

Experiencing a Hard Problem?

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RESUMEN

Según algunos filósofos (como Kim (2005), y Chalmers (1996)), no se puede explicar científicamente la conciencia fenoménica (es decir, el cómo se siente, por ejemplo, un dolor agudo en un dedo), puesto que dicha explicación ha de ir más allá de la explicación de habilidades y funciones cognitivas. Así, se afirma que aunque con ese *explanans* se puede dar cuenta de los llamados problemas fáciles de la conciencia (a saber, la diferencia entre estar despierto y estar dormido, o la integración de la información en un sistema cognitivo), no se puede explicar totalmente la conciencia fenoménica. En este artículo, argumento que esto es erróneo: la conciencia fenoménica, el llamado problema difícil de la conciencia, no es más difícil que los problemas fáciles, en la medida en que también la conciencia fenoménica puede explicarse totalmente en virtud de habilidades y funciones cognitivas, y por tanto es susceptible de investigación científica.

ABSTRACT

According to some philosophers (e.g. Kim (2005), Chalmers (1996)), phenomenal consciousness (i.e. that there is for instance, something it is like for one to feel a sharp pain in one's finger) cannot be explained scientifically because explanation in this case needs to go beyond the explanation of cognitive abilities and functions. The claim is that although such *explanans* can account for the so-called easy problems of consciousness (e.g. the difference between wakefulness and sleep or the integration of information by a cognitive system), they cannot fully account for phenomenal consciousness. In this paper, I argue that this is mistaken: phenomenal consciousness, the so-called hard problem of consciousness is no harder than the easy problems in that I argue, phenomenal consciousness too can be fully explained in terms of cognitive abilities and functions and is therefore amenable to scientific investigation.

I. CONSCIOUSNESS

Thomas Nagel [Nagel (1974)] has famously provided the most influential characterisation of the notion of 'experience'. He wrote

The fact that an organism has conscious experience *at all* means, basically, that there is something it is like to *be* that organism...fundamentally an organism has conscious states if and only if there is something it is like to *be* that organism—something it is like *for* the organism...the facts of experience—[are] facts about what it is like *for* the experiencing organism [Nagel (1974), pp. 435, 439, emphasis in the initial].

Nagel points directly at ‘what-it-is-likeness’, the most important but difficult to describe feature of a conscious state. I will use the term ‘experience’ to refer to the phenomenon of ‘what-it-is-likeness’. If there is something it is like for one to be in a mental state then the state is experiential. If there is nothing it is like for one to be in that state it is not. Moreover, since ‘what-it-is-likeness’ has been typically taken to be the hallmark of conscious state, experience is by definition conscious. In summary, then, I take there to be ‘something-it-is-like’ for a subject if and only if the subject is having an (conscious) experiential state.

But to say that there is something it is like for one to be in an experiential state is not merely to mean that there is something that an experience is like. That there is something that an experience is like is a mere truism in that it is plain that there is nothing such that it is not like something. We can say for instance, that there is something that a rock or a table is like. What-it-is-likeness in the Nagelian sense quoted above does not concern experiences or mental states as what-it-is-like concerns rocks or tables. Nagel says that ‘the fact that an organism has conscious experience *at all* means...that *there is something it is like for the organism*’. In other words, it means that there is something it is like to be us. For each subject there is something it is like to be that subject. Hence ‘what-it-is-likeness’ concerns the individual. If there is something it is like *for* the individual to be in a particular mental state then that state is experiential. What it is like to be in an experiential state is in the relevant sense, what it is like *for* one to be in that state.

Now, as formulated by David Chalmers [Chalmers (1996)], the problem of experience is why there is any experience *at all*: how physical processes can give rise¹ to experience. This is in a nutshell the problem of experience or as Chalmers calls it, the ‘hard problem’ of consciousness. We want to know how physical systems that can be exhaustively explained in the objective terms of function and structure can give rise to experience. According to some philosophers [Chalmers (1996), Levine (2001)], conscious phenomena cannot be explained in terms of physical or material phenomena and thus we are being presented with an explanatory gap. This idea is not new. John Locke claimed in his *Essay*, some 350 years ago, that there is no similitude between the ideas of secondary qualities and the insensible particles of matter that in different degrees and modifications of their motions cause these ideas (e.g., ideas of red or blue colour). According to the proto-explanatory gap

theorist, it is not impossible to conceive then that ‘God should annex such ideas to such motions and that he should also annex the idea of pain to the motion of a piece of steel dividing our flesh, with which that idea has no resemblance’ (book II, Ch. VIII, § 13).

More recently, some philosophers have argued that we cannot solve the problem of experience because we cannot exhaustively explain experience in physical, cognitive or functional terms [Chalmers (1996), Jackson (2001), Levine (2001), McGinn (2004)]. According to them, experience cannot be explained in terms of cognitive abilities and functions. Chalmers has argued that since explanation in the case of experience does not concern exhaustively the explanation of cognitive abilities and functions the problem of experience lies outside the domain of science. Our apparent inability to explain experience in those terms led Colin McGinn to propose that we cannot explain experience even in principle. According to him, human beings are cognitively closed with respect to the solution to the problem. Just as our ancestor *Homo Habilis*² cannot understand the truths of quantum physics or solve mathematical problems, we cannot solve the problem of experience. And even physicalists like Jaegwon Kim [Kim (2005)] have argued that we cannot explain experience in those terms even in principle. In what follows, I will first specify the hard problem of consciousness more exactly and I will then present the account of consciousness that can help us solve the problem. In the last part, I will sketch the strategy to adopt in order to do this.

II. THE HARD PROBLEM OF CONSCIOUSNESS

According to some philosophers, the problem of experience is the ‘hard’ problem of consciousness. In this section, we’ll get a better understanding of the problem of experience and we’ll see why according to these philosophers experience is the ‘hard’ problem of consciousness as opposed to the ‘easy’ problems of consciousness. In the end of this section, it will become clear that my main aim in this paper is to show that both the easy problems and the hard problem of consciousness have the same standing; either they are both easy or they are both hard. There is nothing that makes experience a harder problem. And since according to most philosophers and scientists, the easy problems are amenable to a scientific explanation, the hard problem is also amenable to such an explanation.

For a start, we need to answer the following question: to what sort of things do we ascribe the property of consciousness? Sometimes the subject of the attribution of consciousness is the creature *per se*. We speak of a person or creature as being conscious or not. But there are cases in which the subject of the attribution is a particular mental state of the creature. David Rosenthal [Rosenthal (1997)] has suggested that ‘creature’ consciousness is a character-

istic that a creature has when it can sense its surroundings and is awake. (A creature lacks this kind of consciousness when it is in a dreamless sleep.) Whereas it is far from obvious whether the term ‘consciousness’ is properly applied in this case, it is ‘state’ consciousness where the problem of experience lies³. State consciousness is ascribed to or withheld from particular mental states. We may say then following the current trend (after Nagel (1974)) that one is in a conscious state of mind when there is something it is like for one to be in that state. Thus a conscious mental state is an experience; there is something it is like for one to be in that state. Of course, this does not explain what it takes for a mental state to be conscious. The most it provides us with is a distinguishing mark between conscious and unconscious states. Unconscious states are states such that there is nothing it is like for one to be in them. This distinction characterises the phenomenon we wish to explain. We want to know what it takes for a mental state to be such that there is something it is like for one to be in it.

Now, what is the problem of experience exactly? The major difficulty appears to be that the standard explanations in science are cast in objective terms (they are descriptive - in other words, they are given from a third-person perspective) but experience is subjective. So it appears that no description of one’s conscious state in objective-scientific terms shows why there is something it is like for one to be in a mental state. All physical properties – the subject matter of physics – can be exhaustively explained in terms of function and structure as Chalmers puts it, but it appears that experience cannot be explained in those terms. So although we may know that experience is correlated with physical processes in the brain and that its existence is dependent upon them, we do not know (and maybe we cannot know) *how* it arises from those processes. The problem of how physical processes give rise to experience (after Chalmers (1995)) is called the ‘hard’ problem of consciousness. Chalmers writes

The really hard problem is the problem of experience....a subjective aspect....It is undeniable that some organisms are subjects of experience. But the question of how it is that [organisms] are subjects of experience is perplexing. Why is it that when our cognitive systems engage in visual and auditory information-processing, we have a visual or auditory experience?...How can we explain why there is something it is like to entertain a mental image, or to experience an emotion? It is widely agreed that experience arises from a physical basis, but we have no good explanation of why and how it so arises [Chalmers (1995), p. 201, my emphasis]

According to Chalmers, there are easy problems of consciousness. These are problems that seem directly susceptible to the standard methods of cognitive science, whereby a phenomenon is explained in terms of computational or neural mechanisms [Chalmers (1995)]. Thus the problem of the difference

between wakefulness and sleep, the integration of information by a cognitive system and the ability to discriminate, categorize, and react to environmental stimuli are such easy problems. These problems are related to consciousness but they are easy problems because there is no real issue as to whether these phenomena can be explained scientifically

Why are the easy problems easy, and why is the hard problem hard? The easy problems are easy *precisely because they concern the explanation of cognitive abilities and functions*. To explain a cognitive function, we need only specify a mechanism that can perform the function [Chalmers (1995) p. 202, my emphasis].

On the other hand, there seems to be real issue as to whether phenomenal consciousness can be explained scientifically⁴. According to Chalmers, phenomenal properties cannot be explained in terms of cognitive abilities and functions. This is of particular interest. A number of philosophers have recently proposed that the notion of ‘phenomenal consciousness’ or experience (since they use these two terms interchangeably) does not map onto any of the current categories available in cognitive science and therefore it cannot be explained in cognitive terms (e.g. Levine (2001), McGinn (2004), Robinson (2004)). Nagel writes

It [experience] is not analyzable in terms of any explanatory system of functional states, or intentional states, since these could be ascribed to robots or automata that behaved like people though they experienced nothing. It is not analyzable in terms of the causal role of experiences in relation to typical human behavior—for similar reasons. I do not deny that conscious mental states and events cause behavior, nor that they may be given functional characterizations. *I deny only that this kind of thing exhausts their analysis* [Nagel (1974), pp. 435-6, my emphasis].

As it turns out then, the main reason for claiming that experience cannot be explained scientifically is because explanation in this case needs to go beyond the explanation of cognitive abilities and functions. The claim is that although such *explanans* can account for the easy problems of consciousness, they cannot fully account for the hard problem. By showing therefore that the hard problem can be fully accounted for in terms of cognitive abilities and functions, we show in effect that both the easy problems and the hard problem have the same status; either they are both easy or they are both hard. If the easy problems are amenable to a scientific explanation, then the hard problem is also amenable to such an explanation. It all depends on how we are to explain in turn those mental or cognitive abilities. My aim here is to show that the hard problem concerns exhaustively the explanation of cognitive abilities and functions.

III. A COGNITIVE ACCOUNT OF CONSCIOUSNESS

Following Rosenthal [Rosenthal (2006)], we can suggest that to say that a mental state is an experience is to say that one is conscious *of* or aware *of* that state, and to say that one is conscious of that state is to say that one has a distinct (higher-order) state, i.e. a higher-order thought (HOT) about this state⁵. What it is like for one to be in a particular mental state is determined by the way that one's awareness or consciousness represents that state. This awareness is explained in terms of one's having a suitable higher-order thought about the (unconscious) first-order state. But the higher-order thought by virtue of which one becomes conscious of a first-order state need not itself be conscious. This requires a third-order thought (introspection). This way, a theory of what it is to be conscious is kept distinct from a theory of what the objects of this consciousness are.

Hence, on this view, my awareness of a mental state does not have to be itself something I am conscious of; this state is experienced by virtue of my awareness of it, but this awareness need not be something I am aware of. But I can be aware of it and that is roughly by virtue of a further awareness to the effect that I am conscious of or aware of being aware of a particular mental state. One can be aware of one's being in a particular mental state and not be aware of being conscious of being in that state. It appears then that there is a distinction to be drawn between three kinds of states: unconscious states, nonintrospectively conscious states (first-order experiences) and introspectively conscious states (higher-order experiences). We can use a small piece of notation here and say that if m is the first-order (unconscious) mental state, then $A(m)$ is the nonintrospectively conscious mental state – i.e. one is aware that one is in m , and $A(A(m))$ is the introspectively conscious state – i.e. one is aware that one is aware of being in m .

Now, a HOT is an episodic intentional state with an assertoric mental attitude. In other words, a HOT is an occurrent belief. A HOT has the form 'I believe that p ', where p is itself the report of a first-order mental state: either a mental qualitative state, e.g. 'I believe that either I am seeing or seeming to see a red patch', or a propositional attitude, e.g. 'I believe that I believe there is a red patch' (or 'I am aware that I believe that six sevens are forty two'). The following statements also report higher-order mental states: 'Tom believes that John believes it is raining', 'Tom believes that John either sees a red patch or seems to see a red patch'. Notice that these reports do not require Tom be conscious. Given that Tom's believing that it is raining didn't imply that there is anything it is like for Tom to have that belief, I do not see that Tom's having a belief about John implies there is anything it is like for Tom to have that belief – even though, being a belief about John's beliefs, it is a second-order belief. However, as it will be shown more fully in what follows, if I have a higher-order *de se* belief, then, plausibly, that does imply that there

is something it is like for me to have that belief. Thus ‘I believe that I believe that six sevens are forty two’ or ‘I believe that I believe that it is raining’, or ‘I believe that either I see a red patch or I seem to see a red patch’, do require, plausibly, for their truth that I am conscious of the relevant first-order mental states.

Further, a HOT is *unmediated*. Mental states generate higher order thoughts in an unmediated way. Only mental states can become conscious in such a way. One cannot become conscious of the non-mental liver state for instance, simply by *being in* that state. By contrast, one can become aware of being in a mental state simply by being in that state. The point is this. One cannot become unmediately conscious of being in a non-mental state. One can only be mediately conscious of being in it. If one’s doctor informs one to this effect then one’s knowledge is mediate (via speaker understanding of what the doctor said), e.g. ‘I believe that my liver state is in poor condition’, whereas in contrast ‘I feel a pain in my liver’ for instance is a mental state because it is immediate. Only mental states can become unmediately conscious. And since mental states become conscious (such that there is something it is like for one to be in them) by virtue of an occurrent HOT, the HOT must be unmediated. Sensations, perceptions and thoughts are to be distinguished from physiological states such as liver states. The former are mental states in the sense that one can become conscious of being in them. One cannot become conscious of being in a liver state in the same sense. Suppose that one’s doctor informs one that one’s in such and such liver state or imagine that one feels queasy and knows this is a symptom of a particular liver state. In these cases, one is conscious of the liver state in the sense that one can be conscious about anything. One can be conscious of a rock or a table. But one cannot become conscious of the liver state simply by *being in* that state. By contrast, one can become aware of being in a mental state simply by being in that state. (Although one can be in a mental state and not be aware of being in it, as one can be in a liver state and not be aware of being in it.) The point is this. One cannot become *immediately* (or *unmediately*) conscious of being in a non-mental state. One can only be *mediately* conscious of being in it.

Finally, HOTs are *de se* beliefs: the higher-order representation represents the lower-order state as a state of oneself. Rosenthal writes

Conscious[ness] of oneself... must in any case occur if there is something it is like to have the experience. We’re not interested in there being something it’s like for somebody else to have the experience; there must be something it’s like *for one* to have it, oneself. Without specifying that, what it’s like would be on a par with what it’s like to be a table [Rosenthal (2002), p.656, my emphasis]⁶.

Importantly, being conscious of ourselves in that way does not require that we are aware of ourselves in some privileged way that is antecedent to

the higher-order thoughts we have about our own mental states. Suppose that you are in a grocery store and by looking out the window you notice that somebody (more accurately the reflection of a man) sitting alone in the store who's wearing a similar long black coat and is looking out of the window not realising that this person is you. Your thought that 'the man with the black coat is looking out the window of this store' refers to you but it does not refer to you as such. Suppose that you suddenly realise that the man in question is you. This time your thought is expressing a different proposition 'I think I'm looking out a window of this store' [Perry (1979)].

In this case the indexical is essential. The higher-order thought, picks oneself out as the thinker of the first-order thought. A *de se* first-order thought that I am in F is not enough. Applied to Perry's case, the switch is not *just* from 'That man is looking out the window' to 'I am looking out the window'. By itself that is just a switch from one first-order thought to another. The idea is that the second *de se* thought disposes one to have a higher-order thought: 'I think I am looking out the window'. What is required then is a higher-order thought which identifies one as the thinker of that first-order thought: 'I think I am in F' i.e. 'It is me who thinks I am in F' etc. The relevant thought picks out the individual who thinks this thought without *describing* the individual. The thought that 'I am in F' disposes me to have another thought that *identifies* the individual the first thought is about as the thinker of that first thought. But this thought does not describe that individual, it only refers to it. The idea is that the thought that identifies the individual the first thought is about as the thinker of that thought does not rest on an independent special access to the self. Essentially indexical self-reference simply consists in the realisation that the individual who looks out the window is the same as the individual who *thinks* that somebody looks out the window. Construed thus, essentially indexical self-reference requires no self-consciousness or any connection between first-order-person thoughts and the self⁷.

Essentially indexical self-reference construed thus does not require self-consciousness and fits well with recent experimental findings. Gordon Gallop [Gallop (1970)] has shown that chimpanzees for instance, but not monkeys, as well as children over 18 months of age can recognize themselves in mirrors. Gallop used the following procedure. When a chimpanzee was anesthetized for its periodical medical check-up, an odourless red dye was applied to the chimpanzee's forehead while it lay unconscious. When the animal was awake again, a mirror was placed next to its cage, and the chimpanzee showed all the behaviours indicative of mirror self-recognition. The animal tried to wipe the dye from its forehead and it also positioned its body at various angles in front of the mirror in order to see places it could not ordinarily see on its own body⁸. This ability has taken to imply the possession of a rudimentary 'concept of self'. But this 'concept of self' refers merely to the capacity of self-recognition or mirror recognition. Although we may (and there

is no reason why we shouldn't) suggest that these creatures have the ability for essentially indexical self-reference and they therefore can have HOTs and enjoy conscious qualitative states, this notion of recognition falls short of the most distinctive ability in human beings, which allows us to reflect upon our mental lives and the mental lives of others. Self-consciousness requires this ability. Self-consciousness does not involve only the ability for self-reference or self-recognition. It involves an awareness of the ability for self-recognition and it is closely related with the concept of 'personhood' that distinguishes us from other non-human animals. Self-consciousness requires the ability that enables us to attribute mental states in everyday life and to reflect upon our mental lives and the mental lives of others⁹.

Hence, it appears that first, the ability for self-recognition or indexical self-reference does not require self-consciousness, reflexivity, introspective capacities or any related sophisticated cognitive ability. Second, since self-reference does not require self-consciousness, it is most likely that not only human beings can have HOTs. Other creatures with far less sophisticated cognitive abilities can have HOTs. If it is true that we are able to experience the world by virtue of the occurrence of HOTs, then if a creature didn't have the capacity for HOTs, it wouldn't experience anything. Plausibly enough, human babies and non-human primates such as chimpanzees and orang-utans do not possess self-consciousness or the capacity for introspection. Arguably and at any rate, their inability to pass theory of mind tests strongly suggests that they do not possess such sophisticated cognitive abilities. At the same time, it would be wrong to deny that they cannot have for instance, any sensory experiences. It certainly sounds counterintuitive to suggest that they do not experience any pains or itches¹⁰.

VI. FOUR STEPS TOWARDS THE SOLUTION OF THE HARD PROBLEM

How are we to employ this account to solve (or dissolve) the hard problem of consciousness? Here are our four steps:

Step 1

All manner of first-order mental states can occur unconsciously. Both first-order mental qualitative states (e.g. sensory states) and propositional attitudes (e.g. beliefs, desires etc) can occur unconsciously. This involves the idea that even mental states of the sort that possess the so-called *qualia* (being first-order) can occur unconsciously. Hence, perceptual experiences, for example, experiences of the sort involved in seeing green and smelling the sea air; bodily sensations such as feeling an itch, feeling hungry, having a stomach ache; felt passions or emotions, for example, feeling delight, lust, fear; and felt moods, for example, feeling elated or depressed, can occur un-

consciously. Consciousness is a matter of there being something it is like *for the subject* to be in the state in question. The mental qualitative states that we are not aware of are not conscious: if one is not in any way aware of a mental state or that one is in that state, then there is nothing it is like for one to be in it. And indeed, plausibly enough, if one is not aware of what it is like, then there is nothing it is like for one. And this leads us to divide philosophical labour and to characterise *qualia* and experience (i.e. what it is like to have them) independently of each other and employ different explanatory accounts for them¹¹.

Step 2

The same *fundamental kind* of experience or consciousness is involved in both conscious qualitative/sensory states (i.e. those states that possess qualitative properties or *qualia*) and conscious propositional attitudes. Arguably, the problem of experience or consciousness does not concern only our sensory or qualitative states. For one thing, whenever one is in a conscious state there must be something it is like for one to be in it. Imagine the case where one discovers that one's associate has lied about something, or the case where one suddenly realises that she has lost her keys. In both cases the mental state one undergoes, in other words, the mental state one is in, is like something for one. There is something it is like for you to discover that your associate has lied to you and there is something it is like for one to realise that she had lost her keys¹².

There are more clear cases of pure cognitive experiences. Strawson [Strawson (1994)] asks the reader to imagine two persons: a monoglot Frenchman, Jacques and a monoglot Englishman, Jack and then he asks whether the difference between them as they listen to the news in French, really consists in the Frenchman's having a different experience. He correctly answers that Jacques' experience when listening to the news is utterly different from Jack's, even though there is a sense in which they both have the same aural experience (they are exposed to the same stream of sound). Strawson suggests that the difference between the two can be expressed by saying that Jacques, when exposed to the stream of sound, has an 'experience (as) of understanding' or an 'understanding-experience', while Jack does not: 'there is something it is like, experientially, to understand a sentence, spoken or read' [Strawson (1994), p. 7]. And this does seem to be distinct or additional to hearing or seeing the sentence.¹³

Now, why think that the experiential aspect of a conscious sensory state is unlike the experiential aspect of a conscious propositional attitude in which no sensory quality is somehow involved? What should be the motivation for distinguishing two modes of consciousness, as distinct from different kinds of objects of consciousness? It is certainly true that what it is like for one to be in a visual conscious state is not the same as being in an auditory con-

scious state. This is because different modalities are involved and therefore different qualitative properties. But it appears that either there is something it is like for one to be in a particular mental state or there isn't. In other words, either a mental state is experienced or it is not. After all, we do not distinguish a visual mode of consciousness from an auditory mode. We distinguish sights and sounds as objects of consciousness.

Hence, since both conscious sensory/qualitative states and conscious propositional attitudes are experiences in the sense that there is something it is like for one to be in them, and all manners of mental qualitative states and properties are not essentially conscious (i.e. such that if one is in a mental state with one of these properties then one is in a conscious state), we have good reason to believe that the same fundamental *kind* of experience is involved in both qualitative and non-qualitative conscious states. We can then suggest that the same *kind* of consciousness can account for the experiential aspect of both conscious qualitative states and conscious propositional attitudes. It is in virtue of the same cognitive function (HOTs) that there is something it is like for one to be in a mental state and, as Chalmers puts it, to explain a cognitive function we need only specify a mechanism that can perform the function. Thus understood, experience is an aspect of cognition and of the brain processes active in cognition. Thus the hard problem of consciousness is not unlike the easy problems which according to most philosophers, lie in the realm of science.

Step 3

We give a non-circular cognitive account, such that none of the abilities that one must possess for a suitable HOT to occur essentially requires consciousness. We saw that the HOTs in virtue of which we are non-introspectively conscious are not themselves conscious. This is because we are not conscious of them and for a mental state to be conscious is for one to be conscious of it. The core requirement of such HOTs is that they must represent the first-order states as states of oneself. The 'of oneself' requirement amounts to the ability for self-reference, which in turn does not require self-consciousness or any introspective capacities. What is required is simply the capacity for self-recognition or the ability for indexical self-reference.¹⁴ None of the abilities that one must possess for a suitable HOT to occur essentially requires consciousness. And arguably, genuine explanations work by drawing connections between a set of facts (the *explanans*) and a distinct set of facts (the *explanandum*). Our explanation then satisfies that criterion since the connection is drawn between non-conscious cognitive facts and experiential or conscious facts.

Step 4

It might be objected that we can still coherently imagine that there is a living organism which is functionally and behaviourally indistinguishable from a conscious one (with which they share the same environment and have same causal histories), with which you can have a meaningful conversation and which has a HOT of the kind described above, e.g. a belief to the effect that it realises (veridically self-ascribes) that a solution to a problem goes a certain way without thereby being anything it is like for the organism to be in that state (is not conscious). But first, if that is true, then it seems that zombies can do all that we do; the lack of consciousness has no impact on the zombie. Then what is consciousness doing in us non-zombies? It is either that there is nothing missing from a non-conscious creature or that there is something missing – consciousness. If the latter, what could consciousness possibly add which is not already, or cannot be, stated/captured in behavioural, functional and physical terms? Second, contrast the case of a non-conscious with a non-vital zombie. Can we, for instance, imagine something that was capable of reproduction, development, growth, metabolism, self-repair and immunological self-defence, but which is not alive? Well, maybe we can. But this shows only ‘that you can ignore “all that” and cling to a conviction if you’re determined to do so’ [Dennett (1991a), pp. 281-282]. To explain the phenomenon of life we had to appeal to the biological level, to certain biological functions and homeostatic processes. Equally, to explain the phenomenon of consciousness we must appeal to the cognitive level.

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NOTES

¹ Note that ‘give rise’ is used here in the most neutral sense possible. The reader must not adhere to any dualist intuitions that may be triggered by such an expression.

² Assuming that Charles Darwin’s story about the evolution of the species is for the most part true.

³ For one thing, there are many creatures that can detect changes in the environment while awake to which we would hesitate to ascribe the property of being conscious. There are certainly borderline cases, but the cases of insects, bees and caterpillars are suggestive enough. The point is that ‘creature’ consciousness *can* be applied to creatures whose mental states are in some respect like our non conscious states we are in when we are awake. It is then plain that the puzzling bit about con-

sciousness does not lie in creature consciousness. Therefore, I shall leave the discussion of this notion for another time.

⁴ It must be noted that there is an opposing view according to which there are no easy problems of consciousness. See E.J. Lowe (1997).

⁵ Consciousness in this sense is a relational property; a subject is in a conscious state if she is conscious of that state or aware of being in that state. And indeed, it does sound very counterintuitive to suggest that mental states can be conscious themselves or that consciousness is some intrinsic or essential property of mental states.

⁶ In fact, HOTs are doubly *de se* i.e. the first-order mental states are themselves *de se* e.g. I am seeing or seeming to see a red patch. The HOT is thus doubly *de se*: 'I believe I am seeing or seeming to see a red patch'. So the first-order mental state of which I am conscious is 'I am seeing or seeming to see a red patch', not 'Someone is seeing or seeming to see a red patch', and not 'There is a red patch' since the latter does not report a mental state.

⁷ For further remarks on the Kantian idea that self-reference does not require self-identification see Shoemaker (1968), Brook (2001) and Rosenthal (2004, 2006).

⁸ Recently, it has been demonstrated that apart from orang-utans and gorillas, Asian elephants too possess the ability for self-recognition [Plotnik, de Waal, Reiss (2006)].

⁹ Experimental studies of normal and abnormal development suggest that the abilities to attribute mental states to self and to others are closely related. Thus inability to pass standard 'theory of mind' tests, which refer to others' false beliefs, may imply lack of self-consciousness. Individuals who persistently fail these tests may, in the extreme, be unable to reflect on their intentions or to anticipate their own actions [Frith & Happe (1999)]. Baron-Cohen (1995) has suggested that the core impairment in autism stems from the failure to acquire such a 'theory of mind' which in effect, suggests lack of self-consciousness or of the ability to become introspectively conscious.

¹⁰ It is worth noting that although the first-order mental states are themselves *de se*, and so e.g. some animals have *de se* first-order mental states, this does not require that the animal have a concept of the self, or any concepts. Since, if the animals' first-order states are unconscious, not being the objects of unmediated HOTs, then the animal does not need a conceptual repertoire. Only if the animal becomes conscious of its first-order mental state, becomes conscious that say, it is seeing a red patch, will it need to have the relevant concepts (including a rudimentary concept of itself).

¹¹ One might object that although feelings, emotions etc. together with our desires and beliefs can occur unconsciously (most obviously so), there cannot be unconscious pains. Well, why not? As Rosenthal suggests, we normally do speak of having the same headache all afternoon, even though the awareness of our pain is intermittent. Whereas the 'headaching' quality endures all afternoon, sometimes we have a higher-order thought towards it and sometimes not. During these intervals, that is, when we do not have a higher-order thought towards the headache, there is nothing it is like to have it. And indeed during these intervals we do not feel the hurtfulness of the pain "when one is intermittently distracted from a headache or pain, it is natural to speak of having had a single, persistent pain or ache during the entire period. It would be odd to say that one had a sequence of brief, distinct, but qualitatively identical pains or aches" [Rosenthal (2006), p. 32]. There are recent experimental findings suggesting that sensory qualities can occur unconsciously (blindsight - Weiskrantz

(1986), visual-form agnosia and optic ataxia - Milner & Goodale (1995), change detection - Fernandez-Duque & Thornton (2000); Simons et al. (2002); Repp (2001), change blindness - Mack and Rock (1998), etc.) as there are some good philosophical arguments to this effect (Rosenthal (1991), Dennett (1991b)). But all one needs to do is not argue for idea that the so-called *qualia* are not essentially conscious – only that there is room to hold that they are not. Opponents of this view (e.g. Chalmers (1996) and Block (2002)) typically treat the idea that *qualia* are essentially conscious as an axiom; they do not argue for it.

¹² Or take Rosenthal's example that one suddenly realises that the solution to a problem goes a certain way.

¹³ Think also of *a priori* statements such as ' $5 + 7 = 12$ '. It seems plain that there is something it is like for one to understand this proposition over and above the occurrence of any sensory qualities. There are other examples. There is a general sense for instance, in which we experience our actions as *purposive*. *Agentive experiences* represent one's own behaviour as self-generated. What kind of sensory qualities could account for the fact that there is something it is like for one to be in those states?

¹⁴ 'Subjectivity' is sometimes used interchangeably with 'consciousness' and 'experience'. This is a bit unfortunate since both Chalmers and Nagel suggest that what makes the problem of consciousness really hard is the fact that *conscious facts are subjective*. Here's what Nagel says: 'Conscious facts, namely facts about what it is like to be a human being, or a bat, or a Martian, appear to be facts that embody a particular point of view. The facts about consciousness are perspectival in the sense that our conscious experiences have an inbuilt perspectival character; they embody a particular point of view' [Nagel (1974), p. 441]. We want to know what it is like *for me* to be in a certain mental state, not for you or for any body else. An explanatory account of experience then must explain this 'perspectivity' or 'point of view'. Self-ascriptions of the kind described above can explain the perspectival character of our conscious states. When one recognises oneself one has a conception of oneself as embedded in an objective world; the subject represents oneself as being embedded in an objective world. Employing the Nagelian jargon, we can say that the ability for self-recognition enables one to embody a particular 'point of view' and makes the subject's mental states experiences, that is, mental states *for the subject*.

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