Chapter 1
Dennett and Phenomenology

Part I of this book is devoted to the relationship between materialism and phenomenology, with a strong focus on Daniel Dennett. Not only is Dennett one of the most prominent defenders of materialism, his "heterophenomenology" also invites a comparison with phenomenology. Dennett's reductive materialism is one of many existing answers to what is commonly called the mind-body problem. According to Dennett, dualism is to be avoided at all cost and he concludes from this that there is no room for taking seriously the subject who inhabits a phenomenal world. Only if we turn from first-person experience to the physical-neural events underlying this experience, would we find a solid basis for systematic knowledge of human existence.

Whereas Dennett is known to be a reductionist, other materialists prefer calling themselves "eliminativists". The most important exponents of the latter brand of materialism are Paul and Patricia Churchland. As we will see, the dividing line between reductionism and eliminativism is not a sharp one. This means that we can draw some general conclusions about materialism. I criticize materialism by pointing out that philosophy cannot do without phenomenology. The subject and her world are real and irreducable/ineliminable. Philosophy can and should analyze the inner structure of this reality, which differs essentially from the structure of the physical. This means that we have to reject the materialistic reduction of subject and phenomenal world to physical reality.[1] But what I find

1 In my view, materialism is always at least reductionistic and sometimes even eliminativist. I disagree with Terence Horgan that a "nonreductive materialism" is possible. Horgan's view is indeed nonreductive but it is not materialistic: it is, in his own words, "robustly realist about mentality itself, about mental causation, and about men-

good about materialism is its inherent physical realism. In the current part I will simply assume that physical realism is a good thing and ask: how can we overcome materialism without throwing physical realism out with the bath water? My actual argument in favor of physical realism needs more preparation; I will present it in Chapter 6.

Chapter 1, and to a lesser degree Chapters 2 and 3, focus on Dennett's reductive materialism. After introducing Dennett's thought in Section 1.1, I will in Sections 1.2 and 1.3 argue that Dennett misconstrues phenomenology and in doing so falsely discredits the first-person perspective as a basis of systematic philosophical knowledge. In Section 1.4, I show that Dennett himself remains dependent on phenomenological concepts. This illustrates that such concepts are indispensible for a philosophical understanding of the relationship between neuroscience and our non- or prescientific lives. Then, in the next chapter, I broaden the discussion by turning to Bennett and Hacker's ordinary language approach and to Paul and Patricia Churchland's eliminativism.

1.1 THE CARTESIAN THEATER AND THE MULTIPLE DRAFTS MODEL

In *Consciousness Explained* Dennett defends what he calls the Multiple Drafts model and heterophenomenology against the Cartesian Theater and autophenomenology. Let me explain what these terms stand for and, in doing so, present some important elements from Dennett's thought. The Cartesian Theater is the term Dennett coins as a way of interpreting Descartes' explanation of human experience. According to Descartes, the body is provided with external afferent inputs via the senses; these inputs then come together in a single functional center, the pineal gland, where they are transformed into a theater of representation of the external world. "Cartesian materialism is the view that there is a crucial finish line or boundary somewhere in the brain, marking a place where the order of arrival equals the order of 'presentation' in experience because *what happens there* is what you are conscious of."[2] In addition, the Cartesian view is dualistic, because both the theater and the res cogitans who is the observer of that theater are considered to be *immaterial*. They are opposed to the materiality of the body and the external world.

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talistic causal explanation" (Horgan, *Nonreductive Materialism and the Explanatory Autonomy of Psychology*, 295).

2 Dennett, *Consciousness Explained*, 107.

Dennett wants to replace this model by his Multiple Drafts model, which he says is not dualistic. His aim is to develop an account of consciousness which explains every one of its essential elements and possibilities in terms of physical and neural processes, assuming that, if he would succeed, the mind is shown *to be* the brain: "I will explain the various phenomena that compose what we call consciousness, showing how they are all physical effects of the brain's activities, how these activities evolved, and how they give rise to illusions about their own powers and properties."[3] The result is a truly materialistic account of the human being and the world, because the immaterial elements we refer to in ordinary language (consciousness, the I, thoughts) are on the one hand reinterpreted as physical effects and on the other hand discarded as illusions. Descartes' problematic dualism is thus replaced by materialistic monism.[4]

An important aspect of Dennett's criticism of the Cartesian Theater pertains to the idea of a "finish line" for information running up the nervous system. This is Descartes' assumption that what goes on in the nervous system leads to a representation of the world in the brain, of which there is at any moment in time only one version. Dennett disagrees with this assumption: "We don't directly experience what happens on our retinas, in our ears, on the surface of our skin. What we actually experience is a product of many processes of interpretation—editorial processes, in effect. They take in relatively raw and one-sided representations, and yield collated, revised, enhanced representations, and they take place in the streams of activity occurring in various parts of the brain."[5] According to Dennett this implies that another presupposition of the Cartesian Theater must also be false: the thought that we are able to time exactly when a particular experience of the world comes to be. Although we can time individual neural processes, Dennett says, we cannot time exactly when a particular conscious experience brought about by these processes *taken together* comes into existence.

Let me present one of Dennett's examples, the metacontrast experiment, to get this point clear. A research subject is confronted with two pictures, the one very shortly (30 msec) after the other (figure 1.). The first is a colored disc. The

3 Ibid., 16.

4 Interestingly, Bruce Mangan argues that Dennett is tacitly more disturbed by the supposedly *mysterious* character of a Cartesian mind, i.e., its inaccessibility to science, than by its immaterial character. Mangan supports his view by pointing out that Dennett makes use of scientific research in the field of psychophysics, which is based on dualistic presuppositions. (Mangan, "Dennett, Consciousness, and the Sorrows of Functionalism", 12-13.)

5 Dennett, *Consciousness Explained*, 112.

second is a colored ring that fits exactly around the disc shown just before it. The result of this set up is that the second stimulus *masks* the first: the subject will only remember the second, not the first stimulus. The fact that the first picture is presented only a very short time is not a sufficient condition for this phenomenon to occur. Without the second stimulus the colored disc *is* consciously experienced and remembered.

Figure 1.

Dennett presents two possible explanations of this phenomenon of masking stimuli. One explanation is that the prior stimulus was never consciously experienced in the first place. The alternative explanation is that it was experienced, and that the subject's memory of the stimulus was obliterated by the second stimulus. Dennett argues that there is no experiment that can show which of these explanations is right, because this question is unanswerable as a matter of principle:

> The outer contour of a disc rapidly turns into the inner contour of a ring. The brain, initially informed just that something happened (something with a circular contour in a particular place), swiftly receives confirmation that there was indeed a ring, with an inner and an outer contour. Without further supporting evidence that there was a disc, the brain arrives at the conservative conclusion that there was only a ring. Should we insist that the disc was experienced because *if the ring hadn't intervened* the disc would have been reported? That would be to make the mistake of supposing we could 'freeze-frame' the film in the Cartesian Theater before the memory of it was obliterated by later events. The Multiple Drafts model agrees that information about the disc was briefly in a functional position to contribute to a later report, but this state lapsed; there is no reason to insist that this state was inside the charmed circle of consciousness until it got overwritten, or contrarily, to insist that it never quite achieved this privileged state. Drafts that were composed at particular times and places in the brain were later withdrawn from circulation, replaced by re-

vised versions, but none of them may be singled out as definitive of the content of consciousness.[6]

We should keep in mind that, in Dennett' view, the margin of revision of drafts is limited to very short instances. If you change the metacontrast experiment, now showing the colored disc for a couple of seconds instead of 30 msec, the order in which experiences occur will, of course, correspond with the order of their correlative neural processes. In that case consciousness cannot be tricked in the way described: one will remember both the disc and the ring.

Because of the ambiguous status of stimuli within a very short time span, Dennett is critical of the conclusions sometimes drawn from Benjamin Libet's famous experiments with conscious intentions. I will not extensively discuss these experiments here, but only use one of them as an illustration of Dennett's thought. In one of the most described experiments, the research subject had his hand on a button and his eyes focused on an oscilloscope which basically looks like a clock that has a red dot circling around its face instead of pointers. The subject was asked to push the button at any time according to his own preference and then mark the position of the oscilloscope's point at that very time. During the experiment, Libet's researchers measured, by means of an EEG, when the neural activity correlating with the conscious decision to push the button started to mount in the brain. Libet then compared the moment of brain activity with the moment of conscious decision as marked by the research subject himself.

As one would expect, the actual pushing of the button, which was also timed and registered, occurred just after the conscious decision took place, viz. around 200 msec. The astonishing result, however, was that brain activity correlated with the decision started 350 to 400 msec earlier than the conscious decision as timed by the subject himself. This appears to lead to the conclusion that the decision was not made by the subject, but rather by his brain. It even leads some to think that free will is an illusion, because processes in the brain would *cause* the decision before we (thought we) made the decision ourselves.[7] Libet himself thinks that we can still to some extent make free decisions, but that our freedom lies in the opportunity to veto the decision which spontaneously builds up.[8]

Dennett argues that the 350 to 400 msec found by Libet is too short to arrive at *any* conclusion about voluntary acts. "If someone thinks the thought

6 Ibid., 142.

7 This is Daniel Wegner's position in Wegner, *The Illusion of Conscious Will*, 52-61.

8 Libet, *Mind Time: The Temporal Factor in Consciousness*, 137-141.

'One, two, three, four, five', his thinking 'one' occurs before his thinking 'two' and so forth . . . But the experiments we looked at are concerned with events that were constricted by unusually narrow time frames of a few hundred milliseconds. At this scale, the standard presumption breaks down. Every event in your brain has a definite spatiotemporal location, but asking 'Exactly when do you become conscious of the stimulus?' assumes that some one of these events is, or amounts to, your becoming conscious of the stimulus."[9] According to Dennett, we cannot single out one such event. The beginning of neural activity correlated with a conscious decision is essentially no different than the activity correlated with seeing the disc in the metacontrast experiment. This neural activity potentially contributes to the subject's experience, decision, or action, but this depends on later activity in the nervous system: it can be canceled out or revised in the hundreds of milliseconds after these first brain events, without any vetoing by the conscious subject. The initial activity in the brain is in itself only potentially meaningful, depending on what comes after.

This shows that, although Dennett is a materialist, he is not an atomist. Atomists think that the whole of a physical system or an organism is no more than the totality of its distinctive parts. In the experiment above, the subject's being conscious of the stimulus cannot be pinned down to a single "finish line"-event in the brain, because this consciousness is the property of a whole set of interdependent events which is hard to delineate. I think Dennett's argument is in some important respects quite convincing. It shows that there is no one-on-one correlation between each neural event and each "element" of conscious experience—supposing we could single out such elements in the first place. There are only global correlations between areas in the brain and specific functions of consciousness, and also between sets of events and types of perception and action, like memory, seeing a color, or making calculations.[10] Neuroscience tries to find the minimum set of neural events necessary for functions which are as narrowly specified as possible. But the search for neural correlates of consciousness, or NCCs, moves forward only very slowly and is highly dependent on the selection

9 Dennett, *Consciousness Explained*, 168-169.

10 In the first two parts of *La structure du comportement*, Merleau-Ponty demonstrates that all attempts to correlate directly, in an atomistic manner, behavior with neural processes (establishing what is now called "neural correlates of consciousness" or NCCs), is bound to fail because the nervous system does not function like a machine but rather performs global functions according to the vital and symbolic interests of the organism as a whole. Cf. also (not in relation to Merleau-Ponty) Hans-Peter Krüger, "Das Hirn im Kontext exzentrischer Positionierungen", 284.

of functions which can be easily defined ("becoming conscious of a red light", "remembering a word", and so forth) and which lend themselves for testing under lab circumstances.[11]

Dennett is absolutely right to allow a certain discontinuity between what happens on the microscale of neural processes and what happens on the scale of human functioning as a whole. Neuroscientific correlations can be considered a "bridge" across the gap between mind and brain but they do not fill the gap; they do not make it disappear. A neural correlation is a relationship between two different domains of reality and the philosophical question is: how do we describe these domains and their relationship on a more fundamental level than the particular correlations found by empirical research? With respect to Dennett, the question is: does it suffice to regard "the various phenomena that compose what we call consciousness" as "all physical effects of the brain's activities".[12] Is consciousness really no more than a higher physical property of the nervous system itself? Is the gap we are dealing with located between levels of complexity within physical matter, as Dennett's monism forces us to accept, or does it sit between neural processes on the one hand and the human being's first-person experience on the other? Does it make sense to speak of "experience", "consciousness", or "freedom" without giving the first person and her phenomenal world their proper place within one's theory? These are some of the big questions which will be answered in stages throughout this book, but in the current Chapter I will already make some important steps. Let us begin by examining Dennett's relationship with phenomenology.

1.2 HETEROPHENOMENOLOGY

Dennett's aversion to dualism motivates him to reject not only Descartes's view but also the entire tradition of phenomenology. In Chapter 5 I will show that a Plessnerian phenomenology is not dualistic: it does not describe dual but rather triadic structures. We also find traces of such a triadic approach in Merleau-Ponty, as Chapter 4 will make clear.[13] For now, I will leave the question of dual-

11 Maxwell Bennett, *Neuroscience and Philosophy* (Chapter in Bennett and Peter Hacker, *Neuroscience & Philosophy*).

12 Dennett, *Consciousness Explained*, 16.

13 We also find variants of such a triadic structure, which goes beyond dualism, in the analytic tradition to which Dennett belongs. I am thinking especially of more recent approaches to the mind-body problem in cognitive science, for instance in Hanna and

ism aside and limit myself to a tentative examination of the relationship between materialism and phenomenology.

Dennett's critical stance towards phenomenology is reflected in his concept of "heterophenomenology", which means "phenomenology of the other". Dennett opposes this to "autophenomenology": the phenomenology of a first person of experience who *identifies* with the beliefs supporting his phenomenal world rather than adopting a scientific outsider's perspective with regard to those beliefs. A common example is the perception of colors. We only know what a color looks like from the first-person perspective. From a third-person, scientific perspective color perception amounts to electromagnetic waves or photons hitting the retina, causing nerve processes in the brain.

Dennett wants to provide a philosophical foundation for the correlation of our experiences with these physical-neural processes happening in objective reality. But first-person reports of experience are according to him not reliable enough to build on. This is one of the main reasons for Dennett to reject classic phenomenology. Dennett argues that phenomenology is based on the idea that, through introspection, we have "privileged access" to our own consciousness and that this would make us "immune to error".[14] He discusses a number of perceptual illusions to show that the first-person perspective is not reliable at all and proposes a method which neutralizes the fallibility of the first-person point of view. He introduces a second third-person perspective, complementary to the third-person perspective which aims at the analysis of physical and neural processes. This second perspective we could call psychological or sociological: the scientist collects reports from research subjects about what they experience. From this third-person perspective we do not see physical-neural reality but rather, what Dennett calls, "autophenomenological" texts. Since we approach the-

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Thompson, "The Mind-Body-Body-Problem", and in enactive approaches such as Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*, Desmidt et al., "The Temporal Dynamic of Emotional Emergence", and Colombetti, *The Feeling Body: Affective Science Meets the Enactive Mind*. The enactive approach differs from earlier approaches in cognitive science in that it focuses more on forms of higher-order cognition, such as the metaphorical use of language, which presuppose a strong disengagement from the world of sense-perception (cf. Froese, "From Adaptive Behavior to Human Cognition: A Review of *Enaction*"). It explores how human behavior is structured by a distance from the world which is alien to (other) animals. It should be noted that all these views overlook Plessner's early and fruitful approach to the mind-body problem and his concept of eccentricity.

14 Ibid., 68.

se from a neutralizing, outsider's perspective, this is to us *hetero*phenomenology: phenomenology of the other.

In order to turn auto- into heterophenomenological texts, according to Dennett, the scientist needs to adopt the "intentional stance": "we must treat the noise-emitter as an agent, indeed a rational agent, who harbors beliefs and desires and other mental states that exhibit *intentionality* or 'aboutness', and whose actions can be explained (or predicted) on the basis of the content of these states. Thus the uttered noises are to be interpreted as things the subjects *wanted* to say, or *propositions* they meant to *assert*, for instance for various *reasons*."[15] However, this does not mean that the scientist would identify with the first person of experience who expresses his beliefs and desires. In Dennett's view, the first-person perspective is too "treacherous"[16] to build solid knowledge on. For this reason science and philosophy need to appropriate the phenomenological world of the other as "a theorist's fiction"[17]: something scientists can work with and explain, but which they do not accept as an account of the world which could even possibly be true. Heterophenomenology "involves extracting and purifying *texts* from (apparently) speaking *subjects*, and using those texts to generate a theorist's fiction, the subject's *heterophenomenological* world."[18] So the reports these subjects take seriously themselves are regarded as illusory by heterophenomenology. Once subjective experience is neutralized in this way, neuroscience can work on revealing the ultimate truth behind these intentional relationships: the underlying neural-physical processes.

At this point it is interesting to address the question of Dennett's realism. Realism could apply to three elements in Dennett's theory: (a) physical-neural reality, (b) intentional relations as the subject's first-person experience, and its "object", the phenomenal world, (c) intentional relations as seen from a third-person perspective, i.e., as objective facts. The reality of the physical-neural aspect of our existence is never a point of debate for Dennett because he simply assumes that there is such a reality. I agree with him, but I do think this needs to be supported by arguments. As noted, I will return to that endeavor in Chapter 6. Now I only want to focus on the question: how broad is Dennett's realism? Does it also include our intentional relationships to the world?

When Dennett calls the domain of the subject's proper experience a theorist's fiction, this is unmistakably a denial of the reality of the phenomenal

15 Ibid., 76.

16 Ibid., 70.

17 Ibid., 98

18 Ibid.

world. This denial is underscored in the discussion of qualia in Chapter 12 of *Consciousness Explained* ("Qualia disqualified"). To cut a long story short, Dennett here claims that there are no qualia, but that it is true "that there *seem* to be qualia".[19] This phrasing is characteristic of the move Dennett repeatedly makes: he does, in a sense, acknowledge the existence of intentionality (i.e., of perceptions, beliefs, and desires), but he approaches it exclusively as an objective fact which can only be properly assessed from a third-person perspective. So perceptions, beliefs, desires, and other intentional relationships do exist, according to Dennett, but only as part of objective reality. Of course, the third-person perspective is the appropriate perspective for understanding intentionality in the first place.

Dennett allows that there are intentional relationships and that there is a discontinuity between these relationships and the microscale of genetics and neural structures. In some texts he allows that some form of *explanation* on the intentionality level is possible: we use such explanations in our everyday "folk psychology"[20] and this approach can also be developed into a scientific method called Intentional System Theory.[21] I will not discuss the details of this theory, but I do want to note two things. Firstly, this kind of folk-psychological or intentional-systems explanation remains bound to Dennett's "intentional" stance, i.e., to an outsider's point of view from which we try to predict the other person's behavior on the basis of known conditions. In other words, it does not even come close to an examination of the phenomenal world as it appears to ourselves as first persons. Taylor Carman rightly wonders whether Dennett really says anything about intentionality in any sense vaguely remindful of its phenomenological origin. Dennett fails to ask what intentionality is "from our own point of view *within* it".[22]

In addition, in Dennett's view, "intentional" explanation is not the ultimate aim of science. As we saw at the beginning of this chapter, the program of materialism is to "explain the various phenomena that compose what we call consciousness, showing how they are all physical effects of the brain's activities,

19 Ibid., 372 (italics mine).

20 "Folk psychology" does not have one single meaning and its exact origin is unclear (Ian Ravenscroft, "Folk Psychology as a Theory"). In Dennett it carries more or less the same meaning as in Paul and Patricia Churchland (see Section 2.1), viz. a set of common sense views which a person holds with regard others, by which she tries to explain and predict their behavior.

21 Dennett, *The Intentional Stance*, 43-68.

22 Taylor Carman, *Heidegger's Analytic*, 113.

how these activities evolved, and how they give rise to illusions about their own powers and properties." What does this mean for the various forms of intentionality, such as perception, belief, and desire? If they are the mere effects of the brain's activities, how then can they be more than some kind of abstract properties of the brain itself? Dennett indeed regards intentional relationships as abstract but "real patterns" in physical reality, comparable to centers of gravity or equators.[23] Just like the latter structures, intentional relationships in Dennett's view are not themselves material, but they are properties or structures *of* matter. And how could it be otherwise? Dennett leaves no doubt that he will defend materialistic monism against dualism, so it is clear from the outset that there is no room for defining intentionality as something which transcends physical reality.

At the end of his introduction of heterophenomenology, Dennett concludes that "we have developed a *neutral* method for investigating and describing phenomenology. It involves extracting and purifying *texts* from (apparently) speaking *subjects*, and using those texts to generate a theorist's fiction, the subject's *heterophenomenological world*. This fictional world is populated with all the images, events, sounds, smells, hunches, presentiments, and feelings that the subject (apparently) sincerely believes to exist in his or her (or its) stream of consciousness."[24] Just like the subject "seems" to see qualia, everything in her world seems real. However, according to Dennett, what ultimately counts as real is made up of only two things: intentional relationships taken as objective facts and the underlying physical and neural structures. In the quoted passage Dennett, for rhetorical reasons, pretends to adopt a constructive attitude toward phenomenology. In reality his heterophenomenology is not a form of, but rather a direct attack on, the entire phenomenological tradition.

1.3 DENNETT'S MISUNDERSTANDING OF PHENOMENOLOGY

I think that both Dennett's view in itself and his criticism of phenomenology are problematic. In the next section I will address problems in Dennett's own theory. In the current section I address his heterophenomenological critique of phenomenology. A first problem which needs to be addressed is the assumption that every report from a first person can be called phenomenological. As noted, Dennett construes phenomenology as a method which simply describes what we happen

23 Dennett, "Real Patterns".

24 Ibid., 85.

to find in our consciousness, as if all first-person knowledge would be phenomenology. It is true that the first person lives in a *phenomenal* world: she does not measure wave lengths but she sees colors. Or she does not measure the level of dopamine in her brain when running 10 kilometers, but she may enjoy her run. When running, she is primarily a sensorimotor subject, perceiving the irregularities in the sidewalk, and all the familiar things around her (houses, streets, cars, trees) organized as a single dynamic landscape with a higher segment, a lower segment, a left side and a right side. If this subject reports that she prefers running uphill and downhill over running in a more or less flat landscape, this is not a phenomenological proposition. Phenomenology does not include just any kind of report from a first-person perspective. Whereas the runner in the example expresses a *particular* preference within her phenomenal world, phenomenology offers descriptions of the *general structure* of this world.[25] On top of that, phenomenology does not arrive at descriptions by focusing on just any general structure. The importance of the questions it tries to answer through eidetic variation and ideation is itself not determined by means of this method: it stems from life itself, i.e., from the existential or moral questions in our prephilosophical and prescientific lives which we deem relevant not only to ourselves individually, but to all of us.[26]

Dennett would not agree. By calling every first-person report "(auto-) phenomenology", Dennett is also saying that it makes no sense to distinguish between a general structure of first-person experience and the individual instantiations of such experience. To him, all first-person experience is unreliable and therefore cannot be the basis of a serious discipline. Dennett discusses many perceptual illusions to support this view. I will not discuss these in detail here, but let me instead say something about perceptual illusions in general.

It is true that our perception is easily tricked, either by accident or because a magician wants to trick us. However, perceptual illusions are revealed not because someone shows us that our brain is being deceived by physical and neural

25 In his famous article "What Is It Like to Be a Bat?", 441, Thomas Nagel presents a similar argument: "The point of view in question [the subjective point of view, JvB] is not one accessible only to a single individual. Rather it is a *type*." Nagel speaks of a type of experience not only to describe the general character of the inner structure of human experience, but also to argue that there are non-human types of experience, e.g., the type of experience of a bat.

26 Not all phenomenologists agree that the source of phenomenological questions is extra-phenomenological. I am representing Plessner's position in *Phänomenologie. Das Werk Edmund Husserls*, 144-147.

processes, but because we see with our own eyes that the situation is different than it seemed at first. As Merleau-Ponty notes, "The difference between illusion and perception is intrinsic, and the truth of perception can be read off only from perception itself."[27] I may be fooled by a magician, but if I decide to learn his trade, the illusion is for me not taken away because I learn what happens in the brain, but rather because I now get to see the performance from different angles, and executed at a slow pace. The unmasking of illusions takes place within the scope of the first-person perspective. It all happens within the very same phenomenal world.

Furthermore, that we can be deceived does not detract from the fact that we can say something general about the phenomenal world. The preference for running in hilly terrain is not a phenomenological claim, but it *is* based on the fact that the world is organized by spatial directions, such as up and down, and left and right. *Every* individual's world is organized by these spatial orientations. Phenomenology can show that these orientations in the world correlate with the sensorimotor body schema of the subject, and that, in this sense, subjective body and phenomenal world share one single structure.[28] Dennett wrongly identifies "phenomenology" with all claims about the relationship between self and world from the first-person perspective. Only systematic descriptions of the general structure of our being in the world count as phenomenology.

The second misunderstanding about phenomenology to which Dennett falls prey, is the assumption that the method of phenomenology is "introspection".[29] This has never been a widely accepted view in phenomenology. Dennett mentions Edmund Husserl. Husserl's teacher Franz Brentano, whom Dennett does not mention here, can still be said to support some form of inner perception.[30] This was one of the reasons why Husserl, the main founder of phenomenology, followed a different avenue. Husserl explicitly distanced himself from introspec-

27 Cf. Merleau-Ponty, *Phénoménologie de la perception*, 343-344/346-347.

28 I return to these issues in the discussion of Plessner and Merleau-Ponty in Part II.

29 Dennett, *Consciousness Explained*, 44-45, 66-68.

30 Wolfgang Huemer, *Husserl's Critique of Psychologism and his Relation to the Brentano School*. Cf. also Cyril McDonnell, "Husserl's Critique of Brentano's Doctrine of Inner Perception and Its Significance for Understanding Husserl's Method in Phenomenology". McDonnell rightly points out that Brentano insisted upon the distinction between "inner perception" (*innere Wahrnehmung*) and "introspection" (*innere Beobachtung*).

tion (*Selbsbeobachtung*) as the method of phenomenology.[31] In *Philosophie als strenge Wissenschaft*, he complains that his *Logische Untersuchungen* were misunderstood as "a rehabilitation of the method of introspection"[32] and he accepts some responsibility for causing the misunderstanding: he had called his phenomenology a "descriptive psychology",[33] thus creating the impression that the intuiting of essences (*Wesensschau*) was a psychological method. Introspection then seemed to be the only probable candidate for this method.

Husserl has a clear view on the difference between introspection and phenomenology: whereas phenomenology deals with "essences", introspection is a method which explores the "individual particularities" which belong to the factual, empirically accessible "existence" of experience.[34] In other words, the intuiting of essences is *not* concerned with particular experiences but rather with the a priori general structure of experience. It could be argued against Husserl that introspective psychology also wants to say something general about the particular processes and events going on in the mind. But the generality psychology aspires to is of a different kind: it concerns *factual* regularities, inclinations, dispositions, not the logically necessary structures which constitute the framework within which such regularities, inclinations, or dispositions are possible in the first place. As Dan Zahavi points out: "it is important to realize that classical phenomenology is not just another name for a kind of psychological self-observation; rather it must be appreciated as a special form of transcendental philosophy that seeks to reflect on the conditions of possibility of experience and cognition."[35] It is also important to note that Husserl's famous argument against psychologism, i.e., against the reduction of logical laws to empirical-psychological laws, would not make any sense without the distinction between phenomenology and psychology.

Later phenomenologists like Heidegger, Merleau-Ponty, Levinas, and Plessner do not regard introspection as essential to their method either.[36] In my view, which is strongly influenced by Plessner, phenomenology is the praxis of

31 Cf. Dermot Moran, *Introduction to Phenomenology*, 136. See also Dan Zahavi, "Killing the Straw Man: Dennett and Phenomenology", 28-29.

32 Husserl, *Philosophie als strenge Wissenschaft*, 43.

33 Ibid., footnote 1.

34 Ibid.

35 Dan Zahavi, "Killing the Straw man: Dennett and Phenomenology", 28. Cf. ibid., 29, for additional references to Husserl on introspection.

36 Cf. ibid., 28. Zahavi shows this particularly for Merleau-Ponty: ibid., 31-33. See also Ted Toadvine, *Merleau-Ponty's Philosophy of Nature*, 64.

analyzing one's first-person experience of the world, and this includes both subjective moments of experience and moments which belong to the "object" (in the widest possible sense of *Gegenstand*, the reality over against the first person of experience). For example, phenomenology deals with the differences between living things and non-living things, between natural objects and artifacts, or between works of art and use-objects. Of course, this immediately involves the way we *relate* to these different kinds of objects, since phenomenology is not naive ontology: it takes into account that an object's mode of being is at the same time its way of *appearing* to us within a certain human praxis, for example, creating and looking at art. But the fact that phenomenology always takes into account the givenness of the object to the subject does not make it introspection. Apart from the problem that "introspection" is an empirical method, it also seems to refer exclusively to the *inner* world. It is only applicable to something subjective, something concerning my own personality, for instance a personal weakness I want to explore in order to overcome it.[37]

Against the backdrop of Dennett's misinterpretation of Husserl, it may be surprising to discover what seems to be a similarity between Husserl's and Dennett's method. Is Dennett's "theorist's fiction" not similar to Husserl's "epoché", the bracketing of the ontological presuppositions inherent to our different modes of consciousness? Dennett also sees the apparent similarity. Describing the heterophenomenological procedure, he writes: "You reserve judgment about whether the subject's beliefs, as expressed in their communication, are true, or even well-grounded, but then you treat them as constitutive of that subject's subjectivity. As far as I can see, this is the third-person parallel to Husserl's notion of bracketing or epoché, in which the normal presuppositions and inferences of one's own subjective experience are put on hold, as best one can manage, in order to get at the core experience, as theory-neutral and unencumbered as possible."[38]

Despite the apparent similarity, there are two huge differences between Husserl's epoché and Dennett's "theorist's fiction". Firstly, as Dennett observes, phenomenology connects directly with the inner structure of first-person experience; Dennett turns away from this structure in order to explore purely objective conditions of subjective experience. The term "heterophenomenology" is there-

37 Cf. Shaun Gallagher, *Phenomenology and Non-Reductionist Cognitive Science*, 22-23.

38 Dennett, "Who's On First? Heterophenomenology Explained", 22. Cf. David L. Thompson, *Phenomenology and Heterophenomenology*, 206. I have removed the parentheses in the original.

fore misleading. It suggests an affinity with phenomenology which simply is not there. Secondly, the aim of the epoché is not to *deny* the truth value of first-person experience, but rather to focus on the inner structure of the experience regardless of the question whether its object is real or fictitious. This means that phenomenology can, in principle, still be complemented by an ontology which does not balk at describing the essence of the different kinds of beings we encounter in the real world around us. A philosophy which embraces this combination of phenomenology and ontology takes first-person experience, including its truth value, very seriously. This does not imply that it relapses into a naive form of metaphysics based on the belief that we simply experience things as they are. The combination of phenomenology and ontology affirms an ambiguity of being and appearance: our knowledge of being is mediated by its appearance and this is what makes our knowledge finite. You could say that this kind of ontology is "critical" in a more or less Kantian sense: the world-disclosing function of the subject is here constantly taken into account.

I think that Plessner's phenomenology is "more ontological", in the sense described, than Husserl's. Husserl's epoché needs to be understood against the backdrop of the transcendental reduction, which Husserl thought proved the ultimate dependence of the appearing world on consciousness.[39] Plessner, like Merleau-Ponty, shows that consciousness is essentially embodied and that, as such, it is part of the reality that it experiences. To deny, call into question, or bracket the existence of the reality of which consciousness is *physically* a part is then no longer an option. This also determines Plessner's thinking about essences. An essence is not an eidos belonging to a realm separate from the outer world, as it is in Husserl; it is the mode of being of the entities we encounter in the world. For instance, the essence of vegetable life is both the plant's mode of appearance and its real way of being.[40]

39 Cf. Ricoeur, *Phénoménologie et Herméneutique*. However, there are different interpretations of Husserl. According to Zahavi, for instance, Husserl merely wanted to overcome a "dogmatic *attitude*" with regard to reality: "Killing the Straw Man: Dennett and Phenomenology", 30.

40 Cf. Thomas Ebke, *Lebendiges Wissen des Lebens*, 49-51.
Sometimes Plessner seems to argue *against* ontology (e.g.: *Stufen*, 23/60-61), but this criticism aims at *naive* ontology, which does not take into account "eccentric positionality" and historicity as the preconditions for our knowledge of being.

1.4 AN "ILLUSION" THAT JUST WILL NOT DISAPPEAR

There are more problems. As Thomas Nagel observes, Dennett claims to distance himself from the first-person point of view, but in fact his theory remains dependent on first-person concepts.[41] For example, Dennett often mentions beliefs and desires as important forms of intentional relationships. According to Dennett, beliefs and desires are intentional properties of consciousness, and this means that they are basically illusions created by the brain. They are no more than higher properties of brain-matter, patterns of neurophysiological reality. Dennett mentions beliefs and desires separately because, as everybody knows, they are not the same thing. But how do we know that a belief is something different from a desire? Is our knowledge of this difference not rooted in our experience of *having* beliefs or desires? When we define beliefs in epistemic terms and desires in terms of volition, do we not do this because we know from our prescientific everyday life perspective that a belief is primarily a matter of knowledge and desire a matter of praxis and will? The first-person perspective is at least an important source of knowledge regarding the differences and similarities between beliefs and desires and the same holds for all forms of intentionality.

But this issue becomes even more interesting when we take a look at the strange mix of phenomenological and neuroscientific language we find, for instance, in Dennett's Multiple Drafts Model. Dennett claims that he can explain the heterophenomenological world by referring only to neural processes, but in fact he smuggles phenomenological terms into his third-person explanations. In the account of the Multiple Drafts model and the metacontrast experiment (discussed in Section 1.1), Dennett assumes that seeing means that the brain is "informed" by afferent activity in the nervous system.[42] In addition, the brain weighs "evidence that there was a disc", and "arrives at the conservative conclusion that there was only a ring". Information is said to be part of a "report", which may later be "overwritten" by later "drafts". Dennett believes that there are not only neurons, synapses, dendrites, axons, neurotransmitter molecules, and so forth in the nervous system, but also "drafts" which are "edited". He denies the existence of the phenomenal domain but he cannot describe physical reality without using concepts which belong to that very domain.

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41 Nagel, *Other Minds*, 87: "In fact, the procedure [of heterophenomenology] relies implicitly on our first-person understanding of consciousness, while pretending to do without it."

42 All quotations in this paragraph from *Consciousness Explained*, 142.

Dennett would object to this criticism that the Multiple Drafts model was never more than just a set of metaphors: "I haven't replaced a metaphorical theory, the Cartesian Theater, with a *non*metaphorical ('literal, scientific') theory. All I have done, really, is to replace one family of metaphors and images with another, trading in the Theater, the Witness, the Central Meaner, the Figment, for Software, Virtual Machines, Multiple Drafts, a Pandemonium of Homunculi. It's just a war of metaphors, you say—but metaphors are not 'just' metaphors; metaphors are the tools of thought. No one can think consciousness without them, so it is important to equip yourself with the best tools available."[43] But if the brain's "drafts", and "editing", its "being informed" and its "arriving at conclusions" are just metaphors, then what are they metaphors *for*? Why does Dennett not simply refer to the neural processes to which these metaphors refer? Otherwise put: why does Dennett need so many metaphors in the first place?

I will return to these questions in a moment. First we should call to memory that Dennett has criticized Descartes by saying that there is no such thing as a Cartesian Theater to be found in our nervous systems: "When you discard Cartesian dualism, you really must discard the show that would have gone on in the Cartesian Theater, and the audience as well, for neither the show nor the audience is to be found in the brain, and the brain is the only real place there is to look for them."[44] So when he later says that "drafts", "editing", etc., are just a better set of metaphors than the Cartesian Theater, this should not prevent us from asking whether there are really "drafts", "interpretations", and "editing processes" to be found in "the only real place to look for them": the brain.

Are there drafts in the brain?

A draft can either be an image or a text. There are clearly no images in the brain: there is only this grey mass, and on a microscale there are neurons, synapses, neurotransmitters, axons, dendrites, and so forth. If there were images in the brain, then we would be confronted with the same problem as we face with the Cartesian Theater: we would need an audience or at least one little man in the brain (a so-called homunculus) to look at the image, who would revise it on the basis of new "information" (the colored circle which comes after the colored disc, for instance). The homunculus would create new sketches of what happens in the external world.

Dennett actually accepts the idea of homunculi, on condition that they fulfill only *partial* functions within the whole of the brain: "As long as your *homunculi* are more stupid and ignorant than the intelligent agent they compose,

43 Ibid., 455.

44 Ibid., 134.

the nesting of homunculi within homunculi can be finite, bottoming out, eventually, with agents so unimpressive that they can be replaced by machines".[45] But for some reason, when Dennett speaks of homunculi, he does not talk about the editing brain, and vice versa. Dennett does not say that it is a homunculus who does the editing of drafts which finally leads to a unified experience. Perhaps the reason for this is precisely that homunculi can only fulfill partial functions.

We seem to find a reply to my objection in the following passage: "Are mental images real? There are real data structures in people's brains that are rather like images—are *they* the mental images you're asking about? If so, then yes; if no, then no."[46] No, these are not the images we are asking about, because data structures are not images . . . unless at some point they appear to someone in the form of an image: an extended, colored figure against a colored background (whereby white and black count as colors). What does Dennett mean when he says that these "data structures" are "rather like images"? The claim, which mixes AI vocabulary and phenomenal terms, is not further clarified or supported.

Or Dennett means by "draft" a kind of text. But here the same argument goes: there are no texts in the brain, and if there were, somebody would need to read them. The problem is that Dennett ascribes properties which belong to the phenomenal world, in which images, texts, information, reports, and drafts indeed exist, to physical-neural reality. There are many more examples of the confusion of phenomenological and neuroscientific language. Dennett says that the eyes "provide our brains with high-resolution information",[47] that the brain carries out "processes of interpretation",[48] that the "content long-haired woman has already been discriminated in the brain",[49] that the brain makes "'decisions'" (now between quotation marks),[50] and forms "assumptions".[51] What do these expressions mean?[52]

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45 Ibid., *Sweet Dreams*, 137. Cf. *Consciousness Explained*, 262.

46 Ibid., 459.

47 Ibid., 54.

48 Ibid., 111.

49 Ibid., 119

50 Ibid., 134.

51 Ibid., 142.

52 The following criticism of Dennett is similar to Krüger's argument, in *Gehirn, Verhalten, und Zeit*, against Gerhard Roth (ibid., 93-100) and Wolf Singer (ibid., 106-110). In addition, my criticism draws on Bennett and Hacker's reading of Dennett which is discussed in the next chapter.

When I see that the weather is nice outside, this is not commonly called information. It is not called that, because I simply immediately attend a condition out there: e.g. that the sun is shining. I also do not make a decision on the weather. Rather the weather is just *there* for me in this condition.[53] Now we might say that there are *decisive processes* in the brain to make this perception possible. But this simply means that these processes fulfill a *crucial* role in supporting perception. We cannot say that the brain receives "information", or that it "decides" or "assumes" anything. I may decide to buy a new bicycle, and then we can *correlate* certain processes within my brain with this deciding, but we cannot say that the brain decided to buy a new bike. In that case we would also have to say that the brain went out to buy a bike, and that it chatted with the neighbors on the way to the bicycle shop. But it did not.

This still leaves open the question of whether, once we accept phenomenological projections as metaphors, they have some practical role to play in neuroscience. Metaphors make it easier for us to talk about neural processes and might even be indispensible. We should take into account that neuroscientific literature relies heavily on words like "information". Is neuroscientific theory conceivable without all such concepts in the first place?

Bennett and Hacker, to whom I return more elaborately in the next chapter, allow that neuroscience makes use of metaphors like "representations" or "maps in the brain", but not unconditionally: "Whether there is any danger in a metaphorical use of words depends on how clear it is that it is merely metaphorical, and on whether the author remembers that that *is* all it is."[54] Bennett and Hacker in fact show that many authors do *not* remember the metaphorical character of their terminology. They show how these allegedly innocuous metaphors time and again lead to misunderstandings about the nature of the nervous system. Colin Blakemore, for instance, legitimizes his use of words like "representation" and "map" (as something present in the brain) by calling them metaphors, later ignoring their metaphorical character and continuing to describe neural processes in terms of "representation", "interpretation", and so forth.[55]

In response to Bennett and Hacker, John Searle says that, "[a]s long as we keep clear the distinction between the literal observer-independent sense in which I infer or receive information and the metaphorical and observer-relative senses where we say my neurons perceive such and such phenomena, it seems to

53 Cf. Taylor Carman critique of Dennett's "intellectualism": Carman, *Merleau-Ponty*, 55-56.

54 Bennett and Hacker, *Philosophical Foundations of Neuroscience*, 79.

55 Ibid., 78-81 and 86-87.

me that these metaphors are, or at least can be, harmless."[56] Within the German discussion about these issues, Hans-Peter Krüger criticizes the "hermeneutical projections" by respectively Gerhard Roth and Wolf Singer, but he states that such projections are allowed, and even necessary, as a research instrument: "I consider [hermeneutical projections] to be heuristically inevitable within the *research* context of discoveries, but not . . . within the context of their *presentation*."[57]

I want to leave open the question which terms can be used harmlessly as metaphors, and under which conditions. But we can conclude that harmful confusion arises when the two sides of neuroscientific correlations are no longer kept separate but are rather mixed up so that the neuroscientist or philosopher on the one hand seems to have no need of accounting for the phenomenal pole of the correlation, while on the other hand tacitly smuggling in phenomenal/phenomenological terms into the description of the other pole: the neural events in the nervous system.

This is precisely the mistake Dennett makes. In *Consciousness Explained*, Dennett first rejects phenomenological descriptions of first-person experience and then reintroduces phenomenological terminology on the microscale of neural processes. The only right way, then, to formulate the correlations found by neuroscience is by consistently addressing both sides of the correlation and by keeping the respective discourses separate. I am euphoric because of the wonderful time I am having with my friends. There is probably a high level of dopamine in my brain at that moment, which is correlated with my joy in the sense that it is one of the physical preconditions for what I live through as a first person. But it makes no sense to say that the brain is happy. Neuroscience will try to get as far as it can differentiating and refining correlations between the phenomenal and the neural-physical. This is what we expect from neuroscience, and it is not only interesting but also extremely useful in the case of brain damage, dementia, and so forth. What we do not expect from this discipline, or from philosophy, is that it mixes the two sides of the correlation by saying that the brain is enjoying itself with other brains.

Why is Dennett so dependent on metaphors anyway? The reason for this is that he tries to reduce one side of the correlation—the phenomenal—to the other side of the correlation: the physical-neural. But both phenomenal and phenomenological terms (thinking, deciding, joy, depression, perception, "a long-haired woman", "a red light") keep urging themselves upon our thought. If the phe-

56 Searle, *Putting Consciousness Back in the Brain*, 112.

57 Krüger, *Gehirn, Verhalten und Zeit*, 109.

nomenal world as such is an illusion, it should at least be unlike any other illusion we can think of. Better put: it does not make sense to compare the phenomenal world *as such* with *particular* illusions, like a magic trick or a Fata Morgana. Contrary to these illusions, the phenomenal world in which colorful forms appear immediately, and appear *as* things, plants, animals, houses, streets, windows, desks, computers, other persons, pieces of music, natural landscapes and works of art, does not disappear after we investigate it or change our perspective. This can lead us to conclude that the phenomenal world is a "necessary illusion".[58] Even if this is meant as a strategy to save the phenomenal world, I think the strategy is too generous to materialism. An "illusion" which just refuses to vanish, because it is a *structural* and *predominant* aspect of our being in the world, simply cannot be an illusion.

58 I am referring to Arnold Burms en Herman De Dijn, *De rationaliteit en haar grenzen*, 100: "What attracts people, what appeals to them and motivates them to act, is bound to occur as 'mere appearance' or illusion to the objectifying gaze. But knowing this also means realizing that the illusion is necessary and that it cannot be destroyed by any objectifying perspective."