But the second example is of a different kind. The question here is not in itself scientific. It is: what *is* light? The reduction proposed here is not of one theory to another theory but of one kind of knowledge, i.e., our everyday understanding of what light is, to *scientific* knowledge. If we make room for both kinds of knowledge, then we can allow that light is still also that-which-makes-things-visible, because this is what light is in our prescientific lives.[59] It is also still what every scientist thinks of when she tries to give a neuroscientific explanation of the perception of objects. The claim that most kinds of light do not make things visible is not warranted. It is more accurate to say that many wavelengths fall beyond the scope of light waves, if you want to preserve the reference to what in real life we call "light".

The notion of folk psychology narrowly defines knowledge as the theoretical cognition of cause-and-effect relationships which allow us to predict events in the physical world. It thus amounts to a projection of the scientist's attitude onto our non-scientific ordinary lives in which we have many presuppositions, ideas, and cognitions which are not at all theoretical. The true nature of our prescientific attitudes is thus obscured. In addition, by discrediting what they call folk theory the Churchlands discard philosophical approaches which connect directly with the first-person perspective, like phenomenology. Their message is that the prescientific perspective itself is unreliable and that only a turn to neuroscience will lead to knowledge.[60] But as we have seen there are many phenomena which only count as real within the scope of our everyday non-scientific lives, and doing justice to these phenomena requires that we connect with the first-person perspective.[61]

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59 Torin Alter presents a similar argument but then in relation to warmth (Alter, *Churchland on Arguments against Physicalism*, 64).

60 David Cerbone has also criticized this aspect of eliminativism (Cerbone, *Lost Belongings*, 132-133). Cerbone's critique is based on the phenomenological hermeneutics of Heidegger. Although I agree with this critique, I doubt that Heidegger's philosophy is the ideal starting point for developing such a critique. See the next section.

61 A related point, which was touched on in the previous section and will be discussed in the remainder of this book, is that the (first) person (of experience) is not limited to the mental. Within the whole discussion of folk psychology in analytic philosopohy,

The Churchlands speak of "folk theory" as if there is only one such theory. This makes it easy to discredit all prescientific knowledge: you only have to find a range of false beliefs and present them as representative of folk theory. But, firstly, in the course of history, different people have held different beliefs and we all know from experience that some people's views of the world are much more to be valued than some other people's views.[62] Secondly, like Dennett, the Churchlands fail to distinguish between specific beliefs about things or people *in* the world, and the basic structure of our being in the world *as such*. For example, the belief that something like "world" presupposes subjectivity is incomparable to the belief that dark clouds imply a great chance of rain. Whereas the first belief pertains to the basic structure of our being in the world, the second pertains to innerworldly facts, i.e., facts which are rendered possible by that basic structure. Thirdly, phenomenology not only restricts itself to beliefs of the world's basic structure, its knowledge is also not simply an expression of the beliefs we already have. Phenomenology develops its insights rather by critically examining these beliefs, thus transforming or developing them, without, however, overturning their first-person character. It never simply affirms the beliefs that we already have, but it does try to do justice to our first-person experiences. For these three reasons phenomenology is not touched by the Churchlands' criticism of folk theory: phenomenology is a critical examination of the general structures of experience, and phenomenologists are individuals some of whom we might agree with, some of whom we might disagree with.

How does the Churchlands' view compare to Dennett's? This question is interesting especially in regard to their respective positions on realism. Both the Churchlands and Dennett champion physical realism: physical reality and the re-

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the "psyche" in "psychology" is not derived from Aristotle's concept of the "psuchē" which, as noted in the previous section, refers to the human being as a whole. It is based on the Cartesian dichotomy of res cogitans (the psyche) and res extensa (the physical). So, for instance, Scott Christensen and Dale Turner in their Introduction to *Folk Psychology and the Philosophy of Mind* (xvi; italics mine), say that "folk psychology is the tag given to ordinary talk *about the mind*. It does not refer to talk about the biology of the brain and central nervous system; rather it refers to talk about beliefs and desires, intentions and fears, wishes and hopes. It is essentially the vocabulary we use to talk about and explain ourselves and others. It is *the vocabulary of the mental*." This limited ontology, in which there is objective matter and, if you are not a materialist, a bodiless mind, but nothing else, is also at the core of the Churchlands's concept of folk psychology.

62 Cf. Keeley, *Paul Churchland*, 21-22.

ality of the brain *exist* beyond doubt and they constitute the ontic basis of scientific truth. But in his criticism of Paul Churchland, Dennett in addition presents himself as the advocate of a realism of beliefs and other forms of intentionality. The argument is in fact aimed at Paul Churchland and Stephen Stich, but it applies to eliminativism in general:

> I see a shared problem in [Churchland's and Stich's] extreme eliminativism: until the rest of the world catches up with them and shares their world view, what will they tell the judge? That is, when called on to go give sworn testimony in a court of law, and asked by the judge whether they *believe* they have ever seen the defendant before, what will they say? Surely they must deny that they are saying what they believe, since they believe (uh-oh) that there is no such thing as belief. That is to say, they are *of the opinion* (will that do?) that there is no such thing as belief. What they mean is, the theory they, um, espouse or champion has no room in its ontology for beliefs.[63]

Dennett depicts his position as a reductionism which can save intentionality, i.e., as something totally different from the eliminativist position of Churchland and Stich. However, surprisingly, the argument does not follow a heterophenomenological pattern, as we would expect. Churchland and Stich are requested to consider what it means that *they*, pressed by a fictitious judge, would say that *they* believed something. They are asked what it means to say "I believe that...." Dennett is here not defending belief as an objectified, third-person form of intentionality. Instead he is defending the undeniable reality of belief as part of our prescientific experience of the phenomenal world: belief is here the intentional attitude not of a third but of a first person. I agree with Dennett's critique of eliminativism in this passage, but it is at odds with his own agenda, which, as we saw in the previous chapter, is called "heterophenomenology".

As we have seen, Dennett is highly equivocal about the ontological status of intentionality. On the one hand he says that adopting the intentional stance means that we take the other to be an agent, who has reasons. But the basic assumption of Dennett's approach remains that all matters of consciousness, i.e., all forms of intentionality, are effects of brain processes. Perceptions, desires, and beliefs are higher properties of matter which is complex enough to produce these effects. They are mere "patterns" emerging from, but remaining within, physical-neural reality. As noted, these limitations are determined by the framework which Dennett has accepted as his starting point: the rejection of dualism and the unreserved acceptance of materialistic monism.

63 Dennett, *The Intentional Stance*, 33-34.

For these reasons it is very hard to take Dennett's defense of the existence of beliefs as something other than physical matter or a property of physical matter seriously. Insofar as Dennett, in his objections to eliminavism, shows himself to be more than a materialistic monist, he contradicts his own framework; but if he is nothing more than that, then he should accept that his view is no less eliminativist than that of the Churchlands.[64] The Churchlands and Dennett might then still disagree about what kinds of entities populate the physical universe and to what extent there is discontinuity between the microscale of genetics or neurons and the scale of human behavior. Since both the Churchlands and Dennett are exclusive physical realists, they might have disagreements about what exactly belongs to this physical reality and what does not belong to it, i.e., what is fiction. But these questions are no longer relevant to the purpose which I have been pursuing, which is to call into question some of the basic presuppositions of materialism.

2.3 SAVING PHYSICAL REALISM

Materialism is not only popular because it denies supposedly unwarranted beliefs regarding the world we live in, but also because of what it constantly, and often implicitly, confirms: the existence of objective reality. Materialism implies physical realism and nothing seems as clear-cut as the reality of the physical. Although I endorse physical realism, I think that the question whether physical reality exists is no less ambiguous than the question whether the phenomenal world exists. This means physical realism needs to be supported by arguments. One argument in favor of physical realism centers on the truth-claim of science: without physical reality this truth-claim does not make any sense. Science would be a mere artificial construction, a cultural product without external referents and this consequence makes antirealism unacceptable and unconvincing. I certainly agree with this point, but my main argument centers on the possibility of natural disasters and perceptual illusions, both of which presuppose, in my view, the existence of a physical reality beyond our own existence. I can only develop this argument after some preparation, which means that the reader will have to wait until (or jump to) Chapter 6. I will for now tentatively assume that any comprehensive ontology must include both the phenomenal world (as real) and physical reality (as real).

64 Carman also observes the eliminativist tendencies in Dennett's thinking (Carman, *Heidegger's Analytic*, 113).

I have addressed the weakness or one-sidedness in materialism from a phenomenological perspective, but there might also be a one-sidedness in the tradition of phenomenology. I think that this indeed the case: phenomenology is so preoccupied by the task of defending the phenomenal world that it often neglects physical reality. Or if it does not neglect it, it plainly denies that there is such a thing as a physical reality in itself. Or if it does not neglect or deny it, it turns out to be unable to give the physical universe a place within its ontology due to certain systemic reasons. I argue that the first one-sidedness or weakness—neglect—applies to Charles Taylor,[65] the second—denial—to Merleau-Ponty, and the third—systemic limitations—to Husserl and Heidegger, although for different reasons. I will turn to Taylor in the next chapter and to Merleau-Ponty in the chapters thereafter. The discussion of Husserl and Heidegger would require some chapters or an entire book of its own, but I will instead limit myself to a few remarks. As regards Husserl, I will focus on Zahavi's interpretation (under (a)). The discussion of Heidegger will draw mainly on Taylor Carman's reading of his work (b).

(a) Within the scope of different readings of Husserl we can distinguish between two alternatives: a reading that says that Husserl's phenomenology was a form of strict transcendental idealism and a reading that says that it was rather a form of critical realism.

Ricoeur presents an idealistic reading of Husserl and argues that Heideggerian hermeneutics has transformed phenomenology into a discipline which takes the human being's finitude and his rootedness in history into account, thereby canceling Husserl's idealism.[66] Since this interpretation allows virtually no space for a realistic interpretation of Husserl's phenomenology, let us instead focus on the alternative reading of Husserl. Zahavi argues that Husserl was not an idealist *pur sang*: he ultimately only wanted to overcome a dogmatic attitude with regard to reality, i.e., the belief that reality is simply objectively *there*. He wanted to develop a *critical* realism according to which reality is al-

65 Perhaps, insofar as the *neglect* of physical reality is concerned, it is unfair to speak of a weakness: few philosophers do not neglect some important topic because they are focusing on other equally important topics. I also want to note that Plessner, whose position I will explain and defend in later chapters, also does not offer an extensive examination of physical reality and its relationship to the phenomenal world. But as I will show, his thought does provide the right framework for an examination of this very relationship.

66 Ricoeur, *Phénoménologie et Herméneutique*.

ways relative to the constituting activity of a subject who brings reality to appearance.

What kind of realism are we dealing with? According to Zahavi, there is no "metaphysical realism, as if Husserl would claim that we can only speak of a mind if there is also something mind-independent toward which it can be directed."[67] When Husserl speaks of an object being "real", he means that it is "the real object of the intention".[68] And, summing up, Zahavi says: "When he calls an object real, this characterization carries no metaphysical implications, nor does it imply that the object exists mind-independently. It is merely to be taken as a descriptive characterization: The object is intuitively given in its bodily presence."[69]

What could mind-independence mean? Above I distinguished between phenomenal realism and physical realism, but I have not given a fully fleshed-out account of what this distinction amounts to in terms of subject-dependence or -independence. I will here restrict myself to a few remarks and fill out the details in the following chapters. In both cases we are dealing with a certain ambiguity. The phenomenal world has come to be with the evolution of the human being, and this also means that it has gained a certain autonomy with regard to individual experiences. When plant life evolves, physical reality is integrated into the biocycle of the plant, and when animal life evolves, it is transformed into the environment of the numerous species alive on this planet. Likewise, with the evolution of the human being, physical-organic reality is transformed into a phenomenal world. It would not be there if there were no human beings, but granted that human beings are there, the phenomenal world exists as a reality over-against, surrounding, and encompassing the human being. So the phenomenal world is not independent of the existence of human beings, but because of its relative autonomy from individual human beings it is independent of specific perceptions: it makes no sense to say that the moon is not there when I am not looking.

As regards physical reality, here the situation is ambiguous as well, but in a different way: on the one hand physical reality is integrated in the phenomenal world. When I feel the mass of a stone in my hand, I have the experience of a real physical property. But the notion of a physical reality in itself refers to physical reality precisely insofar as it does not occur in our perceptions or thoughts. (I have talked about this issue in the Introduction and will return to it in Chapter 6.)

67 Zahavi, *Husserl's Phenomenology*, 21.

68 Ibid., 39-40.

69 Ibid., 40.

Here we are concerned with a more radical—an absolute—independence from the subject. Clearly, even Zahavi's most realistic reading of Husserl does not allow for this form of realism. What Zahavi explains is that Husserl embraced a phenomenal, or as Zahavi puts it: "a form of direct perceptual realism".[70] It is even a weak form of phenomenal realism, because Zahavi's Husserl restricts himself to describing what is given as real in our intentional experiences, without "metaphysical implications".

This is no surprise, for two reasons. Firstly, the very principle of Husserlian phenomenology is to start from prescientific first-person experience and to deal with any kind of reality one encounters always as a reality *relative to* this first-person experience. This may allow for a defense of the reality of the phenomenal world, but not for the concept of physical reality insofar as it does not appear. Secondly, one of the basic motivations which drove Husserl was his rejection of materialism and reductionism. It is very tempting to throw out the baby with the bath water and to reject not only reductionism (and eliminativism) but also the physical realism which is generally associated with reductionism. One first argues that the scientific perspective is secondary with regard to the prescientific first-person perspective, but then concludes that this must mean that physical reality *itself* must be in a sense also a mere "secondary" construct on the basis of the life world. In *Ideen II*, Husserl indeed says that "physical nature, which is determined theoretically on the basis of the 'appearances', is a secondary environmental object, the primary object of which is precisely the appearance."[71]

I think Husserl is in a sense right: physics and its correlates are based on the life world which precedes the turn to science. But this truth is at the same time one-sided, i.e., in need of complementation by an *ontological* point of view from which physical nature is primary. Whereas Husserl makes the physical universe dependent on the phenomenal world, the relationship of dependence between these two realities may in fact run in two directions. I will expand on this in Chapter 6. The second reason is thus connected to a certain polarization of the debates between materialism and phenomenology. As I will show in Chapter 6, Merleau-Ponty falls prey to the same mechanism of polarization.

(b) What about Heidegger—can we defend physical realism on the basis of his view? According to Taylor Carman, Heidegger has often been read in an antirealist or nonrealist vain, but Carman is not convinced by these interpreta-

70 Zahavi, *Husserl's Phenomenology*, 17. Cf. Shannon Vallor, "The fantasy of third-person science: Phenomenology, ontology and evidence", 12.

71 Husserl, *Ideen II*, 285/299 (translation modified).

tions.[72] Heidegger's philosophy amounts to an "ontic realism"[73]: "By 'ontic realism' I mean the claim that occurrent entities [*vorhandene Seienden*] exist and have a determinate spatiotemporal structure independently of us and our understanding of them.".[74] The fact that entities are real in this sense means that nature as such, which is composed of such entities, also exists (or can exist) without appearing to Dasein. Carman quoting Heidegger: "Physical nature can only occur as intraworldly when world, i.e. Dasein, exists. Nature can, however, very well be in its own way without occurring as intraworldly, without human Dasein, and hence a world, existing; and it is only because nature is *by itself* occurrent that it can also confront Dasein within a world."[75]

Carman points out that the same cannot be said of *Being*. In Heidegger's view, Being, although it transcends Dasein, at the same time remains relative to Dasein. The same holds for available entities (*zuhandene Seienden*): they correlate directly with our own practical attitudes and can therefore not be regarded as Dasein-independent. Only occurrent entities, although they can be perceived and thought, exist (also) as independent of our own existence. Despite the fact that there is no view from nowhere, says Carman interpreting Heidegger, it *is* possible to have knowledge of "entities as they transcend the finite conditions of any of our interpretations of them".[76] There is knowledge of things as they are in themselves.

It has been argued, Carman notes, that Heidegger was an antirealist, because occurrentness (*Vorhandenheit*) is here regarded as secondary to availability (*Zuhandenheit*). "But to ascribe hermeneutic primacy to availability is not to say that, like available things, occurrent entities are themselves constituted by the practices and interpretations in which we make sense of them. . . . Heidegger considers available and occurrent entities themselves equally primitive ontically."[77] Ontologically speaking occurrentness and availability are on a par, but our *knowledge* of occurrent entities is grounded in our primordial being in the world, where availability has the primacy. I think that the distinction Carman here addresses is essential to any form of critical realism (including the realism I defend in this book). Although our knowledge of physical reality is necessarily based

72 Carman, *Heidegger's Analytic*, 156, 164.

73 Ibid., 157.

74 Ibid.; German added by me.

75 Heidegger, *Phänomenologische Interpretation von Kants Kritik der reinen Vernunft*, 19; quoted and translated by Carman, *Heidegger's Analytic*, 157.

76 Ibid., 159.

77 Carman, *Heidegger's Analytic*, 158.

on, and secondary to, our first-person experience of the phenomenal world, this does not mean that physical reality itself is ontically "secondary" to the phenomenal world. As noted above, this is the very distinction overlooked by Husserl and, as I will show at a later stage, by Merleau-Ponty.

Carman concedes that Heidegger did not regard himself as a realist.[78] Heidegger uses the term "realism" mostly in a negative sense: he identifies it on the one hand with the belief that we could *prove* the existence of the external world, and on the other hand with naturalistic reductionism.[79] But Carman shows that Heidegger did accept realism, if we take it in perhaps one of its more contemporary meanings, viz. as the affirmation of a physical reality which exists independent of Dasein. According to Carman, Heidegger thought that "occurrent entities exist and have a determinate structure in the absence of any and all views".[80]

I find Carman's interpretation of Heidegger quite convincing, especially considering the many supporting passages he cites.[81] At a first glance, I also find Heidegger's physical realism which emerges from that interpretation plausible. I am adding "at a first glance" because I believe that one crucial element is missing from Heidegger's realism: the body. Carman does not address this problem, but in a footnote earlier in his book he mentions that Heidegger in *Sein und Zeit* avoided the mind-body problem or any account of the human body, for that matter.[82] One of the fundamental questions we face when we develop and defend a critical form of physical realism is: what is the ontic relationship between the human being (Dasein) and physical reality? The fact that Heidegger avoided the question of the body, apart from some scanty observations in the *Zollikon Seminars*, is highly problematic.

Kevin Aho addresses this problem in a book with the telling title *Heidegger's Neglect of the Body*. Although the title of the book has a critical ring to it, Aho sometimes defends Heidegger's strategy of avoiding the problem, but he remains equivocal. Supposedly, Heidegger was not interested in the body because he was operating on a more fundamental level than questions of embodiment. According to Aho's Heidegger, "Dasein is not to be understood in terms of everyday human existence or embodied agency but—from his earliest Freiburg lectures onward—as an unfolding historical horizon or space of meaning

78 Ibid., 164.

79 Ibid.

80 Ibid., 167.

81 Ibid., 157, 161, 165, 168, 173.

82 Ibid., 129, footnote 50.

that is already 'there' (*Da*), prior to the emergence of the human body and its various capacities."[83] But Aho then claims that, nonetheless, Heidegger acknowledged that the body was a very important problem, and a problem that he did not address in *Sein und Zeit* because it was too difficult: "toward the end of his career he began to recognize that the topic of embodiment presented special difficulties that he was simply not equipped to deal with. In his Heraclitus seminars of 1966-1967, he referred to the body as 'the most difficult problem' (HS, 147), and in 1972 he makes his most revealing remark, admitting that he was unable to respond to earlier French criticism regarding the neglect of the body in *Being and Time*, because 'the bodily [*das Leibliche*] is the most difficult [problem to understand] and I was unable to say more at the time' (ZS, 231).'"[84]

However, after quoting Heidegger's self-criticism, Aho again chooses the other apologetic strategy, claiming that Heidegger ignored the problem because other problems were more important: "Heidegger was, at bottom, not interested in giving an account of embodied agency."[85] Instead Heidegger, according to Aho, wanted to go "beyond the question of embodied agency to the structures of meaning itself. For Heidegger, it is only on the basis of these structures that we can begin to make sense of things—such as bodies—in the first place."[86] I find the latter interpretation weaker than the former. It does not seem probable that, while admitting that he found the problem of the body the most difficult and regretting that he had not been able to say more about it, Heidegger at the same time thought that the problem was not fundamental. In addition, many contemporary interpreters of Heidegger's thought feel the need to complement his view of being in the world with Merleau-Ponty's, because they sense that Heidegger's concept of Dasein is incomplete without a philosophy of embodiment.

For our purposes, the main question at this point is: can one defend physical realism while neglecting the body? When we turn to the relationship between the human being and physical reality, there are two basic options we can choose from: we claim that the human being stands apart from physical reality or we embrace the view that she is, in some essential respect, *part* of physical reality. The first option can be defended by defining the human being's essence in terms of a supposedly pure mind. This option is not compatible with Heidegger but only with Cartesian dualism. But the first option can also be defended by assuming

83 Aho, *Heidegger's Neglect of the Body*, 3.

84 Ibid., 4. HS in the quotation refers to Heidegger, *Seminare—Heraklit / Heraclitus Seminar*. ZS refers to Heidegger, *Zollikoner Seminare / Zollikon Seminars*.

85 Ibid., 6.

86 Ibid.

that the body proper constitutes a zone of subjectivity where objective reality does not reach. In this case we say that the human body is a lived body (*Leib*) and not a physical thing in objective space (*Körper*), as science has us believe. This is Merleau-Ponty's position in *Phénoménologie de la perception*.[87] It is also the option which might be compatible with Heidegger.

When we turn to the passages about the body we find in Heidegger's *Zollikoner Seminare*, we see that Heidegger indeed rejects any interpretation of the body in terms of the physical body (*Körper*) and restricts his concept of the body to the living body (*Leib*). The living body is what "bodies forth" (*leibt*) from its current position in space.[88] This "bodying forth" is a term for sensorimotor behavior, as understood from a first-person perspective.[89] The point is that this definition of the body proper as a *living* body for Heidegger excludes its definition as a *physical* body (a *Körper*), as the following example makes clear: "I will select the following question: when I am involved 'body and soul' in the discussion of the theme, is my body not absent, or is it no longer sitting on the chair where it was before I began to pay attention to this theme? . . . In our question, I first take the body as a physical body [*Körper*] which is occurrent [*vorhanden*] on the chair. In reality, however, *I* am sitting on the chair. This is something completely different from the occurrentness of a physical body on top of another physical body."[90] So Heidegger's point is that the I, as the one sitting on the chair, is not the physical body (*Körper*) but the living body (*Leib*) and this holds for all our bodily practical engagements in the world.[91]

I think that Heidegger's description of our bodily being in the world is problematic. Although his approach is very useful if you want to examine our being in the world as a practical engagement with things in the world which can only be understood from a first-person, embodied perspective—an endeavor that I endorse and also try to contribute to in this book—, it is too restricted if you want to understand the relationship between the human being and physical reality. How can Heidegger's concept of the body sustain his physical realism? If the physical body is not a fundamental aspect of the body proper, how then can the body proper be part of physical reality?

87 See Section 4.3.

88 Ibid., 244-245/197.

89 Ibid.

90 Heidegger, *Zollikoner Seminare*, 125/96; translation modified.

91 Heidegger's *Leib* is very similar to Merleau-Ponty's *corps vécu* ("lived body"), which I discuss in Chapter 4.

The challenge is to maintain your concepts of *Leib*, first-person experience, etc., *while at the same time* exploring how it is possible that the body proper is part of physical reality. That is the challenge which phenomenology from Husserl through Heidegger and, as I will show, Merleau-Ponty, refused to accept. It refused the challenge because its thinking was imprisoned in the opposition between two philosophical camps: on the one hand reductive materialism, with its physical realism, and its concept of the purely physical body (*Körper*), and on the other hand the phenomenological affirmation of first-person experience, the phenomenal world, and the lived body (*Leib*). The opposition limits our thinking, because we can only explore how our bodies are part of physical reality if we accept that the body as a physical body is a *fundamental* and *prescientific* aspect of the body proper as a whole.

Helmuth Plessner's thinking was not restricted by the opposition between materialism and phenomenology. As Karl Löwith observes, the power of Plessner's view is that, in contrast with Heidegger's, it describes the human being as both open to the world and occurrent (vorhanden) in that same world.[92] Plessner was as critical of scientism and reductionism as Heidegger or Merleau-Ponty, but he did not conclude from his objections that the occurrentness of the human being, her being-part of objective reality, was off-limits for fundamental philosophy. Quite the opposite: he refused to leave the description of physical reality and the physical body to science or reductive materialism, and introduced a distinction between the physical and the organic aspect of our bodily being in the world. In Chapter 6 and 7 I will support and expand on Plessner's view by showing that we have first-person experiences of the physical aspect of the human body, thus disproving the assumption that the physical body (Körper) would only be accessible from a secondary, scientific perspective. Although Plessner never attaches the predicate "realism" to his view, he is, I argue, both a phenomenal and a physical realist. Since Plessner describes and integrates both the Körper- and the Leib-aspect of the body, his philosophy provides the key to understanding how both realisms can be true at the same time.

92 Löwith, *Natur und Humanität des Menschen*, 74-75. As we will see in Chapter 4, Merleau-Ponty sometimes also allows that we are *vorhanden* in the world, i.e., that we are not only a subject but also an object in the world.