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THE PROBLEM OF CONSCIOUSNESS: EASY, HARD OR TRICKY?

ABSTRACT

Phenomenal consciousness presents a distinctive explanatory problem. Some regard this problem as 'hard', which has troubling implications for the science and metaphysics of consciousness. Some regard it as 'easy', which ignores the special explanatory difficulties that consciousness offers. Others are unable to decide between these two uncomfortable positions. All three camps assume that the problem of consciousness is either easy or hard. I argue against this disjunction and suggest that the problem may be 'tricky' – that is, partly easy and partly hard. This possibility emerges when we recognise that consciousness raises two explanatory questions. The Consciousness Question concerns why a subject is conscious rather than unconscious. The Character Question concerns why a conscious subject's experience has the phenomenology it has rather than some other. I explore the possibility of one or other of these explanatory challenges being hard and the other easy, and consider the dialectical ramifications this has for all sides of the debate.

1. INTRODUCTION

Consciousness science, like any other science, is in the business of identifying and solving explanatory problems. Some of these problems have been solved already and others will be overcome as our understanding of consciousness develops. It has been suggested, however, that phenomenal consciousness presents a distinctively difficult problem that cannot be solved using our current explanatory strategies. A number of different perspectives have been taken on this suggestion. I divide them into three camps. The *Pessimists* (as I will call them) hold that phenomenal consciousness presents a uniquely 'hard' problem that cannot be overcome, at least not using our current explanatory strategies. They claim that if consciousness science continues on its current path then phenomenal consciousness will remain unexplained. Notable Pessimists include Chalmers (1995; 1996), Levine (2002; 2003), McGinn (1989) and Block (2002). The *Optimists* deny that phenomenal consciousness presents a hard problem. They claim that the explanatory challenges presented by consciousness are exclusively 'easy' – that they are all problems that can be overcome using our standard explanatory methods. On this view phenomenal consciousness generates one tractable problem among many, or perhaps fails to constitute a distinct explanatory target at all. Notable Optimists include Dennett (1991), P.S. Churchland (1996) and P.M. Churchland (1996). The *Undecideds* are those who cannot choose between Pessimism and Optimism. They take it that one side must be right (i.e. they do not advocate some third position regarding the explicability of consciousness) but they regard neither view as acceptable. The Undecideds, by their nature, cannot give us a coherent verdict on the problem of consciousness. Of course, there is no real literature in favour of this non-committal stance so it is hard to pick out any notable Undecideds. Chalmers notes though that '…in my experience the majority of people are more than a little torn over these issues…', indicating that many find it difficult to adopt either Pessimism or Optimism unreservedly (1997 p. 15).

These three camps disagree on a great deal but there is one background claim on which they all implicitly agree: either phenomenal consciousness is fully explicable using our existing

explanatory framework, or it is inexplicable using that framework. In other words, all parties presuppose that *the problem of consciousness is either easy or hard*. It is this disjunctive proposition that I seek to undermine. I suggest that the explanatory challenge presented by phenomenal consciousness has two components: the Consciousness Question concerns why a subject is phenomenally consciousness at all while the Character Question concerns why a conscious subject's experience has the particular phenomenology it has. We can ask of *each* of these explanatory challenges: *'is it easy or is it hard?'* This distinction has consequences for all three camps. The Pessimists have to justify their pessimism about *both* explanatory challenges. Similarly, the Optimists have to justify their *optimism* about each challenge. Finally, the Undecideds now have the option of assuming a stable and coherent middle-ground position between Pessimism and Optimism: it is possible to take a *mixed* view of consciousness in which one challenge can be met using our standard explanatory strategies while the other cannot. To adopt such a mixed view is to regard the problem of consciousness as 'tricky' – that is, as partly (but not fully) hard and partly (but not fully) easy.

The shape of the paper is as follows. In Section 2 I reflect on the distinction between hard and easy problems and suggest that neither Pessimism nor Optimism is attractive. In Section 3 I explain the distinction between the Consciousness Question and Character Question and consider why each might be regarded as hard. Section 4 explores the mixed views according to which the problem of consciousness is tricky. I consider the implications each view would have for the science and metaphysics of consciousness and suggest that either such position would have advantages over Pessimism and Optimism. I conclude that Optimists and Pessimists ought to extend their arguments to address both explanatory questions, and that the Undecideds ought to consider one or other of the mixed views to achieve a coherent middle-ground stance on the problem of consciousness. Section 4 explores some potential objections to these conclusions. Specifically, I consider and reject two arguments which suggest that hardness and easiness each come as 'package deals' that preclude a mixed view of the problem.

2. OPTIMISM AND PESSIMISM ABOUT THE PROBLEM OF CONSCIOUSNESS

2.1. Easiness and Hardness

There are a number of different phenomena associated with the term 'consciousness'. The issue of hardness arises specifically in the context of *phenomenal* consciousness. A state is phenomenally conscious iff there's something it's like to be in that state for its subject (Sprigge 1971; Nagel 1974). The 'problem of consciousness' is the problem of explaining this phenomenal aspect of our mental lives. Such experiential states are thought to present a uniquely difficult explanatory challenge: there is simply no accounting for how and why conscious experiences arise from physical brain processes. Chalmers introduces the distinction between hard and easy problems as follows:

> The easy problems of consciousness are those that seem directly susceptible to the standard methods of cognitive science, whereby a phenomenon is explained in terms of computational or neural mechanisms…The hard problems are those that seem to resist those methods. (1995 p. 201)

A few clarifications are in order. First, phenomenal consciousness (henceforth 'consciousness') presents a hard problem if it is invulnerable to the *standard* methods of cognitive science i.e. if the

framework cognitive scientists use to explain phenomena is fundamentally incapable of yielding explanations of our conscious experiences. This is consistent with consciousness being explained using *non*-standard methods after some kind of revolution in the explanatory strategies of cognitive science i.e. with some radically new framework overcoming the limitations of our current paradigm to yield a genuine theory of consciousness. It is also consistent with consciousness being *permanently* inexplicable by cognitive science i.e. with cognitive science being fundamentally incapable of explaining consciousness no matter how its explanatory strategies change. It is even consistent with consciousness being permanently inexplicable *simpliciter* i.e. with consciousness being invulnerable not just to the explanatory methods of cognitive science but to any scientific explanation whatsoever.

Second, the easy/hard distinction does not presuppose any specific model of *what* the standard methods of cognitive science are. It is one thing to say that the problem of consciousness is hard and another thing to offer a *diagnosis* of its hardness that describes what our explanatory strategies can achieve and why consciousness is beyond their scope. Chalmers offers a specific diagnosis: cognitive science is in the business of identifying functional properties and revealing the mechanisms that realize those properties, but phenomenal consciousness is uniquely non-functional and so resists this kind of explanation (1995 p. 202). This diagnosis is powerful, but I want to leave open the possibility that the hardness of the problem has a source other than the putative non-functionality of consciousness.[1] We should remember though that 'standard methods' does not refer to anything as specific as cognitive science's current measuring instruments or leading hypotheses. Rather, it refers to the general framework cognitive science uses for explaining phenomena.

Third, the sense of 'explanation' at work here is a demanding one. Roughly, A explains B only if it is *epistemically impossible* for A to occur without B. We can shed light on this with the philosophical distinction between open and closed questions. Take some subject S and then imagine a book containing a complete cognitive-scientific description of that subject. This vast book will include all the neural facts, all the computational facts and all the functional facts about S. This book is not limited by the theories and tools we have today. Rather, it is an *ideal* description of S that is free of such contingent constraints. In light of the first clarificatory comment above, we must remember that this ideal description will still reflect cognitive science's current explanatory strategies: it may involve new properties and principles that don't figure in today's science, but it will not involve any *new ways of explaining* phenomena. Even if cognitive science's conceptual framework one day undergoes a radical transformation, our hypothetical book reflects *pre*-revolutionary science's best effort at describing S.

Equipped with 'The Book of S' we might then ask questions about what mental properties she bears. Such questions are 'closed' when, in light of the cognitive-scientific description of S, they only have one possible answer. That is, it would be *incoherent* to give any answer but that one to the question. Such questions are 'open' when more than one possible answer is available. That is, we could hold the background description of S fixed yet still coherently wonder which answer to the question is true. Compare the following questions:

[1] At times Chalmers builds non-functionality into his definition of the hard problem (e.g. 1997, p.4). The need to diverge from his way of framing things will emerge over the course of the paper and will be addressed directly in Section 5.2.

I. Is S awake or asleep?
II. Can S discriminate between these two visual stimuli?
III. If so, which of the two visual stimuli is S attending too?
IV. Can S report on their perceptual access to the attended stimuli?
V. Is S having a qualitatively reddish visual experience?

By and large, all parties can agree that questions I-IV are *closed* questions. Given sufficiently detailed descriptions of S's neural, computational and functional state there would be no doubt about how to answer these questions. For instance, if S is awake then the cognitive-scientific description of S would reveal as much. It would simply be *incoherent* to assert that this description of S is true yet deny that she is awake. This indicates that the mental phenomena mentioned in I-IV present exclusively easy problems – that they are the kind of thing that can be fully explained using the standard strategies of cognitive science. Things are less straightforward with question V which concerns S's *phenomenal* properties. If you think that V is a closed question – that you can 'read-off' whether S is having a reddish experience from The Book of S – then you think that phenomenal consciousness does not present a hard problem. In other words, you are an *Optimist* about the power of cognitive-science to explain consciousness. If, on the other hand, you think that V is an open question – that both 'yes' and 'no' answers would be coherent possibilities – then you think that phenomenal consciousness *does* present a hard problem. That is, you are a *Pessimist* about cognitive-science's ability to account for our experiential states. We can frame this same distinction in terms that might be more familiar: if you think that there is a deep *explanatory gap* between the scientific facts and the phenomenal facts than you fall in the Pessimist camp, and if you deny that there is such a gap you fall in the Optimist camp.[2] Before looking at the arguments for and against Optimism and Pessimism, it is worth reflecting on the *consequences* of each view.

2.2. Between a Rock and a Hard Place

Pessimism claims that cognitive science cannot yield an explanation of phenomenal consciousness. In 1861 Thomas Huxley famously wrote: '…how it is that anything so remarkable as a state of consciousness comes about as a result of irritating nervous tissue, is just as unaccountable as the appearance of the Djinn, when Aladdin rubbed his lamp.' (1868, p. 178) Despite enormous progress in our understanding of the brain, and despite the promise of further developments in the future of cognitive science, the Pessimists claim that Huxley got it right. Although one might sympathise with the conclusion that consciousness is inexplicable, Pessimism has some uncomfortable consequences.

Pessimism is difficult to accept for those working in consciousness science and for those who respect the progress that consciousness science has achieved. According to the Pessimist, there are a range of mental phenomena associated with consciousness that we can reasonably hope to

[2] The phrase 'explanatory gap' was introduced by Levine (2002) and the phrase 'epistemic gap' (Chalmers 2002) is used in much the same way. The majority of philosophers believe that there is an explanatory gap and are thus Pessimists (although there is disagreement within this group about the metaphysical consequences of this gap). Those who deny that there is an explanatory gap (i.e. Optimists) are in the minority but still form a substantial contingent. This is reflected in Chalmers & Bourget's (2013) survey of what philosophers believe. The main group in this survey consisted of 931 faculty philosophers. One of the 30 questions asked concerned the conceivability of zombies, which is a litmus test for whether one believes that there is an explanatory gap. 58.9% regard zombies as conceivable (though less than half of those take them to be metaphysically possible) and 16.0% take zombies to be inconceivable. 25.1% answered 'other', and we can speculate that some of this group could accurately be described as 'undecided'. In Section 3.3 I consider more closely the role zombie intuitions play in the debate.

explain, but phenomenal consciousness itself will remain unexplained - at least until some dramatic revolution in our explanatory methods. This possibility of a methodological revolution offers little consolation: current consciousness science would stand to post-revolutionary consciousness science much as alchemy stands to chemistry, which casts today's efforts to grapple with consciousness in a very dim light.

Although Pessimism rules out a scientific *explanation* of consciousness, it is consistent with science achieving insights that fall short of full explanation. Science could, for instance, provide informative and useful accounts of the physical *correlates* of human consciousness. Though valuable, an account of the correlates of consciousness will be unsatisfactory in at least two ways. One, we will have no explanation of *why* this correlation obtains (see Robinson 1996, p. 15). Two, we will be in a poor position to extrapolate conclusions about consciousness in non-human subjects. The physical states of animals, artificial systems and aliens will differ from the physical states of conscious human subjects in a number of ways. The problem is that without an explanation of *why* we have our phenomenal states we cannot conclusively establish which differences *make a difference*. Some physical state of a non-human subject might be a different way of realizing an experience just like ours, or might underwrite an experience unlike any we have, or might fail to constitute a phenomenal state at all.[3]

Besides its consequences for the *science* of consciousness, Pessimism also has significant *metaphysical* implications. Some think that the hard problem reveals that phenomenal properties are non-physical properties, which in turn encourages an epiphenomenalist and/or panpsychist metaphysics of consciousness (Chalmers 1996). Epiphenomenalism is the view that phenomenal properties are incapable of bringing about physical effects, meaning that our conscious experiences have no influence on our neural or behavioural states. Panpsychism (or pan*phenomenalism*) is the view that phenomenal properties are ubiquitous, meaning that conscious experience pervades the universe rather than being limited to minded creatures. Others protect physicalism by adopting 'Type-B' positions involving 'brute' identities (Block and Stalnaker 2002) or 'strong' necessitation relations (Polger 2008). Such positions concede that phenomenal consciousness is inexplicable in physical terms but maintain that conscious experiences are nevertheless nothing more than physical goings-on in the brain. The shortcomings of all of these options will be familiar.[4]

Optimism yields a far more attractive metaphysical picture in which consciousness is integrated into the natural order like any other mental phenomenon. As Searle often insists, '…consciousness is a biological phenomenon in exactly the same sense as digestion, growth, or photosynthesis.' (2000 p. 559) Optimism also yields a more positive picture of the prospects of consciousness science. We will be able to explain *why* certain physical processes are correlated with consciousness, and will even be able to draw conclusions about whether (and in what ways) animals, aliens and artificial systems are conscious. As Papineau boldly states, 'Nothing is left unexplained by mind-brain identities.' (2011 p. 19)

[3] Block captures this kind of worry with his (2002) notion of 'the harder problem of consciousness'.

[4] Epiphenomenalism runs into trouble with the role of consciousness in the production of behaviour, the function of consciousness, the evolutionary origin of consciousness and the possibility of knowledge of conscious states (see especially Kim 1989; 2002). Panpsychism suffers from a dramatic lack of parsimony and leaves human conscious experience unexplained (Stoljar 2006, p. 120). Type-B positions suffer from more technical difficulties concerning the credibility of necessitation relations that are epistemically opaque even to an ideal subject (Chalmers 1997 pp. 11-16).

Although one might be attracted by this view of consciousness, unfortunately the advantages of Optimism do not suffice to make it a *credible* position. Consciousness genuinely seems to present a deep explanatory challenge quite unlike that of any other mental phenomenon. The fact that life would be easier without the hard problem doesn't mean it's not there. As Chalmers puts it, '…to deny the problem because of the difficulties has the flavour of solution by decree.' (1997 p.11) Unless advocates of Optimism can cast doubt on our sense that consciousness is invulnerable to the explanatory strategies of cognitive science, its advertised advantages come to naught.

Faced with these difficulties, why not conclude that neither Optimism *nor* Pessimism is true? The problem is that there does not appear to be room for a third way here: the Book of S either leaves questions about the subject's conscious state open or it does not; the physical facts either epistemically entail the facts about consciousness or they do not; the explanatory strategies available to cognitive science can either yield a full explanation of consciousness or they cannot. It seems that no 'half-way-house' is available for those uncomfortable with both Pessimism and Optimism. The Undecideds can put off choosing between the two positions available but they cannot, it seems, deny that those two positions exhaust the options available.

Overall, we are caught between a rock and a hard place. The 'rock' is the immovable intuition that consciousness is not the kind of thing that can be explained using our standard explanatory methods. The 'hard place' is a deeply unattractive picture of the science and metaphysics of consciousness. Optimism is continually obstructed by the rock and Pessimism inevitably leaves us in the hard place. There are two lessons to take away from this quandary. One, Optimists and Pessimists had better have compelling arguments to support their inescapably awkward positions. The job of the next section is to shed light on what these arguments need to achieve. Two, the option of carving out a middle-ground position would be most welcome. The job of the third section is to show how, despite appearances to the contrary, such a position is possible.

3. SPLITTING THE PROBLEM

3.1. Two Questions of Consciousness

Chrisley helpfully distinguishes between two explanatory aspirations that a theory of consciousness might have:

> The explanatory form that gets the most attention with respect to consciousness is the constitutive form: an account of what makes something conscious, as opposed to not being conscious. An alternative explanatory form is the discriminative form: for something that is already known (or presumed) to be conscious, what makes it the case that it is in this kind of conscious state as opposed to that kind? (2008 pp. 122-123)[5]

Parallels to this distinction can be found in many other explanatory projects. It is one thing to explain what makes a neural event a memory, but another to explain what makes it a memory of Winter rather than a memory of Spring. It is one thing to explain what makes someone the progeny of their mother, but another to explain what makes them a son of their mother rather than a daughter. It is

[5] Chrisley's suggestion that the constitutive form gets the most attention is a comment on Artificial Intelligence. It is not clear that the same holds for metaphysics.

one thing to explain why it is precipitating at all, but another thing to explain why it is snowing rather than raining. We can thus distinguish between two questions that might be asked regarding the phenomenal properties of some subject S:

> **The Consciousness Question:** Is S having a conscious experience?
>
> **The Character Question:** If S is having a conscious experience, what kind of experience is it?

The first question asks whether, at a given a time, S is phenomenally conscious at all. The second question asks, if S is indeed conscious, what form their experience takes. That is, it asks about the *qualitative character* of S's experience – about which *phenomenal qualities* that experience instantiates.[6] Put another way, the first question asks whether there's *something* it's like to be S while the second asks specifically *what* it's like to be S. It is one thing to know that a subject is having an experience, but another to know that their experience is characterised by redness rather than greenness and by sourness rather than sweetness.

Now let us return to the comprehensive cognitive-scientific description in The Book of S. Some say that if we had such a book the *Consciousness Question* would be an open question, while others say that it would be closed. In other words, we can dispute whether the property of 'being conscious' presents a hard problem. Furthermore, some say that if we had such a book the *Character Question* would be an open question, while others say that it would be closed. In other words, we can dispute whether the properties that differentiate *kinds* of experience present a hard problem. The central claim of this paper is that these *two disputes are distinct*. Conclusions regarding one dispute will doubtless have consequences for the other, but there are nevertheless two matters to be decided upon and it is possible to take a different stance on each. Although it is common to distinguish the two questions, it is rarely recognised that one might be an open question and the other closed. The following table shows where Optimism and Pessimism stand on these disputes but also reveals the two mixed positions that are available.

	The Consciousness Question	**The Character Question**
Pessimism	Open question	Open question
Optimism	Closed question	Closed question
Easy/Hard View	Closed question	Open question
Hard/Easy View	Open question	Closed question

I will now briefly consider the reasons one might give for regarding the Consciousness Question as open and then do the same for the Character Question. A close evaluation of these arguments is beyond the scope of the paper. My aim at this stage is simply to illustrate how the two disputes over hardness can be peeled apart and to identify the considerations that might decide between the four possible views of the problem of consciousness. This will put us in a position to explore in the remainder of the paper the dramatic dialectical ramifications that splitting the problem has.

[6] Explicit articulations of this distinction can be found in Levine (2003, p. 104), Kriegel (2009, p. 5) and Rosenthal (2011, p. 435).

3.2. The Consciousness Question as Open

Given the Book of S, it is coherent to think that S is conscious but it is also coherent to think that S is not conscious. In other words, none of the physical facts about S rule out the possibility that S is a zombie - a being just like a conscious subject in all physical respects but devoid of experiential awareness. To judge that it is incoherent for S to be a zombie is to judge that S *must* be conscious, and therefore to judge that the Consciousness Question is closed. The intuition that the Consciousness Question is open is thus bound up with the intuition that zombie duplicates are conceivable. As Levine argues 'No matter how rich the information processing or the neuro-physiological story gets, it still seems quite coherent to imagine that all that should be going on without there being anything it's like to undergo the states in question.' (2002 p. 359) S might have certain neural and functional states *associated* with consciousness but it remains conceptually possible for S to be in such states without undergoing an experience. As it stands the zombie intuition is just that – an intuition. One could reasonably object that this intuition reflects our deep ignorance of the descriptions contained in The Book of S.[7] This is why it is important to consider what underwrites the intuition – to offer a *diagnosis* of the apparent hardness of the Consciousness Question.

The diagnosis I find most credible is that the *subjectivity* of consciousness is responsible for the hardness of the problem. The difference between a conscious mental state and a non-conscious mental state is that there is something it's like *for the subject* to undergo a conscious mental state and *nothing* it's like for the subject to undergo a non-conscious mental state. Having *subjective awareness* is precisely what distinguishes us from our zombie twin. Call this the *subjectivity* of consciousness.[8] There appears to be a principled gap obstructing an explanation of subjectivity in *objective* terms. Objective states exist but do not exist *for a subject* in the way that conscious states do. Given any amount of information about objective goings-on in an individual, it will remain an epistemic possibility that all this is happening without it being *given to the subject*. Although we are ignorant of the content of The Book of S, we can be confident that it will exclusively describe *objective* states of S. As such, we can conclude that even when equipped with this description of S it will remain an *open question* whether S is undergoing a subjective experience – that is, whether S is conscious or unconscious.

Many have offered something like this diagnosis of the problem of consciousness, even if they don't peel apart the two disputes in quite the way I do. Searle holds that 'The problem is to explain how brain processes, which are objective third-person biological, chemical, and electrical processes, produce subjective states of feeling and thinking.' (2000, p.563) Similar points are made by Nagel (1974), Levine (2003), Kriegel (2009) and Chalmers (1995).[9]

3.3. The Character Question as Open

The apparent openness of the Consciousness Question can be framed in terms of the conceivability of zombies. Where 'being conscious' is (debatably) a single binary property, the properties that distinguish types of conscious experience are enormously varied. Consequently there is a much

[7] This kind of objection is pushed by P.S. Churchland (1996) and Stoljar (2006)

[8] Subjectivity is a wildly ambiguous term. In line with Levine (2003) and others, I am using the term in the specific sense just outlined.

[9] For Levine, Kriegel and Chalmers the inexplicability of subjectivity is in turn diagnosed in terms of its non-functionality, though this further claim is optional.

wider range of hypothetical scenarios we can cite to capture the apparent openness of the Character Question. The classic case is *qualia inversion* (Shoemaker, 1982). Assume that S is looking at a ripe tomato. Given The Book of S we will be able to discern that S is visually representing the tomato. Equipped with this description of S, it is coherent to imagine that they are having a visual experience with a reddish phenomenology. However, it is also coherent to imagine that they are having a visual experience instead characterised by a greenish phenomenal quality. That is, it is conceptually possible that S is a qualia invert – a subject like us in all physical respects but whose visual experience is qualitatively *inverted* relative to our own. Even if we stipulate that there is *something* it's like to be S, it remains an open question *what* specifically it is like to be S. This intuition generalises to all the phenomenal qualities that make S's experience the kind of experience it is. We might know S is in a physical state *associated* with some phenomenal quality, but it will remain an epistemic possibility that S's experience is characterised by some *other* quality.

Intuitions about Jackson's (1982) famous Mary thought-experiment – or, more precisely, Stoljar's (2001) refinement of this scenario – also tie in with the Character Question. Imagine a super-scientist named Mary who lives in a black-and-white prison. She learns everything there is to know about the science of colour perception but has never experienced colour for herself. One day she is kidnapped and shown a red tomato and a green cucumber: she learns what it is like to perceive red and what it what it is like to perceive green. However, the kidnappers wipe Mary's memory and return her to her prison. Although Mary can now *imagine* reddish and greenish experiences, she is still unable to work out which phenomenal qualities correspond to which cognitive states. For instance, she knows all the cognitive-scientific facts about the brain state of a subject when they look at a ripe tomato, but for Mary it remains an *open question* whether that subject's experience has a reddish phenomenology or a greenish one. Nothing about her complete scientific knowledge puts her in a position to infer that the subject's experience will be characterised by a red quality.

Again, it is important to consider what underwrites the intuition that the Character Question is open. I think the most credible diagnosis is that the *intrinsicality* (or seeming intrinsicality) of phenomenal qualities is responsible for the apparent hardness of this problem. An entity's extrinsic properties are those that characterise the relations in which it stands to other entities, or generally to the world beyond itself. Intrinsic properties are those that characterise an entity in and of itself and cannot be reduced to the relations in which that entity stands.[10] The difference between us and our qualia-inverted twin is a difference in the intrinsic qualities that characterise our respective experiences. Red qualities have one intrinsic nature and green qualities have another. The *redness* of a reddish experience cannot be exhaustively captured in purely structural terms. Given any amount of purely structural information about states of a subject, it remains an open question what intrinsic qualities are instantiated by that state. Although we are ignorant of what The Book of S contains, it is credible that it will deal exclusively with structural properties of S. The problem is that '…from structure and dynamics, one can infer only structure and dynamics.' (Chalmers 2002, p.259) As such, we can conclude that even when equipped with this description of S it will remain an *open question* which intrinsic qualities characterise S's phenomenology – that is, what kind of experience S is having.

[10] For more on the intrinsic/extrinsic distinction and its place in the problem of consciousness see Pereboom (2011).

Again, many others have offered something like this diagnosis. Chalmers (1996), Stoljar (2001), Levine (2003), Coleman (2012), Alter (2009) and Montero (2010) have all pushed this kind of position.[11] Robinson argues that science (at least within its current conceptual framework) can only hope to explain structural phenomena, but that 'Among the properties of conscious experiences, there is always at least one that has no structural expression.' (1996, p. 17) Interestingly, Robinson offers this as a diagnosis of 'The Hard Problem' in general, but if we look at his characterisation of the question that generates the problem it emerges that he is specifically concerned with the *Character Question:* 'Why should a subject S have a conscious experience of type F whenever S has a neural event of type G?' (1996, p. 14) Indeed, he explicitly denies that the subjectivity of consciousness (i.e. the existence of consciousness-as-such) presents a distinct problem (1996, pp. 20-22). This exemplifies nicely the view that only *one* of the two questions of consciousness is recalcitrantly open: that only half of the problem of consciousness is hard. The consequences of adopting such a mixed view will be the topic of the next section.

4. THE PROBLEM OF CONSCIOUSNESS AS TRICKY

4.1. The Easy/Hard View

On the 'Easy/Hard View' of the problem of consciousness, cognitive science is capable of explaining why a subject is conscious at all but not of explaining why their experience has the particular phenomenology it has. More carefully, the current explanatory methods of science are able (at least in principle) to yield an explanation of why there is something it's like at all for a subject to be in some state. An explanation of *what* it is like to be in that state, however, is beyond the powers of our current explanatory framework. Cognitive science will either *never* be able to explain our phenomenology, or will only be able to do so after an appropriate revolution in its explanatory strategies.

To appreciate what might motivate someone to adopt this view, we can return to the two putatively open questions discussed in the previous section. An advocate of the Easy/Hard View would be unimpressed by the intuition that the Consciousness Question is recalcitrantly open. They would find attempts to bolster this intuition – such as arguments based on the explanatory divide between the objective and the subjective – to be underwhelming. In contrast, they would take the apparent openness of the Character Question more seriously. They believe that this intuition stands up to scrutiny, perhaps with the help of arguments that cite the explanatory divide between structural and non-structural properties.

What implications would the Easy/Hard View have for the science of consciousness? It would mean that cognitive science can aspire to a partial theory of consciousness that explains what makes a subject conscious but which does not account for the kind of experience they are having. This would be analogous to a theory explaining why it is precipitating without explaining why it is snowing rather than raining. There is nothing dubious about having an explanation of why something occurs that doesn't also explain why it occurs in the specific way that it does. Of course, it is consistent with the Easy/Hard View that cognitive science can establish a rich set of *correlations*

[11] Chalmers and others hold that the purely structural nature of the physical is responsible for the apparent openness of not just the Character Question, but of the Consciousness Question too. I explore this possibility further in Section 5.2.

between certain physical properties and specific kinds of phenomenal state. The claim is just that this will inevitably fall short of full explanation. More precisely, we might be able to predict that a subject with certain physical properties is having a reddish experience, but it will still be epistemically possible that the subject is actually having a greenish experience. By contrast, our account of what makes that subject conscious at all will go deeper than this. It will be epistemically impossible for the subject to have the physical properties they have yet lack consciousness: it will be inconceivable for the subject to be a zombie. Following the analogy through, this would be like knowing that certain atmospheric conditions *guarantee* precipitation without knowing what form that precipitation will take. You might know that those conditions are *correlated* with the snowy-kind of precipitation, but it would remain epistemically possible for the precipitation to instead be of the rainy-kind.

We can make the Easy/Hard View more concrete by considering what it has to say about ongoing work in consciousness science. 'Creature-based' research focuses on the presence and absence of consciousness in an organism.[12] For example, studies of anaesthesia, wakefulness and levels of consciousness have revealed a great deal about the background conditions of consciousness-as-such. As a rough approximation, it looks like activity in sub-cortical systems centred on the thalamus is responsible for making a creature conscious (Bayne 2007, p. 3). Proponents of the Easy/Hard View might say that this research is ultimately on target to move beyond correlations and uncover a full explanation of why conscious subjects are conscious. Its take on 'state-based' research, however, is less sanguine. Studies of binocular rivalry, visual extinction and Gestalt switching have established some of the neural factors responsible for the content of our experience (see Bayne 2007, p. 2) Again speaking only in approximate terms, the character of a subject's experience seems to be linked to the activation of 'cortical nodes': the content of a subject's experience is determined by which regions of the cerebral cortex are stimulated and to what degree. On the Easy/Hard View, however, such research can never fully reveal *why* an experience has the particular character it does. It might establish properties correlated with different kinds of phenomenal state but will inevitably fall short of full explanation. Of course, an advocate of such a view would need strong arguments to justify being optimistic about one research paradigm and pessimistic about the other, but it is at least a live possibility that such arguments could be provided.

As explained in Section 1.2., having correlations without full explanations puts us in a poor position for reaching conclusions about consciousness in non-human subjects. On the Easy/Hard View, we can hope eventually to be in a *good* position for determining whether some non-human subject is conscious or not. When we take some animal, artificial system or alien and ask the Consciousness Question, we will be able to work out definitively whether or not that subject is conscious. Equipped with a genuine explanation of consciousness we will know which physical differences *make a difference* and which do not. However, the Easy/Hard View is less optimistic when it comes to drawing conclusions about the *phenomenology* of these non-human subjects. We could be sure, for instance, that there is *something* it's like to be a bat but would be in the dark regarding *what* it's like to be a bat. Similarly, we could know whether some alien or artificial subject is conscious but could only make fallible predictions about the phenomenal qualities of their experience.

[12] On the distinction between creature-based and state-based research paradigms see Bayne (2007)

Besides its consequences for the science of consciousness, the Easy/Hard View has implications for the metaphysical debate. First let us consider what it would mean for those who take 'hardness' as a sign of metaphysical irreducibility. The Easy/Hard View would encourage a picture of consciousness that is anti-physicalist but which stops short of full-blooded dualism. The property of 'being conscious' could be fully realised by physical properties. But phenomenal qualities – that is, the properties that make a conscious state the kind it is – would be non-physical properties. For instance, unfelt red qualities would be metaphysically basic properties that would constitute *phenomenal* redness when appropriately caught up in a field of awareness. There are a number of different stories one could tell about the metaphysical status of these properties that parallel the different forms of full-blooded dualism. Mirroring full-blooded epiphenomenalism would be the view that phenomenal qualities are inefficacious while the property of 'being conscious' is efficacious. Parallel to full-blooded panpsychism would be a position known as *panqualityism*: the view that the qualities of which we are aware in consciousness are ubiquitous but consciousness itself is limited to appropriately sophisticated subjects (e.g. Feigl 1958, Coleman 2012;2014). Next let us consider what the Easy/Hard view would mean for those who deny that 'hardness' entails metaphysical irreducibility. Full-blooded Type-B physicalists hold that all phenomenal facts are necessitated by physical facts but that there is no explanation for these necessary connections. The Easy/Hard View could be tied to a version of Type-B physicalism that posits less inexplicability than the full-blooded forms: although it would be inexplicable why certain physical states have the phenomenology they, it would be fully explicable why they any phenomenology in the first place.

Does anyone already advocate the Easy/Hard View? In the philosophical literature there are some who regard only the Character Question as hard. Matters here are complicated by the fact that people do not identify themselves as taking a mixed view of the problem of consciousness, which perhaps reflects the entrenched presupposition that mixed views are unavailable. Instead they argue (or simply state) that qualitative character presents *the* problem of consciousness and reject (or ignore) the suggestion that consciousness-as-such presents its own problem. The views of Robinson (1996) and Coleman (2012; 2014) have been mentioned already. Both hold (for different reasons) that the Character Question cannot be answered by cognitive science and that the Consciousness Question does not present a hard problem. In neither case are the arguments against the openness of the Consciousness Question conclusive, but both thinkers are in the ballpark of making a robust case for an Easy/Hard View.

4.2. The Hard/Easy View

The 'Hard/Easy View' is simply the reverse of the above. On this view, cognitive science can explain why a conscious subject has the particular phenomenology they have but cannot explain why they are conscious in the first place. Such explanations would take a conditional form: *if* the subject is in a phenomenal state *then* that phenomenal state will have such-and-such a phenomenology. But explaining why a subject is conscious at all is beyond the powers of our current explanatory methods.[13] Cognitive science will either *never* be able to explain why we are conscious, or will only be able to do so after an appropriate revolution in its explanatory strategies. An advocate of the Hard/Easy View would be unimpressed by the intuition that the Character Question is recalcitrantly

[13] Of course, if we had some explanation that entailed that S is having a reddish experience, we would thereby have an explanation that entailed that S *is having an experience at all*, thus answering the Consciousness Question. This is why it is important that the Character Question is framed conditionally – we are asking what phenomenology S enjoys *if* S is conscious, without committing to S actually being conscious.

open. They would find attempts to bolster this intuition – such as arguments based on the explanatory divide between structural and non-structural properties – to be unconvincing. In contrast, they would take the apparent openness of the Consciousness Question more seriously. They would believe that this intuition stands up to scrutiny, perhaps with the help of arguments that cite the explanatory divide between objective and subjective properties.

On the Hard/Easy View cognitive science can aspire to explain why an experience has the particular phenomenology it has, but not why it has a phenomenology at all. This would be analogous to explaining why it is snowing rather than raining but being unable to explain why it is precipitating at all rather than not precipitating. Again, it is consistent with the Hard/Easy View that cognitive science can establish *correlations* between certain physical properties and the property of being conscious, but this will inevitably fall short of full explanation. More precisely, we might be able to predict that a subject with certain physical properties is conscious, but it will remain an epistemic possibility that the subject is actually a zombie. In contrast, our account of *kinds* of experience will go deeper than this. On the assumption that the subject is conscious, it will be epistemically impossible for them to have those physical properties yet have a phenomenology other than the one they in fact have. The subject being a qualia invert, for instance, would not be an open possibility.

To appreciate what such a partial explanation of consciousness would involve we can return to the precipitation analogy. Having a conditional explanation of our phenomenology would be akin to knowing what form the precipitation will take *if* it precipitates without knowing *whether* it will in fact precipitate.[14] We would know that these atmospheric conditions are *correlated* with precipitation but it would remain epistemically possible for those conditions to obtain without precipitation. However, we would know that if it *does* in fact precipitate then these conditions *guarantee* that it will be of the snowy-kind and not the rainy-kind.

The Hard/Easy View takes a mixed stance on the prospects of current trends in consciousness science. State-based research may well be on the way to moving beyond correlational data and achieving an explanation of the contents of conscious experience. The right pattern of activity among a subject's cortical nodes (or the equivalent in non-human subjects) might guarantee that if that subject is conscious, their experience will have this specific qualitative character. But these explanations will be conditional - explaining why a subject is having a visual experience rather than some other kind of experience does not necessarily mean explaining why they are conscious in the first place. As Searle suggests, 'Only the already conscious subject can have visual experiences, so the introduction of visual experiences is not an introduction of consciousness but a modification of pre-existing consciousness.' (2000, p. 574) One might hope that creature-based studies will reveal whether and why a subject has this pre-existing consciousness. On the Hard/Easy View, however, such optimism is misguided. Creature-based studies may reveal the correlates of consciousness-as-such but there is a conceptual barrier obstructing attempts to fully explain why a subject is conscious.

[14] This limited explanation of precipitation would presumably depend on our being ignorant of some of the relevant facts. After all, if we had *all* the facts about atmospheric conditions we could surely deduce that it will precipitate. In contrast, our explanation of consciousness would be limited even when *all* the physical facts are in (or so advocates of the Hard/Easy View say). This disanalogy reflects the fact that there is no hard problem of precipitation! Nevertheless, cases like this partial explanation of precipitation should help us make sense of what a conditional explanation of qualitative character would look like. Thanks to XXXX for pushing this point.

The Hard/Easy View has consequences for our understanding of consciousness in non-human subjects. We will be in a *bad* position for determining whether some non-human subject is conscious or not. When we take some animal, artificial system or alien and ask the Consciousness Question, we will be unable to work out definitively whether or not that subject is conscious. Lacking a genuine explanation of consciousness, we could not be sure which physical differences *make a difference* and which do not. We will be in a much better position for drawing conclusions about the *phenomenology* of these non-human subjects. We couldn't be sure that there's anything it's like to be an artificial system, but could theorise that *if* the system is conscious its experience will definitely have such-and-such a phenomenology. This is in line with Chrisley's proposal about the explanatory ambitions of artificial consciousness (AC) research. He outlines an approach on which artificial models of consciousness '…do not attempt to explain why something *is* conscious, but instead explain why it is in this conscious state rather than that one.' (2008 p. 132) [15]

On the metaphysical side of things, the Hard/Easy View would have different consequences depending on whether one regards 'hardness' as a sign of irreducibility. If one does, then the property of being conscious would be a non-physical property. However, when a subject has that property their phenomenology would be entirely fixed by their physical characteristics. In parallel to full-blooded epiphenomenalism would be a position which claims that being conscious makes no causal difference to physical events, but that phenomenal qualities are causally efficacious physical properties. Parallel to full-blooded panpsychism would be a position one might call '*pansubjectivism'*: the view that pure non-qualitative consciousness is a ubiquitous non-physical property and that experience only becomes characterised by phenomenal qualities in appropriately sophisticated subjects with the right physical properties. The Hard/Easy View could also be tied to a version of Type-B physicalism that takes it to be an inexplicable necessary truth that some physical states constitute phenomenal states but fully explicable why they constitute the kind of phenomenal state they do.

Does anyone advocate the Hard/Easy View? Again we face the problem that people do not identify themselves as adopting a mixed view. It seems though that various figures take the Consciousness Question to present a hard problem but not the Character Question. Chrisley's comments on artificial consciousness above certainly push in this direction, though it is not clear that he would concede that *human* consciousness cannot be explained by cognitive science (2008 p. 133). Philosophers who claim that it is specifically the existence of consciousness-as-such that is scientifically inexplicable include Rudd (1998, p. 456) Zahavi (2005, p.310) and Velásquez (2011, p.49). Kriegel also offers insightful reasons to think that the Consciousness Question is at the root of the problem, though he goes on to argue that the apparent openness of the question is illusory (2009, Chapter 6). Just as with the Easy/Hard View, there are some salient arguments in the literature but nothing that constitutes a robust case in favour of the Hard/Easy View.

[15] This ties in closely with Chrisley's notion of 'lagom AC' which is a middle ground between 'strong' and 'weak' AC. On the strong approach, the goal of AC is to create artificial systems that are sufficient for consciousness. On the weak approach, the aim is to create artificial systems that model consciousness – much like a computer simulation models a hurricane – but which need not themselves instantiate properties of explanatory relevance to consciousness. Both positions face serious objections that lagom AC promises to avoid. On lagom AC, the aim is create artificial systems that instantiate properties of explanatory relevance to consciousness but which need not be sufficient for consciousness. One way of implementing this strategy is to pursue artificial systems that have the properties that differentiate experiences from one another, but which do not necessarily have the properties required for consciousness.

4.3. Three Lessons

We have now seen that there are *two* questions of consciousness and *four* possible positions on the hardness of the explanatory problems that those questions raise. There are three key conclusions I want to extrapolate from this.

First, this account of the issues throws down the gauntlet to Pessimists. It will not do to say that cognitive science cannot fully explain consciousness. We are owed more specific arguments that address *both* explanatory questions and which show why *neither* can be fully answered by cognitive science. Of course, the standard arguments deployed by Pessimists might well achieve this. The important point is that arguments relevant to the Consciousness Question are not automatically relevant to the Character Question, and vice versa. The case for Pessimism cannot, for example, rest on the zombie argument alone. The invert argument (or something like it) would have to be deployed as well, and the Pessimist would have to defend *both* arguments against criticism in order to sustain their position.

Second, the gauntlet is also thrown down to the Optimist, who now has to fend off *both* intuitions of openness. Serious doubts might be raised about the zombie intuition, for instance, but this would only do half the work required. Intuitions concerning the possibility of qualia inversion (or related scenarios) would also have to be dealt with. If the Optimist can only override one set of intuitions then the most defensible position would be a mixed view of the problem of consciousness, which leads us to the final lesson.

Third, rather than being entirely easy or entirely hard, the problem of consciousness might be *tricky*. On the two mixed views explored above, the problem is partly hard and partly easy. At the very least, these two views are live options that deserve to be taken seriously. In a debate as far-reaching and fiercely fought as that surrounding the problem of consciousness, the emergence of new options is certainly to be welcomed. Furthermore, there are reasons to regard the mixed views as more attractive than either Pessimism or Optimism. The main flaws of Pessimism are its consequences for the science and metaphysics of consciousness. On either of the mixed views, however, these consequences are ameliorated. If the problem of consciousness is only partly hard then cognitive science can still partly explain consciousness: we are not left with the difficult conclusion that cognitive science is fundamentally unable to yield any explanation of conscious experience. Similarly, the metaphysical status of consciousness would be partly unproblematic: we are not left with the difficult conclusion that no aspect of conscious experience can be comfortably incorporated into our metaphysical picture of the world. The main flaw of Optimism is that it ignores the manifest fact that phenomenal consciousness seems to present a distinctively intractable explanatory challenge. In contrast, each of the mixed views acknowledges that there is something about consciousness that resists explanation (though they disagree on what precisely that something is). In other words, they take the apparent inexplicability of consciousness seriously whilst stopping short of full-blooded Pessimism.

The mixed views should be particularly attractive to the Undecideds – those who find themselves resistant to both Pessimism and Optimism. The middle-ground position offered by the mixed views might allow the Undecideds to reconcile their apparently contradictory inclinations: they can consistently reject both Pessimism and Optimism, and adopt one or other of the two moderate positions identified. In Section 2.2 I noted why the prospects of finding a coherent middle-ground position seemed dim: questions about the conscious states of a subject are either open or

closed, so either the Optimists are right or the Pessimists are. The mixed views do not reject the binary distinction between open and closed questions. Rather, they recognise the two different questions that can be asked about a subject's consciousness and suggest that one question could be open while the other is closed.

Of course, reasons for thinking that the mixed views are *attractive* do not constitute reasons for thinking that they are *true*. They also do not help us decide *which* of these two mutually exclusive positions is to be preferred. A proper case in favour of the Easy/Hard or Hard/Easy view would need to delve deep into the issues raised by both the Consciousness Question and Character Question. For each of them, we would need to trace the source of the intuition that the question is open. Our intuitions will be driven by presuppositions about the nature of consciousness, about the nature of the facts that can be disclosed by cognitive science and about the limitations on what those facts can entail. All of these presuppositions would have to be scrutinized, and a final verdict reached about whether that question can justifiably be regarded as open. Although existing work on the hard problem could be adapted to get us a long way on this project, there would still be substantial further work to do. My suggestion is that such further work would be well worth the effort.

5. ARE THE MIXED VIEWS GENUINE OPTIONS?

I will now consider two possible objections to the conclusions drawn above. These two objections are variants of a single general worry: that easiness and hardness come as package deals that preclude the possibility of a mixed view. That is, the Consciousness Question and Character Question are either both open or both closed and, accordingly, the problem of consciousness is either entirely hard or entirely easy. If this is the case, the three conclusions drawn above do not go through: Pessimists and Optimists would not have to address the Consciousness and Character Questions separately because if one was open or closed then the other would be the same; and the possibility of a mixed view would not have to be taken seriously because neither such view is feasible. There are at least two initially credible arguments for this conclusion. I will consider each of them and attempt to show why neither is conclusive.

5.1. The Objection from Inseparatism

Objection: According to the mixed views of the problem of consciousness, phenomenal states are partly explicable and partly inexplicable. That is, we can explain either why a subject is conscious at all, or why their experience has that phenomenology, without explaining the other. This presupposes that consciousness-as-such and the specific qualitative character of a conscious state offer distinct targets of explanation. In other words, the mixed views presuppose that phenomenal qualities are distinct from a subject's conscious awareness of those qualities. Following Kriegel, we can call this a *separatist* model of consciousness (2009, p. 53). The problem is that this model of phenomenal consciousness is false. If these two elements of consciousness were distinct, it would be possible for each to exist independently of the other. But this is not possible, therefore the two elements are not distinct.

Specifically, it is impossible to have a conscious experience without some specific qualitative character. If there is *something* it's like to be in a state there must be something in *particular* it is like. If you strip away all the different ways of being consciousness you're not left with some kind of pure awareness – you're left with nothing! Similarly, it is impossible for phenomenal qualities to

exist in the absence of an awareness of those qualities. There are no unfelt pains or unexperienced flashes of qualitative redness. If you strip a subject's awareness away from a conscious state, you are not left with a set of unexperienced qualities – again, you're left with nothing! Consequently we must adopt an *inseparatist* model of consciousness in which consciousness and qualitative character are not regarded as distinct targets for explanation. This means it is impossible for one aspect of consciousness to be explicable but the other inexplicable. This in turn lends support to the disjunctive claim that the problem of consciousness is either easy or hard. This objection can be summarised as follows:

1) If the mixed views are open possibilities, then separatism is true.
2) Separatism is false.
3) Therefore the mixed views are not open possibilities.

Reply: In response, I would argue that the second premise is at best contentious and that the first premise is false. Regarding the second premise, it is not obvious that separatism is false. Some countenance the possibility of quality-free consciousness: in advanced states of meditation, for instance, one is said to achieve a pure awareness without any particular content (Strawson 2011). Many countenance the possibility of unfelt qualities: Rosenthal claims that '…one's being in a state with qualitative character is independent of one's being in a conscious state, and we need different theories to explain the two.' (2011 p.435) He argues that states of subliminal perception are unconscious but still have qualitative character, and that the same can be said for certain perceptual states involved in 'blindsight' (2011 pp. 432-433). Coleman (2012 p. 153) cites the more prosaic datum of being woken up by the pain of a headache: your pain state has a certain quality and since that quality is what *brings you* to consciousness, it must have previously been present *un*consciously. The arguments against separatism are far from conclusive and often seem to rely on brute intuition or mere terminological preference (see Kriegel 2009 p. 55). That said, there are no conclusive arguments *in favour* of separatism either. As such it would be unfortunate if the arguments of this paper presupposed its truth. This is why it is crucial to recognise that the first premise of the objection is false.

The mixed views do not presuppose separatism and are in fact quite compatible with inseparatism. The claim that has driven my proposal is that consciousness raises two explanatory questions: the Consciousness Question and the Character Question. This division does not presuppose that the property of being conscious is distinct from the property of having such-and-such a qualitative character. They could simply be two *aspects* of experience rather than two discrete *components*. Returning to the weather analogy, we can all see that it is one thing to explain why it is precipitating at all and another to explain why it is snowing rather than raining. But this does not commit us to precipitation and snow being distinct phenomena – we are not committed to the possibility of snow that is not precipitation or of precipitation that isn't specifically snow or rain or hail or sleet.

Here is how each of the mixed views can be squared with inseparatism. The Easy/Hard View predicts a theory that explains why a subject is conscious but which does not explain why they are in that specific kind of conscious state. This is quite consistent with saying that it is impossible for a subject to have an experience with no specific qualitative character. The experience must be an experience of *some* particular kind – the claim is just that *which* kind of experience it is will not be explained. Similarly, the Hard/Easy View predicts a theory that conditionally explains why a subject is

in the kind of conscious state they are in but which does not explain why they are conscious in the first place. This is quite consistent with saying that it is impossible for a subject to lack consciousness but still be in a state with a certain qualitative character. A subject has phenomenal qualities only if they have a field of awareness for those qualities to modulate – the claim is just that cognitive science cannot explain why the subject has such a field of awareness in the first place.

5.2. The Objection from Non-Functionality

Objection: The second objection concedes that it is *possible* for one aspect of consciousness to be explicable and the other inexplicable, but suggests that our *actual* reasons for regarding consciousness as inexplicable would, if effective, apply equally well to both aspects of consciousness. The only feasible argument for hardness is one that would establish the openness of *both* the Consciousness *and* Character Questions. If that argument fails, then we should regard *neither* question as open. Either way, the mixed views don't get a look in. Although they might be logically possible positions, they are not positions that deserve to be taken seriously given the considerations that actually drive the problem of consciousness.

Specifically, the case for hardness might be taken to stand or fall with the *non-functionality* of consciousness. Chalmers (1995; 1997) certainly frames things this way and many others would agree. Being conscious is a non-functional property, hence the possibility of subjects like us in all functional respects but who lack consciousness. The phenomenal qualities that differentiate kinds of conscious state are also non-functional properties, hence the possibility of subjects like us in all functional respects but who enjoy different qualia. If a property is non-functional, we cannot explain its instantiation using our current explanatory methods. Furthermore, if a property *is* functional then it *can*, at least in principle, be explained using our current explanatory methods. Thus the inexplicability of consciousness is bound to its non-functionality. Call this the non-functionality argument for hardness. If the argument succeeds, we should adopt Pessimism. If it fails, we should adopt Optimism. To see why this leads to difficulties for the mixed views, consider the following argument:

1) The Consciousness Question presents a hard problem iff the non-functionality argument is sound.
2) The Character Question presents a hard problem iff the non-functionality argument is sound.
3) Therefore, either both the Consciousness Question and Character Question present a hard problem, or neither presents a hard problem.

Reply: I think there are reasons to doubt both premises of this argument. In Section 3 I emphasised the importance of diagnosing *why* we have the intuition of openness for each question. The appeal to non-functionality is a potential diagnosis of both intuitions, but other credible diagnoses are possible. A mixed view of the problem is available to someone who rejects the non-functionality argument but who holds that some *other* argument successfully reinforces just *one* of the intuitions of openness. You might, for instance, claim that the division between objective and subjective properties (outlined in Section 3.2) reinforces the intuition that the Consciousness Question is

open.[16] If you also claimed that there are *not* solid reasons to regard the Character Question as open, you would find yourself with a mixed view of the problem of consciousness.

Another option is to claim that an appeal to non-functionality is the only way to establish openness, but that this appeal works for just one of the two questions. For instance, one might hold that an appeal to the non-structural/non-functional nature of phenomenal qualities reinforces the intuition that the Character Question is recalcitrantly open. But this would be consistent with denying that the openness of the Consciousness Question can also be established by an appeal to non-functionality. One might think, for instance, that consciousness-as-such is a matter of awareness, that awareness is a species of representation and that all representation can ultimately be accounted for in functional terms. The properties *of* which we are aware may not be functional, but that is a different matter. This mixed view of the problem accepts the second premise of the objection but denies the first.

Here I have sketched two possible positions that are counter-examples to the objection from non-functionality. My aim is not to establish the truth of either such position. It is simply to show that these are live possibilities and that it is not at all obvious that the openness of both the Consciousness and Character Questions stands or falls with non-functionality.

6. CONCLUSION

A background assumption in the debate surrounding the problem of consciousness is that the problem is either entirely easy or entirely hard. I have argued that this disjunction is false. A subject's conscious experience presents two explanatory challenges: to account for why the subject is conscious rather than non-conscious, and to account for why their experience has the particular phenomenology it has rather than some other. Optimists claim that both challenges can be met using our existing explanatory methods while Pessimists deny that either can. I have suggested that Optimists and Pessimists must be careful to justify their stance on *both* explanatory challenges. I have also argued that it is a live possibility that the problem of consciousness is tricky – that is, partly hard and partly easy. I have outlined the two mixed views of consciousness that are available: the Hard/Easy View and the Easy/Hard View. Both views have interesting ramifications for the science and metaphysics of consciousness and are worthy of further exploration. These views are particularly attractive as they offer middle-ground positions that promise to ameliorate the difficulties faced by both Optimism and Pessimism. This should be of particular interest to the Undecideds – those who find themselves torn between Optimism and Pessimism. If one or other of the mixed views can be made to work, the Undecideds will be able to adopt a stable and appealing middle-ground stance on the problem of consciousness.

[16] Interestingly, Chalmers (forthcoming) shows sympathy for the idea that it is inexplicable how we get subjects out of non-subjects (i.e. out of purely objective constituents). He regards this as an objection specifically to panprotopsychism. But if the objective/subjective divide is a problem, surely it is a problem for *any* theory that attempts to account for consciousness in objective terms including any theory offered by cognitive scientists? As such, the possibility should be taken seriously that this is the explanatory divide that's driving our intuition of openness.

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