

‘Reflexive Monism’ versus ‘Complementarism’: An analysis and criticism of the conceptual groundwork of Max Velmans’s ‘reflexive model’ of consciousness

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Abstract: From 1990 on, the London psychologist Max Velmans developed a novel approach to (phenomenal) consciousness according to which an *experience of an object* is phenomenologically identical to an *object as experienced*. On the face of it I agree; but unlike Velmans I argue that the latter should be understood as comparable, not to a *Kantian*, but rather to a *noematic* ‘phenomenon’ in the Husserlian sense. Consequently, I replace Velmans’s reflexive model with a complementaristic approach in a strict sense which leaves no room for either monistic or dualistic views (including Velmans’s ontological monism and his dual-aspect interpretation of complementarity) and hence requires us to radically reinterpret the concept of psychophysical causation.

Key words: Consciousness, mind-body problem, complementarity, dual-aspect theory, phenomenology, psychophysical causation, pure noematics, reflexive monism, Velmans.

Velmans’s reflexive model of consciousness

Max Velmans opposes his ‘*reflexive model* of perception’ to the dualist model and the reductionist model (Velmans 2000: 106 f., 110, Figures 6.1–6.3): Whereas the latter two locate the perception of an object in the (non-physical) mind or the (physical) brain of the perceiving subject, respectively, the reflexive model locates it where the perceived object is supposed to reside, say, ‘out in the world’ or ‘out in space’ (cf. 109, 111, 133–135, 197, 230, 246). As Velmans is far from calling psychophysical causation into question (cf. 108 f., 236, 248 and ch. 11), he does not hesitate to agree with the ‘conventional assumption’ (166) of both dualists and reductionists that there is a ‘causal sequence’ initiated by ‘some entity or event’, say, light rays reflected by a cat sitting in front of a subject S, which innervate S’s optic nerves, then leading, step by step, to ‘neural representations’ of the cat in S’s brain, and finally producing S’s visual experience of the cat, i.e., S’s seeing the cat. However, whereas dualists and reductionists believe that this visual experience takes place in S’s mind or S’s brain, respectively, Velmans claims that, ‘while S is gazing at the cat, her only visual experience of the cat is *the cat she sees out in the world*. [...] That is, an entity in the world is reflexively *experienced* to be an entity in the world’ (109). Similarly, for instance, ‘[the] damage produced by a pin in the finger, once it is processed by the brain, winds up as a phenomenal pain in the finger, located more or less where the pin went in. That is why the entire process is called “reflexive”’ (ibid.). According to Velmans, in all such cases we *project*, as it were, our perception of an object or event onto the place where the relevant causal origin of this perception, to wit, the perceived object or event itself, is ‘judged to be’ (118). He is convinced that the evidence for this psychological effect, which he terms ‘perceptual projection’, abounds (115, 197, 230 f.).

From what I just quoted we can already gather that, according to Velmans, a subject’s ‘visual experience of the cat’ is no different from ‘*the cat she sees out in the world*’ (Velmans 2000: 109). This finding is confirmed by a large number of passages, some of which should

be quoted here, too. Experiences are *not* ‘quite different from the perceived body and the perceived external world’ (110 f.); rather, ‘in terms of *phenomenology* there is no actual separation between the perceived body and experiences *of* the body or between the perceived external world and experiences *of* that world’ (111; cf. 154, 174 f., 246, 254). Taken together,

‘inner experiences [‘such as verbal thoughts, images, feelings of knowing, experienced desires and so on’], bodily sensations [such as pains] and external experienced entities and events [such as cats] comprise the contents of our consciousness – which are none other than our everyday phenomenal world’ (111; cf. 110, 225–229). Hence, ‘what we normally think of as being the “physical world” is *part of* what we experience. It is not *apart from* it. And there is no mysterious, *additional* experience *of* the world “in the mind or brain”’ (139; cf. 125 f., 133–135, 189, 260 n. 9).

Velmans’s use of the term ‘phenomenology’

These quotations stand in need of being explained in at least two respects. First, in rejecting an actual separation between the perception of a body and the body perceived, what exactly does Velmans mean by the qualification ‘in terms of *phenomenology*’ (Velmans 2000: 111; cf. 125/6)? And second, in speaking of an ‘actual separation’ or an ‘actual difference’, what exactly does he mean by the qualification ‘*actual*’ (111, 174)? Let us deal with the first question first.

Velmans seems to give us a clue in speaking of ‘an experience of pain (phenomenal pain)’ and asserting, only two lines later, that ‘[in] terms of its phenomenology, the pain really is in the finger and *nowhere else*’ (109). In the very same context, when speaking of a subject’s ‘phenomenal cat’, he adds the parenthesis ‘(her “cat experience”)’ (ibid.). So I take it that Velmans, by using such terms as ‘phenomenal pain’ or ‘phenomenal cat’, is trying to make it clear once again that he is referring, not to the (physical) pain ‘itself’ or the (physical) cat ‘itself’, but to the pain *felt* or the cat *seen* – or otherwise *perceived* – by a certain subject. Instead, I think, Velmans might as well have spoken of the *experienced* pain or the *experienced, or perceived, cat* (cf. 45 n. 14).

As for the term ‘phenomenology’, Velmans seems to use it, though loosely, as a technical term. In some cases, by the words ‘phenomenology’ and ‘this rich phenomenology’ he seems to refer to a subject’s ‘inner conscious life’ (130; cf. 46 n. 14), i.e., the totality of the subject’s ‘phenomenal experiences’, ‘conscious experiences’, ‘conscious appearances’, or ‘phenomenal consciousness’, given to her in her first-person perspective (66, 133, 135, 137 n. 21). In other cases, by the term ‘phenomenology’ he seems to understand the *way* phenomenal consciousness is *given*, or *appears*, to the subject in her first-person perspective (6 f., 8 n. 2, 38, 46 n. 14, 108, 133). In still other cases, it seems rather difficult to decide which of these two interpretations is to be preferred (45 n. 13, 87). In point of fact, however, this apparent classification is not tenable; for in the case of a subject’s conscious experiences, there is no point in making a distinction between their reality, existence, or being (‘*esse*’), on the one hand, and their appearing or being given *to*, or their being ‘perceived’ (‘*percipi*’) *by*, the subject in question, on the other.¹ Hence, as a term used by Velmans, ‘*phenomenology*’ seems

¹Velmans is well aware of this; for he quotes the following passage from Searle 1992: 122 (sic!): ‘[C]onsciousness consists in the appearances themselves. *Where appearance is concerned we cannot make the appearance–reality distinction because the appearance is the reality*’ (Velmans, 2000: 131) and adds in a

to stand for the totality of a subject's conscious experiences as they are appearing, or given, to her in her first-person perspective, or simply (what amounts to the very same thing) for *the totality of a subject's conscious experiences*. Alternatively, however, we may perhaps take him to let the word 'phenomenology' oscillate between standing for a subject's '*inner conscious life*' given to her in her first-person perspective, on the one hand, and for her *systematic scrutiny and/or description of this life*, on the other. Possibly, quite a number of the passages referred to can also be seen in the light of this interpretation.

Anyway, I think, we are on the safe side if we return to what I said above, and refine it a bit: By claiming that, 'in terms of [its] phenomenology', there is no actual separation between the object which a given subject is experiencing and her experience of this object, Velmans subscribes to the view that *the object as experienced by the subject cannot be actually separated from her experience of this object*.² All in all, I take it that for Velmans there are two alternative *basic* forms for expressing *one and the same* position: (1) *Phenomenologically, or in terms of phenomenology*, there is no actual difference between a subject's *percept (experience) of an object* and the *object (which is) perceived (experienced)* by the subject; (2) there is no actual difference between a subject's *percept (experience) of an object* and the *object as perceived, or experienced*, by that subject. Sometimes, however, Velmans uses two additional forms for expressing the same thing, the first of which seems to me to be redundant (3), whereas the other one (4), taken literally, leaves out an important aspect and hence may be easily found misleading: (3) '*experiences of objects and objects as perceived are phenomenologically identical*' (140, 165/6; cf. 169, 125/6, and 262 n. 24); (4) a subject's '*only visual experience of the cat is the cat she sees out in the world*' (109) – but to this ambiguous passage Velmans immediately adds that '[i]f she is asked to point to this phenomenal cat (her "cat experience"), she should point not to her brain but to the cat as perceived, out in space, beyond the body surface', and so a possible misunderstanding is blocked from the very beginning.³

Actual versus conceptual differences

Before turning to the question of what exactly it is to which Velmans opposes the physical object thus qualified, i.e., the object *as perceived*, we have still to deal with another qualification already mentioned: What exactly is the kind of separation or difference to which Velmans (2000: 111, 174) opposes an '*actual*' separation or difference?

By explicitly stating that there is no *actual* separation or difference between my percept, or experience, *of* an object and the object *as perceived*, or experienced, Velmans obviously hints at the fact that in *some other way* my percept of, say, a cat and the cat as perceived by myself can, and should, well be distinguished. Let me first quote a note of his which makes it very clear what he has in mind:

footnote (137 n. 21): 'In this quotation Searle neatly summarises the underlying thrust of the argument I develop above.'

² In fact, there are a number of passages that clearly bear witness to this: 'an object as experienced' is 'one and the same as an experience *of* an object' (134); 'physical objects as perceived are *not* quite distinct from our percepts *of* those objects' (139); 'experiences *of* objects and objects *as perceived* are phenomenologically identical' (140, 165/6).

³ See also Velmans 2000: 111, where the claim that 'there isn't a phenomenal cat "in the mind" *in addition* to the cat one sees out in the world' is embedded in a context which is clearly indicated to be formulated 'in terms of *phenomenology*'.

Of course, the phrase “an object as experienced” does not have quite the same *meaning* as the phrase “an experience of an object”, for the reason that these phrases focus our attention in different ways. The first phrase places the *observed* in the foreground, which, in the reflexive model, is the initiating stimulus. If we are interested primarily in what is going on in the world, this is appropriate. The second phrase draws our attention to the results of perceptual processing – that is, to the resulting experience. If we are interested primarily in what is going on in the subject, this is appropriate. But this does not alter the fact that when we look at an object in the world, we experience only an object in the world, whichever way that experience is conceived (138 n. 25).

From the last sentence of this quotation, we may gather that Velmans is aiming at the notion of a *conceptual* difference, which, in fact, in traditional philosophy is the standard opposite to the notion of an *actual* difference. Although there is no *actual* difference between, say, a given subject S’s *seeing the cat* and the *cat as (being) seen* by S, in the sense that both of them must needs exist at the same time and at the same place, we can *think, conceive, and hence, speak* of them *differently*, which is testified by the fact that as a rule we are inclined to call the first of these entities the event or process of S’s seeing an object and the other one the object (as being) seen by S.

Furthermore, it is clear that Velmans stresses the conceptual distinction between the ‘initiating stimulus’ and the ‘resulting experience’. For an external observer, say experimenter, E, the initiating stimulus is ‘the observed’, say, the cat he can observe. Of course, besides the cat out in space, E can observe much more, namely, what is going on in the body (especially in the retinae, the afferent nerves, and the cortex) of the observed subject, S. However, the external observer E cannot possibly observe the resulting experience, that is, S’s *conscious experience* of *perceiving* the cat; he ‘can only *infer* the existence of the experiences themselves’ (186; cf. 187).

But of course ‘*the roles of S and E are interchangeable*’ (175): So far, the cat or, for that matter, the light⁴ was taken to be observed by E and experienced, or perceived, by S; but as soon as S becomes interested in E’s seeing the cat or light, the cat or light is taken to be observed by S and experienced, or perceived, by E. Similarly, ‘[o]nce E reflects on his own experience, he adopts the role of the “subject”’, and then ‘the light that E can see is the experienced *effect* of [his] own perceptual processing. Once he sees it, the processes that enable him to see it have already operated. If he switches back to being an external observer, he quite rightly *regards* the light as the cause of what S experiences (it is, after all, his own perceptual representation of the stimulus that causes S’s perceptual processing).⁵ However, whether he *thinks* of the light as the “perceptual effect” (of his own processing) or the “cause” (of S’s processing), its *phenomenology* remains the same’ (188).

In short, whether we *regard* a phenomenal light in the world as an “experience” or a “physical cause” of an experience depends entirely on whether we adopt the role of

⁴ I think that Figure 8.2 (Velmans 2000: 174), in which an *electric-light bulb* is taking the role of the object, is virtually the same as Figure 6.3 (ibid.: 110), where a *cat* is featuring as the object. The only difference worth noting seems to me to be the hyphenated form ‘as-perceived’ (and possibly the use of capital letters in the word ‘CAT’) in the latter; but I take it that this is nothing but a typographical relic of Velmans 1990: 82, 92–94.

⁵ On the face of it, this sentence seems to suffer from an ambiguity. If taken all by itself, the parenthesis would mean to say that E’s perceptual representation of the stimulus is the cause of S’s perceptual processing, which, however, is certainly not the reading intended by Velmans. Rather, we have to understand the whole of the sentence as saying that the light that E can see is his own perceptual representation of the stimulus that causes S’s perceptual processing. Even read like this, however, the sentence is bound to afflict us qualms; see below.

the subject or that of the external observer [...]. If we take the role of the subject, the light we can see out in the world is a “perceptual effect” of our current perceptual processing. If we adopt the role of an external observer, we regard the same light we can see as the initiating cause of perceptual processing in someone else (187).

In other words, ‘there can be no actual difference in the subjective versus objective status of the light *phenomenology* “experienced” by S and “observed” by E’ (175; cf. 174, explanation of Figure 8.2); or, more generally speaking: ‘in terms of *phenomenology* there is no difference between “observed phenomena” and “experiences”’ (175; cf. 190, 192, 246, 254). Hence,

there is no actual conscious content–physical phenomena separation. For everyday purposes it is useful to think of the phenomena we observe as the “physical causes” of what other people experience. However, once we have observed such physical phenomena, they are *already* aspects of what we ourselves experience. That is, physical phenomena are *part of* what we experience rather than *apart from* it (189).⁶

Velmans’s reflexive model of consciousness revisited

From some of the passages just looked at we seem to be justified in gathering that, according to Velmans, it is one and the same entity, say, the light I see out in the world, that I am at liberty to regard as *my own experience (perception)* of the light or as the *initiating cause of somebody else’s experience (perception)* of the light. At first blush, Velmans seems to say two incompatible things about the light that the external observer, E, can see. First, he says that E ‘quite rightly [!] *regards* the light [that E can see] as the cause of what S experiences’; and this, I take it, amounts to saying that the light that E can see *is* the cause of what S experiences. Second, he says that ‘the light that E can see [...] is, after all, his own perceptual representation of the stimulus that causes S’s perceptual processing’. Strictly speaking, however, what ‘he [E] *quite rightly* regards [...] as the cause of what S experiences’, and, hence, what *is*, or may be taken *to be*, the cause of what S experiences, is certainly ‘*the stimulus* that causes S’s perceptual processing’ *itself* and not ‘his own [scil., E’s] *perceptual representation of the stimulus*’ (my italics).

In this respect, and not only in the citation in question, Velmans sometimes seems to me to speak somewhat loosely. In raising this piece of criticism, I am not so much thinking of his interchangeable use of expressions of the type ‘the perceived object’ (i.e., ‘the object perceived’), ‘the object as perceived’ and ‘the object as-perceived’ (e.g., Velmans 2000, 159) – although in due course it will turn out to be necessary to come back to this question, too. Rather, I am now thinking of his terminological use of the expression ‘*reflexive*’ in his basic labels ‘reflexive model of consciousness’ and ‘reflexive monism’ (esp. 223, 233). I surmise that Velmans’s use of the term ‘reflexive’ is not altogether independent of the use it has long since been given in the logic of relations: ‘A relation *R* is *reflexive* if “*aRa*” holds for all *a* that are members of the field of *R*.’⁷ For if we look at the illustrations of his ‘reflexive model of perception’ (p. 110, Figure 6.3, and p. 174, Figure 8.2), we can easily convince ourselves that, in each of these drawings, the object ‘as perceived [or: as-perceived] by S’ and the object ‘as perceived by an external observer [(E)]’ is represented by one and the same picture (of a cat

⁶ ‘To avoid ambiguity, I reserve the term “a physical phenomenon” for physical events *as experienced* (or physical events *as observed*), and use the term “events as described by physics” (or other sciences) to refer to the more abstract representations of the same events given within physics (or other sciences): Velmans 2000: 136 n. 17.

⁷ Edwards 1967, Vol. 5, p. 74, entry ‘relation’.

and a light or electrical bulb, respectively): Figures 6.3 and 8.2 are apt to make us believe that, according to Velmans's reflexive model of perception, it is one and the same object that (a) is emitting light rays towards the eyes of subject S and (b) is being perceived by S. Moreover, Velmans seems to say so explicitly in the following sentence (which, however, may perhaps be taken to be ill-constructed and hence not perfectly intelligible):⁸ 'The cat as perceived by S is the same [sic] cat as perceived by E (albeit viewed from S's perspective rather than from E's perspective)' (109). If we let the letter 'o' stand for 'the object (as) perceived (by S and/or E)' and the letter 'C' for 'the subject S's cognitive-processing device' (or, in short, her body and brain), then Velmans's reflexive model of perception (or of consciousness at large), which is the central part of what he calls his reflexive monism, may perhaps be symbolised by the formula 'oCo', which, at least typographically, closely resembles the formula 'aRa' frequently used in defining the 'reflexivity' of a logical relation.

None the less, what I said above should be taken seriously: If we are *at all* justified in speaking in terms of a psychophysical (and/or physiopsychical) *causation*, which in Velmans's opinion we clearly are, then at any rate it seems plain that 'the stimulus that causes S's perceptual processing' is not an external observer E's 'perceptual representation' of some entity but *the entity itself of which it is a representation*. To be sure, Velmans is perfectly alive to this (see 2000: 176, 256). But Velmans does not scruple to say that although conscious experiences 'are only *representations* of events and their causal interactions, for everyday purposes we can take them to *be* those events and their causal interactions' (257). And further, 'In everyday life we [...] behave as "naïve realists". That is, we take the events we experience to *be* the events that are actually taking place [...]. For everyday purposes the assumption that the world just *is* as we experience it to be serves us well' (256).

**Velmans's distinction between 'phenomenal things' and 'things themselves'
compared to Kant's distinction between 'phenomena' and 'things-in-themselves'
and to the noematic distinction between 'phenomena' and 'things themselves'**

Velmans lays stress on the fact that all conscious experiences are representational, intentional, or 'of [about] something',⁹ and that 'this does not make sense unless there is something there to represent. Unless representations are *of* something, they are not representations. But *what* are they representations of?' (Velmans 2000: 163). His answer is that 'they represent (in our experience) what the world itself "is like". [...] This implies that there is a "reality" which is like something. I use the term "thing itself" to refer to this implicit reality' (163; cf. 162) – to 'the "real" nature of the world' (166).

Like all forms of representation, experienced phenomena can misrepresent actual states of affairs (for example, in illusions and hallucinations). However, in general,

⁸ For clearly seeing my point, the reader should bear in mind that in Velmans 2000: 110, Figure 6.3, the (drawing of the) cat is characterised twice over as being 'a CAT as-perceived by S' (*above* the cat-picture) and 'a CAT as perceived by an external observer' (*beneath* it). Similarly, in Figure 8.2 (*ibid.*: 174) the (drawing of the) electric-light bulb is characterised twice over as being 'A light as perceived by S' (*above* the bulb-picture) and 'A light as perceived by an external observer (E)' (*beneath* it). – I take it that the typographical differences – two capitalisations and (only) *one* hyphenation in Figure 6.3 – may be neglected; at least, Velmans gives us no hint at a possible import, which otherwise he would certainly owe to the reader. Most probably, the capitalised 'CAT' as well as the hyphenated 'as-perceived' are but relics of the readings he preferred in his first pertinent publication; see Velmans 1990: esp. 82 f., 92–94 and Figures 2–4.

⁹ He insists that being 'representational' or 'intentional' is a *necessary*, though *not a sufficient*, condition for being a conscious experience (Velmans 2000: esp. 99 n. 20, 99 f. n. 23, 244, 258, and Ch. 7); unlike many others, he takes it that even pains and similar bodily feelings are *intentional* conscious experiences (98 n. 16; 2002: 12 fn. 9).

what we experience corresponds in some useful way to what is “actually there”. [...] Observed phenomena are partial, approximate, species-specific but useful representations of the “thing itself” (162; cf. 159, 166).¹⁰

In Velmans’s view, this ‘ultimate reality’ (165) is not only *represented* by our conscious experiences; in cooperation with our perceptual processing device, it is also *productive of* them: ‘Observed phenomena [...] result from an interaction of an observer with an observed (a thing itself)’ (ibid. 162; see also 166); ‘the experienced world’ is ‘produced by perceptual processing’ (ibid.: 159).¹¹

In speaking of ‘the’, or ‘a’,¹² ‘thing itself’, Velmans admits that he has ‘borrowed Immanuel Kant’s term, the “thing itself”’ (138 n. 26), that is, Kant’s German term ‘Ding an sich (selbst (betrachtet))’, which, by English-speaking philosophers, is also often rendered by ‘thing-in-itself’. However, he is eager to add that he, ‘unlike Kant’, regards ‘the thing itself [as] knowable’; ‘in fact, it is the only thing we *can* know’ (ibid.). ‘In the reflexive model, things themselves are the true objects of knowledge. [...] [T]he thing itself *is all there is to know*’ (166). So it may seem doubtful whether Velmans was well advised in referring to Kant *at all*, which, in fact, he does not only terminologically but also in respect of the very core of his theory: More than once he unmistakably implies that the relation he sees between *things themselves* and *things (as) perceived*, or ‘phenomenal’ things, closely resembles the relation between Kantian ‘*things-in-themselves*’ and Kantian ‘*phenomena*’.¹³ In at least two respects Velmans is right: Kant, too, though certainly being quite inconsistent in doing so,¹⁴ assumes – and in a way *has* to assume for his critique of pure theoretical reason to run smoothly – that the things-in-themselves causally contribute to the production of the phenomena, that is, the phenomenal world, in that they are the material sources of our ‘sensations’; and Kant, too,

¹⁰ The world described by physics is but another, more thorough and systematic, representation of the underlying ‘thing itself’ – a representation systematically aiming at overcoming the ‘species-specific’ constraints of the world as represented by us humans in everyday life (Velmans 2000: Ch. 7). ‘The world described by current physics is just another representation [of the thing or world itself] that is likely to be superseded by some future physics’ (Velmans, personal communication).

¹¹ Cf. Velmans 2000: 134: The ‘reflexive model accepts that, for many explanatory purposes, it is useful to distinguish the *observer* and the *observation* from the *observed object itself*. For example, in cases of exteroception of the kind shown in Figure 6.3, the *object itself* is the source of the stimuli that initiate visual processing. These stimuli interact with the perceptual and cognitive systems of the observer to produce the observation, an object *as seen*. Barring hallucinations, this perceived object (a phenomenal cat in 3-D space) *represents* something that actually exists beyond the body surface. But it does not represent it fully, as it is *in itself*. I must confess that I have a problem with this passage. In the first sentence, Velmans seems to me to be (partly) speaking of the (not *actual*, but) *conceptual* difference between (an observational form of) *perception* and the *object (as) perceived*; but then he switches to the ‘*object itself*’ which is emitting stimuli that interact with a given subject’s perceptual and cognitive device, thus producing an ‘object *as seen*’, that is, an observation. The joint which makes this inadvertent switching possible is, of course, the mixed up wording ‘*observed object itself*’. For its part, this way of speaking seems to me to be supported by a loose, ‘naïve realistic’ way of expressing oneself which, in everyday life, Velmans (2000: 256 f.) is prepared to tolerate.

¹² When speaking of the Kantian ‘things-in-themselves’ (or ‘noumena’), one is always at a loss for using the plural or rather the singular form; for the Kantian ‘categories’, among them the categories of ‘quantity’, are as little applicable to things-in-themselves, or the thing-in-itself, as are the ‘forms’ of sensory experience, i.e., space and time. In Velmans’s theory, there is no problem with this. When he is characterising what he calls his ‘reflexive monism’ by claiming that ‘there is *one* universe (the *thing itself*) with relatively differentiated parts in the form of conscious beings like ourselves’ (Velmans 2000: 233; cf. 229), he is doubtless using the term interchangeably with the terms ‘the world itself’ and ‘implicit reality’, which admit of no plural forms (ibid.: 162 f.). On the other hand, when stating that observed phenomena ‘result from an interaction of an observer with an observed (a thing itself)’ (ibid.: 162), he is plainly using the term as standing for something properly countable.

¹³ See, for instance, Velmans 2000: 111, 133, 164; 1990: 83.

¹⁴ The categories of *cause and effect* are as little applicable to things-in-themselves as are the categories of *quantity* and the rest of the Kantian categories.

regards the phenomena as ‘species-specific’ rather than subject-specific (or, more precisely speaking, subjectively *particularised*), that is, individualised by reference to any given single subject at any given moment in time.

It appears, however, that Velmans *at the same time* advocates a view rather *different* from the one just described: Immediately after having told us that he ‘use[s] the term “thing itself” to refer to [the – I take it, *one* and *single*] implicit reality’ of the world he goes on as follows:

The thing itself may also [!] be thought of as a “reference fixer” required to make sense of the fact that we can have multiple experiences, concepts or theories of the *same thing*. How this page looks, for example, depends on whether one views it in darkness or light, with unaided vision, a microscope or an electron microscope. One can think about it as ink on paper, as English text, a treatise on the “thing itself”, etc. Which is it ‘really’? *It* is as much one thing as it is the other. [...] The critical realism I adopt assumes [...] that there really is something there *to experience or to think about*, whether we perceive it, have thoughts about it, or not. [...]. [T]here has to be some *thing* which underlies the various views, concepts or theories we have about it (163 f.).

For instance, if I see a cat out in the world, I need to distinguish the cat itself from the countless different visual percepts I can get of it from different perspectives and under different lighting conditions at different moments in time.

Now the relation that obtains between those *multifarious experiences* and the *one and same thing* of which they are experiences can be aptly described in terms of ‘transcendental phenomenology’, especially in the ‘purely noematic’ version of it which I have developed elsewhere.¹⁵ On the face of it, the defining characteristic of such a ‘purely noematic phenomenology’ (or ‘pure noematics’) is the very point Velmans tries to drive home, namely, the assumption that, contrary to first appearances and engrained prejudices, we are not genuinely justified in making a distinction between a given subject’s *conscious experience of an object* at a certain moment in time and this *object as experienced* by that subject at that moment. Unlike Velmans, however, the advocate of such a purely noematic view of consciousness takes the terminological distinction between ‘the object (experienced)’ and ‘the object *as* experienced’ to be highly significant. A simple case in point is again Velmans’s example of my own seeing a cat. When I see a cat, the relevant conscious experience, to wit, my visual perception of it – or, speaking more down to earth: my seeing it – should again be considered to be the cat *as* seen, but unlike Velmans by these words I suggest one ought to understand, not simply the cat (which is) seen, that is, the cat as a *Kantian* ‘phenomenon’, but

¹⁵ Hoche 1973a. This variant of Edmund Husserl’s transcendental phenomenology is ‘purely noematic’ in that it gives up the seemingly natural idea of a thoroughgoing ‘parallelism’ between ‘noetic phenomena’ (or ‘noetic multiplicities’) and ‘noematic phenomena’ (or ‘noematic multiplicities’) in favour of the latter. Such a parallelism between a stream of ‘noetic’ *experiences* (or ‘*cogitationes*’) taken to be going on ‘in the mind’, that is, on a kind of Rylean ‘inner stage’, and ‘noematic’ *objects as experienced* (or ‘*cogitata qua cogitata*’) has been supported by Husserl at least between 1907 and 1929. Only in his very last work, the *Krisis* (Husserl 1934–1937), I am not able to spot any longer a vestige of his former ‘noetic-noematic parallelism’. As far as I can see, it is true that Husserl nowhere expressly retracts this ‘parallelism’; but none the less I came by the strong impression that in his *Krisis* he takes *all multiplicities* of conscious experiences to be as much of a *noematic* character as the corresponding *unities*; see Hoche 1973a: esp. 27 f. and §§ 8-9.

the cat *as, qua, or in its capacity of* being seen by me at the given moment in the given particular way, that is, as a '(noematic) phenomenon' in the *Husserlian* sense.¹⁶

The hybrid character of Velmans's distinction between 'phenomenal things' and 'things themselves'

So I think that Velmans, without being quite alive to it, uses his terminological distinction between the 'thing (as) perceived' (or 'phenomenal thing') and the 'thing itself' in two quite different ways, namely, first, for something at least *roughly* resembling the *Kantian* dichotomy of phenomenon and thing-in-itself (or noumenon), and, second, for something which *rather closely* resembles the *phenomenological* dichotomy of (concrete or complete noematic) phenomenon and (noematic) thing itself. His *original* distinction seems to me to have aimed at the *Kantian* distinction. It is true that his early, hyphenated spelling 'objects [events; the world] as-perceived' in his paper 'Consciousness, brain and the physical world' (Velmans 1990: esp. 82, 92–94) at first sight appears to point in the opposite direction. But as soon as we compare with each other two nearly parallel statements to be found in this paper – 'percepts *of* objects and objects as-perceived are one and the same' (ibid.: 94), and: 'our percepts *of* physical objects, and the physical objects we perceive around us are one and the same' (ibid.: 82) – it becomes evident that Velmans, at least in that early paper, makes no conceptual difference between 'objects as-perceived' and 'objects we perceive'. Moreover, in this paper we cannot find any other hint at something like a quasi-noematic reading of the terminological distinction in question; and Velmans explicitly agrees to this (personal communication).

In *Understanding Consciousness* (Velmans 2000), the quasi-Kantian interpretation still prevails. Take, e.g., the fact that Velmans characterizes his conception of consciousness as a '*reflexive*' one. This perfectly accords with a quasi-Kantian understanding of his distinction between the 'phenomenal object' and the 'object itself', but it would hardly be compatible with reading it quasi-noematically. For as long as we think of something like the relation between a *Kantian* phenomenon and the corresponding *Kantian* thing in itself (both taken in the prevalent *transcendental* sense of these ambiguous technical terms),¹⁷ a close affinity or similarity between the 'phenomenal cat' (the cat someone 'sees out in the world': 109) and the 'cat itself' is plausible, and so much so that it seems hard to deny that '[i]n everyday life we [...] behave as "naïve realists" [in that] we take the events [entities; processes] we experience to *be* the events [entities, processes] that are actually taking place',¹⁸ and, what is more, that '[f]or everyday purposes it is useful to think of the phenomena we

¹⁶ Such noematic 'phenomena', or 'objects *in their capacity of* being perceived' by me at a certain moment in time, may be well compared to a bunch, or bundle, of rays or straight lines intersecting each other in one and the same point, which, for its part, would then correspond to the noematic 'object itself' – or, I take it, to what Velmans (2000: 163) calls the 'reference fixer'.

¹⁷ Kant uses the German term '*Erscheinungen*' in two quite different ways (an *empirical* and a *transcendental* one): first, for the various modes in which one and the same empirical object can be given to me, that is, for 'perceptions' ('*Wahrnehmungen*') or 'appearances' ('*Apparenzen*') in the specific sense of subjective or private 'sensations' ('*Empfindungen*') in so far as they have been already unified by means of the categories of quantity and quality; and, second, for the intersubjective or objective 'phenomena' ('*Phänomene*') brought about by an application, to those 'perceptions', of the categories of relation. Whereas Kant's phenomena are opposed by him to things-in-themselves in the *transcendental* sense, that is, to noumena, Kant's subjective or private perceptions are opposed by him to things-in-themselves in the *empirical* sense, that is, to the intersubjective objects all of us have in common, which are nothing but the phenomena just mentioned before. This interpretation has been convincingly argued in detail by Prauss (1971: esp. § 1); for a summary, see Hoche 1973b: 96 f..

¹⁸ Velmans 2000: 256 with n. 23 on p. 262 (Velmans's italics); cf. ibid.: 257.

observe as the “physical causes” of what other people experience’.¹⁹ But as soon as we alter our interpretation of Velmans’s distinction between the ‘object (as) perceived’ and the ‘object itself’ and think of something like the relation between a *noematic* ‘object as (*qua*, or *in its capacity of*) being perceived’ and the corresponding *noematic* ‘object itself’, any similarity between the one and the other vanishes; for although an object *qua* being perceived by me from a certain point of view at a certain moment in time can be as little *separated* from the corresponding object itself as can any one out of a bundle of intersecting straight lines from their common point of intersection, *assimilating* the one to the other, or *mistaking* one for the other, seems to me to be as impossible as unintentionally mixing up, or for certain purposes intentionally identifying, an (extended) straight *line* with the (extensionless) *point* where it intersects with other lines.

On the other hand, the passages quoted above are not the only ones that bear witness to traces of a quasi-noematic interpretation of Velmans’s distinction between phenomena and things (in) themselves. Look, for instance, at the following remark, which, I think, plainly reveals the hybrid character of Velmans’s conception of consciousness:

What one experiences at a given moment depends [...] on how one directs one’s attention. Conscious contents differ enormously, for example, depending on whether one’s eyes are open or closed. However, with open eyes the contents of consciousness stretch to one’s visual horizons. They include not just inner and body experiences, but also what we conventionally think of as the “physical world” (228).

Certainly, for my ‘having inner and body experiences’ it is largely irrelevant whether my eyes are open or closed, and if the last sentence seems to hint at the contrary this may be taken to be due to a hasty wording only. But surely the ‘physical world’ is no less independent of whether one’s eyes are open or closed, or of what one experiences ‘at a given moment’. It is true that Velmans could try to justify his suggestion to the contrary by reminding us that he ‘reserve[s] the term “a physical phenomenon” for physical events *as experienced* (or physical events *as observed*)’ (136 n. 17; Velmans’s italics). But then he would have to concede that a given entity *as seen* ought to be strictly distinguished from the corresponding entity (which is) *seen*, and this would amount to giving up his predominant quasi-Kantian interpretation of the phenomenal object. Moreover, in so doing Velmans would suggest that ‘what we conventionally think of as the “physical world”’ includes, or even comprises, phenomena in the *noematic* sense of the word, which, I take it, would be highly implausible.

¹⁹ Ibid.: 189. – Furthermore, I am prepared to go far beyond what Kantians and also Velmans are willing to concede: I am convinced that the *transcendental* concept of a Kantian ‘thing in itself’, as a mere relic of the traditional position Kant undertook to overcome, ought to be totally dismissed. For as far as I can see, it makes no sense to conceive of an object as it is alleged to be ‘in itself’, to wit, deprived of its potential relation to a cognizing subject. Rather, I think it reasonable to subscribe to Husserl’s suggestion that an ontology which may rightly claim not to content itself with mere abstractions – a ‘fully concrete ontology’, as he sometimes says – has to take into account each and every feature that is essential to objects we can speak about; and certainly an essential and basic feature of objects we have a right to *speak* about is that we are able to *know* about them, or that they are epistemologically accessible to us. If so, we have to accept, with Husserl (say, 1913, tr. 1931, §§ 138, 142), an unexceptional and thoroughgoing correlation between basic types of *objects* and basic types of *gaining knowledge of objects*, or between *ontological* and *epistemological* categories (cf. Hoche 1987: 4.4–4.5). From this it follows that it would be a contradiction in terms to speak of objects as they are, or might be, ‘in themselves’, that is, irrespective of our possibly having any knowledge of them. This view is even familiar to some experts in contemporary physics: Quantum mechanics ‘has compelled us, not just to *ignore* the things as they might be in themselves, but to *wholly ban them from our thinking*; the mere supposition that there is a reality in itself leads to contradictions’ (translated from Drieschner 1981: 131).

Why a noematic interpretation of the distinction between ‘phenomenal things’ and ‘things themselves’ is to be preferred to a quasi-Kantian one

In my opinion, there are at least three cogent reasons to shun a Kantian, or quasi-Kantian, interpretation of the relation between a phenomenal object, or ‘object (as) perceived [experienced]’, and the corresponding object (in) itself. (1) As we saw above, unlike Kant Velmans argues ‘that the thing itself is knowable – in fact, it is the only thing we *can* know’ (2000: 138 n. 26), and this points to the fact that in Velmans’s usage the by now somewhat worn-out Kantian term once again undergoes a grave and indefinable change of meaning. (2) Kantian phenomena (in the prevailing, *transcendental* sense of the term) are something intersubjective. For one thing, according to Kant it is *phenomena* that function as physical causes and effects (remember that the categories of causation, as the rest of his categories, are inapplicable to things in themselves), and physical causes and effects are certainly quite different in nature from subjective conscious experiences, which are defined by reference to individual conscious subjects and individual moments in time and hence depend on whether a given subject is awake, has his eyes open, looks in a certain direction, and so on. Likewise, for Kant it is *phenomena* that are physical ‘substances’, i.e., objects considered to be lasting poles which remain the same in the flux of changes they undergo, and again such permanent underlying unities of more or less temporary dispositional properties and highly transient dispositional states are significantly different from what we think the episodic and volatile experiences of a conscious subject to be like. So whereas Kant’s *transcendental* phenomena are *intersubjective* and in this sense *objective*, Velmans (and, I take it, any other consciousness theorist of the non-reductive sort) takes it for granted that conscious experiences are *subjective* or, as it were, ‘*intrasubjective*’: Nobody, he says, can possibly *observe* somebody else’s ‘experiences themselves’; he ‘can only *infer* [their] existence’ (186 f.). (3) In Kant’s own transcendental philosophy the role of subjective perceptions or conscious experiences proper is played, not by *transcendental* phenomena, but by *empirical* phenomena (‘appearances’, in German: ‘*Apparenzen*’, ‘*Erscheinungen*’), and the former function as the unifying objective poles of the latter.

Like any other consciousness theorist who primarily aims, not at reducing, eliminating, or making disappear, but at *understanding* and *explaining* what in ‘folk psychology’ is regarded as a subjective conscious experience, Velmans must be expected to follow the methodological maxim of ‘saving the phenomena’ also in the sense that, in replacing time-honoured but conceptually opaque explananda with more satisfying and sound explanantia, he painstakingly keeps their *basic characteristics intact*. Now certainly one of the most fundamental features of what is commonly considered to be a subjective conscious experience is the characteristic difference of its temporal structure from the one of the object experienced. Whereas, under appropriate circumstances, a material thing which I (can) see is taken to exist even while it is not being seen, or otherwise perceived, by myself or somebody else, and hence does not depend on whether my eyes are open, and so on,²⁰ conceiving the idea of a thing *as, qua, or in its capacity of*, being perceived by me under such and such circumstances would be pointless from the very beginning unless it were thought to exist simultaneously with my perceiving the thing out in the world. Nor can I think of any other actual differences between, say, my seeing a cat and a cat *qua* being seen by me, and so there is no cogent reason why to frighten away from making use of Occam’s razor and interpreting my now seeing a cat as *being* a cat *qua* now being seen by me in such and such a way, i.e., as *being* a noematic cat phenomenon. At first sight this may look like arbitrarily substituting one

²⁰ I think that this, and nothing else, is the *point* of using ‘substance words’ (such as ‘(x is a) cat’) and other kinds of ‘disposition words’ (such as ‘(x is) hard’) over and above ‘action words’ (such as ‘to meow’, ‘to look at’, or ‘to scratch’) and other kinds of ‘occurrence words’ (such as ‘to fall down’); see Hoche 1973a: § 30.

way of expressing oneself for another; but both ways of speaking have characteristically different connotations: Whereas speaking of ‘my seeing the cat’ seems to suggest that there is some noetic phenomenon, some event going on ‘within myself’ (in ‘my mind’, construed as an ‘internal world’, or on what Ryle 1949 called an ‘inner stage’), speaking of ‘the cat *qua*, or *in its capacity of*, now being seen by me’ rather suggests that there is a noematic phenomenon, i.e., some subjectively enriched object²¹ ‘out in the world’ – although in a sense characteristically different from the one in which we take it for granted that physical objects are ‘out in the world’.

Conceptual consequences of a noematic interpretation of consciousness

Although in Velmans’s theory of consciousness something like a *noematic* interpretation of the distinction between phenomena and things themselves seems to be mingled with his predominant *Kantian* (or quasi-Kantian) interpretation of it, these two interpretations cannot possibly be reconciled with each other; for their consequences are incompatible.

First of all, the advocate of a noematic conception of consciousness cannot support the idea of a reflexive monism. Strictly speaking, already Velmans’s prevailing quasi-Kantian position is, I think, not properly described by this label; for both of its constituents, ‘reflexive’ as well as ‘monism’, seem to me to suit only the naïve realism which, according to Velmans, serves our everyday purposes but does not do justice to the strict requirements of a scientific theory of consciousness, which must not neglect the distinction between Kantian or quasi-Kantian phenomena and the things themselves *represented* by them. The noematic position, however, cannot even *approximately* be characterized as reflexive or monistic; for there is no similarity at all between *noematic* phenomena and *noematic* things themselves.

Note, however, that the noematic position, though by no means being a *monistic* one, *need not* and *cannot* be a *dualist* one either. In my eyes, one of the strongest impediments for the development of a satisfying theory of consciousness has been the engrained prejudice that there is no alternative besides dualism and monism. This prejudice is unwarranted in that it takes it for granted that, if we have an entity A and an entity B, either A must be numerically identical to B or else numerically different from it. However, over and above numerical differences there are also differences of another kind, which I suggest calling ‘categorical differences’ (see Hoche 1987: 6.1–6.8; 1990: 120). To Frege we owe the insight that objects cannot be *counted* unless they can be subsumed under what nowadays is often called a ‘sortal’ concept;²² and as saying that an entity A and an entity B are *one* (and the same) thing, or that they are *two* (different) things, is certainly a subcase of counting them, asserting or denying a numerical identity of A and B is parasitic upon our subsuming A and B under a common sortal concept. This can be seen in detail if we apply Russell’s theory of ‘definite descriptions’ to the conceptual analysis of identity statements. If we do so, the sentence ‘The first U.S. ambassador to Paris is (not) identical to the inventor of the bifocals.’ can be shown to be semantically equivalent, *inter alia*, to ‘There is exactly one person having been a first U.S. ambassador to Paris, and there is exactly one person having invented the bifocals, and

²¹ As compared with a thing *itself*, a thing *as being experienced* need not only be enriched with, as it were, ‘*indicative*’ features, such as being seen or otherwise perceived by me at a given moment under specified circumstances; for in addition to such features it normally contains a wealth of ‘*evaluative*’ and ‘*imperative*’ (or ‘*gerundive*’) features, such as being, in my eyes, attractive or repulsive, to be avoided, or to be handled with caution. See Hoche 1973a: Part II, esp. § 32.

²² The role of sortal concepts in *counting* things has first been stressed by Frege 1884/1950: esp. §§ 46–54, 68, and their role in simply *identifying* individual objects has been shown in Hoche 1975/1983.

(not) all first U.S. ambassadors to Paris have invented the bifocals.’²³ But what about the sentence ‘The cat which I now see is (not) identical to the cat *qua* now being seen by me (under such and such conditions).’? Which predicate can we substitute, in the latter example, for the predicate ‘person’ used in the former one? As far as I see, we have no other choices than ‘thing’, ‘object’, ‘entity’, and the like. But these purely formal predicates are not sortal and cannot be used as a basis for counting, and hence identifying, objects; for every part of a thing, object, or entity is again a thing, object, or entity, whereas any part of a person is not a person, any part of an animal is not an animal, any part of a book is not a book, and so on. So strictly speaking we can neither assert nor deny that a given noematic thing itself and a given noematic phenomenon are identical to each other, and this is sufficient to show that asserting or denying such an identity would be nonsensical. Of course this position of mine might be wrong; but *refuting* it would require proving that the above-mentioned analysis of identity statements is untenable *or* that there is, contrary appearances notwithstanding, a sortal predicate which, in the second example, could do the duty which, in the first example, is done by the predicate ‘person’. Pending such a refutation, I take it that, say, the cat which I now see and the cat *qua* now being seen by me are²⁴ neither numerically identical nor numerically different but, as we may aptly say, ‘categorially different’.

The position just outlined is confirmed by the fact that the cat which I see and the cat *qua* now being seen by me under specific circumstances are incompatible in that they can be given to me *neither simultaneously nor in one and the same cognitive attitude*. When I focus my attention or interest on the latter, i.e., on my present visual cat phenomenon (in the noematic sense of the word), I have to do with the cat *in*, or *with*, its present mode of subjectively appearing to me from a certain point of view, in a certain distance, and under certain lighting conditions; and the slightest noticeable change of one of these parameters suffices to make my cat phenomenon shade off into another one out of a continuum of visual phenomena which are related to each other in a specific though familiar way which permits us to interpret them as belonging together or intentionally referring to one and the same cat. But when I focus my attention or interest on this cat itself, i.e., on the cat *which* I see, then I have to do with an objective animal to the total exclusion of the continually changing modes of its subjectively appearing to me. So the objects *which* I perceive and the objects *qua* being perceived by me characteristically differ in that the latter are *concrete* entities in which every detail counts whereas the former are mere *abstractions* – abstractions, however, with which for at least two reasons in everyday life we have to content ourselves: First, it is *principally impossible* to identify and discriminatingly name ‘each and every single segment out of a continuum’²⁵ of noematic phenomena shading into, and in this sense belonging to, one another (e.g., my visual phenomena *of*, or intentionally referring *to*, one and the same cat sitting in front of me); and second, even if it *were* possible to do so, adopting such a reflective attitude of heeding the details of phenomenal concretion as our standard attitude would hopelessly overburden us. Rather, in everyday life we have to adopt a straightforward attitude in which we *abstract* from those details, or ‘look *through*’ them, and concentrate exclusively upon the things themselves. Correspondingly, I consider the reflective attitude to be a cancellation or suspension of that everyday abstraction, i.e., an uphill attempt to take the

²³ This logical analysis of identity statements can be justified by a method quite independent of Russell’s theory, to wit, by means of what I call ‘(pragmatico-semantic) combination tests’; in any case, however, this analysis depends on the possibility to show that ‘(semantic) presupposition’ is a subcase of what I call ‘semantic implication’, which in fact I think it *is*; see Hoche 1995b.

²⁴ We cannot but use, in such cases, the *plural* forms ‘are’ and the like; this is due to the fact that the historically grown natural languages neglect the distinction between *numerical* and *categorial* differences as much as we do in everyday life and for the most part also in science and philosophy.

²⁵ Using this sequence of words without inverted commas would amount to committing a *contradictio in adiecto*; think of trying to identify and name ‘each and every’ real number within a certain interval.

conscious phenomena in their full concreteness.²⁶ In principle – scil., once we have acquired the necessary skill and practice – it is easy to switch to and fro between the straightforward attitude, centered on the things themselves, and the reflective attitude, attending to the wealth of phenomenal continua; but it is out of the question to focus *simultaneously* on a thing itself and on an element of a phenomenal continuum. Hence the different fields of *abstract* things themselves²⁷ and of *concrete* noematic phenomena, excluding each other to the point of being well comparable to ‘incompatible quantities’ of microphysics, may be taken to define the correlative concepts of objectivity²⁸ and subjectivity. For this reason I consider subjectivity, i.e., respectively my own conscious experience, to be so different from all objects in the natural world that we may downright call it ‘the negative’ of objective reality.²⁹ In this sense I cannot but *deny that consciousness is a part of nature*.

By this ‘confession’ I may seem to manoeuvre myself in flagrant opposition to all serious contemporary scientists and philosophers, including even the most ‘soft-line’ exponents of non-reductive and non-physicalistic theories of consciousness. But note that I am speaking of respectively *my own* consciousness and not of that of my *fellow-men*, with respect to whom I am inclined to adopt the ‘semi-behaviourist’ position that, for respectively *myself*, their conscious experiences are nothing but stretches of relevant situated behaviour, linguistic as well as non-linguistic. The reasons why I think I ought to defend, if only in this strictly limited version, a kind of old-fashioned behaviouristic ‘nothing-buttery’ are easily stated. First, nowadays only few people are prepared to admit that we have, in one way or other, an *immediate* access to another person’s subjective experiences. Second, as we had occasion to learn from Frege, Waismann, and Wittgenstein,³⁰ it does not even make sense to say that somebody else has, or *probably* has, or *possibly* has, or possibly has *not*, conscious experiences similar to my own, from which it follows that all traditional and modern ‘inverted spectrum’ speculations, and even recent reasoning about ‘inverted’, ‘absent’, ‘fading’, and ‘dancing qualia’ (Chalmers 1996: Ch. 7), lack a sound foundation (Hoche 1990: 3.6, 7.2–7.3). Third, which is but a corollary, the attribution of consciousness, *in the sense of subjective experiences*, to other people and higher animals is neither verifiable nor falsifiable and hence not even open to purely empirical hypotheses. And fourth, as we speak about ourselves and our fellow-men in strictly the same interpersonal terminology of ‘psychological’ (or ‘psychical’) verbs and hence are definitely disinclined to deny the existence of ‘other minds’, the best option which I think we have is to identify another person’s perceiving, sensing, feeling, wanting, intending, acting, and the like, with precisely that stretch of his or her situated behaviour on the strength of whose observation we have a right to assert that he or she is perceiving, sensing, feeling, wanting, or intending something, or acting in such-and-such a way, and so forth.³¹

²⁶ Cf. Hoche 1973a: 30–32.

²⁷ It should be noted that there are *degrees of abstractness*. If compared with the frequently performed conceptual abstractions of different specific and generic orders, material objects present themselves as *concrete* things; if compared with the noematic phenomena in which they subjectively appear, however, they present themselves as *abstractions*. But as we are rarely aware of these phenomena, the latter comparison is practically never made, and this explains why at first sight we find it repugnant to regard material things as abstractions.

²⁸ At least in the sense of Popper’s (1972: chs. 2–4) ‘world 1’, i.e., of objective reality.

²⁹ For details, see Hoche 1986; 1987: esp. 4.5.

³⁰ See, e.g., Frege (1884/1950: § 26, p. 36): ‘We cannot know [our subjective sensation] to agree with anyone else’s.’ For a lot of other sources and a circumstantial discussion, see Hoche/Strube 1985: A.III.3.

³¹ I am aware that seemingly cogent objections against this view have been raised; but I have never been able to convince myself that they are really justified. As I do not doubt, of course, that there are causal relations between someone’s overt behaviour and occurrences in their central nervous system, I think it principally possible to define the consciousness of others also neurophysiologically; but this is still a research project of which only the first beginnings have been carried out.

Anthropological complementarity, psychophysical causation, and the correlation between conscious experiences and overt behaviour

If my position that respectively my own conscious experience is ‘the negative’ of objective reality rather than a part of nature can be defended, then the concept of complementarity, of which Velmans³² and other contemporary psychologists make ample use, must be interpreted much more radically. Velmans seems to take it for granted that complementary data in physics, such as a light-wave and ‘the corresponding’ photon, or an electron endowed with a precise location and ‘the same’ electron endowed with a precise momentum, should be regarded as different aspects of *one and the same* underlying entity (as our way of speaking in point of fact seems to require). Correspondingly, his ways of speaking about psychophysical complementarity make it quite plain that he thinks of *one and the same* psychophysical entity (‘mind’) that can be seen from *either* the first-person *or* the third-person perspective:

For some purposes, third-person accounts are more useful, but for other purposes, first-person accounts may be more useful. And when these accounts are accurate and *of the same thing*, they need not conflict (Velmans 2000: 277; my italics).³³ [D]ual aspects have to be aspects *of* something. Consequently, my own analysis adopted a form of nonreductionist monism (ontological monism combined with epistemological dualism). That is, the one thing is the “nature of mind” – which can be known in complementary first- and third-person ways (281 n. 5; cf. 249 f., 254).

It is true that such a ‘dual-aspect theory’ may appear to be downright forced upon us by our engrained ways of speaking.³⁴ But although Niels Bohr, in default of more suitable conceptual tools, as a rule spoke of complementary aspects of ‘one and the same object’ (see Held 1994: 873, 877 f., 885–887), at least *some* of the contemporary interpreters of quantum mechanics seem to me to hint that speaking of ‘one and the same’ quantum-mechanical object ‘in itself’, that is, without any reference to the experimental arrangement in question, is void of meaning.³⁵ Furthermore, if we bear in mind that, according to Bohr, certain descriptions of quantum-mechanical phenomena are ‘complementary, *but mutually exclusive*’ (although ‘not contradicting each other’),³⁶ from a logical analysis of our ordinary-language identity-statements we can infer that in connection with complementarity in this strict sense, which involves that what is given in complementary views are ‘incompatible quantities’, we can neither speak of a numerical identity nor of a numerical difference but only of what I have called a *categorial difference*. Hence I doubt that in matters of complementarity we are justified in speaking of ‘*dual aspects*’, or of ‘*one and the same thing*’ of which the complementary data are aspects (see also Hoche 1987; 1995c).

Consequently, the concept of psychophysical causation has to be revised, too. If physical objects and events on the one hand and conscious experiences of mine on the other are ‘complementary, *but mutually exclusive*’ – and hence *categorially different* – data, then there cannot be any causal relations between them; for entities which we think stand to each other in the relation of cause and effect certainly have to be *numerically different* in the first place. Therefore, although it may be rightly taken for granted that material occurrences out in the world can causally provoke neurophysiological occurrences in my central nervous system

³² See esp. Velmans 2000: 135 n. 2, 185 f., 189, 247–250, 254, 261 n. 19, 277 f., 281 n. 5.

³³ See also Velmans 2000: 67, 204, where he quotes from George Miller.

³⁴ For a discussion of the pros and cons of ‘dual-aspect’ conceptions, see Hoche 1990: 11.8

³⁵ See, e.g., Drieschner 1974: 117; 1981: 109, 121, 131; 1984: 58 f.; Holton 1981: 149 f., 165.

³⁶ Translated from Bohr 1927: 38 f. For a discussion, see Hoche 1990: 11.7.

as well as pieces of my overt behaviour (and *vice versa*), strictly speaking neither of them can cause, or be caused by, subjective conscious experiences of mine. Of course it would be preposterous to *deny* what appears to be clear-cut cases of psychophysical (or psychophysical) causation; but we are confronted with the challenging task of *conceptually reinterpreting* such cases so as to agree with the prerequisites of anthropological complementarity properly understood.

This task is complex and enormously hard; but certainly it is not insolvable. Take, e.g., the exemplary question of how to correlate certain *conscious experiences I am having* with certain pieces of *my overt behaviour which others can observe and on the strength of which they are in a position to find out that I am having those experiences*. An unsurmountable difficulty may be expected in the fact that *others* can only observe my overt behaviour whereas *I myself* cannot observe my overt behaviour as if it were somebody else's (say, by means of a looking glass or a monitor) *while I am having or carrying out* 'corresponding' conscious experiences – such as cognitions, emotions, intentions, or actions – without severely distorting and damaging and hence falsifying the latter.³⁷ But as I have tried to make plain elsewhere (Hoche 1995a), these difficulties can be overcome if we try to solve them in a way analogous to Hume's attempt to justify the concept of causation, that is, on the formal model of what Hume called his 'Sceptical Solution' of the 'Sceptical Doubts Concerning the Operations of the Understanding'.³⁸ Kripke (1982: 66) aptly characterizes such a method as follows: 'A *sceptical* solution of a sceptical philosophical problem begins [...] by conceding that the sceptic's negative assertions are unanswerable. Nevertheless our ordinary practice or belief is justified because – contrary appearances notwithstanding – it need not require the justification the sceptic has shown to be untenable.' Along these lines, Kripke exposes an analogy between 'Wittgenstein's argument against *private* language' and 'Hume's argument against *private* causation' (ibid.: 68; my italics). Likewise, a structural similarity between the latter and a possible 'argument against the *private* correlating of subjective consciousness and objective behaviour' may be sketched, in its barest outlines, in the following way:³⁹ In a first step we have to concede that the sceptic is certainly right when he asserts that neither a *subject S* nor an *external observer E* is in a position to simultaneously have S's subjective experiences and observe S's objective behaviour and thus to correlate them to each other. But in a second step we have to realize that such a '*private correlating*' by either S or E alone is not at all required. Rather, the correlating *must*, and *can*, be done *intersubjectively*: Since my earliest years, I have learnt how my elders speak in the same terms about *their, my, and someone else's* perceptions, emotions, intentions, actions, etc., and thus by the mediation of our common language there is brought about a 'customary connexion'⁴⁰ between a number of subjective data I can obtain from my first-person perspective and a number of objective data I can obtain, *in a non-interfering way*, from my third-person perspective.

In fact, I think that nothing else could have been reasonably expected; for it seems natural that a problem which *arises only intersubjectively* can be *solved only intersubjectively*. So it is to be hoped that this kind of solution may sometimes also open a way for reinterpreting the unfortunate concept of 'psychophysical causation' in a more satisfying manner.

³⁷ I have sketched such 'interferences' in Hoche 1973a: 179–184; 1990: 213 fn. 560. . Cf. Velmans 2002: 13: 'While you maintain your focus on the imaged scene, you cannot observe its neural correlates in your own brain (you would need to use my equipment for that).'

³⁸ Hume 1748: headings of sects. IV and V; but note that his 'Sceptical Solution' does not reach its summit before sect. VII, Part 2.

³⁹ I have tried and developed this sketch at considerably more length in Hoche 1995a.

⁴⁰ Cf. Hume 1748: 78: 'customary connexion in the thought or imagination'; 78, fn.: 'customary connexion between the ideas'. Note that here Hume is rightly speaking of a 'connexion' and not of a mere 'conjunction'.

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